

4/22/1977

OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS



State of Oregon
**Department of
Environmental
Quality**

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Environmental Quality Commission Meeting
April 22, 1977
Salem City Council Chambers
City Hall, 555 Liberty St., S.E.
Salem, Oregon

- 9:00 a.m. A. Minutes of April 1, 1977 EQC Meeting
B. Monthly Activity Report for March 1977
C. Tax Credit Applications

PUBLIC FORUM - Opportunity for any citizen to give a brief oral or written presentation on any environmental topic of concern. If appropriate the Department will respond to issues in writing or at a subsequent meeting. The Commission reserves the right to discontinue this forum after a reasonable time if an unduly large number of speakers wish to appear.

- 9:30 a.m. D. Martin Marietta, The Dalles - Consideration of new proposal for Air (Patterson)
Contaminant Permit for aluminum plant
- 10:00 a.m. E. Contested Case Review - DEQ vs Robert Wright, review of Hearing (Haskins)
Officer's ruling regarding enforcement actions pertaining to a
septic tank installation
- 10:15 a.m. F. Jeld Wen Co., Klamath Falls - Request for variance from open burning (Borden)
rules, OAR 340-23-025 through 23-050
- 10:30 a.m. G. Hudspeth Lumber Co., John Day - Reconsideration of request for variance (Gardels)
from Air Quality emission limitation regulations
- 10:45 a.m. H. Petition for Rule Amendments - Consideration of petition to amend (Hector)
rules governing noise from snowmobiles, OAR 340-35-035
- I. Noise Control Rules - Consideration of adoption of proposed amendments (Hector)
to OAR 340-35-030, Tables B and D, NPC5-21 and 340-35-035
- J. Field Burning - Authorization for public hearing to consider amending (Freeburn)
the rules allocating acreage to be opened burned, OAR 340-26-013
- K. Water Quality Program - Status Report on 208/Water Quality Management (Lucas)
Planning Program
- L. Subsurface Sewage Disposal Rules - Staff report on Geographic Region (Osborne)
Rule B, OAR 340-71-030
- Deferred to M. Kraft Pulp Mill Rules - Consideration of adoption of proposed amend-
5/27 meeting ments to OAR 340-25-150 through 25-200

Because of the uncertain time spans involved, the Commission reserves the right to deal with any item, except items D,E,F,G & H at any time in the meeting. Anyone wishing to be heard on an agenda item that doesn't have a designated time on the agenda should be at the meeting when it commences to be certain they don't miss the agenda item.

The Commission will breakfast (7:30 a.m.) at Johnston's Pancake House, 3135 Commercial, S.E. Salem, and lunch at the Holiday Inn, 745 Commercial, S.E., Salem (Cascade Room).

MINUTES OF THE EIGHTY-FIFTH MEETING

OF THE

OREGON ENVIRONMENTAL QUALITY COMMISSION

April 22, 1977

On Friday, April 22, 1977, the eighty-fifth meeting of the Oregon Environmental Quality Commission convened in the Salem City Council Chambers, 555 Liberty Street, S.E., Salem, Oregon.

Present were Commission members: Mr. Joe B. Richards, Chairman; Dr. Grace Phinney; Mrs. Jacklyn Hallock; and Mr. Ronald Somers. Dr. Morris Crothers, Vice-Chairman was absent. Present on behalf of the Department were its Director, Mr. William H. Young, and several members of the Department's staff.

MINUTES OF THE APRIL 1, 1977 EQC MEETING

It was MOVED by Commissioner Somers, and seconded by Commissioner Hallock that the minutes be approved as presented. Commissioner Somers indicated that the City of Hammond Order mentioned in the minutes had been signed by the City and was in the mail and would be signed by the Commission as soon as received. The motion carried unanimously.

MONTHLY ACTIVITY REPORT FOR MARCH 1977

Commissioner Somers asked if the permits listed as pending had been in the Department long, and if any of the pending permits were major sources. Mr. Harold Sawyer of the Water Quality Division said that their pending count included renewals on NPDES permits that were due in June and that this renewal process was proceeding with anticipated renewal in June. Mr. Harold Patterson and Mr. E. J. Weathersbee responded that the air permits pending had not been in the Department long, and that the only major source was the new Oregon Portland Cement plant. Commissioner Somers said he wanted to make sure that the permits were current and proceeding as they should.

It was MOVED by Commissioner Somers, seconded by Commissioner Hallock and unanimously carried that the monthly activity report for March 1977 be approved.

TAX CREDIT APPLICATIONS

Chairman Richards asked about the determination of 40% or more but not less than 60% allocated to pollution control in T-784 (Georgia-Pacific). Mr. E. J. Weathersbee responded that that was a finding made as required in the statute and that the Company would actually get the higher amount.

Chairman Richards also asked about the denial of T-860 (Bohemia, Inc.). Mr. Ernest Schmidt of the Solid Waste Division replied that the ORS dealing with solid waste tax credits required that the staff find that the substantial purpose of a solid waste facility was utilization of materials that would otherwise be a solid waste. Some discussion followed among Commission members, staff and a representative of the Company as to what constitutes "substantial purpose" and the merits of granting tax credit for paving a log yard for solid waste purposes.

Commissioner Hallock MOVED, Commissioner Phinney seconded and it was carried unanimously that the Director's recommendation on the tax credit applications be approved except for T-860 relating to Bohemia, Inc.; and that that application be deferred to the next meeting to allow time for gathering of more information on the denial. For the record Commissioner Somers indicated that he owned stock in Georgia-Pacific and Chairman Richards indicated that he owned stock in Bohemia, Inc.

Commissioner Somers suggested that Mr. Tom Donaca of Associated Oregon Industries and other environmental groups should get together with staff before the next meeting and make a recommendation as to whether the Commission should adopt rules relative to tax credits.

MARTIN MARIETTA, THE DALLES - CONSIDERATION OF NEW PROPOSAL FOR AIR CONTAMINANT PERMIT FOR ALUMINUM PLANT

Mr. John F. Kowalczyk of the Air Quality Division presented the staff report on this matter. Mr. Kowalczyk stated that the January 14, 1977 staff report had a requirement to have the Company monitor sulfur content of vegetation. Mr. Kowalczyk said that the Company would like to have that requirement deleted. He said that the Company had submitted evidence that it is difficult to determine how plants absorb sulfur dioxide, whether it is from the atmosphere or the soil. Mr. Kowalczyk said that the Department agreed with deleting this requirement. Mr. Kowalczyk said, in response to citizen requests, the Department is requesting Martin Marietta participate in an airshed study in The Dalles.

Mr. Bruce Schwartz of the Mid-Columbia Concerned Citizens, Inc., read a statement in support of pollution controls at the Martin Marietta plant. Mr. Schwartz said his group felt that the Department had backed down in its January 14, 1977 staff report in requiring less stringent standards be met than previously proposed. Mr. Schwartz said they would support the earlier proposals of the Department that would insure 95% removal of sulfur oxides as a design condition together with expected actual minimum removal of greater than 70%.

Mr. Arden E. Shenker of the Wasco County Fruit and Produce League appeared to reaffirm comments made on behalf of the League on December 9, 1976. Testimony was submitted in writing at that time. Mr. Shenker listed five points from that earlier testimony.

Commissioner Hallock asked in what way would Martin Marietta be involved in participating in an airshed study. Mr. Jack Doane of Martin Marietta said that they do participate in several kinds of research studies in regard to their emissions. Mr. Doane said he was not prepared to respond about any financial assistance to a study.

After some discussion on vegetation monitoring, the Commission amended the Director's recommendation to add: "If additional studies, in the opinion of the Commission, justify monitoring of sulfur contents in vegetation, this may be required by the Commission." Commissioner Somers MOVED, Commissioner Hallock seconded and it was passed unanimously that the amended Director's recommendation be approved.

CONTESTED CASE REVIEW - DEQ vs ROBERT WRIGHT, REVIEW OF HEARING OFFICER'S RULING REGARDING ENFORCEMENT ACTIONS PERTAINING TO A SEPTIC TANK INSTALLATION

After arguments presented by Mr. Robert Wright and Mr. Robert Haskins, DEQ legal counsel, Commissioner Somers MOVED, Commissioner Hallock seconded and it was carried unanimously that the Hearing Officer's Order be affirmed.

JELD WEN CO., KLAMATH FALLS - REQUEST FOR VARIANCE FROM OPEN BURNING RULES, OAR 340-23-025 through 23-050

Mr. John Borden, DEQ Central Region Manager, presented the conclusions and recommendations from the staff report. Mr. Borden suggested that Director's recommendation No. 3 include a target date of August 1, 1977. Mr. Stan Meyers of Benton's Engineering & Engineering presented testimony on behalf of Jeld Wen Company. This written testimony is made part of the record on this matter. Mr. Borden suggested that before a ruling is made, additional factual input on the costs of alternatives to the open burning and the types of materials to be burned be obtained from the Company.

Commissioner Somers MOVED, Commissioner Phinney seconded, that the Director's recommendation be adopted. The motion passed with Chairman Richards dissenting.

HUDSPETH LUMBER CO., JOHN DAY - RECONSIDERATION OF REQUEST FOR VARIANCE FROM AIR QUALITY EMISSION LIMITATION REGULATIONS

Mr. Steve Gardels, DEQ Eastern Region Manager, said that on the Commission's request, the Company make a significant improvement in their emissions within 60 days, the Company has made a complete analysis of their boiler system and sawmill at John Day. Mr. Gardels said the Company found a significant waste of energy and steam in the plant and that the boilers had been operated inefficiently. Mr. Gardels said that as a result, the Company felt it could reduce the fallout problem and be in compliance by July 1977. Mr. Gardels said he could not say that there had been a significant reduction in the fallout problem in the last 60 days, but that there had been an improvement.

Mr. Jim Larson, attorney representing Hudspeth Lumber Company, said that the Company is now able to comply without making the major capital improvements that was first expected when requesting a five-year variance. Mr. Larson said that the Company was withdrawing its request for a five-year variance.

Mr. Gardels amended the Director's recommendation on items c and d as follows:

- c. If by August 15, 1977 it is demonstrated that the Company has attained compliance, the Company shall then install a self-cleaning, self-calibrating opacity monitor with recorder on boiler #4 as a management tool.
- d. If by August 15, 1977 compliance is not attained, the Company must retain a consultant within 30 days and submit a control strategy within 60 days (October 15, 1977), and a proposed compliance schedule for approval by the Department.

Mr. Gardels said that both the Department and the Company were agreeable to these amendments.

Commissioner Somers MOVED, Commissioner Hallock seconded and it was carried unanimously that the Director's recommendation be approved as amended.

PETITION FOR RULE AMENDMENTS - CONSIDERATION OF PETITION TO AMEND RULES GOVERNING NOISE FROM SNOWMOBILES, OAR 340-35-035

Mr. John Hector of the Department's Noise Section, presented the Director's recommendation on this matter. It was MOVED by Commissioner Somers, seconded by Commissioner Phinney and carried unanimously that the Director's recommendation be approved and that hearings be held both in the Willamette Valley area and in Bend.

NOISE CONTROL RULES - CONSIDERATION OF ADOPTION OF PROPOSED AMENDMENTS TO OAR 340-35-030, TABLES B AND D, NPC-21 AND 340-35-035

It was MOVED by Commissioner Somers, seconded by Commissioner Hallock and unanimously carried that this item be set over until the May 27, 1977 meeting.

WATER QUALITY PROGRAM - STATUS REPORT ON 208/WATER QUALITY MANAGEMENT PLANNING PROGRAM

Mr. Tom Lucas of the Department's 208/Water Quality Management Planning Program, said that the overall objective of the program was to develop programs to lead to significant reductions in non-point sources of waste. Mr. Lucas then presented the status report on this program. Following some discussion, Chairman Richards indicated that the Commission had received and acknowledged the report and that no action was needed.

FIELD BURNING - AUTHORIZATION FOR PUBLIC HEARING TO CONSIDER AMENDING THE RULES ALLOCATING ACREAGE TO BE OPEN BURNED, OAR 340-26-013

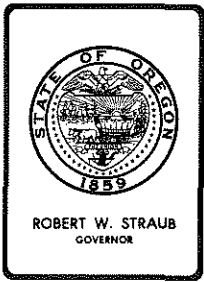
Mr. Scott Freeburn, Air Quality Division, presented the Director's recommendation on this item. It was MOVED by Commissioner Somers, seconded by Commissioner Phinney and unanimously carried that the Director's recommendation to hold a public hearing be approved.

SUBSURFACE SEWAGE DISPOSAL RULES - STAFF REPORT ON GEOGRAPHIC REGION RULE B, OAR 340-71-030

Mr. Jack Osborne of the Department Subsurface Sewage Section presented the Director's recommendation from the staff report. Mr. Roy Burns of Lane County spoke in support of the Director's recommendation. Commissioner Somers asked Mr. Kent Mathiot of the State Water Resources Board if they had looked at similar situations in the State in the same way they did in Gearhart. Mr. Mathiot said that considerable work had been done by the U. S. Geological Survey in identifying the aquifer in the Clatsop Plains area and that this area was unique in its geologic and hydrogeological characteristics. Some discussion followed between Commissioner Somers and Mr. Mathiot regarding the aquifer in the Hermiston-Boardman area.

Commissioner Somers MOVED to adopt the Director's recommendation with the following amendment to Attachment B, Policy Statement: last sentence, first paragraph, to read..."receiving substantial evidence that such aquifer is or may be endangered and in need of protection by a preponderance of the evidence," and based on testimony that a hearing be held in the Hermiston-Boardman area to consider a moratorium on subsurface sewage permits if there is a problem with the aquifer being endangered. Commissioner Phinney seconded the motion and suggested that the staff not enter into the hearing process without adequate preparation. The motion was carried unanimously.

There being no further business, the meeting was adjourned.



Environmental Quality Commission

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission
From: Director
Subject: Agenda Item B, April 22, 1977, EQC Meeting
March Program Activity Report

Discussion

Attached is the March 1977 Program Activity Report.

ORS 468.325 provides for approval or disapproval of Air Quality plans and specifications by the Environmental Quality Commission. Water and Solid Waste facility plans and specifications approvals or disapprovals and issuance, denials, modifications and revocations of permits are prescribed by statutes to be functions of the Department, subject to appeal to the Commission.

The purposes of this report are to provide information to the Commission regarding status of the reported program activities, to provide a historical record of project plan and permit actions, and to obtain the confirming approval of the Commission of actions taken by the Department relative to air quality plans and specifications.

Recommendation

It is the Director's recommendation that the Commission take notice of the reported program activities and give confirming approval to the Department's actions relative to air quality project plans and specifications as described on page 9 of the report.

Bill

WILLIAM H. YOUNG
Director

RLF:sw
4/11/77



Contains
Recycled
Materials

Department of Environmental Quality
Technical Programs

Permit and Plan Actions

March 1977

| <u>Water Quality Division</u> | <u>Page</u> |
|--|-------------|
| 122 . . Plan Actions Completed - Summary | 1 |
| Plan Actions Completed - Listing | 2 |
| 47 . . Plan Actions Pending - Summary | 1 |
| 13 . . Permit Actions Completed - Summary | 7 |
| Permit Actions Completed - Listing | 8 |
| 196 . . Permit Actions Pending - Summary | 7 |
| <u>Air Quality Division</u> | |
| 5 . . Plan Actions Completed - Summary | 1 |
| Plan Actions Completed - Listing | 9 |
| 20 . . Plan Actions Pending - Summary | 1 |
| 18 . . Permit Actions Completed - Summary | 10 |
| Permit Actions Completed - Listing | 11 |
| 129 . . Permit Actions Pending - Summary | 10 |
| <u>Solid Waste Management Division</u> | |
| 7 . . Plan Actions Completed - Summary | 1 |
| Plan Actions Completed - Listing | 13 |
| 14 . . Plan Actions Pending - Summary | 1 |
| 16 . . Permit Actions Completed - Summary | 14 |
| Permit Actions Completed - Listing | 15 |
| 48 . . Permit Actions Pending - Summary | 14 |

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air, Water and
Solid Waste Management Divisions
(Reporting Unit)

March 1977
(Month and Year)

SUMMARY OF PLAN ACTIONS

| | Plans Received | | Plans Approved | | Plans Disapproved | | Plans Pending |
|-------------------------|----------------|---------|----------------|---------|-------------------|---------|---------------|
| | Month | Fis.Yr. | Month | Fis.Yr. | Month | Fis.Yr. | |
| <u>Air</u> | | | | | | | |
| Direct Sources | 8 | 108 | 5 | 99 | | 1 | 20 |
| Total | 8 | 108 | 5 | 99 | | 1 | 20 |
| <u>Water</u> | | | | | | | |
| Municipal | 111 | 833 | 108 | 756 | | | 35 |
| Industrial | 17 | 113 | 14 | 103 | | 4 | 12 |
| Total | 128 | 946 | 122 | 859 | | 4 | 47 |
| <u>Solid Waste</u> | | | | | | | |
| General Refuse | 9 | 45 | 6 | 50 | 1 | 4 | 10 |
| Demolition | 1 | 8 | | 6 | | 1 | 2 |
| Industrial | 1 | 15 | 1 | 19 | | | 2 |
| Sludge | | 2 | | 2 | | | |
| Total | 11 | 70 | 7 | 77 | 1 | 5 | 14 |
| <u>Hazardous Wastes</u> | | 4 | | 4 | | | |
| | | | | | | | |
| <u>GRAND TOTAL</u> | 147 | 1128 | 134 | 1039 | 1 | 10 | 81 |

DEPARTMENT OF ENVIRONMENTAL QUALITY

TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality DivisionMarch 1977Plan Actions Completed - 122

| County | Name of Source/Project/Site and Type of Same | Date Rec'd | Date of Action | Action | Time to Complete Action |
|--------|--|------------|----------------|----------|-------------------------|
| | <u>Municipal Sources - 108</u> | | | | |
| 34 | USA/ALOHA HEATHEATHERWOOD | J020177 | 021177 | PROV APP | 10 |
| 3 | LAKE OSWEGO MTM PK PHASE VC PUMP STA FM | J021477 | 030177 | PROV APP | 15 |
| 9 | JUNIPER UTIL NOTTINGHAM SQUARE | B020277 | 030177 | PROV APP | 26 |
| 30 | UKIAH LAGOON | V020477 | 030177 | PROV APP | 35 |
| 30 | HERMISTON VILLAGE PORT PUD | K020877 | 030277 | PROV APP | 22 |
| 30 | HERMISTON HERMISTON PARK NO 2 SUBD | K020277 | 030277 | PROV APP | 03 |
| 26 | PORTLAND COL. BLVD CHANGE NO 15 | V020977 | 030377 | APPROVED | 22 |
| 26 | TROUTDALE WEEDIN ADDITION GEO. BRICE | K021477 | 030377 | PROV APP | 17 |
| 24 | SALEM HOLLYWOOD ESTATES | K021877 | 030377 | PROV APP | 13 |
| 24 | SALEM COURTSIDE NO 1&2 PHASE 1&2 | K022577 | 030377 | PROV APP | 06 |
| 4 | ASTORIA WEST BOND ST OLNEY AVE | K021877 | 030377 | PROV APP | 13 |
| 2 | CORVALLIS GREEN & BACH SUBD REVISED | K021777 | 030377 | PROV APP | 14 |
| 34 | U S A 143RD EXTENSION - 266 | K030277 | 030377 | PROV APP | 01 |
| 2 | CORVALLIS CHANGE NOS. 16-22-48-50-51 | V030177 | 030477 | APPROVED | 03 |
| 24 | WOODBURN COUNTRY ACRE ESTATES | K022377 | 030407 | PROV APP | 09 |
| 10 | GLIDE LITTLE RIVER BRIDGE FM | K021677 | 030407 | PROV APP | 16 |
| 3 | WEST LINN JAMIE LANE EXT. | J021577 | 030477 | PROV APP | 17 |
| 22 | ALBANY EAST CENTRAL PHASE IIA & IIB | K022577 | 030777 | PROV APP | 10 |
| 03 | GLADSTONE DONNA-BARBARA HEIGHTS | K030177 | 030777 | PROV APP | 06 |
| 34 | USA/DURHAM GREENWAY NO. 6 | K030377 | 030777 | PROV APP | 04 |
| 34 | USA / ALOHA CANDYWINE | K030377 | 030777 | PROV APP | 04 |
| 24 | SALEM WEST SUBD | J021177 | 030777 | PROV APP | 24 |
| 02 | CORVALLIS COX SUBD PROJECT 174 | J011977 | 030877 | PROV APP | 50 |
| 3 | LAKE OSWEGO LAKEVIEW TRK WO 3901/LID 174 | J021177 | 030877 | PROV APP | 25 |
| 20 | FLORENCE 7TH ST. | K030377 | 030877 | PROV APP | 05 |
| 30 | MILTONFREEH20 SHORTS ADDITION | K030477 | 030877 | PROV APP | 04 |
| 02 | CORVALLIS SUNVIEW SUBD PHASE II | K030177 | 030877 | PROV APP | 07 |

DEPARTMENT OF ENVIRONMENTAL QUALITY

TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality DivisionMarch 1977Plan Actions Completed (Continued)(122)

| County | Name of Source/Project/Site and Type of Same | Date Rec'd | Date of Action | Action | Time to Complete Action |
|--------|--|------------|----------------|----------|-------------------------|
| 25 | PGE BOARDMAN LAGOON | V022377 | 032977 | PROV APP | 06 |
| 29 | NTCSA WHEELER SEWER REVISIONS* | V03 77 | 032977 | PROV APP | 29 |
| 21 | NEWPORT SEWER NR BIG CREEK | 032577 | 033077 | PROV APP | 05 |
| 24 | SALEM CAMBRIDGE WDS ESTATES NO. 1 | J032377 | 033077 | PROV APP | 07 |
| 15 | BCVSA EXP STATION RD E DIAMOND ST | J032477 | 033077 | PROV APP | 06 |
| 34 | FOREST GROVE FOREST GALE # 7 | J011477 | 033077 | PROV APP | 75 |
| 34 | FOREST GROVE TAMARACK SUBD | J031177 | 033077 | PROV APP | 19 |
| 34 | FOREST GROVE FIR LANE SUBD | J031177 | 033077 | PROV APP | 19 |
| 24 | SALEM GLEN HAVEN | J032277 | 033077 | PROV APP | 08 |
| 24 | SALEM EAST CREST SUBD | 031777 | 033077 | PROV APP | 13 |
| 24 | SALEM GREENBRIAR SUBD | 031777 | 033077 | PROV APP | 13 |
| 21 | ROADS END SEWER SYSTEM #PRELIM# | V020477 | 033077 | PROV APP | 54 |
| 2 | CORVALLIS CHANGE NO 54 | V032977 | 033177 | APPROVED | 02 |
| 26 | PGE TROJAN IMPRVMENTS | V032977 | 033177 | PROV APP | 02 |
| 02 | CORVALLIS CH 47 & 52 | V033077 | 033177 | APPROVED | 01 |
| 03 | SANDY MARCY ST. SAN SEWER EXT | K031777 | 033177 | PROV APP | 14 |
| 15 | ASHLAND MANZANITA STREET | J021777 | 033177 | PROV APP | 42 |
| 02 | CORVALLIS WITHAM HILL BLOCK L | K032177 | 040177 | PROV APP | 11 |
| 34 | USA VARNIS PARK | K032177 | 040177 | PROV APP | 11 |
| 17 | HARBECK FRUIT LAT S EXT | K032177 | 040177 | PROV APP | 11 |
| 10 | GREEN S. D. BEECH ST 10TH ADD SUNNYSLOPE | K032177 | 040177 | PROV APP | 11 |
| 34 | USA WILSON PARK NO. 11 | K032477 | 040177 | PROV APP | 08 |
| 34 | USA/BEAVERTON MARITA SUBD. | K032477 | 040177 | PROV APP | 08 |
| 23 | ONTARIO FAIRACRES ADDTN DEVELOP | K032377 | 040177 | PROV APP | 09 |
| 34 | USA AUTUMN RIDGE NO. 2 276 | K032377 | 040177 | PROV APP | 09 |
| 1 | BAKER SIXTEENTH ST | K032377 | 040177 | PROV APP | 09 |
| 16 | CULVER CULVER CTY HALL & FIRE STN | 032577 | 040177 | PROV APP | 07 |

DEPARTMENT OF ENVIRONMENTAL QUALITY

TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality DivisionMarch 1977Plan Actions Completed (Continued) (122)

| County | Name of Source/Project/Site and Type of Same | Date Rec'd | Date of Action | Action | Time to Complete Action |
|--------|--|---------------|----------------|----------|-------------------------|
| 2 | CORVALLIS SUMMERSET VILLAGE | K030777 | 031877 | PROV APP | 09 |
| 23 | VALE 1977 SEWER PROJECT | K022577 | 031877 | PROV APP | 21 |
| 13 | GRANTS PASS VENTURA SUBD. | J031077 | 031877 | PROV APP | 08 |
| 03 | SANDY MAMA BEAR SUBD | J030977 | 031877 | PROV APP | 09 |
| 04 | ASTORIA CLATSOP COMM COLL STUD HSNB | J031477 | 031877 | PROV APP | 04 |
| 03 | CCSD #1 QUIET WOODS #REVISED* | J031077 | 031877 | PROV APP | 08 |
| 24 | SALEM STONECREEK SUBD | J031577 | 032177 | PROV APP | 06 |
| 22 | ALBANY SHORTRIDGE SS 77-18 | J030977 | 032177 | PROV APP | 12 |
| 3 | WILSONVILLE STAFFORD PK-OFF SITE | J032177 | 032277 | PROV APP | 01 |
| 15 | MEDFORD STARWOOD ESTATES UNIT 2 | IMP SJ031777 | 032377 | PROV APP | 06 |
| 15 | BCVSA AVE A EXTENSION 76-13 | J031777 | 032377 | PROV APP | 10 |
| 26 | PORTLAND SW FLOR LN SW ORCHID ST & PP | J031777 | 032377 | PROV APP | 06 |
| 34 | HILLSBORO SHARON ADDITION SUBD | J031677 | 032377 | PROV APP | 07 |
| 34 | HILLSBORO MCLAR SUBD | J031677 | 032377 | PROV APP | 07 |
| 34 | HILLSBORO SHANNON PLACE SUBD | J031677 | 032377 | PROV APP | 07 |
| 34 | HILLSBORO TIMBERLAKE I & II SUBDS | J031677 | 032377 | PROV APP | 07 |
| 34 | USA CLINKERDAGGFR BICKERSTAFF | PEJ032277 | 032477 | PROV APP | 02 |
| 12 | SENECA CHANGE NO. 3 | V032577 | 032577 | APPROVED | 00 |
| 15 | BUTTE FALLS CH 1&2 SCHED 1&3 CH 3 SCHED2 | V022277 | 032577 | APPROVED | 30 |
| 6 | NORTH BEND CH 1&2 WEYCO SEWER DIST | V032477 | 032577 | APPROVED | 01 |
| 02 | CORVALLIS CHANGE NO. 49 | V032477 | 032577 | APPROVED | 01 |
| 26 | PORTLAND TRYON CREEK STP EXP CH ORD 1 | V032277 | 032577 | APPROVED | 03 |
| 34 | USA ROCK CRK INTERIOR FURNISHING | V032177 | 032577 | APPROVED | 04 |
| 29 | NTCSA CHANGE ORDER B-15 | V031877 | 032577 | APPROVED | 07 |
| 34 | USA ADD NO 1 CONTRACT NO. 44 | RCRK032577 | 032577 | APPROVED | 01 |
| 26 | PORTLAND SCHMEER II EXTRA BILL #4 | V032277 | 032877 | APPROVED | 06 |
| 27 | INDEPENDENCE N MAIN ST SAN SEW EXT | REVISEK032177 | 032877 | PROV APP | 07 |

DEPARTMENT OF ENVIRONMENTAL QUALITY

TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality DivisionMarch 1977Plan Actions Completed (Continued) (122)

| County | Name of Source/Project/Site and Type of Same | Date Rec'd | Date of Action | Action | Time to Complete Action |
|--------|--|------------|----------------|------------|-------------------------|
| 3 | LAKE OSWEGO LID 175 FOOTHILLS RD | J021877 | 030877 | PROV APP | 18 |
| 24 | SALEM/KEIZER JUNIPER SUBD | J021677 | 030977 | PROV APP | 23 |
| 21 | NEWPORT COAST ST - NYE BEACH | K022877 | 030977 | PROV APP | 09 |
| 15 | BCVSA SOUTH STAGE ROAD M. DEWEY | J022277 | 030977 | PROV APP | 10 |
| 26 | MULTNOMAH CO HIGHWOOD BLOCK 1 162 SANDY | J022377 | 031077 | PROV APP | 15 |
| 26 | MULTNOMAH CO CROWN 2 INVERNESS UNIT NO 6 | J022377 | 031077 | PROV APP | 15 |
| 24 | SALEM SOUTHBROOK NO 2 SUBD | J022277 | 031077 | PROV APP | 16 |
| 3 | GOV. CAMP CHANGE NO 4 | V030777 | 031177 | APPROVED | 04 |
| 22 | SWEET HOME FOSTER MIDWAY ADD #1 | V030877 | 031177 | APPROVED | 03 |
| 03 | OREGON CITY HOLMES LANE/LAUREL LANE | J030477 | 031577 | PROV APP | 11 |
| 26 | GRESHAM REGNER RD S CHILDS WLD SUBD | J022377 | 031577 | PROV APP | 20 |
| 24 | SALEM COMM & D ST NE E. TO MILLCK | J022877 | 031577 | PROV APP | 15 |
| 03 | CCSD NO. 1 LATERAL M S 1.2 A RUSCLIFF* | J031177 | 031577 | PROV APP | 04 |
| 30 | HERMISTON HERMISTON PARK PLAT NO1 | K030977 | 031577 | PROV APP | 06 |
| 20 | EUGENE AGATE ST COLUMBIA ST. 19-20 | K030977 | 031577 | PROV APP | 06 |
| 20 | SPRINGFIELD GERRY SP-230 | K031177 | 031577 | PROV APP | 04 |
| 06 | COOS BAY FENWICK AVE | K031177 | 031577 | PROV APP | 04 |
| 26 | GRESHAM BRENDA HEIGHTS SUBD | J022477 | 031577 | PROV APP | 20 |
| 26 | GRESHAM COCHRAN TERRACE | J022477 | 031577 | PROV APP | 19 |
| 26 | GRESHAM FILBERT HILL | J030777 | 031677 | PROV APP | 09 |
| 17 | HARBECK FRUIT LAT K-17 | J030177 | 031677 | PROV APP | 15 |
| 24 | SALEM TABIN RD SEWER LINE EXT | K031577 | 031677 | PROV APP | 01 |
| 15 | BCVSA BIDDLE RD EXT | J030777 | 031677 | PROV APP | 09 |
| 15 | BUTTEFALLS CHANGE NO. 3 | V030377 | 031777 | APPROVED | 14 |
| 26 | PORTLAND CHANGE 5 SCHMEER I | V031077 | 031777 | APPROVED | 07 |
| 26 | PORTLAND CHANGE 4 SCHMEER II | V031077 | 031777 | APPROVED | 07 |
| 34 | CEDAR HILLS CEDAR HILLS TRUNK SAN SEWER | V031777 | 031777 | REAFFIRMED | 00 |

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality Division
(Reporting Unit)

March 1977
(Month and Year)

PLAN ACTIONS COMPLETED (con't. - 122)

| County | Name of Source/Project/Site and Type of Same | Date of Action | Action |
|--------------------------------------|--|----------------------|----------|
| <u>Industrial Waste Sources - 14</u> | | | |
| Douglas | D. R. Johnson Lumber Co. - Riddle - Glue Recirculation | 3/ 1/77 | Approved |
| Polk | Kalsbeek Dairy - Independence - Animal Waste | 3/ 2/77 | Approved |
| Yamhill | Belt Hog Farm - Yamhill - Animal Waste | 3/ 4/77 | Approved |
| Linn | Wah Chang - Albany - V ₂ pH Control & Filtration | 3/ 7/77 | Approved |
| Linn | Wah Chang - Albany - Level Monitors & Alarms | 3/ 7/77 | Approved |
| Yamhill | Slegers, Inc. - Newberg - Animal Waste | 3/ 7/77 | Approved |
| Lane | Borden Chemical - Springfield - Urea Containment | 3/10/77 | Approved |
| Douglas | Champion Bldg. Products - Roseburg, Rifle Range Plant - Veneer Dryer Washdown Water Recirculation System | 3/10/77 | Approved |
| Columbia | PGE - Trojan - Low Volume Waste Solids Removal | 3/16/77 | Approved |
| Columbia | PGE - Trojan - Oil Water Separator | 3/16/77 & 12/9/76 | Approved |
| Tillamook | Aldervale Holstein Farm - Nehalem - Manure Tank | 3/16/77 | Approved |
| Jackson | Boise Cascade - Medford - Upgrade Glue Recycle System | 3/17/77 | Approved |
| Douglas | International Paper - Gardiner - Boiler Blowdown Reroute | 3/21/77 | Approved |
| Douglas | Champion Bldg. Products - Roseburg, Rifle Range Plant - Steam Vat Condensate Control | 3/31/77 | Approved |

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality Division
(Reporting Unit)

March 1977
(Month and Year)

SUMMARY OF WATER PERMIT ACTIONS

| | Permit Actions Received | | | | Permit Actions Completed | | | | Permit Actions Pending | Sources Under Permits | | Sources Reqr'g Permits | | |
|---|-------------------------|-----------|------------|-----------|--------------------------|----------|------------|-----------|------------------------|-----------------------|------------|------------------------|------------|------------|
| | Month | | Fis. Yr. | | Month | | Fis. Yr. | | | * ** | * ** | * ** | * ** | |
| | * | ** | * | ** | * | ** | * | ** | | | | | | |
| <u>Municipal</u> | | | | | | | | | | | | | | |
| New | 0 | 0 | 2 | 3 | 0 | 0 | 7 | 6 | 2 | 5 | | | | |
| Existing | 0 | 1 | 0 | 2 | 0 | 0 | 2 | 4 | 0 | 4 | | | | |
| Renewals | 1 | 3 | 71 | 10 | 1 | 0 | 36 | 3 | 82 | 7 | | | | |
| Modifications | 1 | 0 | 19 | 1 | 0 | 1 | 29 | 3 | 9 | 0 | | | | |
| Total | 2 | 4 | 92 | 16 | 1 | 1 | 74 | 16 | 93 | 16 | 300 | 62 | 302 | 71 |
| <u>Industrial</u> | | | | | | | | | | | | | | |
| New | 2 | 2 | 7 | 9 | 1 | 2 | 3 | 9 | 6 | 3 | | | | |
| Existing | 1 | 2 | 1 | 3 | 0 | 0 | 6 | 11 | 1 | 2 | | | | |
| Renewals | 5 | 1 | 51 | 11 | 4 | 0 | 29 | 10 | 50 | 8 | | | | |
| Modifications | 4 | 0 | 32 | 2 | 2 | 2 | 40 | 4 | 14 | 0 | | | | |
| Total | 12 | 5 | 91 | 25 | 7 | 4 | 78 | 34 | 71 | 13 | 431 | 88 | 438 | 93 |
| <u>Agricultural (Hatcheries, Dairies, etc.)</u> | | | | | | | | | | | | | | |
| New | 0 | 1 | 2 | 1 | 0 | 0 | 4 | 1 | 1 | 1 | | | | |
| Existing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | | | | |
| Renewals | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | | | | |
| Modifications | 0 | 0 | 9 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | | | | |
| Total | 0 | 1 | 12 | 1 | 0 | 0 | 15 | 2 | 2 | 1 | 65 | 8 | 66 | 9 |
| GRAND TOTALS | 14 | 10 | 195 | 42 | 8 | 5 | 167 | 52 | 166 | 30 | 796 | 158 | 806 | 173 |

* NPDES Permits
** State Permits

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality Division
(Reporting Unit)

March 1977
(Month and Year)

PERMIT ACTIONS COMPLETED (13)

| County | Name of Source/Project/Site and Type of Same | Date of Action | Action |
|-----------|--|-------------------|-------------------------------|
| Multnomah | Texaco Bulk Plant | 3/1/77 | NPDES Permit Reissued |
| Yamhill | Stutzman Slaughterhouse (Previously Sheridan Packing) | 3/1/77 | State Permit Trans- ferred |
| Multnomah | Ollie Welch Meat Co. Slaughterhouse | 3/8/77 | State Permit Trans- ferred |
| Umatilla | City of Athena Sewage Disposal | 3/10/77 | NPDES Permit Renewed |
| Douglas | City of Cave Junction Water Treatment Plant | 3/10/77 | NPDES Permit Issued |
| Marion | General Foods Corp. Woodburn | 3/10/77 | NPDES Permit Renewed |
| Benton | West Hills Sanitary District Sewage Disposal | 3/10/77 | NPDES Permit Renewed |
| Umatilla | A. E. Staley Mfgr. Co. Potato Starch Plant | 3/10/77 | State Permit Issued |
| Linn | Teledyne Wah Chang Albany Exotic Metals | 3/10/77 | NPDES Permit Modified |
| Douglas | International Paper Gardiner | 3/18/77 | NPDES Permit Renewed |
| Douglas | Champion Building Products Roseburg Veneer | 3/18/77 | NPDES Permit Renewed |
| Douglas | Bremner Hills Coop. Sewage Disposal | 3/28/77 | State Permit Extended |
| Josephine | Ronald F. Cole Placer Mining | 3/31/77 | State Permit Issued |

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality
(Reporting Unit)

March 1977
(Month and Year)

PLAN ACTIONS COMPLETED (5)

| County | Name of Source/Project/Site and Type of Same | Date of Action | Action |
|--------------------------------------|---|-------------------|-----------|
| <u>Direct Stationary Sources (6)</u> | | | |
| Clackamas (768) | Wilsonville Concrete Products. New concrete batch plant. | 3/8/77 | Approved. |
| Washington (862) | Lite Rock Company. Baghouse for finished product. | 3/21/77 | Canceled. |
| Multnomah (868) | Schnitzer Steel Products. Auto shredder. | 3/21/77 | Approved. |
| Washington (873) | Lite Rock Company. Baghouse for fugitive dust. | 3/21/77 | Approved. |
| Baker (879) | Ellingson Lumber Company. Multi-cyclone on boiler. | 3/21/77 | Approved. |
| Multnomah (880) | The Flintkote Company. Electrostatic precipitator. | 3/2/77 | Approved. |

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality Division
(Reporting Unit)

March 1977
(Month and Year)

SUMMARY OF AIR PERMIT ACTIONS

| | Permit Actions Received | | Permit Actions Completed | | Permit Actions Pending | Sources under Permits | Sources Reqr'g Permits |
|-------------------------|-------------------------|---------|--------------------------|---------|------------------------|-----------------------|------------------------|
| | Month | Fis.Yr. | Month | Fis.Yr. | | | |
| <u>Direct Sources</u> | | | | | | | |
| New | 1 | 18 | | 19 | 9 | | |
| Existing | 4 | 41 | 5 | 65 | 20 | | |
| Renewals | 3 | 130 | 4 | 142 | 74 | | |
| Modifications | 3 | 99 | 4 | 102 | 12 | | |
| Total | 11 | 288 | 13 | 328 | 115 | 1718* | 1747 |
| <u>Indirect Sources</u> | | | | | | | |
| New | 3 | 20 | 3 | 18 | 14** | | |
| Existing | | | | | | | |
| Renewals | | | | | | | |
| Modifications | 1 | 4 | 2 | 4 | | | |
| Total | 4 | 24 | 5 | 22 | 14 | 50 | |
| <u>GRAND TOTALS</u> | 15 | 312 | 18 | 350 | 129 | 1768 | |

* As of 2/11/77 - Due to regulation changes and sources ceasing operation, this number is less than previously reported.

** Corrects error made in February report.

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality
(Reporting Unit)

March 1977
(Month and Year)

PERMIT ACTIONS COMPLETED (18)

| County | Name of Source/Project/Site and Type of Same | Date of Action | Action |
|--------------------------------|---|-------------------|-----------------|
| Direct Stationary Sources (13) | | | |
| Clackamas | Crown Zellerbach 03-2145 Modification | 3/21/77 | Addendum issued |
| Clackamas | Wes King Construction 03-2642 Modification | 3/23/77 | Permit Issued |
| Deschutes | La Pine Ready Mix 09-0059 Existing | 3/8/77 | Permit Issued |
| Linn | Western Kraft 22-0471 Renewal | 3/4/77 | Permit Issued |
| Marion | Willamette Door & Mfg. 24-0022 Renewal | 3/23/77 | Permit Issued |
| Multnomah | Western Overhead Door Co. 26-2069 Addendum | 2/25/77 | Addendum Issued |
| Polk | McMillan Shingle Co. 27-3003 Renewal | 3/23/77 | Permitt Issued |
| Union | Peacock Lumber Co. 31-0005 Existing | 3/23/77 | Permit Issued |
| Washington | Tigard Sand & Gravel 34-2636 Addendum | 3/14/77 | Addendum Issued |
| Washington | Quality Rock Co. 34-2629 Existing | 3/23/77 | Permit Issued |
| Yamhill | Bendix Home Systems 36-5023 | 3/23/77 | Permit Issued |
| Portable | Kincheloe & Sons 37-0146 Existing | 3/23/77 | Permit Issued |
| Portable | Baker County Road Dept. 37-0152 Existing | 3/23/77 | Permit Issued |

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality
(Reporting Unit)

March 1977
(Month and Year)

PERMIT ACTIONS COMPLETED (con't. - 18)

| County | Name of Source/Project/Site and Type of Same | Date of Action | Action |
|-----------------------------|---|-------------------|-----------------------------|
| <u>Indirect Sources</u> (5) | | | |
| Washington | Major Sports Complex, 250 parking spaces. | 2/4/77 | Modification issued. |
| Multnomah | Lloyd Corporation, 1564 space expansion. | 3/77 | Application with- drawn. |
| Multnomah | Mt. Hood Mall, 6000+ shopping center. | 3/77 | Application with- drawn. |
| Multnomah | River Queen Resturant, 215 space facility. | 3/77 | Application with- drawn. |
| Marion | Hayesville K-Mart | 3/77 | Modification issued. |

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Solid Waste Division
(Reporting Unit)

March 1977
(Month and Year)

PLAN ACTIONS COMPLETED (7)

| County | Name of Source/Project/Site and Type of Same | Date of Action | Action |
|-----------|---|-------------------|-------------------------|
| Douglas | Sun Studs, Inc. Existing Site Operational Plan | 3/3/77 | Provisional approval |
| Multnomah | Hidden Valley Existing Site Closure Plan | 3/7/77 | Provisional approval |
| Douglas | Prospect Sanitary Landfill Existing Site Operational Plan | 3/11/77 | Approved |
| Umatilla | Hermiston Landfill Existing Site Operational Plan | 3/17/77 | Provisional approval |
| Klamath | Bonanza Disposal Site Existing Site Operational Plan | 3/21/77 | Provisional approval |
| Lane | Lane County Solid Waste Processing Plant New Site Construction & Operational Plan | 3/23/77 | Provisional approval |
| Crook | Prineville Resort Existing Site Operational Plan | 3/30/77 | Plan disapproved |

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Solid Waste Division
(Reporting Unit)

March 1977
(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 | Fis.Yr. | Month | Fis.Yr. | | | |
| <u>General Refuse</u> | | | | | | | |
| New | 1 | 10 | | 6 | 4 | | (*3) |
| Existing | | | 2 | 22 | 26 | | (*26) |
| Renewals | 1 | 8 | | 14 | 2 | | |
| Modifications | 1 | 6 | 2 | 13 | 1 | | |
| Total | 3 | 24 | 4 | 55 | 33 | 191 | 192 |
| <u>Demolition</u> | | | | | | | |
| New | | 2 | | 3 | | | |
| Existing | | | | 2 | | | |
| Renewals | 1 | 2 | | 1 | 2 | | |
| Modifications | | | | 1 | | | |
| Total | 1 | 4 | 0 | 7 | 2 | 13 | 13 |
| <u>Industrial</u> | | | | | | | |
| New | 1 | 4 | | 6 | 1 | | |
| Existing | | 1 | | 7 | 6 | | (*4) |
| Renewals | 4 | 11 | 3 | 13 | 3 | | |
| Modifications | 2 | 3 | | 3 | 2 | | |
| Total | 7 | 19 | 3 | 29 | 12 | 86 | 89 |
| <u>Sludge Disposal</u> | | | | | | | |
| New | | 2 | | 3 | | | |
| Existing | | | | | | | |
| Renewals | | 1 | | 2 | 1 | | |
| Modifications | | 2 | 1 | 3 | | | |
| Total | 0 | 5 | 1 | 8 | 1 | 7 | 7 |
| <u>Hazardous Waste</u> | | | | | | | |
| New | | | | | | | |
| Authorizations | 3 | 73 | 8 | 74 | | | |
| Renewals | | | | | | | |
| Modifications | | | | | | | |
| Total | 3 | 73 | 8 | 74 | 0 | 1 | 1 |
| <u>GRAND TOTALS</u> | <u>14</u> | <u>125</u> | <u>16</u> | <u>173</u> | <u>48</u> | <u>298</u> | <u>302</u> |

(*) Sites operating under temporary permits until regular permits are issued.

TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Solid Waste Division
(Reporting Unit)

March 1977
(Month and Year)

PERMIT ACTIONS COMPLETED (17)

| County | Name of Source/Project/Site and Type of Same | Date of Action | Action |
|--|---|-------------------|----------------------------|
| <u>General Refuse (Garbage) Facilities</u> (4) | | | |
| Malheur | Vale Disposal Site Existing Facility | 3/16/77 | Permit issued |
| Deschutes | Negus Landfill Existing Facility | 3/22/77 | Permit amended. |
| Klamath | Klamath Disposal Inc. Existing Facility | 3/29/77 | Permit issued. |
| Polk | Fishback Hill Landfill Existing Facility | 3/30/77 | Permit amended |
| <u>Demolition Waste Facilities</u> - none | | | |
| <u>Sludge Disposal Facilities</u> (1) | | | |
| Lincoln | Clark Sludge Site Existing Facility (closed) | 3/30/77 | Permit revoked. |
| <u>Industrial Waste Facilities</u> (3) | | | |
| Hood River | Hanel Lumber Co. Existing Facility | 3/1/77 | Permit issued (renewal) |
| Linn | Willamette Ind., Lebanon | 3/29/77 | Permit issued |
| Clackamas | P.G.E. Farraday Plant Existing Facility | 3/30/77 | Permit issued (renewal) |

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

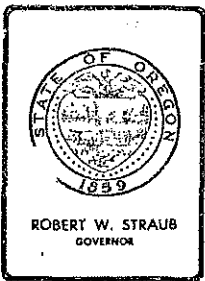
MONTHLY ACTIVITY REPORT

Solid Waste Division
(Reporting Unit)

March 1977
(Month and Year)

PERMIT ACTIONS COMPLETED (continued)(17)

| County | Name of Source/Project/Site and Type of Same | Date of Action | Action |
|---------------------------------------|---|-------------------|---|
| <u>Hazardous Waste Facilities (9)</u> | | | |
| Gilliam | Chem-Nuclear Systems, Inc. Existing Facility | 3/2/77 | Disposal author- ization approved. (solvents) |
| " | " | 3/4/77 | Disposal authorization approved (solvents and plating solution) |
| " | " | 3/7/77 | Disposal author- ization amended. (paint sludges) |
| " | " | 3/9/77 | Disposal author- ization approved. (oily waste) |
| " | " | 3/11/77 | Two (2) disposal authorizations approved. (PCB's & aluminum dross) |
| " | " | 3/21/77 | One (1) disposal authorization approved and one (1) amended. (paint sludges and coal processing waste) |
| " | " | 3/29/77 | Disposal author- ization approved. (wood treating sludges) |



Environmental Quality Commission

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission
From: Director
Subject: Addendum I, Agenda Item No. C, April 22, 1977, EQC Meeting
Tax Credit Applications

Director's Recommendation

It is recommended that the Commission act to revoke tax credit certificates No. 613 and 685 issued to Glacier Sand & Gravel and reissue them to Willamette-Western Corporation because of a change in ownership. Authorizing letter is attached.

William H. Young
WILLIAM H. YOUNG
Director

/cs

Attachment (1)



Contains
Recycled



WILLAMETTE-WESTERN CORPORATION

Foot of North Portsmouth Avenue
P.O. Box 03190 • Portland, Oregon 97203
Phone: 503 • 285-9111 • Cable Address: WILDWEST

April 1, 1977

Ms. Carol Splettstaszar
Dept. of Environmental Quality
1234 S. W. Morrison
Portland, Oregon 97201

Dear Ms. Splettstaszar:

Willamette-Western Corporation purchased the assets of Pacific Building Materials Company from Glacier Sand & Gravel Company on February 2, 1977. These assets include two items of pollution control equipment certified by the DEQ, for which Glacier elected ad valorem tax relief under ORS 307.405 (certificates attached).

This letter is to notify the DEQ that the outstanding certificates #613 (9-26-75) and #685 (7-30-76) should be cancelled. We now request that the Environmental Quality Commission grant new certificates, at its April 21, 1977 meeting, in the name of Willamette-Western Corporation.

It is our understanding that your office will forward the new certificates to the County Property Tax office.

Very truly yours,

WILLAMETTE-WESTERN CORPORATION

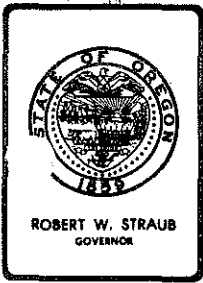
J. R. McGuinn
J. R. McGUINN
Sr. Vice President - Finance

Enc's: Certificates #613 and 685.
Return Receipt Copy enclosed

Technical Programs Office
Dept. of Environmental Quality
RECEIVED
APR 11 1977

WILLAMETTE TUG & BARGE CO.
WILLAMETTE HI-GRADE CONCRETE CO.

WESTERN-PACIFIC DREDGING CORP.
WESTERN-PACIFIC PILEDRIVING CO.



Environmental Quality Commission

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

To: Environmental Quality Commission
From: Director
Subject: Agenda Item No. C, April 22, 1977, EQC Meeting
Tax Credit Applications

Attached are the review reports on 9 requests for Tax Credit action. These reports and the recommendations of the Director are summarized on the attached table.

Director's Recommendation

It is recommended that the Commission act on the tax credit requests as follows:

1. Issue certificates for 8 applications: T-778, T-784, T-856, T-867, T-874, T-875, T-881, T-882.
2. Deny application T-860 because the claimed facility does not meet the requirements of ORS 468.165(1)(b) and is therefore not eligible for certification.

Bill

WILLIAM H. YOUNG
Director

/cs

Attachments

Tax Credit Summary
Tax Credit Review Reports (9)



Contains
Recycled

TAX CREDIT SUMMARY

Proposed April 1977 Totals:

| | |
|---------------|---------------------|
| Air Quality | \$620,961.00 |
| Water Quality | 60,952.82 |
| Solid Waste | -0- |
| | <u>\$681,913.82</u> |

Calendar Year Totals to Date:
(Excluding April 1977 totals)

| | |
|---------------|---------------------|
| Air Quality | \$ 39,949.01 |
| Water Quality | 792,706.31 |
| Solid Waste | -0- |
| | <u>\$832,655.32</u> |

Total Certificates Awarded (Monetary Values)
Since Beginning of Program (excluding
April 1977 totals):

| | |
|---------------|-------------------------|
| Air Quality | \$ 95,685,551.12 |
| Water Quality | 69,851,673.29 |
| Solid Waste | 12,471,967.79 |
| | <u>\$178,009,192.20</u> |

(1)

TAX CREDIT APPLICATIONS

| <u>Applicant/Plant Location</u> | <u>Appl. No.</u> | <u>Facility</u> | <u>Claimed Cost</u> | <u>% Allocable to Pollution Control</u> | <u>Director's Recommendation</u> |
|---|------------------|--|---------------------|---|----------------------------------|
| Georgia-Pacific Corp., Toledo | T-778 | Heavy black liquor oxidation system | \$473,522.00 | 80% or more | Issue |
| Georgia-Pacific Corp., Portland | T-784 | Wood particle collection system | 55,440.00 | 40% or more but less than 60% | Issue |
| Mayflower Farms, Portland | T-856 | Baghouse filter and associated ductwork | 60,089.00 | 80% or more | Issue |
| Bohemia, Inc. Eugene | T-860 | Black top paving of log storage, handling and scaling yard | 473,247.67 | | Deny |
| SWF Plywood, Co. Medford | T-867 | Baghouse to control emissions from wood waste grinder | 21,570.00 | 80% or more | Issue |
| Kaiser Gypsum Co., Inc. St. Helens | T-874 | 2000 gal. collection tank, pump and pipeline | 25,846.00 | 80% or more | Issue |
| Kaiser Gypsum Co., Inc. St. Helens | T-875 | Treated waste water system | 32,025.00 | 80% or more | Issue |
| Tektronix, Inc. Beaverton | T-881 | Waste water flume changes | 3,081.82 | 80% or more | Issue |
| Coast Range Plywood, Inc., McMinnville | T-882 | Secondary scrubber on wood waste cyclone | 10,340.00 | 80% or more | Issue |

State of Oregon
Department of Environmental Quality
Tax Relief Application Review Report

1. Applicant

Georgia-Pacific Corporation
Toledo Division
P. O. Box 580
Toledo, Oregon 97391

The applicant owns and operates an unbleached kraft pulp and paper mill at Toledo, Oregon.

2. Description of Facility

The facility claimed in this application consists of a heavy black liquor oxidation system. The facility costs consist of:

| | |
|---------------------------------------|-----------|
| a. Pumps | \$ 13,967 |
| b. Piping | 127,834 |
| c. De-aerator Agitator | 2,923 |
| d. Oxidation Tank | 174,025 |
| e. Oxidation Blower | 109,435 |
| f. Instrumentation | 29,885 |
| g. Miscellaneous Materials and Labors | 15,453 |
| | \$473,522 |

The equipment installation is shown on Georgia-Pacific Corporation drawings number D61-291, D61-296, D61-297 and D61-298.

Construction of the claimed facility was started in February, 1973 and was completed in June, 1974. The facility started operation in February, 1974. The plans and specifications for the system were approved by the Department fulfilling the prior approval requirement.

Certification is claimed under current statutes and the percentage claimed for pollution control is 100%.

Facility cost: \$473,522.00 (Accountant's certification was provided).

3. Evaluation of Application

Georgia-Pacific Corporation was required to reduce Total Reduced Sulfur (TRS) emissions from their recovery furnaces by their Air Contaminant Discharge Permit. They accomplished this by installing a new black liquor oxidation system. The black liquor oxidation system converts the sulfides in the black liquor into a compound that will not release the sulfur in the recovery furnace direct contact evaporator and thus produce odorous gases. The system that this facility replaced was not as efficient and had not been claimed for tax credit. The old system is being used as a liquor storage tank and back-up oxidation tower.

Georgia-Pacific Corporation has had problems with the blowers in the claimed facility failing during the past year. They have now installed a number of safeguards that should correct this problem. The claimed facility has reduced TRS emissions by 400 pounds per day.

The operating cost of the claimed facility is greater than the value of the sulfur retained in the pulping chemicals.

The Department concludes that 100% of the cost of this facility is allocable to air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$473,522.00 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-778.

CRC:ds
3/22/77

State of Oregon
Department of Environmental Quality
Tax Relief Application Review Report

1. Applicant

Georgia Pacific Corporation
900 S.W. Fifth Avenue
Portland, Oregon 97204

The applicant owns and operates a plywood plant in Toledo, Oregon.

2. Description of Claimed Facility

The facility is a wood particle collection system installed to collect small wood fibers formerly exhausted from veneer dryer feeders and veneer stackers to the outside air. It consists of:

| | |
|---------------------------------------|-------------|
| a. Cyclone, ductwork, related items | \$34,833.64 |
| b. Tower for cyclone and fan | 15,376.36 |
| c. Blower fan, 150 hp motor, controls | 5,230.00 |

The project was begun in April 1973 and completed and placed in operation in October 1974. Preliminary certification and prior approval for tax credit was not obtained but is not required for projects begun before October 5, 1973.

Georgia Pacific claims 100% of the cost for air pollution control under current statutes.

Facility costs: \$55,440 (accountants' certification was provided).

3. Evaluation of Application

The exhausts of the veneer dryer feeders and veneer stackers, i.e. suction cups used to pick up the sheets of veneer, emit 1/2 unit of wood fines per day by Georgia-Pacific's estimation. Much of the wood fiber emitted fell back onto Georgia Pacific's roof. From there it was being washed by rain into the gutters and out into the Yaquina River. It there contributed to a water pollution problem. Oyster growers in Yaquina Bay have complained about wood fiber bothering their oysters. The particles too small to fall out on the plant's premises would drift on into the town.

The cyclone installed by Georgia Pacific is not a high efficiency cyclone. Therefore a considerable portion of fines will continue being suspended into the air and continue leaving the premises. If the cyclone is 80% efficient, 6 lb/hr will remain being emitted into the air, while 25 lb/hr will be captured for fuel. The project was not submitted to the Department for approval as required by OAR 340-20-020 and -025(a) for air pollution control equipment.

The Department considered the mill in compliance with its 35 lb/hr cyclone emission limit both before and after the claimed project was installed. The value of the fuel reclaimed is more than offset by the operating costs of the system.

In summary, the project was an effort by Georgia-Pacific to both reduce air and water pollution and to improve the housekeeping (lessening clean-up and maintenance costs) at their plant.

It is concluded the costs of the project can be allocated half to air and water pollution control and half to clean up savings and reclaimed fuel.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$55,440 with 40% or more but less than 60% allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-784.

PBB:lb

State of Oregon
Department of Environmental Quality

Tax Relief Application Review Report

1. Applicant

Mayflower Farms
2720 S. E. Sixth Avenue
Portland, Oregon 97202

The applicant owns and operates a feed mill in Portland, Oregon.

2. Description of Facility

The facility claimed in this application consists of a baghouse filter and associated ductwork which is used to control particulate emissions from the rolled grain cooler, the Eureka cleaning system and the receiving area dust collection system. The facility cost consist of:

| | |
|----------------------------|-------------|
| a. Baghouse filter | \$15,779.58 |
| b. Screw conveyor | 968.27 |
| c. Fan | 1,770.80 |
| d. Electrical | 4,012.78 |
| e. Steel | 4,611.75 |
| f. Miscellaneous materials | 2,176.35 |
| g. Labor | 30,769.50 |

Construction of the claimed facility was started in February, 1975 and completed in May, 1975. The facility was also placed in operation May, 1975. A "Notice of Construction and Application for Approval" was filed and approval was granted by the Department on January 6, 1975. Preliminary certification for tax credit was not required by the statute in effect at the date of installation of the claimed facility. The claimed facility is shown on American Sheet Metal, Inc. drawing No. E-2123.

Certification is claimed under current statutes and the percentage claimed for pollution control is 100%.

Facility cost: \$60,089.00 (Accountant's certification was provided).

3. Evaluation of Application

Mayflower Farms was required to reduce particulate emissions from their rolled grain cooler, the Eureka cleaning system and the receiving area dust collection system by the Columbia-Willamette Air Pollution Authority. This was accomplished by installing the claimed baghouse.

The claimed facility has been inspected and has been found to be operating satisfactorily.

The operating cost of the claimed facility is greater than the value of the material recovered. It is concluded that 100% of the cost of this facility is allocable to air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$60,089.00 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit No. T-849.

CRC:ds
3/15/77

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Bohemia, Inc.
P. O. Box 1819
Eugene, Oregon 97401

The applicant owns and operates a veneer and lumber mill and a bark extraction plant at Coburg in Lane County, Oregon.

2. Description of Facility

The facility claimed in this application consists of 600,000 sq. ft. of black top paving over the plant log storage, handling and scaling yard.

The construction of claimed facility started in July 1976 and was completed in November 1976.

Certification is claimed under the 1973 Act as amended in 1975 with 100% of the cost allocated to pollution control for utilization of solid waste.

Facility costs: \$473,247.67 (accountant's certification was attached to application).

3. Evaluation of Application

Bohemia, Inc. submitted a Request for Preliminary Certification for Tax Credit to the Department, which was approved on July 2, 1976.

Tax credits have been granted for paving log yards which generated airborne dust, for elimination of air contaminants sources. The approval of this tax credit would set a precedent of approving paving log yards for utilization of materials which can be recovered from paved areas. The Department did not require paving of the Bohemia log yard, but such activity is environmentally desirable and is an asset to solid waste management.

Prior to the paving of the Bohemia's Coburg plant log yard, approximately 6,000 tons per year of wood waste, mud and rock was landfilled. The paving eliminated the mud problem, dust emissions and landfill disposal of solid waste. The clean recoverable portion of the waste is now picked up off the yard and fed into the Bohemia's wood products utilization facility, to be utilized as raw bark for the bark extraction plant or hog fuel. The value of the recovered bark as stated in the application is \$12,000 per year. Savings from eliminating of solid waste disposal are approximately \$12,000 per year.

In addition to utilization of solid waste, the claimed facility conserves fuel and the company benefits from higher equipment efficiency and significantly lower maintenance costs. These savings cannot be exactly quantified, but the Department staff estimates that the savings are approximately \$100,000 - 150,000 annually. (The data for computation were supplied by the Company and by The Asphalt Institute).

In conclusion the claimed facility eliminated generation of 6,000 tons per year of solid waste, mud problems and dust emissions but the economic value of recovered solid wastes (\$24,000 annually) is relatively small if compared with the company benefits from higher equipment efficiency and lower maintenance costs (return on investment approximately 20-30%). Considering the return on investment related to the lower maintenance and operational costs vs. return on investment related to solid waste utilization (approximately 5%), it appears that the substantial purpose of the construction was not pollution control but rather operational savings.

The Department concludes that the claimed facility does not meet the requirements of ORS 468.165(1)(b) and is therefore not eligible for certification.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate be denied pursuant to ORS 468.170(2) for the claimed facility in application T860.

MS:mmm

State of Oregon
Department of Environmental Quality

Tax Relief Application Review Report

1. Applicant

1. SWF Plywood Co.
PO Box 820
Medford, Oregon 97501

The applicant operates a plywood plant in Medford, Oregon.

2. Description of Claimed Facility

The facility claimed in this application consists of a baghouse to control emissions from a wood-waste grinder and to protect previously certified emission control equipment from fire. The facility costs consist of:

- a. 15-20 Clark Pneu-Aire Filter \$19,323
- b. Fan revision and miscellaneous items 2,247

Construction of the claimed facility began on 12/2/76. Construction was completed and operation began on 12/9/76. A request for Construction Approval and Preliminary Certification was approved by the Department on 11/29/76.

Certification is claimed under current statutes and the percentage claimed for pollution control is 100%.

Facility Costs: \$21,570 (accountant's certification provided).

3. Evaluation of Application

The Department previously approved for construction and tax credit (T-752 and NC 252) the installation of a Carter-Day baghouse to control emissions from the hog, sander and saw. The facility claimed in this application now controls emissions from the hog while the Carter-Day baghouse controls emissions from the sander and saw only. This change was made in an attempt to protect the larger Carter-Day baghouse from fire.

The claimed baghouse will handle the emissions from the wood waste hog after a primary separator. These emissions were formerly vented to the Carter-Day baghouse and were believed to be the source of sparks which caused extensive damage to the Carter-Day baghouse. Should another fire occur as a result of sparks from the hog, the Carter-Day baghouse which collects sanderdust and sawdust will not be damaged and will continue to perform its air pollution control function.

The operating and maintenance costs of the claimed facility are greater than any value the collected materials might have.

The claimed facility is determined to be an addition to and improvement of a device that has the substantial purpose of air pollution control and 100% of the cost of the facility is allocable to air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$21,570.00 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-867.

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY
TAX RELIEF APPLICATION REVIEW REPORT1. Applicant

Kaiser Gypsum Company, Inc.
Kaiser Center - 300 Lakeside Drive
Oakland, California 94604

The applicant owns and operates a wood fiber insulation board manufacturing plant in St. Helens, Oregon.

2. Description of Claimed Facility

The claimed facility consists of a 2,000 gallon collection tank, pump and 1,200 feet of treated effluent pipe line (6 inch) to a submerged discharge point located at the plant's dockside on Scappoose Bay.

The claimed facility was completed and placed into operation in January 1977. Certification is claimed with 100% of the cost allocated to pollution control.

Facility Cost: \$25,846 (Accountant's certification was submitted with the application)

3. Evaluation of the Application

Facility installation was made in accordance with a condition of Kaiser's NPDES Waste Discharge Permit.

Effluent waters now being discharged directly into Scappoose Bay are better dispersed to the Bay, cause less flushing action and are not subject to tidal action.

Plans for this facility were submitted by the applicant and approved by DEQ letter of September 7, 1976 and plan approval and preliminary certification for tax credit, Form TC3, November 10, 1976.

There is no income to be derived from this facility so the only benefits are in pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate be issued for the facility claimed in T-874, such certificate to bear the actual cost of \$25,846, with 80% or more of the cost allocable to pollution control.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Kaiser Gypsum Company, Inc.
Kaiser Center - 300 Lakeside Drive
Oakland, California 94606

The applicant owns and operates a wood fiber insulation board manufacturing plant in St. Helens, Oregon.

2. Description of Claimed Facility

The claimed facility is a treated waste water system to recycle water back to tolerant plant processes. The facility consists of a reinforced concrete collection holding tank and supply flume. Treated water from the holding tank is pumped by two 25 H.P. motor driven centrifugal pumps through a 6-inch pipeline to a recycle tank and distribution system in the plant.

The claimed facility was completed in January 1976 but phased into operation as early as Mid-1975. Certification is claimed with 100% of the cost allocated to pollution control.

Facility Cost: \$32,025. (Accountant's certification was attached to the application).

3. Evaluation of the Application

Prior to this installation 500,000 to 600,000 gallons treated waste per day was discharged into Scappoose Slough. This has been reduced to 100,000 to 150,000 gallons per day. The difference is recycled back to plant process water by the claimed facility.

Plans were submitted by the applicant and approved by DEQ letter of August 19, 1975.

Applicant states no profit nor savings result from this project.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate be issued for the facility claimed in Application T-875, such certificate to bear the actual cost of \$32,025, with 80% or more allocable to pollution control.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Tektronix, Inc.
P. O. Box 500
Beaverton, OR 97077

The applicant owns and operates an industrial complex in Beaverton, manufacturing electronic equipment, oscilloscopes, information display and television products.

2. Description of Claimed Facility

The claimed facility consists of waste water flume changes to provide holding capacity in the event of spill or the necessity for recirculation through treatment.

The claimed facility was completed and placed in operation March 4, 1977. Certification is claimed with 100% of the cost allocated to pollution control.

Facility Cost: \$3,081.82 (statements for project cost were attached to the application).

3. Evaluation of the Application

The benefits of this facility are in spill control by insuring treatment at a controlled rate without accidental discharge of pollutants to the stream.

A preliminary Certification for Tax Credit and Plan Approval was issued by the DEQ for the claimed facility 1/28/77.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate be issued for the claimed facility in Application T-881, such certificate to bear the actual cost of \$3,081.82 with 80% or more allocable to pollution control.

WDL:em
March 24, 1977

State of Oregon
Department of Environmental Quality

Tax Relief Application Review Report

1. Applicant

Coast Range Plywood, Inc.
PO Box 538
McMinnville, Oregon 97128

The applicant operates a plywood manufacturing facility in McMinnville.

2. Description of Facility

The facility claimed in this application consists of a secondary scrubber on the wood waste cyclone. The facility costs consist of:

| | |
|----------------------------|-----------|
| a. Blowpipe | \$2646.68 |
| b. Motor, pumps & plumbing | 1443.36 |
| c. Steel framing | 3237.38 |
| d. Canvas | 337.50 |
| e. Noise deflector | 244.85 |
| f. Labor | 2430.00 |

Construction of the claimed facility was started in July 1976. The facility was completed and placed in operation in September 1976. A request for construction approval and preliminary certification for tax credit was approved by the Department on June 23, 1976.

Certification is claimed under current statutes and the percentage claimed for pollution control is 100%.

Facility costs: \$10,340 (accountant's certification was provided).

3. Evaluation of Application

The claimed facility has been installed to control emissions from the wood waste handling cyclone. The scrubber consists of a steel frame with canvas walls. The emissions from the cyclone are ducted to the scrubber through water sprays where the dust and water are separated from the air as it flows through the canvas.

This facility has been inspected by the Department and is now operating in compliance with Department regulations. The materials collected have no value. It is concluded that 100% of the cost of this facility is allocable to air pollution control.

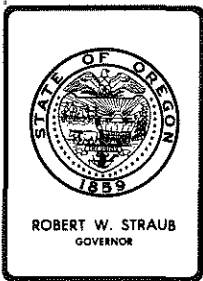
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Tax Application T-882
Page 2

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$10,340 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-882.

EW:mh



Environmental Quality Commission

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission
From: Director
Subject: Addendum I, Agenda Item No. C, April 22, 1977, EQC Meeting
Tax Credit Applications

Director's Recommendation

It is recommended that the Commission act to revoke tax credit certificates No. 613 and 685 issued to Glacier Sand & Gravel and reissue them to Willamette-Western Corporation because of a change in ownership. Authorizing letter is attached.

WILLIAM H. YOUNG
Director

/cs

Attachment (1)



Contains
Recycled



WILLAMETTE-WESTERN CORPORATION

Foot of North Portsmouth Avenue
P.O. Box 03190 • Portland, Oregon 97203
Phone: 503 • 285-9111 • Cable Address: WILDWEST

April 1, 1977

Ms. Carol Spletstaszar
Dept. of Environmental Quality
1234 S. W. Morrison
Portland, Oregon 97201

Dear Ms. Spletstaszar:

Willamette-Western Corporation purchased the assets of Pacific Building Materials Company from Glacier Sand & Gravel Company on February 2, 1977. These assets include two items of pollution control equipment certified by the DEQ, for which Glacier elected ad valorem tax relief under ORS 307.405 (certificates attached).

This letter is to notify the DEQ that the outstanding certificates #613 (9-26-75) and #685 (7-30-76) should be cancelled. We now request that the Environmental Quality Commission grant new certificates, at its April 21, 1977 meeting, in the name of Willamette-Western Corporation.

It is our understanding that your office will forward the new certificates to the County Property Tax office.

Very truly yours,

WILLAMETTE-WESTERN CORPORATION

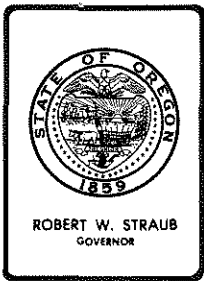
J. R. McGUINN
Sr. Vice President - Finance

Enc's: Certificates #613 and 685.
Return Receipt Copy enclosed

Technical Programs Office
Dept. of Environmental Quality
RECEIVED
APR 11 1977

WILLAMETTE TUG & BARGE CO.
WILLAMETTE HI-GRADE CONCRETE CO.

WESTERN-PACIFIC DREDGING CORP.
WESTERN-PACIFIC PILEDRIVING CO.



Environmental Quality Commission

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

To: Environmental Quality Commission
From: Director
Subject: Agenda Item No. C, April 22, 1977, EQC Meeting
Tax Credit Applications

Attached are the review reports on 9 requests for Tax Credit action. These reports and the recommendations of the Director are summarized on the attached table.

Director's Recommendation

It is recommended that the Commission act on the tax credit requests as follows:

1. Issue certificates for 8 applications: T-778, T-784, T-856, T-867, T-874, T-875, T-881, T-882.
2. Deny application T-860 because the claimed facility does not meet the requirements of ORS 468.165(1)(b) and is therefore not eligible for certification.

WILLIAM H. YOUNG
Director

/cs

Attachments

Tax Credit Summary
Tax Credit Review Reports (9)



Contains
Recycled

TAX CREDIT SUMMARY

Proposed April 1977 Totals:

| | |
|---------------|---------------------|
| Air Quality | \$620,961.00 |
| Water Quality | 60,952.82 |
| Solid Waste | -0- |
| | <u>\$681,913.82</u> |

Calendar Year Totals to Date:
(Excluding April 1977 totals)

| | |
|---------------|---------------------|
| Air Quality | \$ 39,949.01 |
| Water Quality | 792,706.31 |
| Solid Waste | -0- |
| | <u>\$832,655.32</u> |

Total Certificates Awarded (Monetary Values)
Since Beginning of Program (excluding
April 1977 totals):

| | |
|---------------|-------------------------|
| Air Quality | \$ 95,685,551.12 |
| Water Quality | 69,851,673.29 |
| Solid Waste | 12,471,967.79 |
| | <u>\$178,009,192.20</u> |

TAX CREDIT APPLICATIONS

| Applicant/Plant Location | Appl. No. | Facility | Claimed Cost | % Allocable to Pollution Control | Director's Recommendation |
|---|-----------|--|--------------|----------------------------------|---------------------------|
| Georgia-Pacific Corp., Toledo | T-778 | Heavy black liquor oxidation system | \$473,522.00 | 80% or more | Issue |
| Georgia-Pacific Corp., Portland | T-784 | Wood particle collection system | 55,440.00 | 40% or more but less than 60% | Issue |
| Mayflower Farms, Portland | T-856 | Baghouse filter and associated ductwork | 60,089.00 | 80% or more | Issue |
| Bohemia, Inc. Eugene | T-860 | Black top paving of log storage, handling and scaling yard | 473,247.67 | | Deny |
| SWF Plywood, Co. Medford | T-867 | Baghouse to control emissions from wood waste grinder | 21,570.00 | 80% or more | Issue |
| Kaiser Gypsum Co., Inc. St. Helens | T-874 | 2000 gal. collection tank, pump and pipeline | 25,846.00 | 80% or more | Issue |
| Kaiser Gypsum Co., Inc. St. Helens | T-875 | Treated waste water system | 32,025.00 | 80% or more | Issue |
| Tektronix, Inc. Beaverton | T-881 | Waste water flume changes | 3,081.82 | 80% or more | Issue |
| Coast Range Plywood, Inc., McMinnville | T-882 | Secondary scrubber on wood waste cyclone | 10,340.00 | 80% or more | Issue |

State of Oregon
Department of Environmental Quality
Tax Relief Application Review Report

1. Applicant

Georgia-Pacific Corporation
Toledo Division
P. O. Box 580
Toledo, Oregon 97391

The applicant owns and operates an unbleached kraft pulp and paper mill at Toledo, Oregon.

2. Description of Facility

The facility claimed in this application consists of a heavy black liquor oxidation system. The facility costs consist of:

| | |
|---------------------------------------|---------------|
| a. Pumps | \$ 13,967 |
| b. Piping | 127,834 |
| c. De-aerator Agitator | 2,923 |
| d. Oxidation Tank | 174,025 |
| e. Oxidation Blower | 109,435 |
| f. Instrumentation | 29,885 |
| g. Miscellaneous Materials and Labors | <u>15,453</u> |
| | \$473,522 |

The equipment installation is shown on Georgia-Pacific Corporation drawings number D61-291, D61-296, D61-297 and D61-298.

Construction of the claimed facility was started in February, 1973 and was completed in June, 1974. The facility started operation in February, 1974. The plans and specifications for the system were approved by the Department fulfilling the prior approval requirement.

Certification is claimed under current statutes and the percentage claimed for pollution control is 100%.

Facility cost: \$473,522.00 (Accountant's certification was provided).

3. Evaluation of Application

Georgia-Pacific Corporation was required to reduce Total Reduced Sulfur (TRS) emissions from their recovery furnaces by their Air Contaminant Discharge Permit. They accomplished this by installing a new black liquor oxidation system. The black liquor oxidation system converts the sulfides in the black liquor into a compound that will not release the sulfur in the recovery furnace direct contact evaporator and thus produce odorous gases. The system that this facility replaced was not as efficient and had not been claimed for tax credit. The old system is being used as a liquor storage tank and back-up oxidation tower.

Georgia-Pacific Corporation has had problems with the blowers in the claimed facility failing during the past year. They have now installed a number of safeguards that should correct this problem. The claimed facility has reduced TRS emissions by 400 pounds per day.

The operating cost of the claimed facility is greater than the value of the sulfur retained in the pulping chemicals.

The Department concludes that 100% of the cost of this facility is allocable to air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$473,522.00 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-778.

CRC:ds
3/22/77

State of Oregon
Department of Environmental Quality
Tax Relief Application Review Report

1. Applicant

Georgia Pacific Corporation
900 S.W. Fifth Avenue
Portland, Oregon 97204

The applicant owns and operates a plywood plant in Toledo, Oregon.

2. Description of Claimed Facility

The facility is a wood particle collection system installed to collect small wood fibers formerly exhausted from veneer dryer feeders and veneer stackers to the outside air. It consists of:

| | |
|---------------------------------------|-------------|
| a. Cyclone, ductwork, related items | \$34,833.64 |
| b. Tower for cyclone and fan | 15,376.36 |
| c. Blower fan, 150 hp motor, controls | 5,230.00 |

The project was begun in April 1973 and completed and placed in operation in October 1974. Preliminary certification and prior approval for tax credit was not obtained but is not required for projects begun before October 5, 1973.

Georgia Pacific claims 100% of the cost for air pollution control under current statutes.

Facility costs: \$55,440 (accountants' certification was provided).

3. Evaluation of Application

The exhausts of the veneer dryer feeders and veneer stackers, i.e. suction cups used to pick up the sheets of veneer, emit 1/2 unit of wood fines per day by Georgia-Pacific's estimation. Much of the wood fiber emitted fell back onto Georgia Pacific's roof. From there it was being washed by rain into the gutters and out into the Yaquina River. It there contributed to a water pollution problem. Oyster growers in Yaquina Bay have complained about wood fiber bothering their oysters. The particles too small to fall out on the plant's premises would drift on into the town.

The cyclone installed by Georgia Pacific is not a high efficiency cyclone. Therefore a considerable portion of fines will continue being suspended into the air and continue leaving the premises. If the cyclone is 80% efficient, 6 lb/hr will remain being emitted into the air, while 25 lb/hr will be captured for fuel. The project was not submitted to the Department for approval as required by OAR 340-20-020 and -025(a) for air pollution control equipment.

The Department considered the mill in compliance with its 35 lb/hr cyclone emission limit both before and after the claimed project was installed. The value of the fuel reclaimed is more than offset by the operating costs of the system.

In summary, the project was an effort by Georgia-Pacific to both reduce air and water pollution and to improve the housekeeping (lessening clean-up and maintenance costs) at their plant.

It is concluded the costs of the project can be allocated half to air and water pollution control and half to clean up savings and reclaimed fuel.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$55,440 with 40% or more but less than 60% allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-784.

PBB:lb

State of Oregon
Department of Environmental Quality

Tax Relief Application Review Report

1. Applicant

Mayflower Farms
2720 S. E. Sixth Avenue
Portland, Oregon 97202

The applicant owns and operates a feed mill in Portland, Oregon.

2. Description of Facility

The facility claimed in this application consists of a baghouse filter and associated ductwork which is used to control particulate emissions from the rolled grain cooler, the Eureka cleaning system and the receiving area dust collection system. The facility cost consist of:

| | |
|----------------------------|-------------|
| a. Baghouse filter | \$15,779.58 |
| b. Screw conveyor | 968.27 |
| c. Fan | 1,770.80 |
| d. Electrical | 4,012.78 |
| e. Steel | 4,611.75 |
| f. Miscellaneous materials | 2,176.35 |
| g. Labor | 30,769.50 |

Construction of the claimed facility was started in February, 1975 and completed in May, 1975. The facility was also placed in operation May, 1975. A "Notice of Construction and Application for Approval" was filed and approval was granted by the Department on January 6, 1975. Preliminary certification for tax credit was not required by the statute in effect at the date of installation of the claimed facility. The claimed facility is shown on American Sheet Metal, Inc. drawing No. E-2123.

Certification is claimed under current statutes and the percentage claimed for pollution control is 100%.

Facility cost: \$60,089.00 (Accountant's certification was provided).

3. Evaluation of Application

Mayflower Farms was required to reduce particulate emissions from their rolled grain cooler, the Eureka cleaning system and the receiving area dust collection system by the Columbia-Willamette Air Pollution Authority. This was accomplished by installing the claimed baghouse.

The claimed facility has been inspected and has been found to be operating satisfactorily.

The operating cost of the claimed facility is greater than the value of the material recovered. It is concluded that 100% of the cost of this facility is allocable to air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$60,089.00 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit No. T-849.

CRC:ds
3/15/77

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Bohemia, Inc.
P. O. Box 1819
Eugene, Oregon 97401

The applicant owns and operates a veneer and lumber mill and a bark extraction plant at Coburg in Lane County, Oregon.

2. Description of Facility

The facility claimed in this application consists of 600,000 sq. ft. of black top paving over the plant log storage, handling and scaling yard.

The construction of claimed facility started in July 1976 and was completed in November 1976.

Certification is claimed under the 1973 Act as amended in 1975 with 100% of the cost allocated to pollution control for utilization of solid waste.

Facility costs: \$473,247.67 (accountant's certification was attached to application).

3. Evaluation of Application

Bohemia, Inc. submitted a Request for Preliminary Certification for Tax Credit to the Department, which was approved on July 2, 1976.

Tax credits have been granted for paving log yards which generated airborne dust, for elimination of air contaminants sources. The approval of this tax credit would set a precedent of approving paving log yards for utilization of materials which can be recovered from paved areas. The Department did not require paving of the Bohemia log yard, but such activity is environmentally desirable and is an asset to solid waste management.

Prior to the paving of the Bohemia's Coburg plant log yard, approximately 6,000 tons per year of wood waste, mud and rock was landfilled. The paving eliminated the mud problem, dust emissions and landfill disposal of solid waste. The clean recoverable portion of the waste is now picked up off the yard and fed into the Bohemia's wood products utilization facility, to be utilized as raw bark for the bark extraction plant or hog fuel. The value of the recovered bark as stated in the application is \$12,000 per year. Savings from eliminating of solid waste disposal are approximately \$12,000 per year.

In addition to utilization of solid waste, the claimed facility conserves fuel and the company benefits from higher equipment efficiency and significantly lower maintenance costs. These savings cannot be exactly quantified, but the Department staff estimates that the savings are approximately \$100,000 - 150,000 annually. (The data for computation were supplied by the Company and by The Asphalt Institute).

In conclusion the claimed facility eliminated generation of 6,000 tons per year of solid waste, mud problems and dust emissions but the economic value of recovered solid wastes (\$24,000 annually) is relatively small if compared with the company benefits from higher equipment efficiency and lower maintenance costs (return on investment approximately 20-30%). Considering the return on investment related to the lower maintenance and operational costs vs. return on investment related to solid waste utilization (approximately 5%), it appears that the substantial purpose of the construction was not pollution control but rather operational savings.

The Department concludes that the claimed facility does not meet the requirements of ORS 468.165(1)(b) and is therefore not eligible for certification.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate be denied pursuant to ORS 468.170(2) for the claimed facility in application T860.

MS:mm

State of Oregon
Department of Environmental Quality
Tax Relief Application Review Report

1. Applicant

1. SWF Plywood Co.
PO Box 820
Medford, Oregon 97501

The applicant operates a plywood plant in Medford, Oregon.

2. Description of Claimed Facility

The facility claimed in this application consists of a baghouse to control emissions from a wood-waste grinder and to protect previously certified emission control equipment from fire. The facility costs consist of:

- | | |
|---|----------|
| a. 15-20 Clark Pneu-Aire Filter | \$19,323 |
| b. Fan revision and miscellaneous items | 2,247 |

Construction of the claimed facility began on 12/2/76. Construction was completed and operation began on 12/9/76. A request for Construction Approval and Preliminary Certification was approved by the Department on 11/29/76.

Certification is claimed under current statutes and the percentage claimed for pollution control is 100%.

Facility Costs: \$21,570 (accountant's certification provided).

3. Evaluation of Application

The Department previously approved for construction and tax credit (T-752 and NC 252) the installation of a Carter-Day baghouse to control emissions from the hog, sander and saw. The facility claimed in this application now controls emissions from the hog while the Carter-Day baghouse controls emissions from the sander and saw only. This change was made in an attempt to protect the larger Carter-Day baghouse from fire.

The claimed baghouse will handle the emissions from the wood waste hog after a primary separator. These emissions were formerly vented to the Carter-Day baghouse and were believed to be the source of sparks which caused extensive damage to the Carter-Day baghouse. Should another fire occur as a result of sparks from the hog, the Carter-Day baghouse which collects sanderdust and sawdust will not be damaged and will continue to perform its air pollution control function.

The operating and maintenance costs of the claimed facility are greater than any value the collected materials might have.

The claimed facility is determined to be an addition to and improvement of a device that has the substantial purpose of air pollution control and 100% of the cost of the facility is allocable to air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$21,570.00 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-867.

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY
TAX RELIEF APPLICATION REVIEW REPORT1. Applicant

Kaiser Gypsum Company, Inc.
Kaiser Center - 300 Lakeside Drive
Oakland, California 94604

The applicant owns and operates a wood fiber insulation board manufacturing plant in St. Helens, Oregon.

2. Description of Claimed Facility

The claimed facility consists of a 2,000 gallon collection tank, pump and 1,200 feet of treated effluent pipe line (6 inch) to a submerged discharge point located at the plant's dockside on Scappoose Bay.

The claimed facility was completed and placed into operation in January 1977. Certification is claimed with 100% of the cost allocated to pollution control.

Facility Cost: \$25,846 (Accountant's certification was submitted with the application)

3. Evaluation of the Application

Facility installation was made in accordance with a condition of Kaiser's NPDES Waste Discharge Permit.

Effluent waters now being discharged directly into Scappoose Bay are better dispersed to the Bay, cause less flushing action and are not subject to tidal action.

Plans for this facility were submitted by the applicant and approved by DEQ letter of September 7, 1976 and plan approval and preliminary certification for tax credit, Form TC3, November 10, 1976.

There is no income to be derived from this facility so the only benefits are in pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate be issued for the facility claimed in T-874, such certificate to bear the actual cost of \$25,846, with 80% or more of the cost allocable to pollution control.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Kaiser Gypsum Company, Inc.
Kaiser Center - 300 Lakeside Drive
Oakland, California 94606

The applicant owns and operates a wood fiber insulation board manufacturing plant in St. Helens, Oregon.

2. Description of Claimed Facility

The claimed facility is a treated waste water system to recycle water back to tolerant plant processes. The facility consists of a reinforced concrete collection holding tank and supply flume. Treated water from the holding tank is pumped by two 25 H.P. motor driven centrifugal pumps through a 6-inch pipeline to a recycle tank and distribution system in the plant.

The claimed facility was completed in January 1976 but phased into operation as early as Mid-1975. Certification is claimed with 100% of the cost allocated to pollution control.

Facility Cost: \$32,025. (Accountant's certification was attached to the application).

3. Evaluation of the Application

Prior to this installation 500,000 to 600,000 gallons treated waste per day was discharged into Scappoose Slough. This has been reduced to 100,000 to 150,000 gallons per day. The difference is recycled back to plant process water by the claimed facility.

Plans were submitted by the applicant and approved by DEQ letter of August 19, 1975.

Applicant states no profit nor savings result from this project.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate be issued for the facility claimed in Application T-875, such certificate to bear the actual cost of \$32,025, with 80% or more allocable to pollution control.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Tektronix, Inc.
P. O. Box 500
Beaverton, OR 97077

The applicant owns and operates an industrial complex in Beaverton, manufacturing electronic equipment, oscilloscopes, information display and television products.

2. Description of Claimed Facility

The claimed facility consists of waste water flume changes to provide holding capacity in the event of spill or the necessity for recirculation through treatment.

The claimed facility was completed and placed in operation March 4, 1977. Certification is claimed with 100% of the cost allocated to pollution control.

Facility Cost: \$3,081.82 (statements for project cost were attached to the application).

3. Evaluation of the Application

The benefits of this facility are in spill control by insuring treatment at a controlled rate without accidental discharge of pollutants to the stream.

A preliminary Certification for Tax Credit and Plan Approval was issued by the DEQ for the claimed facility 1/28/77.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate be issued for the claimed facility in Application T-881, such certificate to bear the actual cost of \$3,081.82 with 80% or more allocable to pollution control.

WDL:em
March 24, 1977

State of Oregon
Department of Environmental Quality
Tax Relief Application Review Report

1. Applicant

Coast Range Plywood, Inc.
PO Box 538
McMinnville, Oregon 97128

The applicant operates a plywood manufacturing facility in McMinnville.

2. Description of Facility

The facility claimed in this application consists of a secondary scrubber on the wood waste cyclone. The facility costs consist of:

| | |
|----------------------------|-----------|
| a. Blowpipe | \$2646.68 |
| b. Motor, pumps & plumbing | 1443.36 |
| c. Steel framing | 3237.38 |
| d. Canvas | 337.50 |
| e. Noise deflector | 244.85 |
| f. Labor | 2430.00 |

Construction of the claimed facility was started in July 1976. The facility was completed and placed in operation in September 1976. A request for construction approval and preliminary certification for tax credit was approved by the Department on June 23, 1976.

Certification is claimed under current statutes and the percentage claimed for pollution control is 100%.

Facility costs: \$10,340 (accountant's certification was provided).

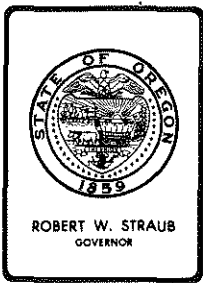
3. Evaluation of Application

The claimed facility has been installed to control emissions from the wood waste handling cyclone. The scrubber consists of a steel frame with canvas walls. The emissions from the cyclone are ducted to the scrubber through water sprays where the dust and water are separated from the air as it flows through the canvas.

This facility has been inspected by the Department and is now operating in compliance with Department regulations. The materials collected have no value. It is concluded that 100% of the cost of this facility is allocable to air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the the cost of \$10,340 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-882.



Environmental Quality Commission

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission
From: Director
Subject: Agenda Item No. D, April 22, 1977, EQC Meeting

Issuance of a Revised Proposed Permit Regarding Martin Marietta's Requested Change in its Air Pollution Control System

Background

After public informational hearings in October and November of 1976, and a hearing on a proposed permit in December 1976, the Department presented a revised proposed permit to the EQC on January 14, 1977 with a recommendation for issuance (attachment B includes staff report and proposed revised permit). At that meeting, Martin Marietta (MM) requested the EQC to defer action on this matter for at least one month. The reasons cited were the recent EPA ruling requiring installation of a 70% efficient SO₂ scrubber (similar requirements proposed in the Department's permit), and the changing costs of equipment during the nearly one year of time from application for a permit. MM indicated these factors necessitated a complete reevaluation of costs and alternatives.

On April 7, 1977, MM notified the Department (attachment C) that if the Commission required SO₂ controls, they would, for a variety of reasons, be willing to accept a permit basically similar to the one proposed January 14, 1977 by the Department.

Proposed Permit

MM, in their letter of April 7, 1977, requested some changes in the Department's proposed permit of January 14, 1977. The Department agrees with most of the requests and has drafted a revised proposed permit (attachment A).

Condition 1.a.(1) incorporated qualifying conditions to the 70% SO₂ control requirement. These qualifications recognize that if lower than expected SO₂ exhaust concentrations occur, guaranteeing 70% collection efficiency becomes questionable from a technical standpoint. In any event, condition 2.d. would still require plant site SO₂ emissions to be kept to a level equivalent to the design requirements.



Contains
Recycled

MM has requested that monitoring of sulfur contents in vegetation not be required. They indicate this would not distinguish between sulfur taken up from the soil through plant root systems and sulfur dioxide absorbed from the atmosphere. MM indicates that required ambient SO₂ monitoring should adequately describe the sulfur impact on vegetation. The Department agrees with this position.

MM has also requested that the requirement to monitor sub-micron sulfate particulate be deleted. They feel it serves no useful purpose and would be costly. The Department does not agree with this position.

Visibility in The Dalles area is of great concern to local citizens. Sub-micron sulfate particulate sampling will give some indication as to the relative contribution of SO₂ emissions and their subsequent sulfate particulate formation to the airshed visibility problem. In other words, it will produce needed baseline data. Such sampling will also provide a measure of change in impact if Martin Marietta doubles their SO₂ emissions as allowed by the proposed permit. Cost of a three site sampling program is estimated at \$4,000 for equipment and \$1,000 per year for analysis.

Martin Marietta has indicated they will install the SO₂ scrubbers concurrent with installation of the dry scrubbers, if the Commission requires it. The Department's January 14, 1977 staff report concluded that this should be a requirement to comply with the Department's Highest and Best Practicable Treatment and Control Rule.

MM has indicated it will take 18 months to install the dry scrubber and that the SO₂ control can be installed in the last six months of this period. MM has further indicated they will still pursue litigation on the EPA ruling. The Department believes that progress reports should be required of MM to insure that orderly and timely progress is made towards installation of the SO₂ scrubber in time to be operational with startup of the dry scrubber. Permit condition 1.a.(1) has been modified to include such a requirement.

Conclusions

1. MM has indicated willingness to accept a permit which would allow replacement of its wet primary air pollution control system with the dry scrubber and SO₂ control requirement.
2. The Department believes its Highest and Best Practicable Treatment and Control Rule requires MM to maintain its present SO₂ collection efficiency of the primary air pollution control system if it chooses to replace the existing wet scrubber with a new dry scrubber.

Director's Recommendation

It is the Director's recommendation that the attached revised proposed permit (attachment A) be issued.

Bill

WILLIAM H. YOUNG
Director

JFK:cs
4/11/77

Attachments

- A. Proposed Permit
- B. January 14, 1977 Department Report
- C. MM letter of 4/7/77

AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
1234 S.W. Morrison Street
Portland, Oregon 97205
Telephone: (503) 229-5696
Issued in accordance with the provisions of
ORS 468.310

| <p>ISSUED TO: Martin Marietta Aluminum, Inc. PO Box 711 The Dalles, Oregon 97058</p> <p>PLANT SITE: Martin Marietta Aluminum, Inc. 3303 W. Second Street The Dalles, Oregon 97058</p> <p>ISSUED BY DEPARTMENT OF ENVIRONMENTAL QUALITY</p> <p>_____ WILLIAM H. YOUNG Director</p> <p>_____ Date</p> | <p>REFERENCE INFORMATION</p> <p>Application No. 0817</p> <p>Date Received 4/17/76</p> <p>Other Air Contaminant Sources at this Site:</p> <table border="1"><thead><tr><th>Source</th><th>SIC</th><th>Permit No.</th></tr></thead><tbody><tr><td>(1) _____</td><td>_____</td><td>_____</td></tr><tr><td>(2) _____</td><td>_____</td><td>_____</td></tr></tbody></table> | Source | SIC | Permit No. | (1) _____ | _____ | _____ | (2) _____ | _____ | _____ |
|--|---|------------|-----|------------|-----------|-------|-------|-----------|-------|-------|
| Source | SIC | Permit No. | | | | | | | | |
| (1) _____ | _____ | _____ | | | | | | | | |
| (2) _____ | _____ | _____ | | | | | | | | |

ADDENDUM NO. 1

In accordance with OAR, Chapter 340, Section 14-040, Air Contaminant Discharge Permit Number 33-0001 is modified.

Condition No. 1 is modified to read as follows:

- a. Subject to review and approval of detailed plans and specifications the permittee may replace its wet ESP primary air pollution control system with a dry filter system provided sulfur dioxide control is applied after the dry filter which meets the following requirement:

- 1) 70% SO₂ removal or equivalent treatment at inlet concentrations higher than 250 ppm SO₂ or an exhaust concentration no greater than 70 ppm SO₂ at inlet concentrations less than 250 ppm.

Progress reports shall be submitted to the Department on a quarterly basis which describe efforts towards installation of SO₂ control. Reporting shall begin on July 1, 1977.

Condition 2 is modified by addition of a new subsection d.

- d. Notwithstanding specifications in 1.a.1), upon operation of the dry filter system the total sulfur dioxide emissions from all sources shall not exceed 10.3 kg/ton (22.8 pounds/ton of aluminum produced) as an annual average and 11.0 kg/ton (24.4 pounds/ton of aluminum produced) as a monthly average.

Condition 4 is modified to read as follows:

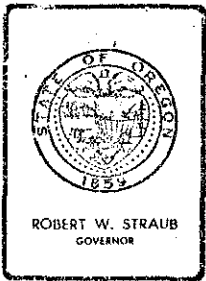
4. The permittee shall conduct an approved monitoring program which shall include:
 - a. Prescheduled plant wide emission testing for gaseous fluoride, particulate fluoride, total particulate and sulfur dioxide.
 - b. Measuring ambient air gaseous fluoride, particulate fluoride, suspended particulate, particle fallout, sulfur dioxide, submicron sulfate particulate and wind speed and direction.

Condition 5 is modified to include the following paragraph:

Details of the additions to the monitoring program required by this Addendum shall be submitted no later than July 1, 1977 for review and approval by the Department.

Condition 6 regarding monitoring and reporting is modified by modification of 6.c.), and addition of 6.d.4) as follows:

| <u>Parameter</u> | <u>Minimum Monitoring Frequency</u> |
|---|--|
| c. Primary potroom control system emissions | |
| 1) Total particulates | Three times per month with prior notice to the Department. |
| 2) Fluoride particulates | Same as above. |
| 3) Fluoride gases | Same as above. |
| d. 4) Sulfur dioxide | Three times per month or once per line per month whichever is greater with prior notice to the Department. |



Environmental Quality Commission

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

MEMORANDUM

TO: Environmental Quality Commission

FROM: Director

Subject: Agenda Item F, January 14, 1977, EQC Meeting

Revised Proposed Permit Regarding Martin Marietta Requested Change in Air Pollution Control System

Public Informational Hearings were held before the Environmental Quality Commission (EQC) on October 15 and November 19, 1976, to gather information and narrow issues regarding Martin Marietta's (MM) request to replace its wet primary air pollution control system with a dry scrubber. Through these hearings and testimony received subsequent to them, the Department identified that a possible fourfold increase in plant-site SO₂ emissions could occur (from present levels of approximately 500 tons/year). The Department ultimately narrowed the issue regarding the proposal to a determination of what, if any, SO₂ control should be imposed after the dry scrubber in light of the requirements of the Department's Highest and Best Practicable Treatment and Control Rule (H&BPT&C) (OAR 20-001).

Based on information received as a result of these hearings the Department concluded that:

1. An SO₂ scrubber with a collection efficiency of up to 95% could be designed for MM's proposed primary control system.
2. The minimum expected performance of an SO₂ scrubber was 70% efficiency (performance of present wet system at MM).
3. Projected costs of a 95% efficient SO₂ scrubber would not cause major damage to MM's competitive condition.

As a result of these conclusions the Department prepared and proposed a permit for MM on November 26, 1976 which would require SO₂ control to be applied after the dry scrubber which would meet the following requirements:

1. 95% SO₂ removal or equivalent treatment as a design condition.



Contains
Recycled
Materials

2. 70% SO₂ removal or equivalent treatment as a minimum operating condition.
3. Not exceed a maximum plant site SO₂ emission rate of 22.8 #/ton of aluminum as an annual average and 24.4 #/ton of aluminum as a monthly average.

Attachment 1 presents the proposed permit and further details of the basis for it.

Summary of December 9, 1976 Public Hearing Testimony

A public hearing was held on December 9, 1976 before the Department's hearings officer to receive testimony on the proposed permit. Details of the testimony are presented in the Hearings Officer's report. MM's testimony in essence claimed there would be no environmental benefit from application of SO₂ control after the dry scrubber and that by requiring such control the Department was discriminating in comparison to treatment recently given to a similar project by the Reynolds Metals Co. MM's testimony at this hearing was very extensive but MM's attorney in summing up at the end of the testimony stated he didn't think that anything was put into the record that was news to the staff. After review of this record the Department generally agrees with this statement with the exception of the economic analysis presented by CH2M/Hill. Generally the rest of MM's testimony had been presented to the EQC at previous hearings and responded to by the Department in previous hearings reports. There were some clarification statements made by several MM representatives that are worthy of summarizing which are in support of previous Department conclusions.

Dr. Leonard H. Weinstein of the Boyce Thompson Institute for Plant Research, a leading plant physiologist, stated he knew of no information on the effects to sweet cherries of any combination of air pollutants (synergistic effects from the presence of SO₂ and fluorides or SO₂ and ozone, etc.).

Mr. I. S. Shah, a leading consultant in SO₂ emission control, indicated that taking into account the emission parameters of the MM facility, 85% SO₂ control is practical technology to apply (he inferred that this has been demonstrated at Nevada Power and Light). He also did not offer anything technically wrong with Research Cottrell's proposal to MM for a 95% efficient SO₂ control system.

Mr. Werner Furth of MM's Environmental Technology Center and author of the air impact modeling study for the MM's The Dalles plant indicated despite the many uncertainties, qualifications and different approaches in modeling that his calculations show that a 70% efficient SO₂ scrubber would start being superior to the dry scrubber (in air quality impact) somewhere on the order of 4 Kilometers or more from the plant (in the heart of the orchards).

New economic information or at least a new perspective on the economic impact of requiring a 95% efficient SO₂ scrubber was presented by Mr. F. R. Lanou of CH2M/Hill. This analysis indicated requirement of a 95% efficient SO₂ scrubber after the dry scrubber would result in a less profitable condition for the company than with their present system. This was in direct contrast to the Department's analysis of previous economic information submitted by MM and has caused the Department to reevaluate the economic implication and practicality of requiring installation of a 95% efficient SO₂ scrubber.

Re-evaluation of Department's Position on H&BPT&C

The Department had concluded by the November 19, 1976 hearing that in relation to meeting requirements of the Department's HBPT&C Rule, SO₂ control technology existed to reach 70% to 95% efficiency when applied after MM's proposed primary dry scrubber. The issue of whether this control was economically practical remained as the final point to resolve before making a recommendation on this matter.

In investigating the financial condition of MM, EPA Region X's economist, Mr. Robert L. Coughlin, in his November 11, 1976, report (attached to Nov. 19, 1976 Department report to the EQC) concluded that MM's financial condition is good with respect to other aluminum producers. In fact, he indicated MM out-performed the big four (Alcan, Alcoa, Kaiser, Reynolds) in all three indicators of profitability in 1974, a record profit year, and 1975, a recessionary year. He further concluded that MM could afford to install a 95% efficient SO₂ scrubber without major damage to its competitive condition.

Despite Mr. Coughlin's analysis the Department recognized that MM wished to install the dry scrubber to a large extent to further increase its profitability (by recovery of valuable fluoride). In evaluating the economic practicality of requiring installation of the scrubber the Department believed it should not impose a requirement which would overwhelmingly hinder the potential profitability of the proposed investment. The Department, therefore, analyzed the profitability of the nearly \$10 million investment for the pollution control systems (\$6 million dry scrubber and up to \$4 million for an SO₂ scrubber). MM's "bottom line" cash flow analyses (attached to November 19, 1976 Department report to the EQC) was interpreted by the Department to mean that of the potential \$1.5 million annual economic benefit of replacing the present wet primary scrubber with a dry scrubber, MM would lose roughly \$500,000 or 1/3 of it if the 95% efficient SO₂ scrubber was installed. Considering the environmental benefits and present economic stature of MM the Department concluded this was not an overwhelming economic burden or threat to potential profitability of the large capital investment. This interpretation formed the basis for the Department's conclusions and ultimate recommended permit of November 27, 1976.

CH2M/Hill's economic analysis presented at the December 9 hearing (attachment 2) indicated that, instead of the dry scrubber plus SO₂ scrubber being nearly \$1 million more profitable annually than the present system, it would, in fact, be less profitable, based on percentage reduction of net income.

Further analysis of the economics of this issue by the Department and by Mr. Coughlin concluded that MM's original analysis based on cash flow had not taken into account recovery of the large capital investment. In fact, depreciation was included when calculating annualized costs and then subtracted out as a tax credit when calculating cash flow.

Another perspective of the economic impact was developed by Mr. Coughlin by looking at rate of return on capital investment. Mr. Coughlin's calculations show that for the \$6.2 million capital investment of the dry scrubber, the rate of return would be 27.8%. By addition of a \$4 million 95% SO₂ scrubber and its associated operating costs, the rate of return (on a \$10 million investment) would drop to 3.3%.

Based on this information, it now appears the requirement of the 95% efficiency scrubber would essentially destroy the potential profitability of the large capital investment. For the Department to require such an expenditure with such a low rate of return on a project not required to comply with air quality emission limits or air quality standards would have to be considered not meeting the "practicable" requirement of the Department's H&BPT&C Rule.

While the Department now concludes that a \$4 million 95% SO₂ scrubber would not represent H&BPT&C for MM because it would force an impracticable use of a large capital investment, the Department's prior position on this issue which tentatively concluded that the present scrubbing system efficiency for SO₂ (70% efficient) represents H&BPT&C (October 15, 1976 Department report to the EQC) must be evaluated.

MM's present wet primary system meets Department particulate and fluoride emission limits and controls SO₂ with a 70% efficiency. From an overall air emission standpoint it can be considered best demonstrated treatment. From an economic standpoint it does have a high operating cost, does not recover valuable fluorides and has a non-complying waste water discharge. However, even with this system MM has maintained a very profitable operation while in competition with other Northwest companies, most of which had already installed dry scrubbers (in many cases as a necessity to meet air emission limits. In fact, many of the Northwest aluminum plants were operating dry scrubbers during the years 1974-1975 that Mr. Coughlin's economic analysis shows MM out-performed them in profitability.

While MM's proposed dry scrubber does offer the benefit over the present wet scrubber of eliminating the waste water stream, there are means of treating the present waste water through recycling at relatively minimal costs (Approximately \$500,000).

The Department therefore concludes that for the type of process MM employs (vertical Stud Soderberg) a 70% SO₂ collection efficiency for the primary control system represents H&BPT&C. Given this conclusion, if MM chose to keep its present system, it would not suffer major damage to its competitive conditions (see Coughlin's analysis) and it would not be forced to invest \$10 million capital and receive a 3% rate of return which would be the case with the Department's original proposed permit.

With the above determination of H&BPT&C, MM would still likely have more attractive options than keeping the present control system. They could install the dry scrubber and use less costly means of achieving an equivalent 70% SO₂ collection efficiency. For instance at the lower SO₂ efficiency (lower than the 95% originally proposed), simpler, less costly SO₂ scrubber options become available such as the once-through caustic unit analyzed by EPA. Alternatives of treating part of the exhaust gas through the existing 50% efficient secondary roof scrubbing system and applying higher treatment to the remaining gases to maintain the current 70% efficiency are also possible. These alternatives as far as can be seen would not cause any significantly greater water or solid waste problem than just allowing installation of the dry scrubber.

If equivalent 70% efficient SO₂ control costs could be kept to about \$1.5 million (which has been calculated as possible by EPA Region X), then a dry scrubber and SO₂ scrubber installation could still result in about a 12% rate of return on investment. A rate of return of even up to 16% may be possible by partial treatment of the air flow by the existing secondary scrubber and application of an 85% SO₂ scrubber on just 50% of the total system air flow. See Table 1 for a comparison of potential alternatives and their estimated impacts on investments.

With a 70% SO₂ efficiency requirement for the primary system and with coke sulfur content expected to rise to 3% the plant site SO₂ emission limits originally contained in the proposed permit would still apply. A revised proposed permit has been prepared on this basis (See attachment 3).

Response to Other Issues of Significant Air Quality Benefit of SO₂ Scrubber

With well over 100 written citizens comments on this issue and other lengthy testimony at hearings, and numerous public complaints, it is clear the general public of The Dalles feels the airshed is already overloaded with air pollutants.

Because of previous crop damages and lack of synergistic damage effects information and with further imminent industrial growth in the area (1000+ citizens wrote the State of Washington about Western Zirconium) local people generally pleaded for the Department to minimize impact from the MM project as much as possible.

The Department firmly believes there would be some measurable air quality benefits from maintaining a 70% SO₂ control efficiency on MM's primary air pollution control system in comparison to allowing installation of just the dry scrubber. These benefits are:

1. Plant site SO₂ air emissions essentially would not increase over present levels if coke sulfur content remains the same and would not increase by more than a factor of two in comparison to possibly quadrupling with installation of a dry scrubber alone if sulfur content rose to the expected 3% level.
2. SO₂ air quality degradation would be measurably minimized to the greatest extent possible in the critical orchard areas.
3. Area visibility reduction on poor air quality days (stagnation) would be measurably minimized to the greatest extent possible.

In regard to minimizing air quality deterioration, it is true that a 70% efficiency SO₂ scrubber would cause a greater calculated impact than just the dry scrubber in the near vicinity of the plant site. However, MM's modeling expert agrees that the scrubber would produce less of an impact in the orchards. Since no adverse effects to health and welfare would be expected in the vicinity of the plant site at even the highest SO₂ levels projected and since there is great concern about adverse effects in the local orchards and in fact an admitted lack of research data to positively assure of no synergistic effects (of increased SO₂ levels in combination with other air pollutants) the Department concludes that given a choice, SO₂ air quality deterioration should be minimized to the maximum extent possible in the orchard area and not in the vicinity of the plant site. This minimization should be measurable as portrayed in the Department's October 15, 1976 Report to the EQC.

In regard to visibility degradation, MM has indicated water vapor from an SO₂ scrubber would be detrimental. Actually most people recognize and do not complain about naturally foggy conditions. Therefore, water vapor has not been considered an adverse air pollution source, particularly with high natural water background. Most people do recognize and complain about brownish haze from air pollution which is predominantly reflected by suspended particles (which are not water droplets). It is true, for instance, an SO₂ scrubber after a dry scrubber would result in a greater water vapor emission from the plant site. This increase is negligible though. MM's existing secondary scrubbers emit 25,000 #water/ton of aluminum and a primary wet scrubber would add approximately 4% more. This additional water would have even less impact on an airshed visibility reduction by water vapor considering water vapor emissions from other sources including The Dalles Dam spillways. There would be times when a short steam plume would be observed from such a scrubber but this would be no greater than the plumes from the present wet scrubbing system and no visibility loss complaints have been registered about them.

On the other hand MM represents the majority of the airshed SO₂ emissions. From an airshed standpoint SO₂ emissions could nearly double from the level proposed by the Department if MM did not maintain 70% SO₂ efficiency of its primary system. The Department has previously pointed out (November 19, 1976 Department Report to EQC) that estimated conservatively, SO₂ conversion to sulfate particulate from this additional SO₂ in The Dalles airshed could measurably increase area particulate levels and reduce local visibility in the order of 10% on bad air pollution days (high particulate levels).

Question of Discriminatory Treatment in Comparison to Reynolds Metals

Martin Marietta has charged that it would be discriminatory against them if SO₂ control is required after a dry scrubber when no such control was required of Reynolds Metals.

The Department maintains that a dry scrubber in conjunction with a 150' tall stack correctly reflects application of H&BPT&C for primary cell emissions from a pre-bake type aluminum reduction plant such as Reynolds; and, in fact, such equipment minimizes air quality impact to the greatest extent practicable.

A table comparing relevant data on the two plants is shown below.

| <u>Comparison of Reynolds and Martin Marietta</u> | | |
|---|-----------------|---|
| <u>Primary Cell Emission Control Systems</u> | | |
| | <u>Reynolds</u> | <u>Martin Marietta</u> |
| Production Capacity | 130,000 T/y | 90,000 T/y |
| Process | Pre-Bake | Vertical Stud Soderbur |
| Primary Cell Air Volume | 2,000,000 cfm | 100,000 cfm |
| Cost of Primary Dry Scrubber | \$25,000,000 | 6,000,000 |
| Cost of Medium efficiency (50%) SO ₂ Scrubber after dry scrubber | \$6,000,000 | Unknown (possibly negligible if ducted to existing secondary) |
| Cost of High Efficiency (95%) SO ₂ | \$80,000,000 | \$1-4,000,000 |

From this table it is obvious that the plants are of similar production rate yet because of the difference in process Reynolds has vastly greater air flows and faces vastly greater costs for air pollution control of its primary system.

In determining H&BPT&C for Reynolds the \$6,000,000 medium efficiency SO₂ scrubber was rejected in favor of a \$1,000,000 tall stack when it was clearly shown the stack would produce less ground level impact.

The high efficiency SO₂ scrubber which might have further reduced SO₂ air quality impact was not very seriously considered for Reynolds because it was obviously impractical because of its astronomical costs.

Once it was determined that control equipment representing H&BPT&C for Reynolds consisted of a dry scrubber and tall stack based on economics and minimization of air quality impact, an SO₂ emission limit was established based on the maximum anticipated coke sulfur content from Reynolds suppliers. This is exactly the same procedure being followed for Martin Marietta.

Although the Reynolds SO₂ emission limit is relatively higher than any proposed for MM, the Reynolds plant configuration (tall stack), and location (on and near relatively flat terrain and in line with the Columbia River gorge which provides excellent ventilation) create a condition of minimizing air quality impact to the greatest extent practicable. In contrast MM is located in a tightly confined bowl of surrounding mountains and off line (probably in a back eddy) of the Columbia River gorge ventilation path. These facts imply that a lower emission rate for MM as compared to Reynolds can actually cause greater impact. This fact is borne out by particulate air sampling data which indicates that particulate air quality is at least twice as clean around the Reynolds plant as compared to around the MM plant despite a nearly threefold greater particulate emission rate from Reynolds in comparison to MM. Thus a lower SO₂ emission rate for MM can be supported from this aspect.

Greater Stringency of Control

Comments have been made about the economic inequity MM would face in the aluminum industry if it were to have to install SO₂ control while other companies would not.

In fact, this type of economic inequity is widely accepted in the field of environmental control nationally and in the State of Oregon for new or modified sources as a means of improving environmental quality and making room for continued growth.

As an example, the Federal New Source Performance Standards require tighter standards for many new or modified major industrial plants such as power plants, oil refineries and steel mills. These facilities must accept and are accepting greater environmental control costs as part of business in comparison to their existing competitors.

In Oregon, the Department has many more stringent standards for new or modified sources. A case in point is the aluminum plant regulation which required a new facility such as Alumax to install primary and secondary pollution control equipment in order to meet a more stringent standard. No other existing pre-bake aluminum plant in the country would have to meet such requirements or substantial costs. Also Department general emission standards for visible and particulate emission concentrations are twice as stringent for all new or modified sources.

Tall Stack Options

There has been some question of whether a tall stack in lieu of an SO₂ scrubber would be a feasible alternative. The Department does not believe a tall enough stack could be practicably engineered to penetrate The Dalles normal inversion levels and allow the dry scrubber to perform better than the addition of an SO₂ scrubber under stagnant conditions (in terms of minimizing visibility degradation and impact in the orchards). A taller stack on an SO₂ scrubber, however, could lessen the portion of the Federal Prevention of Significant Deterioration (PSD) increment that would be used and should be kept in mind as a trade off in the future if PSD appears to adversely hinder future growth in the area.

Further Area Studies

There are significant concerns and some unknowns about the impact of MM air emissions on local orchards and on The Dalles air shed in general. With MM potentially increasing its SO₂ emissions and with other new industries looking at The Dalles area as a desirable location, further studies of the airshed should be conducted and MM should be an active participant. No specific studies are planned in the near future because of lack of resources, however.

Conclusions

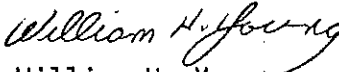
1. A 95% efficient SO₂ scrubber after MM's proposed dry scrubber would be economically impractical because it would reduce the rate of return on a multi-million dollar investment from approximately 28% to 3%.
2. Maintaining the present 70% SO₂ collection efficiency of the MM's primary system and solving associated wastewater problems is technically feasible and economically practicable.
3. An emission limit of 24 #SO₂/ton of aluminum would reflect maintaining a 70% SO₂ collection efficiency of MM's primary system but allow MM to use coke which is projected to rise to 3% sulfur.

4. The Department's revised proposed permit would essentially keep plant site SO₂ emissions the same at present coke sulfur content but would allow MM to only double SO₂ emissions instead of possibly quadrupling if sulfur content of coke increases as projected to 3%. This is considered a fair environmental-economic tradeoff considering that all air quality standards would be met and the risk to crop damage is considered minimal versus the lack of specific research on synergistic effects of SO₂ on cherries and the general public feeling that air pollution in the airshed is presently unacceptable.
5. Requiring MM to maintain a 70% SO₂ control efficiency or equivalent on the primary system provides some alternatives to MM such as installing the dry system with a low cost means of providing 70% SO₂ control efficiency and possibly achieving a 12% or higher rate of return on investment while solving the wastewater problem associated with this system.
6. While the means to finding an economically attractive and technically achievable equivalent SO₂ control system will present a challenge to MM's ingenuity, the Department firmly believes that the likelihood of success is great.
7. By requiring MM to maintain a 70% SO₂ control efficiency on the primary system, SO₂ air quality impact in The Dalles orchard areas, and degradation to airshed visibility loss would be measurably minimized to the greatest extent practicable.
8. MM should participate in further studies of the effects of air pollution on local orchards.

Recommendation

It is the Director's recommendation that the attached revised-proposed permit (Attachment 3) be issued.

Attachments:


William H. Young
Director

1/5/77

TABLE 1

SO₂ Control Alternatives on Primary System and Approximate Effect on
Capital Investment
(All systems meet Water Quality Requirements)

MM's Proposal (Base)

Dry Scrubber

| | |
|-----------------------|------------------------|
| Capital Cost | \$6,100,000 |
| Annual Operating Cost | 410,000 ⁽¹⁾ |
| Rate of Return | 27% |

Department's Proposed Permit of 11/26/76

Dry Scrubber and 95% efficient SO₂

| | |
|----------------------------------|-------------|
| Additional Capital over Base | \$4,000,000 |
| Additional Annual Operating Cost | 500,000 |
| Rate of Return | 3% |

Some Potential Alternatives Under Department's revised proposed permit of 1/3/77

Dry Scrubber and 70% efficient SO₂ Scrubber

(simple once through caustic scrubber)

| | |
|----------------------------------|-------------|
| Additional Capital over Base | \$1,500,000 |
| Additional Annual Operating Cost | 300,000 |
| Rate of Return | 12% |

Dry Scrubber and 70% efficient SO₂ equivalent system

(50% of air to existing 50% efficient secondary and
50% through new 85% operating efficient SO₂ system)

| | |
|----------------------------------|-------------|
| Additional Capital over Base | \$1,500,000 |
| Additional Annual Operating Cost | 150,000 |
| Rate of Return | 16% |

Existing Wet ESP + Recycle Water

| | |
|--|-----------------------------|
| New Capital Construction over existing | \$500,000 |
| Estimated Additional Annual Operating Cost over present | 100,000 |
| Rate of Return | Inapplicable ⁽²⁾ |

(1) Does not include \$1,100,000/yr recovery of product.

(2) \$6,000,000 capital available from dry scrubber would then be available for other investment.



State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Dec. 1, 1976 Meeting
ATTACHMENT 1
INTEROFFICE MEMO

To: Recipients of Proposed Air Permit for Martin Marietta dated 11/26/76
Date: November 29, 1976
From: Director
Subject: Basis for Proposed Permit

The Department's proposed permit is based on conclusions derived from evaluation of EPA and Martin Marietta (MM) reports on the economic and technical feasibility of installing SO₂ control and the requirements of OAR 20-001 dealing with application of Highest and Best Practicable Treatment and Control.

In summary the Department has concluded that:

1. An SO₂ scrubber with a collection efficiency of up to 95% can be designed for MM's proposed primary control system.
2. The minimum actual expected performance of an SO₂ scrubber is 70%.
3. Projected costs of an SO₂ scrubber will not cause a major damage to MM's competitive condition.

not included to special permit

The Dalles area ^{is a unique} ~~is a special~~ air quality problem area in terms of *9FK*

- a) Past history and present claims of adverse effects from air pollution to agricultural interests.
- b) Lack of complete and conclusive evidence about air pollution effects on agricultural interest.
- c) Restricted ventilation. — (
- d) Present unacceptable visibility reduction.
- e) Potential for significant industrial growth and the need to allocate the airshed wisely.

The Department's proposed SO₂ emission limits are considered the lowest reasonably enforceable limit that can be set considering

1. The possibility of increases in sulfur content of coke to 3%.
2. SO₂ emission evolution from the process according to MM's assumption.
3. Minimum expected performance (70%) of state of the art SO₂ scrubbers applied to an aluminum plant.

If all the worst case conditions should occur, then the Department's proposed SO₂ emission limits would allow up to a doubling of present plant site SO₂ emissions.

On the other hand, plant site SO₂ emission would not change from present levels IF:

1. The installed scrubber performs up to design conditions (90% efficiency).
8PK
2. SO₂ emissions evolve from the new process according to DEQ assumptions.
3. Coke sulfur increases to 3.0%.

Without an SO₂ scrubber plant site SO₂ could triple to quadruple over present levels depending upon whether MM's or the Department's assumptions on SO₂ evolution from the process becomes reality.

AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
 1234 S.W. Morrison Street
 Portland, Oregon 97205
 Telephone: (503) 229-5696
 Issued in accordance with the provisions of
 ORS 468.310

| <p>ISSUED TO: Martin Marietta Aluminum, Inc. P. O. Box 711 The Dalles, Oregon 97058</p> <p>PLANT SITE: Martin Marietta Aluminum, Inc. 3303 W. Second Street The Dalles, Oregon 97058</p> <p>ISSUED BY DEPARTMENT OF ENVIRONMENTAL QUALITY</p> <hr style="width: 100%;"/> <p style="text-align: center;">Director Date</p> | <p>REFERENCE INFORMATION</p> <p>Application No. <u>0817</u></p> <p>Date Received <u>5/17/76</u></p> <p>Other Air Contaminant Sources at this Site:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 20%; text-align: center;">SIC</th> <th style="width: 20%; text-align: center;">Permit No.</th> </tr> </thead> <tbody> <tr> <td>(1) _____</td> <td></td> <td></td> </tr> <tr> <td>(2) _____</td> <td></td> <td></td> </tr> </tbody> </table> | | SIC | Permit No. | (1) _____ | | | (2) _____ | | |
|--|---|------------|-----|------------|-----------|--|--|-----------|--|--|
| | SIC | Permit No. | | | | | | | | |
| (1) _____ | | | | | | | | | | |
| (2) _____ | | | | | | | | | | |

ADDENDUM NO. 1

In accordance with OAR, Chapter 340, Section 14-040, Air Contaminant Discharge Permit Number 33-0001 is modified.

Condition 1 is modified by addition of the following paragraph:

a. Subject to review and approval of detailed plans and specifications the permittee may replace its wet ESP primary air pollution control system with a dry filter system provided sulfur dioxide control is applied after the dry filter which meets the following requirements:

- 1) 95% SO₂ removal or equivalent treatment as a design condition
- 2) 70% SO₂ removal or equivalent treatment as minimum operating condition

Condition 2 is modified by addition of a new subsection d.

- d. Upon operation of the dry filter system the total sulfur dioxide emissions from all sources shall not exceed 10.3 kg/ton (22.8 pounds/ton of aluminum produced) as an annual average and 11.0 kg/ton (24.4 pounds/ton of aluminum produced) as a monthly average.

Condition 4 is modified to read as follows:

4. The permittee shall conduct an approved monitoring program which shall include:
 - a. Prescheduled plant wide emission testing for gaseous fluoride, particulate fluoride, total particulate and sulfur dioxide.
 - b. Measuring of forage fluoride and sulfur.
 - c. Measuring ambient air gaseous fluoride, particulate fluoride, suspended particulate, particle fallout, sulfur dioxide, submicron sulfate particulate and wind speed and direction.

Condition 5 is modified to include the following paragraph:

Details of the additions to the monitoring program required by this Addendum shall be submitted no later than March 1, 1977 for review and approval by the Department.

Condition 6 regarding monitoring and reporting is modified by addition of 6.c.4), and 6.d.4) as follows:

| <u>Parameter</u> | <u>Minimum Monitoring Frequency</u> |
|---|--|
| c. Primary potroom control system emissions | |
| 4) Sulfur dioxide | Three times per month or once per line per month whichever is greater with prior notice to the Department. |
| d. Secondary potroom control system emissions | |
| 4) Sulfur dioxide | Three times per month or once per line per month whichever is greater with prior notice to the Department. |



engineers
planners
economists
scientists

ATTACHMENT 2

December 8, 1976

Martin Marietta Aluminum Inc.
P. O. Box 711
The Dalles, Oregon 97058

Attention: Mr. Jack P. Doan

Subject: Economic Evaluation of Alternative
Emission Control Systems for Martin
Marietta Aluminum Inc.'s Plant in
The Dalles, Oregon

Gentlemen:

Pursuant to your request, we have studied the economics associated with three alternative emission control systems that would meet 1977 EPA water quality requirements at Martin Marietta Aluminum's plant in The Dalles. This includes a review of financial analysis of the three alternatives by Dr. Peterson of Martin Marietta Aluminum, a review of the related study by Mr. Robert L. Coughlin of the Environmental Protection Agency for the Oregon Department of Environmental Quality, and our own analysis of the three alternatives and the impact each might have on the economics of The Dalles plant.

Summary

Most aluminum producers in the United States have already installed a dry scrubber system similar to the one that Martin Marietta Aluminum (MMA) proposes for its aluminum reduction plant in The Dalles, Oregon. Of the three alternatives analyzed herein, the dry scrubber without auxiliary SO₂ removal (Alternative 2) is the least costly.

The DEQ could order the company to purchase and operate a more costly alternative system that uses an auxiliary SO₂ scrubber and clarifier. These are not required under existing state or Federal emission standards and not required of any other aluminum producer. This would put The Dalles plant in a significantly disadvantageous competitive position and would be unduly burdensome to its operation. Because there apparently would be no detectable benefits resulting from the additional investment over those offered by the dry scrubber alone for primary air control, the added

investment and its operation would be contraproductive because it would misallocate limited resources.

We estimate that the added cost of investing in and operating an auxiliary SO₂ scrubber and clarifier would reduce net income at The Dalles plant by over 20 percent.

Our conclusions are listed on pages 8 and 10 of this letter.

Alternatives Studied

The three alternatives we were asked to study are:

- o Alternative 1 - Primary air quality control system: wet electrostatic precipitator (ESP) with recycle of scrubber water. Secondary air quality control system: water spray with recycle of scrubber water.
- o Alternative 2 - Primary air quality control system: dry scrubber. Secondary air quality control system: water spray with recycle of scrubber water.
- o Alternative 3 - Primary air quality control system: dry scrubber system with an auxiliary wet scrubber for SO₂ removal and a clarifier. Secondary air quality control system: water spray with recycle of scrubber water.

We understand these are the three alternatives for which the DEQ in its October 27, 1976, letter requested the company to prepare a detailed comparable economic analysis. Time did not allow study of three other alternatives presented in Dr. Warren S. Peterson's November 17, 1976, memorandum to Joseph L. Byrne, copy attached. Those three alternatives are:

- o Alternative 4 - Primary air quality control system: Dry scrubber system. Secondary air quality control system: water spray with once-through use of scrubber water.
- o Alternative 5 - Primary air quality control system: dry scrubbers system with an auxiliary wet scrubber for SO₂ removal and a clarifier. Secondary air quality control system: water spray with once-through use of scrubber water.
- o Alternative 6 - Primary air quality control system: wet electrostatic precipitator (ESP) with recycle of scrubber water. Secondary air quality control system: water spray with once-through use of scrubber water.

We understand that Martin Marietta Aluminum proposes Alternative 4 as the most economically and environmentally sound system available and the only alternative for which there is demonstrated technology and reliable capital cost data.

Cost Comparison of the Three Alternative Systems

As Mr. Coughlin of the EPA states in his 11 November 1976 report to Mr. E. J. Weathersbee of the DEQ, it is not uncommon to have varying cost estimates for installing and operating emission control equipment. The cost estimates included in Mr. Peterson's 17 November 1976 memo to Mr. Joe Byrne of MMA differ somewhat from those presented by Mr. Coughlin. However, the differences appear to be inconsequential in evaluating the overall economics of the three alternatives. The two sets of cost estimates are compared in appendix A. We have used Mr. Peterson's cost estimates in our analysis because they include secondary treatment costs not considered by Mr. Coughlin and are therefore more complete. We have not attempted to evaluate the accuracy of cost estimates by either Mr. Peterson or Mr. Coughlin.

We are told that it has not been established that the present wet secondary system at The Dalles plant can be used with the treated and recycled scrubber water as provided in Alternatives 1, 2, and 3, and that the capital costs for these cases increase about 23 million dollars if a new wet secondary system is required. This possibility has not been included in our analysis.

Cost analysis of the three alternatives is shown in table 1. Alternative 1, which includes a wet scrubber for primary air control, requires relatively low capital costs of about \$1 million, but requires about \$1.5 million per year to operate. Alternative 2, which includes a dry scrubber for primary air control, requires about \$7 million in capital cost, but

Table 1. PRESENT VALUE AND ANNUAL COST OF THREE ALTERNATIVE CONTROL SYSTEMS WHICH WOULD MEET EPA 1977 WATER QUALITY REQUIREMENTS AT THE DALLES PLANT

| | Alternatives ¹ | | |
|--|---------------------------|-----------------|---|
| | 1. Wet ESP | 2. Dry Scrubber | 3. Dry Scrubber With SO ₂ Scrubber |
| | (thousand dollars) | | |
| Raw costs: | | | |
| Capital cost | \$ 991 | \$6,976 | \$10,563 |
| Operating cost | | | |
| Cost of operations ² | 1,543 | 768 | 1,382 |
| Chemicals recovery | -- | (1,091) | (1,091) |
| Total operating cost | \$ 1,543 | (\$ 323) | \$ 291 |
| Present value of capital and operating costs: ³ | | | |
| Initial year | \$ 991 | \$6,976 | \$10,563 |
| 10-Year operation | 9,480 | (1,985) | 1,788 |
| Total | \$10,471 | \$4,491 | \$12,351 |
| Average annual cost: | | | |
| Debt service ⁴ | \$ 161 | \$1,135 | \$ 1,719 |
| Operating cost | 1,543 | (323) | 291 |
| Total | \$ 1,704 | \$ 812 | \$ 2,010 |

- ¹ Listed by primary air quality systems. For full descriptions of the three alternatives, see page 2 of this letter.
- ² Includes labor, maintenance, water, power, lime, and other supplies.
- ³ Calculated assuming a 10-percent opportunity cost rate of money.
- ⁴ Interest and amortization calculated assuming a 10-year loan and a 10-percent interest rate.

actually reduces operating costs by about \$323,000 per year as a result of recovery of fluoride and other chemicals. Alternative 3, which includes a dry scrubber with an auxiliary scrubber and clarifier for primary air control, is the most expensive investment at \$10.6 million and would add \$291,000 to the plant's annual operating costs.

The proper way to evaluate these costs is to determine the present value of each alternative. Present value analysis

makes adjustments for the time value of money and, in effect, accounts for timing variation in the cost flow. Because money spent in future years has less value than money spent at present, it is appropriate to discount future amounts to obtain a single measurement which is comparable to other discounted time-streams of monetary values. Alternative 2 is by far the least cost alternative at \$4.5 million, followed by alternative 1 at \$10.5 million, and alternative 3 at \$12.4 million.

A second way of analyzing the alternative cost flows is to determine the average annual cost of each investment. Average annual cost is the sum of debt service on the investment (level interest and amortization payment) plus annual operating costs. Under average annual cost analysis, alternative 2 is again the least cost alternative at \$812,000 per year followed by alternative 1 at \$1.7 million per year and alternative 3 at \$2 million per year.

Misuse of Limited Resources

Even though such investments are considered to be "non-productive" in their direct impacts on the investing firm, the cost of many emission control investments by industry and others is outweighed by the benefits of a resulting cleaner environment. However, in cases where emission control investment and operation result in undetectable environmental benefits, the cost of the facility and its operation represents a misallocation of limited resources. In fact, since such an action diverts resources from productive to nonproductive avenues, it is contraproductive. In MMA's case, if the company were forced to invest in alternative 1 or 3 rather than alternative 2, it appears that, on a present value basis, \$6 million to \$8 million would be misallocated from the opportunity to invest in production of goods and services. As Mr. Coughlin states on page 2 of his report, "No environmental benefits are ascribed to SO₂ reduction in this case, so the efficiency of the investment is most questionable." On page 17 of his report, he emphasizes that "The central fact is that in the event that wet scrubbing (of SO₂) is required, resources will be consumed and aluminum production costs increased to purchase a reduction in SO₂ concentrations that has no beneficial consequences." This consideration alone should dissuade a regulatory agency from forcing MMA to invest in either of the more costly alternatives.

Inequitable Treatment = Competitive Disadvantage

External Disadvantage

We agree with Mr. Coughlin that, if MMA were not allowed to select alternative 2, The Dalles plant would face an inequitable "distinct competitive disadvantage" since none of the plant's competitors are likely to have to absorb the additional costs inherent in either alternative 1 or alternative 3. In addition, it would be inequitable to, in effect, penalize MMA for its early investment in emission control. As Mr. Coughlin states on page 17 of his report, "The plant at The Dalles faces (auxiliary) SO₂ reduction costs only because of its early efforts to control air pollution through the use of suboptimal technology." It is my understanding that this technology was the best available at the time of the investment.

Internal Disadvantage

MMA owns and operates two aluminum reduction plants: one at The Dalles and one at Goldendale, Washington. If MMA were permitted to proceed at its Goldendale plant with the installation of a dry scrubber system without the added cost of an auxiliary SO₂ scrubber and clarifier, but were forced to invest in alternative 1 or alternative 3 at The Dalles plant, then under normal circumstances the latter would be more costly to operate and would become the company's marginal aluminum reduction plant. Under these conditions, if demand for MMA's aluminum slackened, corporate management would have incentive to cut production at the marginal cost plant in The Dalles while the Goldendale plant remained at nearly full production. Such an occurrence would have resulted in much greater production drops at The Dalles plant in 1973 and 1975. If MMA had not cut production at both plants, as shown in table 2, and instead had reduced output at The Dalles plant only, cutbacks at The Dalles would have been over 75 percent greater in 1973 and over 55 percent greater in 1975. We have not studied the prospect in any detail, but future extraordinary reductions at The Dalles plant would have an important impact on employment in The Dalles and on the regional economy in general.

The Aluminum Industry - Volatile Profit Rates

The profit rate in the aluminum industry is quite volatile as it is in most primary metals industries. As shown in table 3, profit rates of three large aluminum producers in the United States have ranged from 3.0 to 13.2 percent since 1967. The profit rate of MMA is even more volatile, ranging from 1.1 to 16.9 percent since 1969. There is thus no discernible trend of steady profits in the aluminum business. The added cost of an auxiliary SO₂ scrubber may well in some years eliminate profits attributable to The Dalles plant.

Table 2. MARTIN MARIETTA ALUMINUM INC. ALUMINUM PRODUCTION BY PLANT 1972 THROUGH 1975

| Year | Actual Production | | | Estimated Decrease From Normal, Planned Production | | |
|------|-----------------------|------------|---------|--|------------|--------|
| | The Dalles | Goldendale | Total | The Dalles | Goldendale | Total |
| | (thousand short tons) | | | | | |
| 1972 | 89,130 | 101,947 | 191,077 | -- | -- | -- |
| 1973 | 73,220 | 89,713 | 162,933 | 15,800 | 12,300 | 28,100 |
| 1974 | 88,642 | 102,282 | 190,924 | -- | -- | -- |
| 1975 | 75,700 | 94,330 | 170,030 | 13,300 | 7,700 | 21,000 |

Table 3. PROFIT RATES OF ALUMINUM COMPANIES IN THE UNITED STATES

| Year | Rate of Return to Shareowners' Equity | |
|---------------------|---------------------------------------|---|
| | Three Large U.S. Producers (percent) | Martin Marietta Aluminum Inc. (percent) |
| 1967 | 10.3 | N/A |
| 1968 | 8.4 | N/A |
| 1969 | 10.6 | 10.9 |
| 1970 | 7.7 | 6.6 |
| 1971 | 3.0 | 1.7 |
| 1972 | 4.5 | 1.1 |
| 1973 | 7.1 | 7.1 |
| 1974 | 13.2 | 16.9 |
| 1975 | N/A | 3.9 |
| Average 1969 - 1974 | 7.7 | 7.4 |
| 1969 - 1975 | N/A | 6.9 |

SOURCE: U.S. Department of Commerce; *U.S. Industrial Outlook 1976*; and Martin Marietta Aluminum Inc.

We disagree with Mr. Coughlin's projection that The Dalles plant could absorb the nonproductive costs of an auxiliary SO₂ scrubber without "major damage to its competitive condition."

Significant Impact on Return to Shareowners' Equity in The Dalles Plant

We have made a conservative estimate of each alternative investment's impact on net income attributable to The Dalles plant. In doing so, we made the simplifying assumption that

the estimated tax savings to the company of the added annual cost is 48 percent, the legal limit to the Federal corporate tax rate. In fact, the effective tax rate for MMA is somewhat lower. We did not delve into insurance and property tax rates, nor did we concern ourselves with the complexities of financial plans and accounting adjustments such as accelerated depreciation and investment tax credit. Rather, we looked at the average annual impact on income.

Because nearly all aluminum plants have invested in dry scrubbers, and other nonferrous producers have had to invest in similar facilities, over the long run aluminum companies will probably recover their costs in these investments by passing the added cost along to aluminum consumers in the form of increased prices. However, the greater cost of either alternative 1 or alternative 3 over alternative 2 would not be recovered by MMA without impacting the profitability of The Dalles plant since the company must sell its product in the market at the same price as that charged by other producers. As shown in table 4, the reductions in net income each year with alternative 1 and alternative 3 are \$463,000 and \$622,000, respectively.

Accounting statistics on shareowners' equity in The Dalles plant per se are not available; but we have calculated the amount to be \$29.7 million since the capital structure for The Dalles plant would be the same 69-percent ratio of equity to total capitalization as MMA. Details of this calculation are provided in appendix B.

If we assume a normal rate of return to equity of 10 percent (over 3 percentage points higher than MMA's 7-year average of 6.9 percent for 1969 through 1975), we can conservatively estimate that the reductions of The Dalles plant profit attributable to the added cost of alternative 1 and alternative 3 would be 16 percent and 21 percent, respectively. This is a very significant negative impact for any investment that has "no beneficial consequences."

Conclusions

Our general conclusions are as follow:

1. Alternative 2, which includes a dry scrubber, is by far the least costly of the three alternatives studied. On a present value basis, alternative 1, which includes a wet ESP, is about 2.3 times as expensive; and alternative 3, which includes a dry plus auxiliary SO₂ scrubber and clarifier, is about 2.75 times more expensive than alternative 2.

Table 4. THE DALLES PLANT ESTIMATED REDUCTION IN NET INCOME ATTRIBUTABLE TO ADDITIONAL CONTROL SYSTEM COSTS IN EXCESS OF ALTERNATIVE 2

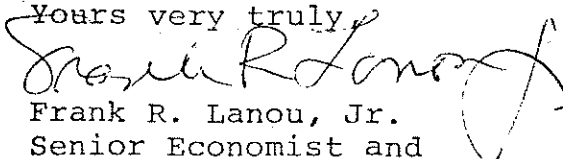
| | Alternatives ¹ | | |
|--|---------------------------|-----------------|---|
| | 1. Wet ESP | 2. Dry Scrubber | 3. Dry Scrubber With SO ₂ Scrubber |
| | --(thousand dollars) -- | | |
| Average annual costs: | | | |
| Each alternative | \$1,704 | \$ 812 | \$2,010 |
| Alternative 2 | <u>812</u> | <u>812</u> | <u>812</u> |
| Amount in excess of alternative 2 | \$ 892 | -- | \$1,198 |
| Tax saving (48%) | <u>428</u> | <u>--</u> | <u>575</u> |
| Reduction in net income | \$ <u>463</u> | <u>--</u> | \$ <u>622</u> |
| Normal net income assuming an average annual profit rate of 10 percent on share-owners' equity | \$2,970 | \$2,970 | \$2,970 |
| Percentage reduction in net income | 16% | -- | 21% |

¹ Listed by primary air quality systems. For full description of the three alternatives, see page 2 of this letter.

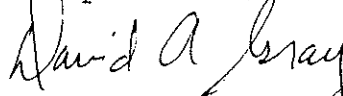
2. If we assume no additional environmental benefits result from alternative 1 or alternative 3 compared to alternative 2, the additional resources consumed in the construction and operation of either alternative 1 or alternative 3 would be wastefully misused. This is contrary to both economic and environmental principles.
3. Because no other aluminum producer is required to make the additional investment over that incurred with alternative 2, MMA's investment in either alternative 1 or alternative 3 would place The Dalles plant in a distinct competitive disadvantage. Under these circumstances cyclical decreases in demand for MMA's aluminum products could result in extraordinary production decreases at The Dalles plant, while the Goldendale plant remained at nearly full production.
4. There is no discernible trend of steady profits in the aluminum business.
5. MMA would not be able to recover added costs over those incurred with alternative 2 without impacting the profitability of The Dalles plant. We conservatively estimate that investments in alternative 1 and alternative 3 would decrease the profitability of The Dalles plant by 16 percent and 21 percent, respectively. Such a continuing drain on profits would constitute a major financial problem for almost any business.

If you have any questions or wish to discuss this further, please call us.

Yours very truly,



Frank R. Lanou, Jr.
Senior Economist and
Group Director



David A. Gray
Project Manager

Appendix A. COMPARISON OF COST ITEMS FOR AIR AND WATER QUALITY CONTROL AT THE DALLES PLANT:
MMA VS. EPA ESTIMATES

| Alternatives, ¹ Cost Items | Source | |
|---|--------------------|----------|
| | MMA | EPA |
| | (thousand dollars) | |
| 1. Wet ESP | | |
| Investment cost | \$ 991 | N/A |
| Operating cost | 1,543 | N/A |
| 2. Dry scrubber: | | |
| Investment cost | | |
| Primary | \$ 6,084 | \$ 5,800 |
| Secondary | 892 | N/A |
| Total | \$ 6,976 | N/A |
| Operating cost | | |
| Primary | | |
| Operations | \$ 177 | \$ 306 |
| Materials recovery | (1,091) | (948) |
| Subtotal | (914) | (642) |
| Secondary | 591 | N/A |
| Total | (\$ 323) | N/A |
| 3. Dry scrubber, auxiliary wet scrubber, and clarifier: | | |
| Investment cost | | |
| Primary | \$ 9,671 | \$10,025 |
| Secondary | 892 | N/A |
| Total | \$10,563 | N/A |
| Operating cost | | |
| Primary | | |
| Operations | \$ 791 | \$ 525 |
| Material recovery | (1,091) | (948) |
| Subtotal | (300) | (423) |
| Secondary | 591 | N/A |
| Total | \$ 291 | N/A |

¹ Listed by primary air systems. For full description of the three alternatives, see page 2 of this memorandum.

N/A = Not available in Coughlin's 11 November 1976 report to Oregon DEQ.

Appendix B. CAPITALIZATION OF MARTIN MARIETTA ALUMINUM
AND THE DALLES PLANT¹

| | Martin Marietta Aluminum | The Dalles Plant |
|---|--------------------------------|---------------------|
| | - - (million dollars) - | |
| Capitalization | | |
| Long-term debt | \$ 94 | \$13.4 ² |
| Shareowners' equity | 212 | 29.7 ² |
| Total | <u>\$306</u> | <u>\$43.1</u> |
| Shareowners' equity as a percent of capitalization | 69% | 69% |

¹ As of 12/31/75.

² Calculated based on the equity-to-capitalization ratio of Martin Marietta Aluminum.

SOURCE: Martin Marietta Aluminum Inc.

Proposed
1/3/77

Permit Number: 33-0001

Page 1 of 2

AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
1234 S.W. Morrison Street
Portland, Oregon 97205
Telephone: (503) 229-5696
Issued in accordance with the provisions of
ORS 468.310

| <p>ISSUED TO: Martin Marietta Aluminum, Inc. P. O. Box 711 The Dalles, Oregon 97058</p> <p>PLANT SITE: Martin Marietta Aluminum, Inc. 3303 W. Second Street The Dalles, Oregon 97058</p> <p>ISSUED BY DEPARTMENT OF ENVIRONMENTAL QUALITY</p> <p>_____ William H. Young Director</p> <p>_____ Date</p> | <p>REFERENCE INFORMATION</p> <p>Application No. 0817</p> <p>Date Received 5/17/76</p> <p>Other Air Contaminant Sources at this Site:</p> <table border="1"> <thead> <tr> <th>Source</th> <th>SIC</th> <th>Permit No.</th> </tr> </thead> <tbody> <tr> <td>(1) _____</td> <td></td> <td></td> </tr> <tr> <td>(2) _____</td> <td></td> <td></td> </tr> </tbody> </table> | Source | SIC | Permit No. | (1) _____ | | | (2) _____ | | |
|---|---|------------|-----|------------|-----------|--|--|-----------|--|--|
| Source | SIC | Permit No. | | | | | | | | |
| (1) _____ | | | | | | | | | | |
| (2) _____ | | | | | | | | | | |

ADDENDUM NO.

In accordance with OAR, Chapter 340, Section 14-040, Air Contaminant Discharge Permit Number 33-0001 is modified.

Condition No. 1 is modified to read as follows:

a. Subject to review and approval of detailed plans and specifications the permittee may replace its wet ESP primary air pollution control system with a dry filter system provided sulfur dioxide control is applied after the dry filter which meets the following requirement:

- 1) 70% SO₂ removal or equivalent treatment.

(continued page 2)

Condition 2 is modified by addition of a new subsection d.

- d. Upon operation of the dry filter system the total sulfur dioxide emissions from all sources shall not exceed 10.3 kg/ton (22.8 pounds/ton of aluminum produced) as an annual average and 11.0 kg/ton (24.4 pounds/ton of aluminum produced) as a monthly average.

Condition 4 is modified to read as follows:

4. The permittee shall conduct an approved monitoring program which shall include:
 - a. Prescheduled plant wide emission testing for gaseous fluoride, particulate fluoroide, total particulate and sulfur dioxide.
 - b. Measuring of forage fluoride and sulfur.
 - c. Measuring ambient air gaseous fluoride, particulate fluoride, suspended particulate, particle fallout, sulfur dioxide, submicron sulfate particulate and wind speed and direction.

Condition 5 is modified to include the following paragraph:

Details of the additions to the monitoring program required by this Addendum shall be submitted no later than March 1, 1977 for review and approval by the Department.

Condition 6 regarding monitoring and reporting is modified by addition of 6.c.4), and 6.d.4) as follows:

| <u>Parameter</u> | <u>Minimum Monitoring Frequency</u> |
|---|--|
| c. Primary potroom control system emissions | |
| 4) Sulfur dioxide | Three times per month or once per line per month whichever is greater with prior notice to the Department. |
| d. 4) Sulfur dioxide | Three times per month or once per line per month whichever is greater with prior notice to the Department. |

CO

Refer - To Program with interpretation
of Federal Law - Appeal.

2. Consideration may change
to Federal feasibility program
change

Money -

MARTIN MARIETTA ALUMINUM

REDUCTION DIVISION
POST OFFICE BOX 711
THE DALLES, OREGON 97058
TELEPHONE (503) 296-6161

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED
APR 8 1977

April 7, 1977

AIR QUALITY CONTROL

Mr. William Young
Director
Department of Environmental
Quality
1234 S. W. Morrison Street
Portland, Oregon 97205

Subject: Martin Marietta Aluminum Inc.--
Air Contaminant Discharge Permit

Dear Mr. Young:

On May 13, 1976, Martin Marietta Aluminum Inc. ("MMA") made application for modification of its air contaminant discharge permit. The Department has previously recommended that additional conditions to the permit be required. These conditions involve SO₂ control as the "highest and best practicable control."

The Environmental Protection Agency has made a similar "final determination" that SO₂ controls are necessary as a part of the "best available control technology." We have appealed that decision of the Environmental Protection Agency. We continue to disagree with the Department's views about SO₂ control. We believe that the SO₂ controls which the Department recommends are beyond statutory and regulatory requirements and are both environmentally and economically unreasonable.

However, the time involved to contest the opinion of the Department and the Environmental Protection Agency is so lengthy that, for a variety of reasons, MMA has concluded that, if necessary, it will install SO₂ controls at The Dalles plant.

If the Department is unwilling to issue a permit as described in our May 13, 1976, application or is unwilling to issue a permit subject only to the condition that, if later proven necessary, SO₂ controls be added, then MMA is willing to accept a permit as described below.

The permit would allow construction of a dry primary control system to replace the existing wet electrostatic precipitator system. We expect this system to be in operation by October, 1978. Notice of construction and plans and specifications have already been submitted to the Department. The means for SO₂ control have not yet been determined. Notice of construction and plans and specifications as required by OAR 340-20-020. will be submitted as soon as they are determined. If such SO₂ controls are required by the Commission, they will be placed in operation at the time required by the Commission; that is, if the Commission requires that the SO₂ controls be in place at the time we switch to the dry scrubber, we will do so. If the Commission requires SO₂ controls to be installed for contemporaneous start-up with the dry scrubber, then we agree that the following conditions be added to the permit:

Condition 1

- Add: a. Subject to review and approval of detailed plans and specifications, permittee may install a dry scrubber system provided sulfur dioxide control installed which meets the following requirement:
- (1) 70% removal or equivalent treatment at inlet concentrations higher than 250 ppm SO₂ or an exhaust concentration no greater than 70 ppm SO₂ at inlet concentrations less than 250 ppm.

Condition 2

- Add: d. Upon operation of the dry system, the total sulfur dioxide emissions from all sources shall not exceed 10.3 kg/ton (22.8 lbs/ton of aluminum produced) as an annual average and 11.0 kg/ton (24.4 lbs/ton of aluminum produced) as a monthly average.

Condition 4

- Add to: a. Prescheduled plantwide emission tests for gaseous fluoride, particulate fluoride, total particulate and sulfur dioxide.
- Add to: c. Measuring ambient air gaseous fluoride, suspended particulate, particulate fallout, sulfur dioxide and wind speed and direction.

Condition 5

Add paragraph: Details of the additions to the SO₂ monitoring program required by this addendum shall be submitted no later than June 1, 1977, for review and approval by the Department.

Condition 6

| | | |
|----------------|--------------------------|---|
| Delete from c: | (1) Total particulates | - Three times per month with prior notice to the Department |
| | (2) Fluoride particulate | - As above |
| | (3) Fluoride gases | - As above |
| Add to c: | (4) Sulfur dioxide | - Three times per month |
| Add to d: | (4) Sulfur dioxide | - Three times per month or once per line whichever is greater with prior notice to the Department |

You will note that the proposed permit does not include any requirements for the measurement of the sulfur content of vegetation. It also does not include any requirement for the measurement of submicron sulfate particulate. Vegetation sampling and submicron sulfate particulate sampling have at previous times been proposed by members of your staff. The discussion which follows summarizes our reasons for excluding these two requirements as conditions for the modified permit:

There should be no requirement for the measurement of the sulfur content of vegetation. Sulfur is an essential element in plants. The sulfur level of the leaves of most broad leaved plants ranges from about 0.15 to 0.3% on a dry basis. Conifer needles contain about 0.1% and other plants may contain as much as 0.6%. (1) (2)

-
- (1) Thomas, M. D., R. H. Hendricks, and G. R. Hill: Some Chemical Reactions of Sulfur Dioxide after Absorption by Alfalfa and Sugar Beets, *Plant Physiol.*, 19, 212-226 (1944).
- (2) Thomas, M. D., R. H. Hendricks, and G. R. Hill: Sulfur Content of Vegetation, *Soil Sci.*, 70, 9-18 (1950).

Tracer experiments have shown that there is no difference in the ultimate disposition of the sulfur, whether it is supplied as sulfate to the roots or as sulfur dioxide to the leaves.⁽³⁾⁽⁴⁾⁽⁵⁾ While certain levels of SO₂ in the ambient air⁽⁶⁾ can, upon sufficient exposure, cause necrosis in some species and varieties of vegetation, it is seriously questioned that there is any evidence that relates sulfur content of vegetation with any effects (excepting a sulfur deficiency which, of course, could be rectified by atmospheric sulfur dioxide).⁽⁶⁾ The proposed measurement of the sulfur dioxide in the ambient air is a reasonable requirement which does provide an adequate check on conditions and on changes in conditions. MMA would object to a requirement to measure the sulfur content of vegetation.

There should be no requirement for the measurement of submicron sulfate particulate as it serves no useful purpose. There is no evidence that the visibility effects experienced in The Dalles are a function of submicron sulfates. Visibility is a function of the number of particles and/or aerosols in the atmosphere (obscuration) as well as of particle size. The particle size determines whether it will reflect light; i.e., back scatter, or will produce side or forward scatter. This is a function of size, not necessarily of kind.⁽⁷⁾ The assumption that concentration of submicron sulfate particles or changes in the concentration can be meaningfully related to visibility at The Dalles is tenuous at best. MMA is unaware of any objective measurement of the visibility in The Dalles, much less any determination of the sources of and sizes of the particulate and/or aerosol concentrations that contribute to reduced visibility in the area. Further, while SO₂ can become a sulfate particulate, it can only do so by reacting with a preexisting particulate or aerosol. Any change in

(3) Steward, F. C., J. F. Thompson, F. K. Millar, M. D. Thomas, and R. H. Hendricks: The Amino Acids of Alfalfa as Revealed by Paper Chromatography with Special Reference to Compounds Labelled with Sulfur, *Plant Physiol.*, 26, 123-135 (1951).

(4) Thomas, M. D.: Proc. Auburn Conference on Use of Radioactive Isotopes in Agricultural Research, 1947, 103-117, Alabama Polytechnic Institute, 1948.

(5) Thomas, M. D., R. H. Hendricks, L. C. Bryner, and G. R. Hill: A Study of the Sulfur Metabolism of Wheat, Barley and Corn Using Radioactive Sulfur, *Plant Physiol.*, 19, 227-244 (1944).

(6) Oral and Written Testimony of Dr. Leonard Weinstein, Boyce Thompson Institute, before the Commission and before the Hearings Office.

(7) Particulate Clouds: Dust, Smokes and Mists, Green & Lane, Chapter 4, Optical Properties, D. Van Nostrand Company, Inc.

Mr. William Young

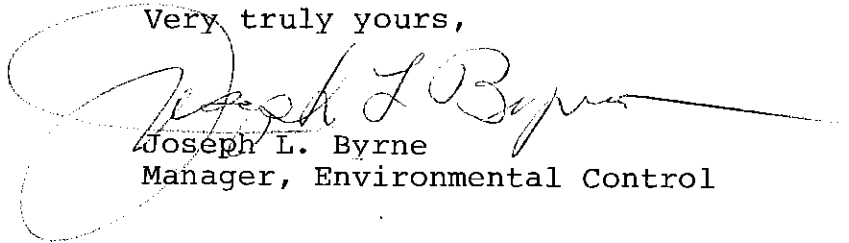
- 5 -

April 7, 1977

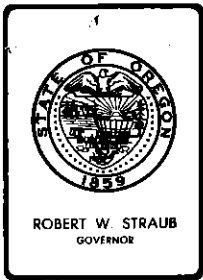
aerosol size vis-a-vis SO₂ is dependent upon relatively high humidities which do not pertain to The Dalles area.

MMA would object to a requirement to monitor submicron sulfate particulate because it would serve no useful purpose and would not be without the considerable expenditure of time and money necessary to collect and analyze the samples.

Very truly yours,

A large, stylized handwritten signature in cursive script, appearing to read "Joseph L. Byrne". The signature is written in dark ink and is positioned above the typed name and title.

Joseph L. Byrne
Manager, Environmental Control



Environmental Quality Commission

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

April 12, 1977

To: Environmental Quality Commission
From: Director
Subject: Agenda Item E, April 22, 1977 EQC Meeting

Contested Case Review - DEQ vs Robert Wright, review of Hearing Officer's ruling regarding enforcement actions pertaining to a septic tank installation

Please find enclosed the record on review in the above captioned matter. An explanation of the record is included in the enclosed transmittal letter to the parties (dated April 11, 1977). Should additional documents be called for, they will be available at the Commission meeting or may be obtained by request.

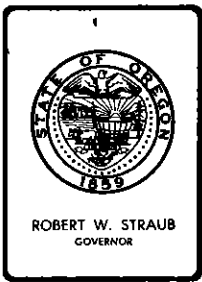
Sincerely,

Peter W. McSwain
Hearing Officer

PWM:vt
Enc.
cc: Robert Haskins
Robert Wright



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Recycled
Materials



Environmental Quality Commission

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

April 12, 1977

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Robert J. Wright
88838 Hale Road
Noti, Oregon 97461

Mr. Robert L. Haskins
Assistant Attorney General
Portland Division
Department of Justice
555 State Office Building
Portland, Oregon 97201

Re: Department of Environmental Quality v.
Robert J. Wright
SS-MWR-76-150 and SS-MWR-76-231

Gentlemen:

The Commission is scheduled to initiate review of this matter on April 22, 1977, commencing at 10:00 a.m. in the Salem City Council Chambers, 555 Liberty Street, S.E. in Salem, Oregon.

It is contemplated that the parties may wish to be heard orally at that time. Please plan on taking no more than ten minutes for your presentation.

Further, the Department may be allowed, as the moving party herein, to reserve some of its time for closing argument after Respondent has answered opening argument.

Since neither party has filed exceptions going to the Findings it has not been considered necessary to include in the record before the Commission those documents from which the Findings were drawn.



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Materials

Mr. Robert J. Wright
Mr. Robert L. Haskins
April 12, 1977
Page Two

It is our understanding that error is assigned only by Respondent and only to the ruling that the dismissal of the first matter was without prejudice.

The issue appears to be one of law only since neither party has proposed alternatives to the Findings entered.

The record being forwarded to the Commission is hereby transmitted to each party in copied form. It is divided into parts as described in its index.

Each party may, within five days hereof, make known to this office such objections as he may have to the form of the record on review.

Sincerely,



Peter W. McSwain
Hearing Officer

PWMC:cm
Enclosure

*cc: Environmental Quality Commission

INDEX

RECORD FOR COMMISSION REVIEW: DEQ V. ROBERT J. WRIGHT
No. SS-MWR-76-150 and SS-MWR-76-231

PART A

February 11, 1977 - Hearing Officer's Finding of Fact, Conclusions of Law, Final Order and Opinion.

PART B

February 17, 1977 - Respondent's Request for Review of Proposed Final ORDER.

PART C

February 18, 1977 - Hearing Officer's letter to the Parties.

PART D

March 28, 1977 - Department's Argument on Review.

PART E

April 4, 1977 - Respondent's Reply to the Department's Belated Argument.



ENVIRONMENTAL QUALITY COMMISSION

1234 S.W. MORRISON STREET • PORTLAND, ORE. 97205 • Telephone (503) 229-5696
February 11, 1977

ROBERT W. STRAUB
GOVERNOR

CERTIFIED MAIL

Return Receipt Requested

Mr. Robert J. Wright
88838 Hale Road
Noti, Oregon 97461

Mr. Robert Haskins
Assistant Attorney General
Portland Division
Department of Justice
555 State Office Building
Portland, Oregon 97201

Re: Department of Environmental Quality v. Robert J. Wright
SS-MWR-76-150 and SS-MWR-76-231

Gentlemen:

Enclosed for service upon each party is a consolidated proposed final order dealing with each of the above-captioned matters.

Please be reminded that OAR 340-11-132 (2) provides the parties and the Commission fourteen (14) days from today in which to file with the Commission and serve upon the parties a request that the Commission review this proposed order.

Should review be desired, filing with the Commission may be effected by filing with the undersigned at this address.

Unless timely review is invoked, this proposed order becomes final. (See OAR 340-11-132 (3).)

Sincerely,

Peter W. McSwain
Hearing Officer

PWM:ahe

cc: Environmental Quality Commission



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1 withdrew and abandoned its Notice of Violation and Order.

2 5) On November 3, 1976, Department sent Respondent a Notice of
3 Violation and Intent to Assess Civil Penalty (Hereinafter Notice of Vio-
4 lation and Intent). Alleged in the Notice was the Respondent's having
5 installed a subsurface sewage disposal system without a permit, contrary to
6 ORS 454.655. The system was alleged to have been installed on the same
7 property and at the same time as was alleged in the withdrawn Notice of
8 Violation and Order. Further alleged was operation of the system without a
9 certificate of satisfactory completion, contrary to ORS 454.665.

10 6) On November 12, 1976 Respondent offered to stipulate to an order
11 dismissing the Notice of Violation and Order with prejudice.

12 7) On November 12, 1976 the Hearing Officer wrote Respondent and
13 copied by uncertified mail his letter to the Department stating inter alia:

14 In copying this letter to Mr. Haskins, I am notifying
15 both parties that an order denying the Remedial Action
16 Order with prejudice will be considered entered in
17 this matter unless the Department informs the Respondent
18 and this office within ten days of its failure to join
19 the Respondent's STIPULATION OF DISMISSAL and its
20 resistance to such an order.

21 8) On November 15, 1976, Respondent filed a Demurrer to Department's
22 Notice of Violation and Intent on the ground of failure to state facts
23 sufficient to constitute a cause of action. Included was Respondent's
24 information that he would stand on his Demurrer and plead no further.

25 9) On November 18, 1976, the Hearing Officer received a letter from
26 Department's Counsel informing that Department did not intend to join in a

1 stipulation to dismiss the Notice of Violation and Order with prejudice and
2 requesting that the matter be dismissed without prejudice. The letter
3 indicated a copy to Respondent.

4 10) On November 22, 1976 the Hearing Officer wrote the parties upon
5 both the subject of the Demurrer to Department's Notice of Violation and
6 Intent to Assess a Civil Penalty and the offer to stipulate to a prejudicial
7 dismissal of Department's Notice of Violation and Order. On the latter
8 subject, the letter stated:

9 With regard to the question of whether the first
10 matter should be dismissed with prejudice, the parties
11 have, to date, failed to stipulate to such a disposi-
12 tion. Should Mr. Wright file a motion for dismissal
13 with prejudice, the Department will be given an
14 opportunity to counter any points and authorities of
15 Mr. Wright or raise its own. I would find it
16 uncomfortable to rule on a contested issue without an
17 opportunity for both parties to make their reasoning
18 known to the record. (Emphasis added.)

19 11) On November 26, 1976, Respondent wrote the Hearing Officer informing
20 that he had not had word from the Department regarding the Hearing Officer's
21 Order of November 16. It will be recalled that on November 16 the Hearing
22 Officer had ruled that an order dismissing with prejudice would be considered
23 entered in the absence of Department's notice, within ten days, to Respondent
24 and the Hearing Officer, of its failure to join in a stipulation to such
25 order.

26 12) On December 4, 1976 Respondent renewed his claim that he had not

1 received a copy of Department's letter received by the Hearing Officer on
2 November 18, 1976.

3 13) On January 31, 1977, in response to Department memorandums filed
4 on December 2, 1976 and January 24, 1977, Respondent filed a memorandum
5 containing verbage in the nature of a motion to dismiss Department's Notice
6 of Violation and Intent for lack of prosecution.

7 ISSUES

8 It is to be decided whether to dismiss the initial Notice of Violation
9 and Order with or without prejudice. Further, it is to be decided whether
10 the Notice of Violation and Intent to Assess a Civil Penalty is subject to
11 demurrer.

12 We will briefly state those contentions advanced by the parties as
13 dispositive of the issues so that they will have opportunity to discover
14 any misunderstandings we may have. These include issues raised in "speaking"
15 demurrer, by points and authorities, etc.

16 If we understand Respondent correctly, he contends with regard to the
17 Notice of Violation and Order as follows:

18 1) The Department is without jurisdiction over either Respondent's
19 person or property in this matter.

20 2) The Department is without jurisdiction over the subject matter of
21 this case.

22 3) The Department is without capacity to bring this action.

23 4) The Notice did not state facts sufficient to constitute a cause
24 of action.

25 5) The property in issue, as agricultural property, is not subject to
26 local planning regulations.

1 6) As property in use for agricultural operation, the land and
2 disposal system here in issue are, by virtue of ORS 446.105(4), exempt
3 from the Statutes and Rules upon which Department bases its contentions of
4 violation.

5 7) Respondent is entitled to a jury to hear the case.

6 8) One employed by the Department with a salary subject to the Depart-
7 ment's budget has not the impartial posture requisite to a fair hearing and
8 should not, therefore, preside.

9 9) Department is attempting to enforce local land use regulation
10 regarding partitioning of land and, as such, is acting without authority
11 and beyond its jurisdiction.

12 10) Department is estopped to bring an action against Respondent for
13 failure to obtain a permit where the Department wrongfully refused to issue
14 a permit based upon considerations beyond its jurisdiction.

15 11) The Notice of Violation and Order should be dismissed with prejudice.

16 If we correctly understand the Department with regard to the Notice of
17 Violation and Order, it contends merely that the matter should be dismissed
18 with prejudice.

19 It appears to us that Respondent advances the following contentions
20 regarding the Notice of Violation and Intent:

21 1) That it is res judicata by virtue of the withdrawn Notice of
22 Violation and Order; or Department is collaterally estopped to issue the
23 Notice or base a civil penalty on the allegations therein contained.

24 2) That ORS 468.090 requires evidence (in the form of affidavit or
25 otherwise) of water pollution before the Department may proceed under ORS
26 468.125 to give Notice of a Violation.

1 3) That, combined with the withdrawn Notice, it constitutes harassment,
2 abuse of process, and malicious prosecution.

3 4) That the Notice fails to state a cause of action under ORS 468.125.
4 If we here state them correctly, Department's contentions with regard to
5 the Notice of Violation and Intent are as follows:

6 1) The Notice is not prejudiced or otherwise impaired by the withdrawn
7 Notice of Violation and Order.

8 2) The Notice fulfills the requirements of ORS 468.125.

9 3) The Notice does not state a cause of action, is merely a notice,
10 and is not a pleading subject to demurrer even if it were deficient on its
11 face.

12 4) ORS 468.090 does not precondition the giving of Notice under ORS
13 468.125.

14 CONCLUSIONS OF LAW

15 1) An order disposing of both the withdrawn Notice of Violation and
16 Order and the Notice of Violation and Intent may go forth in this matter in
17 so far as the issues of fact raised on the face of the respective Notices
18 are nearly identical and the question of prejudicial dismissal therefore
19 may be dispositive in some measure of the Notice of Violation and Intent.

20 2) All of Respondent's contentions with regard to the Department's
21 Notice of Violation and Order are moot except the issue of whether or not
22 prejudice should attach to the dismissal of the Notice. Withdrawal of the
23 claim leaves no occasion for a decision on the other contentions.

24 3) The Hearing Officer's ruling of November 16, 1976 was in error and
25 cannot stand.

26 4) The Department's Notice of Violation and Intent and the Hearing

1 Officer's letter of November 22, 1976 are presumed to have reached Respondent
2 on or before November 26. They put Respondent on notice that the Department
3 was unwilling to stipulate to a prejudicial dismissal.

4 5) There is no authority under the administrative procedure act to
5 dismiss with prejudice a cause which has not been heard.

6 6) Should there have been a ruling that the Department is lacking in
7 jurisdiction on the face of the Notice, due to subject matter or other
8 defect, it would seem that dismissal on that ground, if unappealed, would
9 tend to bar another cause on the same facts. However, the matters raised
10 regarding local planning, exemptions for agricultural land, and the Depart-
11 ment's alleged enforcement of regulations beyond its authority are all new
12 matters raised by Respondent and presumably denied by the Department under
13 the administrative rules here governing.

14 7) The dismissal of Department's Notice of Violation and Order, a
15 result of Department's abandoning it before hearing, carries with it no
16 prejudice.

17 8) Department's Notice of Violation and Intent to Assess does not
18 state a cause of action. It is a prerequisite to some civil penalty
19 actions. If it is not prerequisite to a civil penalty in this instance, it
20 is superfluous and injures Respondent in no way. If it is a necessary
21 prerequisite to any civil penalty which may be assessed on the facts
22 alleged, Respondent may test its adequacy when and if such a penalty
23 follows. (Respondent may test the adequacy of all other claims and defenses
24 arising out of this fact situation as well.)

25 9) The Respondent's motion to dismiss the Department's Notice of
26 Violation and Intent to Assess for lack of diligent prosecution should be

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denied.

PROPOSED ORDER

It is hereby ordered that Department's July 20, 1976 Notice of Violation and Order Number SS-MWR-76-150 as against Mr. Robert J. Wright be dismissed without prejudice. It is further ordered that Department's November 3, 1976 Notice of Violation and Intent to Assess Civil Penalty Number SS-MWR-76-231 does not state a cause of action and cannot be tested by demurrer. There being no cause against Respondent remaining before this forum, Respondent's motion to dismiss the latter Notice for lack of diligent prosecution cannot be entertained presently. This ruling does not preclude such a motion by Respondent if and when Department might choose to assess a civil penalty against him based upon Facts alleged in the Notice.

Respectfully submitted
this 11th day of February, 1977

Peter W. McSwain
Peter W. McSwain
HEARING OFFICER

1 OPINION

2 WITH OR WITHOUT PREJUDICE

3 Upon reconsideration, it appears the Hearing Officer was incorrect in
4 ruling that Department would be held to have entered a stipulation unless
5 we were otherwise informed, particularly where such a ruling was potentially
6 a final order and no assurance in the way of return receipt or return of
7 service was provided to insure Department's awareness that we proposed to
8 base a final order on its inaction.

9 In any event, there is present in the record no writing or collection
10 of writings which legally rises to the parties' stipulation to dismissal
11 with prejudice. To the contrary, we have Department's express refusal to
12 so stipulate. Respondent is uninjured by this refusal because it is
13 entirely within the Department's prerogatives to so refuse. Our adminis-
14 trative rule governing this matter is that pertaining to notices of a
15 nature not required by rule (OAR 340-11-097(2) as amended August 27, 1976).
16 The rule provides that such notice is perfected when the notice is posted
17 or addressed to a party.

18 While we have learned that Respondent failed to receive the notice,
19 the fact that this office received it with indication it was mailed to
20 Respondent and the fact of Department's contention the letter was mailed
21 precludes a finding the Department did not mail the letter and thus perfect
22 notice.

23 If Respondent is injured at all it is by his failure to receive the
24 notice within the ten day period and his repose in relying on a dismissal
25 without prejudice.

26 Two factors enter here. First, it is unapparent from the record what

1 actions, if any, Respondent took in reliance of such repose. Second, and
2 more importantly, it is clear from the record that any such reliance would
3 have been misplaced. Even if Respondent did not receive the Hearing Officer's
4 letter of November 22, 1976 which would render such reliance unreasonable,
5 the file shows Respondent, some eight days before the erroneous ruling set
6 forth above, (unknown to this office at that time) received the Notice of
7 Violation and Intent to Assess Civil Penalty based, inter alia, on factual
8 allegations similar to those of the withdrawn notice. It is patently
9 obvious from this writing that Department would not consent to waive any
10 future enforcement action arising from the facts alleged.

11 Having ruled the parties did not effectively stipulate dismissal with
12 prejudice, we now consider whether Respondent is entitled to such an order.
13 Department is authorized to use a variety of procedures to gain compliance
14 with environmental law and regulation. Among these are the use of a
15 remedial action order (ORS 454.635) and the use of the civil penalty (ORS
16 468.135). Indeed it would seem that Department cannot proceed in both
17 fashions at once where the same set of facts are in issue. See e.g.
18 Miller v. Johnson, 370 P. 2d 171 (Alaska, 1962).

19 However, the general rule of law would appear to be that dismissal
20 prior to hearing is without the attachment of prejudice. Indeed, the
21 provisions in this jurisdiction for suits (ORS 18.210) and actions (ORS
22 18.250) would, in a situation analogous to the present, dictate that
23 dismissal be without prejudice. While the specifics of our situation have
24 not been dealt with in any reported Oregon cases our research has disclosed,
25 it would appear that the general rule holds in administrative forums even
26 where grave issues are at stake. Kendall v. Osteopathic Examiners, 105

1 Cal. App. 2d 239, 233 P. 2d 107 (1951).

2 RESPONDENT'S DEMURRER TO DEPARTMENT'S NOTICE OF VIOLATION AND INTENT TO ASSESS

3 Department has called our attention to the reasoning of the Court in
4 Fry Roofing v. EPA, _____ F Supp _____, 9 ERC 1265 (D. Mo.
5 1976). This case holds that Congress did not intent that the notice pro-
6 cedures of 42 U.S.C. 1857c-8(a)(1) (Air Pollution violative of a State
7 Implementation Plan) should be the subject of judicial review even though
8 the Respondent could disregard the notice only at his own peril, risking
9 criminal sanctions. It was pointed out that there (as here - see ORS
10 183.400 and 183.410) were channels of declaratory relief available to
11 alleviate uncertainty.

12 We do not reach that issue here, however. If we understand them
13 correctly, the parties are in a refreshing state of harmony with regard to
14 the Notice. Respondent steadfastly maintains it fails to state a cause of
15 action. Department concurs, with the reservation that it was not intended
16 to and is sufficient to fulfill the requirements of ORS 468.125. Func-
17 tionally, both parties seek the same ruling, however it may be worded.
18 This forum need make no further ado over the notice until or unless it is
19 proffered at a hearing on any subsequent civil penalty that may issue. On
20 its face, it sufficiently states a violation. Whether it fulfills the
21 requirement of ORS 468.125 cannot be judged until the notice is read
22 together with the allegations of a civil penalty assessment supposedly
23 requiring such advance Notice. No document such as the latter is before
24 us.

25 OTHER ISSUES

26 Candor will be served by our statement of what has been our reasoning

1 to date on certain issues raised by Respondent.

2 1) We have not previously had occasion to rule on what significance,
3 if any, ORS 446.105(4) has with regard to this agency's jurisdiction over
4 subsurface sewage disposal facilities. It appears unwise to make an
5 assessment until and unless the matter is squarely at issue in a quasi-
6 judicial proceeding.

7 2) We have previously ruled on Respondent's request for a jury trial
8 and his objection to the Hearing Officer's source of salary. Attached for
9 review is that ruling.

10 3) While it is our duty on many occasions to weigh equities in
11 making various discretionary procedural decisions, this forum is without
12 jurisdiction over matters sounding in either abuse of process or malicious
13 prosecution. Suffice it to say that, given the plethora of legal issues
14 here sought to be tested, we find, as yet, no undue delay and no attempts
15 by the Department to either mislead this forum or to use it for dilatory
16 purposes.

17 4) Our reading of ORS 468.090, ORS 468.125 and ORS 454.635 does not
18 support the proposition that the Department must have in hand evidence of
19 air or water pollution to proceed against one who it feels has installed a
20 subsurface disposal system without a permit. Were such the case, then the
21 entire, expensive statutory process imposed by ORS 454.655 et seq. were
22 nugatory and wasteful indeed. One would be required to have obtained a
23 permit only if, subsequent to installation, the system failed. Gone would
24 be all preventive measures afforded by the process of reviewing proposals
25 to ascertain their compliance with rules and standards, and all prevention
26 of pollution afforded by the rules themselves.

1 5) Finally, the contentions of Respondent entitle him to the in-
2 formation that this office has ruled on one occasion that the Environmental
3 Quality Commission is not authorized pursuant to any of its enabling
4 legislation (as cited in that case) to make its own finding on whether a
5 dwelling to be served by a subsurface system is in violation of land use
6 law and is not authorized to withhold a permit based on its own finding
7 alone.

8 We did not so rule in any case where a governmental entity charged
9 with enforcement of land use regulation had, after full hearing opportunity,
10 ruled there was a violation. See e.g. Phillips v. Department of Revenue,
11 75 Or Adv. 4517 _____ Or App. _____, 544 P 2d 196 (1975) and
12 Eagle Creek Rock Products, Inc. v. Clackamas County, 27 Or App. 371, _____
13 P 2d _____, (1976).

14 It should be cautioned, however, that we have neither been asked to
15 rule or ruled on the question of whether denial of a disposal system permit
16 based on a rule later found infirm would be a defense to a civil penalty or
17 other action based on installation without a permit. Since ORS 468.070(3)
18 quite clearly gives an applicant standing to seek contested case review of
19 the denial itself, and since ORS 183.400 and ORS 183.410 provide avenues
20 for review of any rules a party finds misapplied or beyond agency authority,
21 we harbor some doubt that such a defense would lie.

22 Also, our previous ruling amounts only to the best estimate of one
23 Hearing Officer. It has received neither formal review by the Commission,
24 official sanction by the Department's Counsel, nor review by the Courts.

25 It is sincerely hoped that this lengthy explanation of our posture
26 will serve to clarify matters for both parties in their choice as to what

1 steps, if any, should next be taken.

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Sincerely,


Peter W. McSwain
HEARING OFFICER

October 25, 1976

Mr. Robert J. Wright
88838 Hale Road
Noti, Oregon 97461

Re: Department of Environmental Quality v.
Robert J. Wright
Before the Environmental Quality Commission
No. SS-MWR-76-150

Dear Mr. Wright:

Thank you for your letter of October 19, 1976.
Enclosed is a copy of this agency's rules of procedure
regarding contested case matters.

We appreciate your request for a jury trial. We
cannot, however, grant such a request. ORS 183.415 does
not provide for the impaneling of a jury in matters such
as the present one. Please see the reasoning of the
Court of Appeals in Accident Prevention Division v. N.
Amer. Contr., 75 Adv. Sh. 3288, _____ Or. App. _____,
_____ P2d _____ (1975).

While appeal of the agency's final order in this
matter would be to the Court of Appeals under provisions
of ORS Chapter 183 which were in effect before the matter
even arose, the function of the undersigned hearing officer
will be to propose a final order to the Environmental
Quality Commission which either party can appeal to the
Commission prior to its becoming effective.

The Commission, in turn, is a five member board of
volunteer appointees of the Governor. They are unsalaried
citizens of the state from various professional walks of
life. It is not apparent that the Commission, which is
the Department's policy-making body, would desire anything
other than a fair, impartial resolution. To that end, it
is incumbent upon the hearing officer to be impartial also.

CERTIFICATE OF SERVICE

I, Peter W. McSwain, hereby certify that on February 11,
1977, I served the foregoing proposed findings of fact, conclusions of law, and
final order No. SS-MWR-76-150 and SS-MWR-76-231

on Robert Haskins, of attorneys for Department and Robert J. Wright, Respondent
and Joe B. Richards, Commission Chairman.

by mailing each of them a true and correct copy thereof.

I further certify that said mailings were by depositing in the United States
Post Office at Portland, Oregon, each said copy, under cover, postage prepaid
and correctly addressed at the last known addresses listed below.

Peter W. McSwain

Robert Haskins
Assistant Attorney General
Portland Division
Department of Justice
555 State Office Building
Portland, Oregon 97201

Robert J. Wright
88838 Hale Road
Noti, Oregon 97461

Joe B. Richards
777 High Street
Eugene, Oregon 97401

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE
STATE OF OREGON

Department of Environmental Quality)
:)
Department) No. SS-MWR - 76-150
:)
vs) No. SS-MWR - 76-231
:)
ROBERT J. WRIGHT)
:)
Respondent) REQUEST FOR REVIEW OF PROPOSED
FINAL ORDER

COMES now the Respondent, and respectfully requests review of the proposed Order under OAR 340-11-132(3).) This request is well founded in law and not interposed for purpose of delay and based upon those points et seq.

I.

Page TWO of the opinion on lines 19 through 26 having to do with dismissal with prejudice.

ORS 18.210 pertains to a decree of dismissal against the plaintiff and ORS 18.250 purports to command a judgment of nonsuit.

The proper statute would be ORS 18.230 (1) (a) which contains a time limitation of five days before the date of the trial. It is respectfully pointed out that plaintiff's motion to dismiss was entered on November 2, 1976 and the trial was set for hearing on November 18, 1976 which hereby complies with the five day rule.

It well established in law that when both parties seek dismissal whether it is with or without prejudice, The Court dismisses it with prejudice. Kelly vs. Mallory (1954) 202 Or 690, 277 P.2d 677

1 Therefore it is suggested that the Hearing Officer's conclusion of law
2 on page (6) under sub paragraph (3) is in error.

3
4 ARGUMENT

5 The agency moved for dismissal which was not opposed by the
6 Respondent. Respondent merely wanted what the common law required which
7 was dismissal with prejudice. Without such a common law rule, there could
8 conceivably be no end to litigation. The agency could simply withdraw
9 and abandon every case by waiting till trial time and could conceivably
10 keep Respondent in a state of litigation forever.

11 The only real question that is moot is why did the agency
12 withdraw from it's original suit ? It would appear from their acts that
13 the agency is not interested in a judicial determination but only seek
14 to force or harrass Respondent into partitioning his farm land. In order
15 to force partitioning, the agency falsly implys a water pollution problem
16 endangering the health of the public. ORS 468,090 is a reasonable law
17 and it would be reasonable to apply if their were a health hazard. That
18 is why no notice need be given. However, this case does not present a
19 health problem. Usage of ORS 468,090 in this case would be an
20 unconstitutional application of an otherwise valid law. The legisltive
21 intent was to protect the public health and safety and the Legislature
22 authorized immediate action without notice for that purpose, Other state
23 agencies have the same right under ORS 183,430 (2) " In any case where the
24 agency finds a serious danager to the public health or safety and sets
25 forth specific reasons for such findings, the agency may suspend or refuse
26 to renew a license"***

1 ORS 468.090 (1) purports to command a written substantiated
2 complaint.

3 A reasonable mind in reading ORS Chapter 468 would necessarily
4 have in mind a substantiation of air or water pollution. A squib resume
5 of cases for the proper construction of statute is found in
6 Pacific Power and Light v. State Tax Comm. 249 Or 103, 437 P.2d 473 (1968)

7 Held: "The Courts will refuse to give literal application
8 to the words of a statute when to do so would produce
9 an absurd or unreasonable result - But instead will if
10 possible construe the statute as a reasonable and workable
11 law not inconsistent with the evident intention and general
12 policy of the legislature"

13 Didier v. State Accid. Comm 243 Or 460, 414 P2d 325 (1966)

14 Held: "Whenever the purpose of a statute is unclear from reading
15 any particular section, it must be given a meaning which
16 purports common sense, Legislative intention and the statutory
17 scheme as a whole.

18 Wimer v. Miller 235 Or. 25, 383 P2d 1005 (1963)

19 Held: " The statute must be read together and construed as a
20 whole with all statutes relating to the same subject
21 matter and with a view to effecting the overall policy
22 which statutes are intended to promote"

23 ARGUMENT

24 Both cases filed by the Department have to do with Respondent's
25 refusal to partition his farm land for farm housing. Septic tank permits
26 were applied for, a cite inspection was approved and a construction permit
27 fee was paid. In Order to force partitioning of good farm land, the
28 agency refused to inspect the installation so I had it inspected by a
29 licensed installer and covered it up anyway. Now they accuse me of
30 polluting the water and creating a health hazard and want to fine me without
31 "Notice or Hearing" on those pretenses. ORS Chapter 468 was never intended
32 by the legislature for the Department's usage to enforce the

STATE OF OREGON)
)
) :ss
COUNTY OF _____)

I, _____ swear or affirm that I am the
_____ and I believe the foregoing
_____ to be true.

/s/ _____

(seal)

SUBSCRIBED ON OATH OR AFFIRMATION BEFORE ME THIS _____
(date)

MY COMMISSION EXPIRES _____
(date) _____ NOTARY PUBLIC

I HEREBY CERTIFY that I served the foregoing _____ REQUEST
Upon the attorney of record for the _____ DEPARTMENT

BY U.S. MAIL POSTAGE PREPAID _____ # _____)
BY PERSONAL DELIVERY _____)
BY LEAVING IT WITH HIS _____)
SECRETARY IN HIS ABSENSE

:: This date Feb, 15, 1977

ROBERT L. HASKINS- Assistant Attorney General, Dept of Justice-
Name and address of attorney served

/s/ Robert L. Knight
In Propria Persona

I HEREBY CERTIFY THAT THE FOREGOING _____ IS A TRUE,
EXACT AND FULL COPY OF THE ORIGINAL FILED WITH THE CLERK ON _____
(date)

/s/ _____
In Propria Persona

February 18, 1977

Mr. Robert J. Wright
88838 Hale Road
Noti, Oregon 97461

Re: Department of Environmental Quality v.
Robert J. Wright - SS-MWR-76-150 and
SS-MWR-76-231

Dear Mr. Wright:

This is to acknowledge our receipt yesterday of your REQUEST FOR REVIEW OF PROPOSED FINAL ORDER in the above captioned matters.

Please be reminded that OAR 340-11-132(4) provides you thirty days from the date of our mailing you the proposed order in which to file any additional written exceptions or arguments, including proposed alternative findings of fact, conclusions of law and order and references to such portions of the record as you may wish to rely on. If additional time is desired, the Director or Commission may allow such.

The next Commission meeting after expiration of the time for filing of exception and argument is in Seaside. We presume it would be inconvenient to you.

In late April, the Commission may meet in Salem or Portland. We will let you know once the matter has been placed on the agenda and the time and place made definite.

Please inform us if you have objections or questions regarding the matters set forth above.

Sincerely,

Peter W. McSwain
Hearing Officer

PWM:vt

cc: Joe B. Richards
Robert Haskins
Mike Downs



DEPARTMENT OF JUSTICE

PORTLAND DIVISION
555 State Office Building
Portland, Oregon 97201
Telephone: (503) 229-5725

March 28, 1977

The Environmental Quality Commission
1234 S.W. Morrison Street
Portland, Oregon 97205

Re: Department of Environmental Quality v.
Robert Wright, before the Hearings
Section of the Environmental Quality
Commission, No. SS-MWR-76-150

Dear Commissioners:

Enclosed please find an Argument on Review to be filed on behalf of the Department in the above entitled matter, a copy of which is being forwarded to the Respondent, Mr. Wright.

Sincerely,

Robert L. Haskins
Assistant Attorney General

pjw
Enclosure

cc: Mr. Robert J. Wright - enc.

1 BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
2 OF THE STATE OF OREGON

3
4 DEPARTMENT of ENVIRONMENTAL QUALITY)
5 of the STATE OF OREGON,)
6 Department,) Nos. SS-MWR-76-150
7) & SS-MWR-76-231
8) ARGUMENT ON REVIEW
9) Respondent.)
10

11 The Department of Environmental Quality supports the Proposed
12 Final Order and Opinion issued by Hearing Officer Peter McSwain
13 and moves the Commission to adopt it as the Commission's final
14 order and opinion.

15 I. NATURE OF THE CASES

16 In case No. SS-MWR-76-150, the Department sought an order
17 requiring Respondent to abandon his subsurface sewage disposal
18 system because he constructed the system without having first
19 obtained a permit from the Department authorizing him to do
20 so, in violation of Oregon statutes and the Commission's rules.

21 Respondent was given ten days to cure its violations. ORS
22 454.635(3) (1975). Instead, Respondent demurred and answered
23 raising a number of defenses. The demurrer was overruled.

24 None of those defenses is properly before the Commission at
25 this time. Prior to any hearing, the Department moved to dismiss
26 its notice without prejudice, and the hearing officer granted

James A. Redden
555 State Office Building
Portland, Oregon 97201
Telephone 229-5725

1 the motion. Respondent contests that ruling.

2 In case No. SS-MWR-76-231, the Department served and filed
3 a notice of violation and intent to assess a civil penalty
4 notifying Respondent of certain past violations and of the
5 Department's intent to assess a civil penalty should the
6 violations continue or recur five days thereafter. The violations
7 cited were Respondent's construction of a subsurface sewage
8 disposal system without a permit and the using of that system
9 without first having obtained a certificate of satisfactory
10 completion from the Department, in violation of the applicable
11 statutes and rules. Again, Respondent demurred, this time
12 on the grounds that the Department's notice of intent failed
13 "to state facts sufficient to constitute a cause of action
14 under ORS 468.125(1) nor has the Department met the statutory
15 requirement of ORS 468.090". The hearing officer ruled that
16 the demurrer to the notice of intent was premature and that
17 the legal adequacy of that notice can be tested only when and if
18 a civil penalty is actually assessed by the required subsequent
19 written notice. It is doubtful that Respondent in his Request
20 For Review of Proposed Final Order has raised any issue regarding
21 that portion of the hearing officer's ruling, but for the sake
22 of prudence we will assume he has.

23 II. THE ISSUES

24 As indicated by the hearing officer, the issues before the
25 Commission are two very narrow legal issues:

26 (1) Whether the Department of Environmental Quality can

1 voluntarily dismiss a case (for an order to abandon a subsurface
2 sewage disposal system) prior to any hearing without prejudicing
3 its rights to subsequently allege and prove the same and other
4 facts (violations) entitling it to another form of relief (civil
5 penalties); and

6 (2) Whether the legal sufficiency of a civil penalty notice
7 of past violation and intent to assess a civil penalty for a future
8 violation can be tested by a demurrer.

9 III. ARGUMENT

10 Hearing Officer McSwain has made all the necessary findings
11 of fact and conclusions of law. He has also ably and cogently
12 discussed the relationship between the facts and the law in his
13 written opinion. It would serve no useful purpose to repeat that
14 here. We do not wish to review all those details. The Department
15 wishes only to emphasize certain elementary aspects of this case.

16 Clearly, the Department and the Commission are faced with
17 one set of facts. As the Department has alleged in its notices,
18 Respondent has constructed and used a subsurface sewage disposal
19 system on his real property without first having obtained a permit
20 and a certificate of satisfactory completion authorizing him to
21 do so.

22 The Department first commenced a proceeding against Respondent
23 alleging only Respondent's failure to obtain a permit and proposing
24 to order Respondent to abandon the system. The Department recon-
25 sidered whether that remedy would be appropriate for Respondent's
26 violations. The Department decided not to seek an order requiring

1 Respondent to abandon his system. However, the Department was
2 not willing to ignore Respondent's blatant action of constructing
3 and using the system without the authority of a permit and a
4 certificate of satisfactory completion. Rather, the Department
5 decided to give Respondent another opportunity to comply with
6 the Oregon statutes and the Commission's rules. Therefore,
7 prior to any hearing, the Department moved to dismiss its remedial
8 action order notice without prejudice to its rights to commence
9 another appropriate enforcement proceeding. At approximately
10 the same time, the Department also sent Respondent a notice
11 giving Respondent five days to correct its violations (in this
12 case, by obtaining a permit and certificate of satisfactory
13 completion) and stating that if the violations were not so corrected
14 the Department would in the future assess Respondent civil penalties.

15 Respondent argues that because the Department changed its
16 mind prior to any hearing and decided not to seek an order requiring
17 Respondent to abandon his system, the Department should be legally
18 required to ignore Respondent's blatant violative actions. That
19 is, the Department's notice should be dismissed with prejudice.
20 This could prevent the Department from taking any further action
21 against Respondent. Respondent wants a gift.

22 Hearing Officer McSwain ruled against Respondent. The
23 hearing officer was right.


24 Regarding Respondent's demurrer to the Department's civil
25 penalty five day notice, as Hearing Officer McSwain ruled, the
26 demurrer is premature. The notice is merely a notice of intent.

1 It is meaningless unless and until a civil penalty is assessed
2 by a subsequent written notice. If and when that occurs, and
3 not before, a demurrer can test the legal sufficiency of the five
4 day notice of intent and the assessment notice. Again, the hearing
5 officer ruled correctly.

6 For the reasons given in Hearing Officer McSwain's Proposed
7 Final Order and Opinion and for the reasons set forth above, the
8 Commission should adopt the hearing officer's Proposed Final Order
9 and Opinion as its final order and opinion in this case.

10
11 Respectfully submitted,

12 JAMES A. REDDEN
13 Attorney General

14 by 
15 Robert L. Haskins
16 Assistant Attorney General
17 Of Attorneys for
18 Department of
19 Environmental Quality

CERTIFICATE OF SERVICE

I, Patricia Woltring, being a competent person over the age of 18 years, hereby certify that I served a copy of the foregoing Argument on Review on Mr. Robert J. Wright, Respondent, on the 28th day of March, 1977, by mailing to him a true and correct copy thereof. I further certify that said copy was placed in a sealed envelope addressed to said Respondent at his last known address, 88838 Hale Road, Noti, Oregon, 97461, and deposited in the post office at Portland, Oregon, on the 28th day of March, 1977, and that the postage thereon was prepaid.

Patricia J. Woltring

Patricia Woltring, Secretary

1 BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
2 OF THE STATE OF OREGON

3 DEPARTMENT OF ENV. QUALITY)
4 STATE OF OREGON):
)
5 Department):
)
6 vs): No. SS-MWR-76-150
): SS-MWR-76-231
7 ROBERT J. WRIGHT):
8): 'Respondent's Reply to the
 Respondent) Department's belated Argument

9
10 The Department has failed to meet the genuine issue and clouds it
11 with arguement unsupported with points or authoriites.

12 [If there is going to be a departure from the common law
13 established in Kelly v. Mallory (1954) 202 Or. 690, 277 P.2d 677
14 where the High Court held that when both parties seek dismissal
15 whether it is with or without prejudice, the Court dismisses it with
16 prejudice" [Emphasis supplied].

17 The Department has cited no authority to uphold dismissal without
18 prejudice. It is not the function of the Hearing Officer to do the
19 legal research for the Department and any appeal of the Order should be
20 the burden of the Department since the facts as well as the law support
21 the Respondent's position. To deny the Respondent dismissal with
22 prejudice would be to deny respondent the equal protection of the common
23 law and a denial of a federal Constitutional right under the 14th
24 Amendment to the Federal Constitution and grounds to carry the Appeal
25 to the United States Supreme Court by way of Writ of Certiorari and an
26 action under USCA Title 42 § 1983 . The Department should not have

1 sought dismissal of their original action and when they did, they should
2 suffer the consequences of their own acts . Respondent has Shepardized
3 Kelly v. Mallory (1954) (supra) and that doctrine has not changed and
4 which would be the only issue taken to the Court of Appeals on any
5 appeal of the Order.

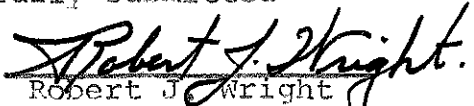
6 Any review of the record as it now stands will show that the
7 Department's Arguement cites no authority, law or opinion to support any
8 of his contentions.

9 Therefore, Respondent respectfully requests that a new final Order
10 be entered containing the requirements laid down by the Oregon Supreme
11 Court in Wright v. State Ins. Comm. (1969) Or. 449 P.2d 419

12 Held: " Every adverse decision or Order must be
13 accompanied by findings of fact, consisting
14 of concise statement of determination of each
15 contested issue of fact, and conclusions of
16 law"

17 Dismissal without or with prejudice is a contested issue
18 of fact in this case and must be supported by the Departments
19 arguement. The Department sought dismissal- That being the ultimate
20 fact, The law follows and requires dismissal with prejudice.
21 To do otherwise, would retrograde the laws we live by and deny
22 procedural due process as well.

23 /Respectfully submitted

24 
25 Robert J. Wright
26 88838 Hale Road
Noti, Oregon 97461
Ph 935-3618

cc: ROBERT L. HASKINS
ASSISTANT ATTORNEY GENERAL



ENVIRONMENTAL QUALITY COMMISSION

1234 S.W. MORRISON STREET • PORTLAND, ORE. 97205 • Telephone (503) 229-5696

ROBERT W. STRAUB
GOVERNOR

MEMORANDUM

TO: Environmental Quality Commission
FROM: Director
SUBJECT: Agenda Item F, EQC Meeting, April 22, 1977

Variance Request From Jeld Wen: Benton's Engineering and
Fabrication, Klamath County - Request for Variance from
Open Burning Rules, OAR 340-23-025 through 23-050

Background

1. Jeld-Wen, Inc., includes a complex of five wood products plants north of Klamath Falls. Benton's Engineering & Fabrication is part of Jeld-Wen, Inc., and provides engineering, maintenance and other services. Maintenance of the "company dump" is part of their responsibility.
2. Since as early as 1972 Jeld-Wen has burned accumulated waste materials from the plant site, usually once per year at their dump. They estimate the annual accumulation of wastes to be approximately 1350 cu.ft., Attachment II.
3. The Department assessed a \$200 civil penalty on Jeld-Wen, Inc., on April 3, 1972 for two days of recorded, unauthorized open burning. Later, Jeld-Wen acknowledged that they open burn, but that the cited violations should have been upon Thomas Lumber Company, then a separate entity, but now a part of Jeld-Wen, Inc.
4. DEQ issued a Notice of violation on March 31, 1976 to Jeld-Wen, Inc. for open burning noted on March 20, 1976. In their April 16, 1976 response, Jeld-Wen indicated that "persons unknown" had started the fire, and further that a "boy about twelve years old was caught... starting several fires in the same location" on April 2, 1976. The Department took no further action.



Contains
Recycled
Materials

5. In January, 1977, Jeld-Wen requested DEQ permission to burn approximately 100 cubic yards of miscellaneous industrial waste, wood pallets and building demolition. DEQ staff inspected the proposed burn site on January 18, 1977. Jeld-Wen provided a "Dump Use Policy " statement, Attachment II. DEQ left a copy of Oregon's open burning regulations with Jeld-Wen.

Even though the Klamath County Fire Marshall had issued a burn permit, DEQ denied the burn request on January 24, 1977, requested an analysis of alternatives to open burning, and indicated that an appeal to the EQC was possible, Attachment I.

6. On February 7, 1977, Jeld-Wen responded to the inquiries, and asked for an EQC variance to burn in 1977 and to continue burning once per year thereafter, Attachment II.
7. Due to a developing fire hazard resulting from then local drought conditions, DEQ authorized a "one-time burn" for 1977 on March 4, 1977 subject to several provisions, Attachment III. The letter also stated that the EQC would consider the once-per-year burn variance request later.

Evaluation

1. On March 8, 1977 DEQ staff inspected the site prior to the burn. Significant quantities of new material had been added to the pile including several substances such as plastic, rubber, paint and some domestic refuse. DEQ had not observed these items during earlier inspections. DEQ documented these findings in a March 11 1977 letter to Jeld-Wen, Attachment IV, but did not rescind the burning authorization.
2. On March 21, 1977 Jeld-Wen rebutted these claims in a letter to Fred Bolton, Attachment V.
3. DEQ staff observed the authorized burn on March 10, 1977. Significant quantities of smoke were noted but no complaints were received.
4. Unknown to, and in violation of the open burning rules, Jeld-Wen Inc. obtained a separate burning permit from the Klamath County Fire Marshall for building demolition from old homes at Thomas Lumber Division. DEQ staff incidentally observed this burn on March 23, 1977. Appliances, asphalt roofing and the like were noted in the pile. Photographs of the still burning pile were taken on March 25, 1977. Significant quantities of smoke were observed but no complaints were received.
5. On February 7, 1977, Jeld-Wen submitted a study of alternatives to open burning, Attachment II.

3.

- A. On-site Landfill - The staff agrees primarily due to possible contamination of local high groundwater.
- B. Off-site landfill - The staff disagrees. Contacts with Klamath County indicate that industrial solid waste quantities of the magnitude Jeld-Wen generates could be managed at either the County or the Klamath Disposal site.
- C. Forced-air pit incineration - The staff disagrees with some of Jeld-Wen's claims since DEQ has observed these installations within visual compliance. Also, the units do not appear to be a fire hazard when used under appropriate meteorological conditions and do not have to be used during windy conditions.

Cost estimates for currently available pit incinerators range from \$5,000 to \$48,500 depending on the size and manufacturer. One large unit (4 tons/hr.) is currently available from Seattle on a rental basis for \$500 per week.

- D. Waste Generation reduction - The DEQ staff agrees with the content of Jeld-Wen's "Dump Use Policy" statement. However, some of the reusable or recycleable materials were noted in the burn piles.
 - E. Recycling and/or reuse - The DEQ staff agrees that Jeld-Wen, Inc., has recycled many "waste products" into marketable items or energy resources. Jeld-Wen should be commended in this effort and encouraged to continue in this endeavor.
- 6. Despite Jeld Wen's contrary claim, DEQ staff believes that open burning does impact the local environment. Further, local complaints have been received.
 - 7. The company has requested a variance (and implied permit modifications) from OAR Chapter 340-23-045(4) and 5(a) under ORS 468.345(1)(b) which states..."The Environmental Quality Commission may grant specific variances which may be limited in time from the particular requirement of any rule, regulation or order...if it finds that... special circumstances render strict compliance unreasonable, burdensome or impractical due to special physical conditions or cause."

Conclusions

- 1. The industrial waste management problem at the Jeld-Wen, Inc., complex is not unique. Analyses of alternatives to open burning have not been exhausted, and some data presented may be inaccurate.

4.

2. The DEQ has a documented history of open burning problems at this complex. Adequate time has been allowed for Jeld-Wen to find alternatives. Some industrial and commercial waste burning has occurred without DEQ knowledge or permission.
3. Wastes in quantities generated by Jeld-Wen can be handled at the County or the Klamath disposal site.

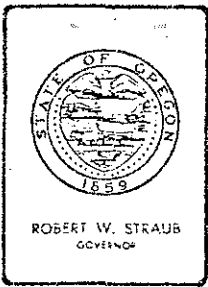
Director's Recommendations

1. The Director recommends that the Environmental Quality Commission enter a finding that special circumstances rendering strict compliance unreasonable, burdensome or impractical were not found.
2. It is the Director's further recommendation that this request for industrial and commercial waste open burning at Jeld-Wen be denied.
3. The Director also recommends that Benton's Engineering and Fabrication be instructed to more fully examine alternatives to open burning, and submit the selected alternative to the Department for review and approval.

Bill

WILLIAM H. YOUNG
Director

Attachments
RLV:1b
4/8/77



Department of Environmental Quality

CENTRAL REGION

2150 N.E. STUDIO ROAD, BEND, OREGON 97701 PHONE (503) 382-6446

January 24, 1977

Mr. Stan Meyers
Benton's Engineering & Fabrication
P.O. Box 472
Klamath Falls, OR 97601

AP - Jeld Wen Inc.
EI# 18-0006
Klamath County
18 B 77001

Dear Mr. Meyers:

This is in response to your January, 1977 request for Department of Environmental Quality authorization to burn approximately 100 cubic yards of miscellaneous industrial waste, wood pallets and building demolition at your Jeld-Wen complex north of Klamath Falls. The burning would begin as soon as possible with estimated rapid burn-down in 24 hours and long-term burn-down in two weeks. Gil Hargreaves and I inspected the material with you and Mr. Halvorsen on January 18, 1977.

Oregon Administrative Rules (OAR) for open burning allow me to issue permits for open burning subject to a number of conditions (see regulations I left at your office January 18). Most important in your proposal, however, are the burn location in the Klamath Basin, the quantity of material, and the type of material.

Your request is hereby denied. I verbally denied your request on January 18, 1977. As you know, your several Air Contaminant Discharge Permits also prohibit this type of burning.

During our January 18 inspection, we discussed the following alternatives to open burning:

1. Landfilling
 - a. on-site
 - b. off-site at public or private landfills
2. Forced-air pit incineration [see OAR 340-23-040(12)]
3. Waste generation reduction
4. Recycling and/or reuse

Since it appears that you may continue to annually generate significant volumes of waste materials, I recommend that you investigate forced-air pit incineration. DRIALL Air Curtain Destructor is one such device, but there are others.

Page 2

I appreciate your January 9, 1977 "Dump Use Policy" staff memorandum. It should help reduce wastes at your complex. I also appreciate your cooperation in this matter.

You may appeal this denial to the Environmental Quality Commission (EQC) within 14 days after receipt of this letter. If you wish to appeal, please direct your request to:

Mr. William H. Young, Director
Department of Environmental Quality
1234 SW Morrison
Portland, OR 97205

Please contact me in Bend if you have questions or comments.

Sincerely,

WILLIAM H. YOUNG
Director



John E. Borden
Regional Manager

JEB:sm

cc: Dale Drew, Klamath County Fire
Ken Moore, Jeld-Wen
Dick Vogt via D. D. Fraley
Klamath Falls Branch Office
Central Region

BENTON'S ENGINEERING & FABRICATION

DESIGN AND SALES OF CUSTOM BUILT MACHINERY

P. O. BOX 472 -- Phone (503) 884-9930

KLAMATH FALLS, OREGON 97601

February 7, 1977

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
R E C E I V E D
FEB 8 1977

BEND DISTRICT OFFICE

William H. Young
Director
Department of Environmental Quality
1234 S.W. Morrison
Portland, Oregon 97205

Dear Mr. Young:

We wish to appeal an administrative decision by John Borden relative to an open burning on our property in Klamath Falls. Mr Borden's letter of January 24 is attached.

JELD-WEN, Inc. includes a complex of five wood products plants for which Benton Engineering and Fabrication as a part of JELD-WEN, Inc., provides engineering, maintenance and other services. Included in the maintenance services is waste removal and operation of our company dump, operated pursuant to the attached policy.

For several years we have burned the accumulated materials, usually once a year. The present accumulation inspected by Mr. Borden is approximately twice the normal amount due to the demolition of a planer mill which was replaced with a new structure.

Referring to Mr. Borden's letter, we address each of his alternatives to open burning as follows:

1. A. On-Site land Fill

This alternative is neither feasible nor desirable inasmuch as the material would not provide a suitable foundation for future industrial structures or agricultural use. In addition, land fill is not desirable due to the proximity of Klamath Lake.

B. Off-Site Land Fill

We believe the nature of the materials would not be suitable for sanitary land fills because of dimensions and the difficulty of compacting or dismantling. Additionally, these materials would be difficult to handle, and breaking down the materials to manageable size for loading, hauling and disposal offers serious hazards to our workmen.

BENTON'S ENGINEERING & FABRICATION

DESIGN AND SALES OF CUSTOM BUILT MACHINERY

P. O. BOX 472 -- Phone (503) 884-9930

KLAMATH FALLS, OREGON 97601

2. Forced-Air Pit Incineration

This alternative is far too expensive for application to our operations. We estimate a capital investment of \$30,000.00 to \$75,000.00, plus an unknown annual maintenance cost, neither of which is financially feasible as a component part of our manufacturing and maintenance operations. Very dry windy conditions exist during the majority of the year which may cause forced-air pit incineration to be a fire hazard to adjacent fields and log yards. Conversations with people in the incineration field indicate that many open pit installations have yielded poor results and that use of several of these pits has been abandoned. In addition, frequent use of this type of facility may be more objectionable to local air quality than our present procedure of open burning of these materials on a once per year basis.

3. Waste Generation Reduction

We have made considerable efforts in this line. Implementation of our corporate policy on dump usage (copy attached) places substantial emphasis on minimizing the amount of materials taken to the dump. Specifically, only those materials which are not suitable for chipping or hogging are taken to the dump. All materials which can be chipped or hogged are used in manufacturing operations, the boiler, or are sold to outside customers. All scrap metal is collected and sold to scrap dealers and all banding materials are reduced in band choppers and sold for scrap. Implementation of these policies and procedures has resulted in an absolute minimum of waste materials for which we have no alternate means of disposal.

4. Recycling and/or Reuse

JELD-WEN, Inc. has a very large investment in plants and equipment, much of which recycles or reuses materials which would otherwise be waste products. Fingerjoint machines, edge glue machines, and other processes allow us to utilize material as end products which would otherwise be waste for which outside markets would have to be found. All of our plants including the sawmill, planning mill, millwork, door, and fiber door plants utilize chippers and hogs to maximize material retrieval and minimize waste accumulation. The recently installed waste wood fired boiler utilizes some 1,250,000 cubic feet of hog fuel per year. Approximately 75% of this material is hogged bark which, under previous ownership, had been collected in a large pile and for which no consistent local market exists. Our fiber door plant, representing a very substantial investment, utilizes some 1,500,000 cubic feet of waste material from our other manufacturing operations. Further, we transfer the materials for our boiler and fiber board plant by underground pipes in lieu of open conveyors. These and other efforts too numerous to mention are evidence of implementation of our policies on waste reduction and utilization and the environment generally.

BENTON'S ENGINEERING & FABRICATION

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P. O. BOX 472 -- Phone (503) 884-9930

KLAMATH FALLS, OREGON 97601

Out of some 5,000,000 cubic feet of logs and lumber, which enter our operations each year, we accumulate approximately 1,350 cubic feet per year of combustible waste which is contaminated with metal and is not reclaimable for use in our manufacturing facilities. This represents only approximately 0.027% of the material volume processed through our facilities.

The Klamath Basin has an airshed which is of high quality most of the time. It is, therefore, practical to select a time for open burning which will create a minimum disturbance to the air quality in the area. Our experience with previous burning of the material has been that no significant disturbance to our local environment has occurred and we have received no complaints to the contrary. It is our conclusion that open burning, once per year of the relatively small quantity of material, is our only practical alternative and that the effect on our local environment is not detrimental.

In addition, JELD-WEN Inc. has an exemplary record in providing manufacturing facilities which enhance the esthetics of our local area that is second to none among our industries in the Klamath Basin. We maintain approximately 8 acres of our site in lawns and landscaping. We are currently preparing all of our useable grounds for planting of alfalfa and grasses which will enhance their appearance considerably. We are proud of our record of citizenship in the community and our continued efforts in this regard are expressed in our corporate policies which are included with this request.

Therefore, in consideration of the above, we respectfully request the Commission's approval to allow us to burn the materials presently in the dump and also to rule favorably upon our request to continue burning of this material on a once per year basis.

Sincerely,



Stanley K. Meyers, P.E.
Assistant Corporate Engineer

SKM/jh

CC: John Borden

DUMP USE POLICY

A. General

The purpose of the corporate dump is for disposal and destruction of materials which have no use or sale value. Therefore, it is assumed that material which has been deposited at the dump has no value to any JELD-WEN Company or private individual. Furthermore, in order to avoid problems associated with security, removal of defective or damaged products from the plant site, and unauthorized use of the dump, its use by unauthorized persons, Company employees (except as noted in D), or private individuals, for dumping or for salvage, will be expressly prohibited.

B. Materials

1. All materials taken to the dump should be intended for destruction and should be combustible.
2. No clean wood, which can be hogged or chipped, should go to the dump.
3. No metal which is separable from other materials should go to the dump. Banding should be chopped and scrap metal should be collected for sale.
4. All steel barrels should be returned or sold if possible. If feasible, steel barrels which cannot be sold or returned should be substituted for with cardboard barrels or other combustible containers. Steel barrels should be taken to the dump only as a last resort.

C. Persons Authorized to Deposit Material

1. Only the clean-up services manager, or those people designated by him and in his employ, are authorized to deposit material in the dump.
2. The only exception to this is an employee(s) of a JELD-WEN plant, for dumping of company refuse, when conditions preclude the use of the clean-up services personnel for a particular disposal operation.

D. Persons Authorized to Remove Material

1. No material, except under unusual circumstances, is to be removed from the dump.
2. Only under special circumstances, and with the written authorization from the affected plant manager, designating both the person and the material to be removed, will material be allowed to be taken from the dump.

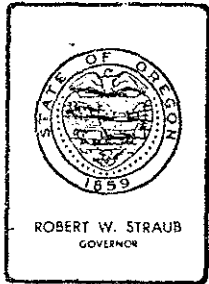
Excerpts From JELD-WEN, inc. Company Policy

110.c. Fiber and Waste Products (Effective 12/72; revised 1/77)

We will endeavor to fully utilize the wood waste from that part of the lumber and millworks operations that in the past has been of little or no value. This includes short pieces of cutstock, sawdust and shavings, material with defects, and machine waste. Products that are developed from this material should also be restricted to component parts of a home.

700. Environment (Effective 12/72)

It is our policy to do everything within reason in conducting our business to avoid serious harm to the environment or any of its inhabitants. It is our policy to conduct our business in such manner so that we contribute to social advances and general improvement of our environment.

Central

Department of Environmental Quality

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 Telephone (503) 229-

March 4, 1977

Mr. Stan Meyers, P.E.

Assistant Corporate Engineer
Benton's Engineering & Fabrication
P.O. Box 472
Klamath Falls, OR 97601

AP - Jeld Wen Inc.
EI# 18-0006, Klamath County
18 B 77 002

Dear Mr. Meyers:

Thank you for your February 7, 1977 letter. You expressed two requests to open burn:

1. Burn materials presently in the dump in 1977 and
2. Continue burning accumulated materials once per year thereafter.

Regarding your request to burn in 1977, you are hereby authorized to carry out this one time burn subject to the following:

1. All material shall be piled to burn as cleanly as possible. All efforts shall be made to minimize burn duration.
2. Burning shall not be conducted during periods of poor ventilation as determined by the Department of Environmental Quality or the Klamath Fire District.
3. Contact both the Klamath County Fire Department and Neil Adams, DEQ, Klamath Falls prior to starting the burn.
4. The burn shall be subject to any requirements established by the Klamath County Fire Department.
5. Authorization may be recinded for any or all of the project if problems arise from the open burning.

Regarding your request to burn accumulated materials annually after 1977, your request is again denied. However, your February 7, 1977 appeal will be considered by the Environmental Quality Commission in Seaside on April 1, 1977 at the Seaside Convention Center. The Department will complete its review of your request, and John Borden will forward you a copy of our staff report prior to the meeting.



Page 2

Please contact Mr. Borden in Bend at 382-6446 if you have comments or questions.

Sincerely,

WILLIAM H. YOUNG
Director

Fred M. Bolton
Administrator
Regional Operations

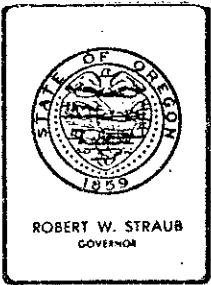
JEB:sm

cc: Dale Drew, Klamath County Fire Dept.
Ken Moore, Jeld Wen
bcc: Dick Vogt via D. D. Fraley
Klamath Branch Office
~~Central Region~~

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED
MAR 7 1977

BEND DISTRICT OFFICE



Department of Environmental Quality

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 Telephone (503) 229-

March 11, 1977

Mr. Stan Meyers, P.E.

Assistant Corporate Engineer
Benton's Engineering & Fabrication
P.O. Box 472
Klamath Falls, OR 97601

AP - Jeld-Wen Inc.
Klamath County
EI #18-0006
(Re: 18 B 77 002)

Dear Mr. Meyers:

On March 8, 1977 my staff and I conducted an inspection of your proposed open burn pile with Stan Meyers in followup to your request for an annual burning variance from the DEQ. In addition to the demolition and clean wood wastes noted by Gil Hargreaves and John Borden during their January 18, 1977 inspection, I noted assorted plastic sheets, rubber goods, tires, paint, plastic drums, lunch room waste, recyclable cardboard and household refuse in an apparent "new" waste pile during my inspection.

Had I realized that you intended to burn these items, I would not have authorized this one time "emergency" burn. In fact I am not rescinding our March 4, 1977 authorization only because the Klamath County Fire Marshall has indicated to my staff that burning may be the most acceptable disposal method for the present waste accumulation in place as of 11:00 a.m., March 8, 1977.

While I realize that you have a pending appeal to the Environmental Quality Commission for continued annual waste burning, I believe my staff was in error in recommending approval of this one-time burn in 1977. I hope you will seriously evaluate all possible alternatives to open burning of industrial wastes prior to the Environmental Quality Commission's evaluation of your Appeal. As you pointed out, there are more possible options to burning than those DEQ suggested.

Please contact us if you have comments or questions.

Sincerely,

WILLIAM H. YOUNG
Director

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
Fred M. Bolton
Administrator
Regional Operations
RECEIVED
MAR 21 1977

JEB: sm

cc: Dale Drew
Air Quality
Klamath Branch
Central Region

BEND DISTRICT OFFICE



Contains
Recycled
Material

BENTON'S ENGINEERING & FABRICATION

DESIGN AND SALES OF CUSTOM BUILT MACHINERY

P. O. BOX ~~472~~ 1540 Phone (503) ~~884-4430~~ 883-3373

KLAMATH FALLS, OREGON 97601

March 21, 1977

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY**RECEIVED**
MAR 30 1977**AIR QUALITY CONTROL**

Mr. Fred M. Bolton
 Administrator, Regional Operations
 Department of Environmental Quality
 1234 S.W. Morrison Street
 Portland, OR 97205

AP - JELD-WEN, inc.
 Klamath County
 EI #18-0006
 Re: 18 B 77 002

Dear Mr. Bolton,

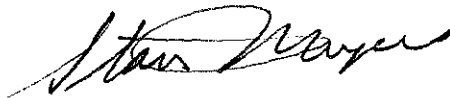
I have received your letter of March 11, 1977, and have some comments and observations which I feel are pertinent to our pending appeal with the Environmental Quality Commission. Your letter mentions several items which are described as "in addition" to the demolition and clean wood wastes noted by John Borden and Gil Hargreaves during their inspection of January 18. Our lunch room and office wastebasket materials, collected in lightweight, household type garbage bags, and cardboard material have always been taken to the dump and were also present during the inspection of January 18. The large plastic sheets and large, cardboard lumber package end protectors were new items in the pile. These originated from our current warehouse expansion construction and are materials which are not part of the normal make-up of the dump.

During the March 8 inspection I noticed one (1) tire and have been told by one of our employees that one or two others were present. These could have easily been removed had such a request been made. Also during the inspection, John and I inspected one small deposit, approximately 4 cubic feet, of household refuse which I assume is what your reference is to in your letter. In addition I viewed a small amount of miscellaneous materials in the dump and several plastic jugs (the largest gallon size). The total of all of these types of items was quite small in relation to the volume of wood waste in the dump. My personal observations did not include any appreciable amount of items referred to as "rubber goods". The "new" waste pile referred to was the material accumulated from January 18 to March 8, a period of almost two months. The overall cleanliness and make-up of the materials in the dump are attested to by the lack of seagulls, rodents, or other trash seeking animals at the dump site. The absence of these animals is a good measure of the lack of "garbage" in the waste pile.

The waste pile in question was burned on March 10 under a burning permit issued by the Klamath County Fire Marshal. I am pleased to report that the burn was very successful and was accomplished without smoke problems or harmful effects to the environment. Comments from the Fire Marshal also support this observation. To date I have not received or been notified of any complaints from the surrounding community.

Although we are investigating alternative methods of waste disposal, collecting these materials and burning them on a yearly basis is presently the only feasible method of disposal. With this in mind, I would like to urge your favorable consideration of our pending appeal.

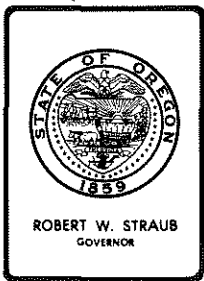
Sincerely,



Stan Meyers, P.E.
Assistant Corporate Engineer

SM:dcp

cc: John E. Borden
Dale Drew



Environmental Quality Commission

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission
From: Director
Subject: Agenda Item No. G, April 22, 1977, EQC Meeting

Variance Request by Hudspeth Sawmill Company to Operate Their
Hogged Fuel Boiler Out of Compliance with the Applicable Air
Quality Regulations

Background

At the February 25, 1977 meeting of the Environmental Quality Commission, the Department presented a request from Hudspeth Sawmill Company for a variance from Department regulations for particulate emissions from their boilers at their plant in John Day. The Department recommended that the five-year variance be denied and that the Company embark on a program to phase-out the four existing boilers and install two new boilers by July 1, 1978.

The Commission delayed action on the variance request for 60 days and requested the Company to immediately reduce fallout and excessive emissions to the lowest practicable levels at this time and to submit a control strategy and compliance schedule to reduce boiler emissions so as to comply with Department regulations.

Discussion

On March 7, 1977 a field survey and conference was held with Company personnel and on April 4, 1977, Department representatives met with Company officials to determine the current status of the boiler emissions and to discuss possible control strategies.

An inspection of the plant site and surrounding area on April 4, 1977 indicated that the particulate fallout from the boilers had been significantly reduced. In addition, the Company has orally told the staff of their control strategy which consists of reducing steam loads and completing improvements in boiler operation and maintenance. The Company has also contacted boiler manufacturers and consulting firms to discuss long-term improvements.

The control strategy has two sections which will improve boiler emissions. The Company intends to eliminate steam demands and losses by:

1. Insulate sawmill steamlines.
2. Insulate feedwater and condensate tanks.



Contains
Recycled

3. Repair leaking shotgun steam valves.
4. Repair leaking log turner cylinders.
5. Replace and relocate leaking kiln condensate return tank.
6. Eliminate water on kiln floors by installation of gravity flow system to condensate tank.
7. Repair or replace kiln, condensate traps and valves.
8. Install water level regulator on feedwater tank to eliminate overflow.
9. Rebuild pump on condensate tank.

and to improve boiler operation by:

10. Raise grate temperatures on water cooled grates on boilers 1, 3 and 4.
 - a. Install thermometers on each grate outlet.
 - b. Install control valves in grate water outlet lines.
 - c. Install temperature warning lights and sensors on grate water inlet lines.
11. Install two steam flow meters with recorders.
12. Install steam pressure differential regulator between boilers 1 and 2. (Boiler 1 operates at 110 lbs. maximum, boilers 2, 3, and 4 could operate at 150 lbs. when regulator is installed.)
13. Install larger screen on the hogged fuel hog to increase fuel size.
14. Hold meeting with Management and Sawmill Union regarding importance of boiler operations.
15. Hold training sessions for boiler operators with outside boiler personnel.
16. Change frequency and method of fuel feeding.
17. Repair the stack dampers.
18. Raise arch in boiler #1 six inches and remove 4 1/2 feet of sand behind arch.
19. Install new tailpipes (stack breeching) to eliminate draft leaks.
20. Cut steam draft lines.

Several of the above modifications have already been completed and have resulted in the previously mentioned reduction in particle fallout.

One of the important points in this strategy is the elimination of the steam injection system. Source tests previously performed on the boilers indicated that compliance can be attained without steam injection. Average emissions with the boilers under normal design load were 0.129 gr/scf. When tested with steam injection, emissions were significantly higher than allowed by Department regulations. Average emissions under the then current maximum boiler operating conditions were 0.441 gr/scf (0.20 gr/scf is required grain loading).

This control strategy and schedule was received at the meeting between Department and Company personnel on April 4, 1977, and has not been submitted in writing, however it is believed to be the strategy the Company will submit at the April 22, 1977 meeting.

The schedule attached was drawn up by the Department based upon the April 4, 1977 meeting with the Company. The schedule allows for completion of all strategy items by July 1, 1977 and allows 45 days for source testing and certification of compliance by the Company to the Department. Should the Company program not result in compliance, additional controls or new boilers would be required. The Department recommends that a consultant be employed as soon as possible to assist in boiler modifications and, should compliance not be demonstrated, to immediately develop a control strategy and schedule for further emission reductions.

Although the Company has not yet proposed it, the Department recommends the installation of a self-cleaning, self-calibrating opacity monitor with recorder on boiler stack #4. Because of the current opacity problems, an opacity meter not only informs the Company of opacity violations, it will provide a record which demonstrates the effectiveness of the control strategy.

Conclusions

1. The Company has yet to submit a control strategy and compliance schedule, but is expected to do so at this meeting.
2. The staff will complete an additional area survey on April 19, 1977.
3. The Company can complete the control strategy and may certify compliance by August 15, 1977.
4. Because of the results of previous tests without steam injection and the reductions in particle fallout, the Department concludes that the proposed strategy may result in compliance with Department emission limitations and would, if submitted and carried out by the Company, satisfy the requirements the Environmental Quality Commission set forth at their February 25, 1977 meeting.
5. Because of the lack of justification of the economic hardship and the Company's assertion that it can attain compliance, the requested five year variance is not warranted.

Director's Recommendation

The Director recommends that the Environmental Quality Commission:

1. Enter a finding that immediate strict compliance with Oregon Administrative Rules 340-21-015(1) and 340-21-020(1) is inappropriate because it would result in substantial curtailment or closing down of the sawmill and a variance for a five year period is not warranted, and
2. Grant a variance from Oregon Administrative Rules 340-21-015(1) and 340-21-020(1) until August 15, 1977 subject to the following conditions:
 - a. The Company shall proceed with and complete by July 1, 1977 the boiler modifications noted herein as items 1 through 9; and the improvements in operation listed herein as items 10 through 20.
 - b. The Company shall demonstrate the compliance of the boilers by performing particulate source tests by no later than July 15, 1977. The results of the tests shall be submitted to the Department by August 15, 1977.
 - c. The Company shall install a self-cleaning, self-calibrating opacity monitor with recorder on boiler #4 by no later than August 15, 1977.
 - d. The Company retain a consultant within 30 days to assist in boiler modifications and emission compliance program.

Bill

WILLIAM H. YOUNG
Director

EGW:cs
4/12/77

Attachments (2)

- (1) Control Strategy Schedule
- (2) Staff report on Variance Request by Hudspeth Sawmill Company presented at the February 25, 1977 EQC meeting.

| Item | 2-25 EOC Mtg. | | | | | 4-22 EOC Mtg. | | | | | 8-1 | 8-8 | 8-15 | | | | | | |
|--|---------------|---------|--------|------|------|---------------|-----|-----|-----------------|------|------|---------|------|------|------|-----|------|------|------|
| | 60 days | | | | | 90 days | | | | | | | | | | | | | |
| | 3-21 | 3-28 | 4-4 | 4-11 | 4-18 | 4-25 | 5-2 | 5-9 | 5-16 | 5-23 | 5-30 | 6-6 | 6-13 | 6-20 | 6-27 | 7-4 | 7-11 | 7-18 | 7-25 |
| 1. Insulate sawmill steam lines | ordered | rec. | | | | | | | | | | | | | | | | | |
| 2. Insulate feedwater & condensate tanks | | | | | | | | | | | | | | | | | | | |
| 3. Repair leaking shotgun valves | sent out | | | | | return | | | install | | | | | | | | | | |
| 4. Repair log turner cylinders | sent out | | | | | | | | | | | | | | | | | | |
| 5. Replace kiln cond. tank | COMPLETED | | | | | | | | | | | | | | | | | | |
| 6. Install gravity flow kiln cond. system | COMPLETED | | | | | | | | | | | | | | | | | | |
| 7. Repair or replace kiln cond. traps & valves | COMPLETED | | | | | | | | | | | | | | | | | | |
| 8. Install water level reg. on feedwater tank | | ordered | | | | arrive | | | | | | | | | | | | | |
| 9. Rebuild pump on cond. tank | COMPLETED | | | | | | | | | | | | | | | | | | |
| 10a. Install thermometers gratewater outlet | | ordered | | | | arrive | | | | | | | | | | | | | |
| 10b. Install gratewater control valves | | | | | | | | | | | | | | | | | | | |
| 10c. Install lights on gratewater inlets | ordered | | arrive | | | | | | | | | | | | | | | | |
| 11. Install 2 steam flow meters | ordered | | arrive | | | install | | | one reinstalled | | | | | | | | | | |
| 12. Install steam press diff. regulator | | | | | | order | | | | | | arrive | | | | | | | |
| 13. Install larger screen on hog | COMPLETED | | | | | | | | | | | | | | | | | | |
| 14. Meeting with Sawmill Union | COMPLETED | | | | | | | | | | | | | | | | | | |
| 15. Operator training sessions | x | | | | | | | | x | | | | | | | | | | |
| 16. Change freq. fuel feed | COMPLETED | | | | | | | | | | | | | | | | | | |
| 17. Change fuel feed method | | | | | | design | | | fabricate | | | install | | | | | | | |
| 18. Repair stack dampers | COMPLETED | | | | | | | | | | | | | | | | | | |
| 19. Raise arch in boiler 1 | COMPLETED | | | | | | | | | | | | | | | | | | |
| 20. Remove sand behind arch in #1 | COMPLETED | | | | | | | | | | | | | | | | | | |
| 21. Install new tailpipes | | | | | | | | | | | | | | | | | | | |
| 22. Cut steam draft lines | | | | | | | | | | | | | | | | | | | |

NOTE: Last "X" denotes projected completion date.

RESULTS OF SOURCE TEST TO DPO

SOURCE TEST

| Item | 2-25 EOC Mtg. | | | | | 4-22 EOC Mtg. | | | | | 90 days | 120 days | 150 days | | | | | | | |
|--|---------------|---------|--------|--------|---------|---------------|-----------|-------------|------|------|---------|----------|----------|--|--|--|------|-----|------|------|
| | 3-21 | 3-28 | 4-4 | 4-11 | 4-18 | 4-25 | 5-2 | 5-9 | 5-16 | 5-23 | | | | | | | 5-30 | 6-6 | 6-13 | 6-20 |
| 1. Insulate sawmill steam lines | ordered | rec. | | | | | | | | | | | | | | | | | | |
| 2. Insulate feedwater & condensate tanks | | | | | | | | | | | | | | | | | | | | |
| 3. Repair leaking shotgun valves | sent out | | | return | | | install | | | | | | | | | | | | | |
| 4. Repair log turner cylinders | sent out | | | | | | | | | | | | | | | | | | | |
| 5. Replace kiln cond. tank | COMPLETED | | | | | | | | | | | | | | | | | | | |
| 6. Install gravity flow kiln cond. system | COMPLETED | | | | | | | | | | | | | | | | | | | |
| 7. Repair or replace kiln cond. traps & valves | COMPLETED | | | | | | | | | | | | | | | | | | | |
| 8. Install water level reg. on feedwater tank | | ordered | | arrive | | | | | | | | | | | | | | | | |
| 9. Rebuild pump on cond. tank | COMPLETED | | | | | | | | | | | | | | | | | | | |
| 10a. Install thermometers gratewater outlet | | ordered | | arrive | | | | | | | | | | | | | | | | |
| 10b. Install gratewater control valves | | | | | | | | | | | | | | | | | | | | |
| 10c. Install lights on gratewater inlets | ordered | | arrive | | | | | | | | | | | | | | | | | |
| 11. Install 2 steam flow meters | ordered | | arrive | | install | | one | reinstalled | | | | | | | | | | | | |
| 12. Install steam press diff. regulator | | | | | | order | | | | | arrive | | | | | | | | | |
| 13. Install larger screen on hog | COMPLETED | | | | | | | | | | | | | | | | | | | |
| 14. Meeting with Sawmill Union | COMPLETED | | | | | | | | | | | | | | | | | | | |
| 15. Operator training sessions | | | | | | | | | | | | | | | | | | | | |
| 16. Change freq. fuel feed | COMPLETED | | | | | | | | | | | | | | | | | | | |
| 16. Change fuel feed method | | | | | | design | fabricate | install | | | | | | | | | | | | |
| 17. Repair stack dampers | COMPLETED | | | | | | | | | | | | | | | | | | | |
| 18. Raise arch in boiler 1 | COMPLETED | | | | | | | | | | | | | | | | | | | |
| 18. Remove sand behind arch in #1 | COMPLETED | | | | | | | | | | | | | | | | | | | |
| 19. Install new tailpipes | | | | | | | | | | | | | | | | | | | | |
| 20. Cut steam draft lines | | | | | | | | | | | | | | | | | | | | |

NOTE: Last "X" denotes projected completion date.

RESULTS OF SOURCE TEST TO DFO

SOURCE TEST



ENVIRONMENTAL QUALITY COMMISSION

1234 S.W. MORRISON STREET • PORTLAND, ORE. 97205 • Telephone (503) 229-5696

ROBERT W. STRAUB
GOVERNOR

To: Environmental Quality Commission
From: Director
Subject: Agenda Item No. J, February 25, 1977, EQC Meeting

Variance Request by Hudspeth Sawmill Company to Operate Their
Hogged-Fuel Boilers Out of Compliance with the Applicable Air
Quality Regulations

Background

Hudspeth Sawmill Company operates a sawmill at the outskirts of John Day, Oregon. The mill employs about 80 people directly with an additional 85 people employed in the forest and road crews. The annual payroll is about two million dollars.

Air Contaminant Discharge Permit, No. 12-0004, was issued to the Company on July 26, 1976. This permit includes a compliance schedule to install two new hogged-fuel boilers while phasing out the four existing boilers. This schedule was developed and agreed to in conference with the Company.

The four existing boilers fail to comply continuously with Oregon Administrative Rules, Chapter 340, Section 21-020, Particulate Emission Limits and Section 21-015, Visible Emission Limits. The boilers are required to meet a 0.2 Gr/SCF particulate emission limit and a 40% opacity limit. Particulate emissions source tests indicate loadings in the range of 0.102 to 0.80 Gr/SCF.

The Department's emission inventory lists these boilers having emissions averaging 35 lbs/hr. of particulate each with the four boilers annually contributing 200 tons per year of particulates.

Analysis

As early as August 24, 1972 (see Attachment I) Hudspeth Sawmill Company was notified by the Department that they would be required to demonstrate that the hogged fueled boilers could operate in compliance with Commission rules and that, if they failed, a compliance attainment program would have to be developed.



Contains
Recycled
Materials

The four existing hogged-fuel boilers at the Hudspeth Sawmill are old and are in poor condition. The operating controls are antiquated and there is no emission control equipment.

The existing boilers are not adequate to supply the steam requirements of the mill at all times while complying with the Department's Air Quality Regulations. During the winter months, when the boilers are operated with a steam induced draft in order to satisfy the high seasonal steam demand, full time compliance appears especially unlikely. It is concluded that the boiler system is inadequate, inefficient and significant particulate emissions to the local environment have been observed.

The Department's Regional Office in Pendleton has received numerous complaints concerning particulate emissions fallout from the four boilers at Hudspeth Sawmill. The Regional Office staff has observed heavy fallout on buildings, cars and the ground in the vicinity of the mill.

Particulate emissions source tests were conducted in October, 1972. Two boilers were operated at high steam load with steam injection to induce draft and two were operated at low steam load (no steam injection). The source tests indicate that at a high steam load the boilers were operating out of compliance (i.e., 0.15 to 0.8 Gr/SCF) and that at low steam load the boilers could operate in compliance (i.e., 0.102 to 0.208 Gr/SCF).

Following the receipt of the source test results, some modifications to the boiler and dry kiln system were made to reduce the steam load to the boilers. A second source test was never made; however, subsequent visible emission observations showed that the boilers were not operating in continuous compliance with Commission rules.

The Department reminded Hudspeth Sawmill Company of the requirements for boiler compliance with emission limits by letter of January 12, 1976 (see Attachment II) and again by letter of April 26, 1976 (see Attachment III). Hudspeth Sawmill Company submitted a tentative compliance schedule in a letter dated May 3, 1976 (see Attachment IV). This compliance schedule was expanded somewhat and incorporated into the Air Contaminant Discharge Permit, No. 12-0004, for the Hudspeth Sawmill Company.

In February, 1976, Hudspeth Sawmill requested Seattle Boiler Works to analyze their boiler installation for emission control equipment. Seattle Boiler Works recommended that two new spreader-stoker boilers be installed to replace the four existing Dutch Oven boilers. The new boilers were proposed to be 725 horsepower each, while the existing boilers are 150 horsepower each. This new installation was to include a scrubber for particulate emissions control (see Attachment V). In April 1976, Seattle Boiler Works indicated that at that time about two years would be required for fabrication, delivery and installation of the boiler system with particulate emissions control.

In a letter to the Department dated August 6, 1976, Hudspeth Sawmill Company (Attachemnt VI) requested a variance to exempt their boilers from the applicable Air Quality Regulations for a period of five years. Economic considerations and cash flow problems were cited as reasons for the variance request. The economic hardships alleged by the Company remain unsubstantiated.

Although Hudspeth Sawmill Company did not cite specific statutes in their August 6, 1976 variance request letter, it is the Department's interpretation that the variance is requested under ORS, Chapter 468.345(b), which states "The Environmental Quality Commission may grant specific variances which may be limited in time from the particular requirements of any rule, regulation or order...if it finds that... special circumstances render strict compliance unreasonable, burdensome or impractical due to special physical conditions or cause."

It is concluded the company has not justified their request for a five year variance from the applicable Air Quality Rules, without accompanying action to correct the particulate and visible emissions problem at the boilers.

The Department recommends denial of the five year variance request and updating the compliance schedule set forth in Air Contaminant Discharge Permit No. 12-0004 to phase out the four existing boilers and to install two new boilers. The Department also recommends that the first two increments of the five increment compliance attainment program in Permit Condition No. 4 be updated to accommodate time lost in implementing the original schedule. These two increments appear as follows:

- a. By no later than March 15, 1977 the permittee shall resubmit the control strategy, including detailed plans and specifications, to the Department of Environmental Quality for review and approval.
- b. By no later than April 1, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.

Increments 4c through 4e remain unchanged.

The complete, updated compliance schedule appears in the Director's Recommendation section. The updates will be incorporated in the permit after Commission action in this matter.

Summary and Conclusions

1. Hudspeth Sawmill Company owns and operates a sawmill in John Day, Oregon, and about 160 jobs are dependent upon the sawmill's operation.
2. The four existing boilers are old and have no emissions control equipment. They are incapable of complying continuously with Oregon's particulate and visible emission limits (ie., OAR, Chapter 340, Sections 21-020 and 21-015, respectively).

3. The boilers may be able to comply with the applicable Air Quality Regulations under low steam load conditions, but this appears unlikely during the winter when excess steam is required to run the induced draft steam injection system on the boilers.
4. The Department has received complaints about the emissions from the boilers and Regional Office field personnel have observed significant particulate fallout from the boilers in the vicinity of the mill. The boilers have been observed, by Departmental personnel, operating out of compliance with visible emission limits. Recent complaints and field observations confirm that the air quality problem still exists.
5. Hudspeth Sawmill Company consulted with the Seattle Boiler Works about emissions control equipment for their four boilers. The consultant recommended replacing the four boilers with two new ones, including a scrubber for particulate removal.
6. In June, 1976, Hudspeth Sawmill submitted plans to the Department for the installation of the two boilers as per the consultant's recommendation. A compliance schedule for the installation was agreed upon and included in the company's Air Contaminant Discharge Permit, No. 12-0004.
7. In a letter dated August 6, 1976, Hudspeth Sawmill Company requested a five year variance to operate the four existing boilers out of compliance with the applicable Air Quality Regulations. In effect this would delay any emissions control program for five years. The variance request was based upon economic hardship and cash flow problems.
8. A five-year variance appears unwarranted in view of the lack of hard evidence corroborating the Company's claim of economic hardship, the severity of the local fall-out problem and the lack of a specific program for either immediate emission reduction or long-term standards compliance.

Director's Recommendation

The Director recommends that the Environmental Quality Commission enter a finding of the following:

- 1) That the criteria set forth in ORS 468.345, "Variances from Air Contamination Rules and Standards," have not been satisfied sufficiently and that the Hudspeth Sawmill Company located in John Day, Oregon, be denied the requested five-year variance to operate their four existing boilers out of compliance with the appropriate Air Quality Regulations.
- 2) That the Hudspeth Sawmill Company proceed to control the emissions from the hogged fuel boilers in accordance with their air contaminant discharge permit Condition 4. modified to read as follows:

"The Hudspeth Sawmill Company shall install two new hogged fuel boilers including control equipment according to the following schedule:

5.

- a. By no later than March 15, 1977 the permittee shall resubmit the control strategy, including detailed plans and specifications, to the Department of Environmental Quality for review and approval.
 - b. By no later than April 1, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
 - c. By no later than July 1, 1977 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
 - d. By no later than April 1, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
 - e. By no later than July 1, 1978 the permittee shall demonstrate that the two new hogged-fuel boilers are capable of operating in compliance with the applicable Air Quality Rules and Standards.
 - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished."
3. That the Hudspeth Sawmill Company immediately shall take the necessary steps to minimize particulate emissions to the extent practicable to resolve the local particulate emissions fallout problem.

William H. Young

WILLIAM H. YOUNG
Director

Attachments:

- I. 8/21/72 letter to San Juan Lumber (i.e. Hudspeth Sawmill Co.) from DEQ
- II. 1/12/76 letter to Hudspeth Pine from DEQ
- III. 4/26/76 letter to Hudspeth Pine from DEQ
- IV. 5/3/76 letter to DEQ from Hudspeth Sawmill Co.
- V. 4/28/76 letter to Hudspeth from Seattle Boiler Works
- VI. 8/6/76 letter to DEQ from Hudspeth Sawmill Co.

AFB:1b
1/26/77

Grant

August 24, 1972

San Juan Lumber Co., Inc.
P.O. Box 18
John Day, Oregon

Attn: Mr. Emit North

Re: Hog Fuel Boiler Emissions,

Gentlemen:

As an operator of Hog fuel boilers, you are subject to certain emission standards contained in Oregon Administrative Rules, Chapter 340, Sections 21-005, 21-010, 21-015 and 21-020.

The Department requests that you demonstrate that the boilers can operate in compliance with the above requirements by isokinetically sampling the stack emissions as prescribed in OAR, Chapter 340, Section 20-040 and in accordance with Department established procedures. All test data must be submitted to the Department to confirm compliance on or before October 30, 1972.

In the event that you cannot demonstrate compliance by the isokinetic test results, you must submit a Compliance Program to the Department as prescribed in OAR, Chapter 340, Sections 20-032. All plans and specifications covering any additions or modifications to your hog fuel boilers that may be required to attain compliance must be submitted to the Department for review and approval prior to any construction or modification work. It is recommended that you seek the assistance of an engineer experienced in this field if any modifications to your hog fuel boilers are necessary.

The Department, if so requested, can furnish names and addresses of some of the companies or consultants that are experienced in doing isokinetic testing work. If the Department can be of assistance, or if there are questions, do not hesitate to call.

Very truly yours,

R. A. Royer
Associate Engineer

RAR:l
cc: District Engineer



**DEPARTMENT OF
ENVIRONMENTAL QUALITY**

Dept. of Environmental Quality
Eastern Regional Office
P.O. Box 1538
Pendleton, OR 97801
Office at: 245 S.E. 4th
Telephones: 276-6131 x 283

1234 S.W. MORRISON STREET • PORTLAND, ORE. 97205 • Telephone (503) 229-

January 12, 1976

Mudspeth Pine Inc. 97754
Prinville, Oregon 97754
Attn: Mr. Stan Lenard

If you have any questions or need assistance in preparing a compliance schedule

Re: San Juan Lumber
John Day, OR
EI 12-0004
ENF-AQ-ER-35

Gentlemen:

Per our phone conversation of January 5, 1976, the Department must reiterate the requirement for bringing the San Juan hogged fuel boilers into compliance. The boiler emissions continue to be in violation with OAR, Chapter 340, Section 21-015(1) (Visible air contaminant limitations) and Section 21-020 (1) (Fuel Burning Equipment Limitations). The boiler emissions are also the source of local heavy fallout of fly ash and partially burned or charred material which has precipitated complaints to the Department.

The Department hereby requires that you submit by February 6, 1976 a control strategy (i.e. add emission controls to existing boilers or install new boilers) and a proposed compliance schedule to include the following increments of progress:

1. On or before _____ submit a detailed plans and specifications, to the Department of Environmental Quality for review and approval.
2. On or before _____ issue purchase orders for the major components of emission control equipment and/or for process modification work.
3. On or before _____ initiate the installation of emission control equipment and/or on-site construction or process modification work.
4. On or before _____ complete the installation of emission control equipment and/or on-site construction or process modification work.

COPY

Hudspeth Pine Inc.
January 12, 1976
Page -2-

AIR QUALITY

Division of Environmental
Protection
P.O. Box 118
Raleigh, North Carolina
27602

5. On or before _____ demonstrate that the
_____ is capable of operating in
compliance with the applicable Air Quality Rules and
Standards.

The proposed compliance schedule, if acceptable to the Department will become a part of the Air Contaminant Discharge Permit for the San Juan facility.

If you have any questions or would prefer a conference prior to preparing a compliance schedule please call this office.

Sincerely,

LOREN KRAMER
Director

Steven F. Gardels
Regional Engineer
Eastern Region

SFG:mlr
cc: F.A. Skirvin thru Fred Bolton

RECEIVED
DIVISION OF ENVIRONMENTAL PROTECTION
JAN 15 1976
MAIL ROOM

COPY



Attachment III

DEPARTMENT OF ENVIRONMENTAL QUALITY

Dept. of Environmental Quality
Eastern Regional Office
P.O. Box 1538
Pendleton, OR 97801

1234 S.W. MORRISON STREET • PORTLAND, ORE. 97205 • Telephone (503) 229-

April 26, 1976

Hudspeth Pine Inc.
Prinville, Oregon 97754

Attn: Mr. Stan Lenard

Gentlemen:

RECEIVED
MAY 15 1976
DEPARTMENT OF ENVIRONMENTAL QUALITY
EASTERN REGIONAL OFFICE
PENDLETON, OREGON

Re: Blue Mt. Mills, John Day, OR
EI 12-0004
ENF-AQ-ER-76-16
(Former San Juan Lumber Co.)

Please refer to the January 12, 1976 letter from the Department whereby you were required to submit by February 6, 1976 a compliance schedule for the boilers at your John Day Lumber Mill. Mr. Gardels of the Pendleton Office has called you repeatedly concerning the status of the compliance schedule. To date the only reply to our inquires has been that you are working on it.

It is becoming apparent that positive action towards establishing a compliance schedule may not be forthcoming from Hudspeth Pine, Inc. Therefore, if the Eastern Regional Office does not receive a compliance schedule by May 7, 1976 we will have no alternative but to refer the non-compliance matter for enforcement actions. Your prompt attention in this matter will be appreciated.

Sincerely,

LOREN KRAMER
Director

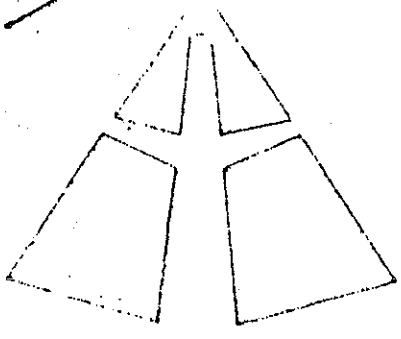
Steven F. Gardels
Regional Engineer
Eastern Region

SFG:mlr

cc: F. A. Skirvin thru F.M. Bolton

COPY

File



HUDSPETH PINE INCORPORATED

P. O. BOX 628 • PRINEVILLE, OREGON 97754 • PHONE 447-5622

May 3, 1976

Mr. Steven F. Gardels, Regional Engineer
Department of Environmental Quality
PO Box 1538
Pendleton, Or 97801

Re: John Day Boilers
Compliance Schedule

Re: EI-12-0004

ENF-AQ-ER-76-16

Hudspeth Sawmill Company
(Former: San Juan Lumber Co
& Blue Mountain Mills)

Dear Sir,

In answer to your letter of April 26, 1976 and in reply to other correspondence relating to our plans to put the boilers in John Day in compliance; I am sending you a copy of a letter from Seattle Boiler Works received today. We hope to follow these dates provided Seattle Boiler Works are ready as planned.

We should be able to issue purchase orders July 1st, 1976, take delivery July 1st, 1977 and should be in full compliance or at least ready to make tests by July 1st, 1978.

Sincerely,

HUDSPETH PINE, INC.

Ron Hudspeth
Ron Hudspeth, President

Stan Leonard
Stan Leonard, General Manager

arp
Encl. 1

DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED
MAY 4 1976

PENDLETON DISTRICT OFFICE



Seattle Boiler Works

Incorporated

5237 EAST MARGINAL WAY SOUTH
SEATTLE, WASHINGTON 98134

April 28, 1976

San Juan Lumber Company
c/o Hudspeth Pine, Inc.
P. O. Box 628
Prineville, Oregon 97754

Attention: Mr. Ron Hudspeth

Reference: Boilers for John Day Plant

Gentlemen:

Complete plans for the reference installation will be in your hands on or before June 15th. The long delay in completion of these plans has been due, to some extent, to completion of the installation at your Durango, Colorado plant where we have, as you know, revised the standard setting so as to reduce particulate emissions from the smoke outlet ahead of the flyash arrester to a minimum. During the week of May 1st, we will have our light off engineer in this plant to make final adjustments to this operation.

At the John Day plant, in order to bring the plant into compliance with the Eastern Oregon Department of Environmental Quality, the settings are being patterned after the Durango installation and will utilize, in addition to the overfire air and other modifications, one American Air Filter Type N Rote Clone Hydrostatic precipitator common to both boilers. Enclosed is a reproduction of the type of unit we will be using to give you some idea of the type of equipment that will be used. The unit on the plans will be installed between the two boilers with the ejector outlet on the back side rather than under the inlet as shown in the photograph. Size-wise it will be either a #36 or #40 as shown on the line drawing. American is currently computing the gas volumes and controls for this installation so that the final size won't be known until their engineers have completed their calculations.

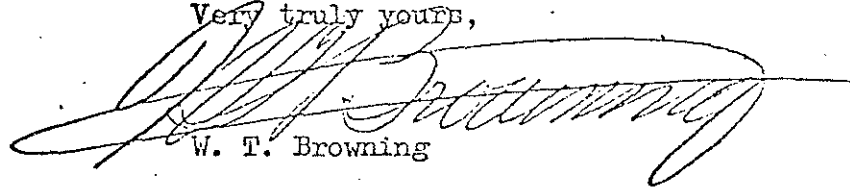
Time-wise, provided an order is placed by July 1, 1976 for the two boilers, stokers, pumps and flyash removal equipment, we should make full delivery by July 1, 1977. We realize you are anxious to get this installation completed, however, availability and delivery of some of the component parts necessary for us to complete our shop fabrication requires that we allow ourselves time after delivery to complete fabrication.

April 28, 1976

Dependent upon our work load for our outside crew, it will require approximately four months to complete erection of the steelwork. Severity of the winter weather could delay completion of the brickwork until the following Spring of 1978 which should allow for full completion and testing by July 1, 1978 at the latest.

During the week of May 1, we will have completed the preliminary plans for your inspection and suggestions. In order to complete final plans by the June 15th target date, your prompt attention would be appreciated.

Very truly yours,

A large, stylized handwritten signature in dark ink, appearing to read 'W. T. Browning', is written over the typed name below it.

W. T. Browning

WTB/dz

Enc.

HUDSPETH SAWMILL COMPANY
P. O. Box 628
Prineville, OR 97754

Attachment VI -1

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NOV 8 1976

AIR QUALITY CONTROL

August 6, 1976

File 12-0004

Mr. Loren Kramer, Director
Department of Environmental Quality
Eastern Region
P. O. Box 1538
Pendleton, OR 97801

Re: EI-12-0004
ENP-AQ-ER-76-16
Hudspeth Sawmill Company and
Blue Mountain Mills, Inc.

Gentlemen:

We request a temporary variance for a period of five years to continue operating the present boilers at the John Day lumber mill. The reason for the request is that recent economic developments have made financing of new boilers extremely difficult if not impossible. For this reason, strict compliance with your regulation at the present time may result in a substantial curtailment of the operation or closing down of the plant in John Day. There are several factors which contributed to the situation which we will try to explain.

The U. S. Forest Service is requiring a switch from mill deck scaling to some other method. It will probably be a roll out scaling method. This will require a cash outlay of several hundred thousand dollars to convert the Prineville plant. It will require filling in the pond, buying log handling equipment and changing the slip from a water feed to some form of conveyor.

Hudspeth Pine, Inc. spent several hundred thousand dollars for new boilers in Prineville and a blower system to be able to shut down the wigwam burners in Prineville. A chipper and barker has been installed in John Day primarily for the purpose of closing down the wigwam burner. While these expenses were incurred by another corporation, they are reflected in the sale price and have resulted in fewer liquid assets of Blue Mountain Mills, Inc.

Mr. Loren Kramer
August 6, 1976
Page 2

Since the representative from Seattle Boiler Works inspected the John Day operation on February 11, there has been a substantial drop in the lumber market. Our cash flow has become increasingly tighter. We have been unable to obtain financing for the new boilers.

Hudspeth Sawmill Company, a co-partnership, has purchased the stock of Blue Mountain Mills, Inc. of John Day and also purchased the corporate stock of Hudspeth Pine, Inc.

I would like to emphasize that we do not question the need for ultimately converting to the new boilers. Because of financial conditions, however, we are simply unable to comply at this time. We request the variance for a temporary period to allow us to get into a financial position to make the necessary changes. Your consideration in this matter is appreciated.

Very truly yours,

BLUE MOUNTAIN MILLS, INC.

By [Signature]

HUDSPETH SAWMILL COMPANY

By [Signature]

mc

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED
AUG 13 1976

PENDLETON DISTRICT OFFICE



ENVIRONMENTAL QUALITY COMMISSION

1234 S.W. MORRISON STREET • PORTLAND, ORE. 97205 • Telephone (503) 229-5696

ROBERT W. STRAUB
GOVERNOR

MEMORANDUM

TO: Environmental Quality Commission
FROM: Director
SUBJECT: Agenda Item H, April 22, 1977, EQC Meeting

Staff Report - Authorization to Hold Public Hearing
to Consider Petition from Oregon State Snowmobile
Association to Amend Noise Rules Pertaining to
Snowmobiles

Background

Oregon Revised Statute Chapter 467 directs the Environmental Quality Commission to "investigate and after appropriate public hearing, establish maximum permissible levels of noise emission for each category . . . including the category of motor vehicles." In the Fall of 1973, the Department proposed rules establishing maximum permissible levels of noise emission for various categories of sources and held public hearings on the proposed rules throughout the state.

Subsequent to public informational hearings, the Commission held a formal hearing to consider motor vehicle noise rules for adoption. At the July 19, 1974 EQC meeting in Portland, the Commission approved and adopted OAR Chapter 340 Section 35-025 Noise Control Regulations for the Sale of New Motor Vehicles.

On March 23, 1977, the Department received a petition from the Oregon State Snowmobile Association (OSSA). This petition requests an amendment to the noise standards for the sale of new snowmobiles. Standards adopted in 1974 set maximum decibel levels for snowmobiles starting at 83 dBA for 1975 models and decreasing to 78 dBA in 1976 and to 75 dBA for 1979 and subsequent models. The petition requests the deletion of the 75 dBA standard.

The staff report to you in 1974 prior to the adoption of this rule stated the following:



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Snowmobiles--The public hearing on these proposed rules yielded testimony that the control of noise in our wilderness areas is essential. The control of snowmobile noise is an important step in that direction. The snowmobile standards proposed in these rules should be generally attainable because they conform with the adopted noise reduction policy of the International Snowmobile Industry Association.

Therefore, at that time, the 75 dBA standard was not opposed by the snowmobile industry. In fact, one manufacturer claimed a standard of 73 dBA was attainable. Six states adopted snowmobile standards of 73 dBA to become effective in 1977 and 1978. Oregon's present standard is 75 dBA, becoming effective for 1979 models.

Evaluation

The petition submitted by OSSA requesting the deletion of the 75 dBA standard for 1979 models submits the following justifications:

1. The present standard of 78 dBA is of sufficient reduction to reduce environmental noise problems to negligible levels.
2. For technical and economic reasons, all snowmobiles cannot be produced to emit noise levels below 78 dBA. Thus, Oregon snowmobile dealers will suffer economic hardship.
3. Older, noisier snowmobiles will decrease in population in the future, thus leaving only the quieter 78 dBA models.

Options

If for some reason the Commission deems it necessary to deny the petition, then specific reasons should be given therefore so that these reasons may be included in a written order to be signed by the Commission and served upon the petitioner.

Should the Commission adopt the Director's recommendation to entertain the petition, implicit in this decision would be direction and authorization for the Department to give public notice and conduct a public hearing in accordance with the Administrative Procedures Act.

Director's Recommendation

It is the Director's recommendation that the Commission authorize the Department to hold public hearings, before a hearings officer, at times and locations to be set by the Director. The hearings officer will receive testimony limited to the petition from the Oregon State Snowmobile Association to amend the noise rules pertaining to the sale of new snowmobiles.

Bill

WILLIAM H. YOUNG
Director

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6572A
6



ENVIRONMENTAL QUALITY COMMISSION

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Bill

WILLIAM H. YOUNG
Director

THE CITY OF
PORTLAND



OREGON

NEIGHBORHOOD
ENVIRONMENT

2040 S.E. POWELL BLVD.
PORTLAND, OR. 97202
503/248-4465

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MAR 30 1977

DEPT. OF ENVIRONMENTAL QUALITY

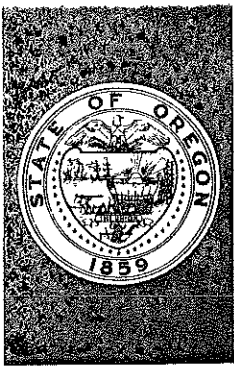
TESTIMONY RELATIVE TO PROPOSED REVISIONS OF NOISE REGULATIONS

My comments will be brief. The proposed housekeeping amendments are non-substantive and necessary for purposes of clarification of procedure and intent. They fulfill that purpose, and I support them.

The revisions of the motor vehicle standards and procedures to conform to a 1/2 meter test are primarily aimed at motorcycle noise enforcement, and are appropriate. They are a much needed sequel to the previously modified procedure and standard changes for cars and light trucks. Those who object to them cannot do so on the basis of stringency, but must be objecting to the fact that enforcement now becomes attainable. These changes are important to the City of Portland's noise program; I support them enthusiastically, and thank the EQC and DEQ for responding to our needs.

Paul Herman
Noise Control Officer
City of Portland, Oregon
March 28th, 1977

cc: Commissioner Charles Jordan
Mark Kelley



ENVIRONMENTAL QUALITY COMMISSION

1234 S.W. MORRISON STREET • PORTLAND, ORE. 97205 • Telephone (503) 229-5696

ROBERT W. STRAUB
GOVERNOR

MEMORANDUM

TO: Environmental Quality Commission

FROM: Director

SUBJECT: Agenda Item I, April 22, 1977, EQC Meeting

Staff Report - Consideration of Adoption of Revisions
to OAR Chapter 340, Sections 35-015 through 35-035
Pertaining to Motor Vehicle Noise Standards, Noise
Control Regulations for Industry and Commerce and
Motor Vehicle Procedure Manual NPC-21

Background

Oregon Revised Statute Chapter 467 directs the Environmental Quality Commission to establish maximum permissible levels of noise emission. In 1974 the Commission adopted noise rules and associated procedure manuals for (a) new motor vehicles, (b) in-use motor vehicles and (c) industrial and commercial noise sources. Three associated procedure manuals were also approved.

The Department has been implementing these standards for approximately two years and has found that several provisions in the industrial and commercial rules are inadequately drafted and in need of clarifying amendments. These needed changes are primarily organizational, although the effect of several sections is slightly altered so as to more adequately reflect the purpose for which they were originally intended and drafted.

Staff has developed a near field test procedure for motorcycles similar to that recently adopted for automobiles. Thus, amendments were proposed in the in-use road vehicle table of standards and in the off-road table to include this new test procedure and corresponding standards. This amendment necessitated the segregation of off-road vehicles into separate classes. Instead of one standard for all classes of off-road vehicles staff recommends individual standards for each class. These standards reflect the allowable noise level that the vehicle class met when originally sold.



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At the Environmental Quality Commission meeting on February 25, 1977, the Commission authorized the Department to hold a public hearing, before a hearings officer, to consider proposed Department initiated amendments to these rules and corresponding procedure manuals.

On March 23, 1977 a public hearing was held at the Multnomah County Courthouse to receive testimony on the proposed amendments. Testimony was offered by representatives of the motorcycle and snowmobile industries, the Oregon Marine Board and the Bonneville Power Administration.

Few of BPA's comments pertained to matters referenced in the hearings notice as being under consideration at this time. They instead dealt primarily with the regulations in their "totality." An informal meeting will be scheduled with BPA to give the Department an opportunity to outline for BPA the basis of our regulations, and present some of the input received from other utility companies prior to rule adoption in 1974. Discussion before the Commission of these matters would be premature at this time.

Evaluation of Hearing Testimony

The proposed rule amendments are grouped and discussed under three headings, housekeeping amendments to the industrial/commercial noise source rules, amendments to the in-use motor vehicle rules, and amendments to the procedure manual (NPCS-21) for measuring motor vehicle noise.

1. Staff "housekeeping" recommendations to the Noise Control Regulations for Industry and Commerce (OAR 340-35-035) and associated Definitions (OAR 340-35-015)
 - a. BPA pointed out an apparent inconsistency concerning measurement points used when a source is located inside a Quiet Area, as opposed to when it is located outside, but near a Quiet Area. The amendment was worded in such a way that it appeared a more stringent standard might be imposed on a source located outside but within 400 feet of a Quiet Area boundary, than would be required for a source inside the boundaries.

We have corrected this problem with new amendments indicating that sources outside the Quiet Area may encroach on the area to the extent that 400 feet from the source falls within the area. This then provides the same standard as that required of sources located within the quiet area.

- b. BPA pointed out that the meaning of six total minutes in a one hour period was unclear in the octave and one-third band rules in subsections (1)(f)(A) and (1)(f)(B).

Staff amendments were proposed to satisfy the need for a statistical descriptor in these rules. Policy has been to use the L_{50} or median noise level in each band for sources in which the sound level varied.

The six minute or more limitation was originally drafted to ensure that the source would be operating some reasonable length of time. This time limitation has had no effect on the rule as it has been only used on sources that operate in a continuous manner. It should also be noted that this rule is only used after the Director establishes that the rules using the A-weighting scale are not effective for the particular source. Thus, this rule is only used under unusual circumstances and the Director's decision to impose the rule would also be based upon the length of time the specific source operates.

Staff therefore recommends the deletion of reference to six minutes or more per hour in both the octave band and one-third octave band rules. Thus, the required sound level to be measured for these rules is the 50 percentile or median during the measurement period.

The word "median" was inadvertently omitted in subsection (1)(f)(B), the one-third octave band rule, and has now been reinserted.

- c. Finally, BPA found that the term "appropriate measurement point" used in subsection (1) was not clear. They also suggested the explanation of this term should be moved to the definition section. Presently, the procedure to determine the appropriate measurement point for subsection (1) is found within subsection (3), "Measurement", of the rule.

Staff does not believe this term should be moved to the definition section as it may add confusion to other noise rules and the term is only appropriate for subsection (1) of section 35-035.

Staff has recommended amendments to subsections (1)(a), (1)(b)(A), (1)(b)(B)(i), (1)(e), (1)(f)(A) and (1)(f)(B) that provide a reference to subsection (3), thus giving guidance to the reader on where to find the procedures to determine the "appropriate measurement point."

- d. No comments were received on the following amendments:
- i. Addition of metric units to the English units of weights and measures.
 - ii. Correction of various typographical errors.
 - iii. Limiting the exemptions for railroad and aircraft noise under subsection (5)(d) and (5)(j) only to the extent that these sources are preempted by Federal law.
 - iv. Amendment of language in several sections so that potential contradictions due to inconsistent choices of words do not confuse intended meanings.
 - v. Amending definition (13) "Industrial or Commercial Noise Levels" by moving the exemption for "construction and maintenance noise" to the "Exemption" subsection (5)(h).
 - vi. Adding definition (25) "Previously Unused Industrial or Commercial Site" required to clarify the rule for new sources under subsection (1)(b).
 - vii. Amending definition (28) "Quiet Area" in order to add clarification that "quiet areas" are to be recommended to the Department by the public and the Department would in turn make recommendations as to their approval to the Commission.

- e. Legal counsel suggested miscellaneous minor word changes and the deletion of the reference to the evaluation of Table G under subsection (1)(a). Recommendations will be made to the Commission at the May 1977 meeting to comply with this requirement.
2. Staff recommended Amendments to the In-Use Motor Vehicle Regulations (OAR 340-35-030)
- a. Staff recommended to replace the present 25 foot stationary test for motorcycles, found in Table B, with a 20 inch near-field test similar to that recently adopted for automobiles.

Testimony from the motorcycle industry supported this procedure for testing motorcycles. One manufacturer representative suggested the standards should be increased by one dBA and another stated "We do not know the specific sound levels which should be chosen" and "The levels proposed by DEQ are within 2 to 4 decibels of the levels we feel are appropriate." We therefore believe the proposed standards are acceptable to be approved, as one manufacturer thought we were within 1 dBA of his recommendation and the other did not have a specific recommendation.

- b. The second amendment proposed would include the near field, 20 inch, motorcycle test in Table D for Off-Road Recreational Vehicles. All off-road vehicle classes are contained in Table D. This includes motorcycles, snowmobiles, dune buggies and watercraft. The present standards lump all of these classes into one category, and set a maximum noise limit based on the loudest source, the motorcycle.

Staff recommendations are to segregate Table D into the different vehicle classes. The allowable noise level for each class would then be based on the standards the vehicle met when manufactured, plus a two dBA deterioration factor.

Testimony from the motorcycle representatives supported staff recommendations.

Testimony from snowmobile interests stated that a stationary test procedure was not possible on snowmobiles as they contain a centrifugal clutch which would preclude tests at high engine speeds while stationary. These interests also stated the proposed amendments set more stringent standards

for snowmobiles than previously required. This is true, but the proposed standards now reflect the new vehicle standards for snowmobiles in Table A rather than motorcycle standards. The snowmobile interests stated, after an explanation of how the standard was calculated, that they were not opposed to in-use standards based upon the standard the vehicle met when sold. Testimony also stated that older snowmobiles built in the late 1960's could be as loud as 102 dBA. They believed, therefore, that a restrictive standard for these older, noisier, snowmobiles was not appropriate. The Department's philosophy has been that all motor vehicles must meet some minimum standard no matter how noisy the vehicle was when originally sold. We believe that these older vehicles, if they do produce a 102 dBA level, probably are not muffled and should be retrofitted to meet an acceptable standard.

Recognizing the problems with the proposed stationary test for snowmobiles, we propose to amend Table D to include only a 50 foot moving test for snowmobiles as recommended in the testimony. The proposed 50 foot standards are based upon the regulated levels from Table A with a 2 dBA deterioration factor. The minimum standards for all snowmobiles of model year 1975 and prior is set at 84 dBA. Most snowmobiles since 1973 were built to a 82 dBA level or below. Thus, this proposed standard should be easily achievable by all recently manufactured snowmobiles and older, noisier snowmobiles should be required to meet this minimum standard.

- c. Testimony was also received from the Oregon State Marine Board regarding Table D. The Marine Board has an administrative rule limiting maximum boat noise to 84 dBA at 50 feet (OAR 250-10-121). Their testimony suggested we maintain the 50 foot moving test for boats containing underwater exhausts and establish a near field (20 inch) stationary test for those that exhaust into the atmosphere. Their testimony states "the underwater exhausts are commonly found in propeller driven outboards, most inboard boats and all inboard/outboard craft. Those exhausting to the atmosphere are most inboard jet boats, outboard converted jet boats and some high performance inboard propeller driven boats."

We therefore propose to add a separate class of off-road recreational vehicles for watercraft. This proposal references the Marine Board standard of 84 dBA at 50 feet for a moving test and includes the near field 20 inch test for atmosphere exhausted boats.

The proposed standard for the stationary test is derived from the Marine Board standard of 84 dBA at 50 feet and correlated to the near field test distance of 20 inches. Thus, we believe the proposed near field standard for atmosphere exhausted boats is comparable to existing standards.

Most atmosphere exhausted boats use automotive engines. Therefore, the proposed near field test procedure is identical to that used for other off-road vehicles with mid or rear mounted engines.

- d. The "All Others" class under Table D applies to dune buggies or other similar off-road vehicles. These standards are based on the near-field standards for automobiles.
 - e. Testimony received from the motorcycle industry representative noted that the titles of Table B and C could be amended to reflect the vehicle classes contained within. Staff agrees with this recommendation and has proposed amendments for the titles for Tables B and C.
3. Staff recommendation to amend procedure manual "Motor Vehicle Sound Measurement Procedure Manual NPC-21.
- a. Amendments to Chapter 6 of procedure manual NPC-21 were proposed to include procedures to test motorcycles at a distance of 20 inches from the end of the exhaust pipe.

Comments regarding this procedure were made by an industry representative. He stated that the specifications for the engine speed tachometer was too stringent and thus it would be difficult to obtain equipment meeting this specification. Staff has investigated this concern and found that most available tachometers comply with our specifications.

The motorcycle industry representative also questioned the requirement under Section 6.5.4 prohibiting the microphone to be closer than eight

inches from the ground. Staff recommends this condition be maintained to eliminate reflective sound waves from the ground surface.

The industry representative noted that the \pm 50 rpm tolerances in the procedures would be very difficult to maintain during testing. They recommend the tolerance be amended to + 100 rpm. Staff agrees with this proposal and has proposed such amendment to Section 6.5.5.

The industry representative also noted that motorcycles with more than one exhaust outlet per side should be measured on the rearmost outlet. Staff agrees with the proposal and such amendment is added to Section 6.5.4.

- b. Amendments to Chapter 6 provide for testing of boats and other off-road vehicles using the 20 inch near field test procedures as requested by the Marine Board.
- c. Other housekeeping amendments to other chapters of manual NPC-21 are also being proposed. These include previously approved procedures and incorporation of references to previous rule amendments.
 - i. Chapter 2 is amended to include reference to the Federal Department of Transportation measurement procedures for trucks that are preempted by Federal noise rules. The Federal standards were adopted by reference by the Environmental Quality Commission in August 1976.
 - ii. Chapter 3 is amended to provide moving tests of all in-use vehicles including road vehicles and off-road vehicles such as snowmobiles, boats and dune buggies. These minor amendments are necessary to ensure that these procedures apply to all vehicle classes.
 - iii. Chapter 4 is amended to include approved test procedures for new vehicle classes.

A vehicle test procedure for motorcycles with automatic transmissions has been approved as a standard method and thus is included in the manual as an amendment.

The test procedure for new trucks is amended to correct the reference from 6,000 pounds to 10,000 pounds which was neglected during rule amendments in August 1976.

The noise reduction benefits of demand actuated fan controls was accepted by the Department during hearings on a petition from Freightliner Corporation to amend the truck standards in 1975. This procedure is amended at this time.

Summary and Conclusions

Proposed amendments to the noise rules for industry and commerce are primarily organizational and clarify the original intent and present interpretation of these rules.

Testimony received on the proposals pointed out further inconsistencies which have now been addressed in these revised proposed amendments.

Proposed amendments to the in-use motor vehicle noise rules include a new 20 inch test for motorcycles similar to that recently adopted for automobiles. This procedure will now allow noise testing of motorcycles in confined areas such as the motor vehicle inspection stations.

Testimony was favorable on this new test, although several procedural concerns were raised and resolved. The amendments to the procedure manual, NPC-21, have incorporated these suggested revisions.

Other amendments to the in-use motor vehicle rules provided for the segregation of vehicle class types within the broad category of "off-road recreational vehicles" in Table D. Staff proposed amendments set standards for each vehicle class based upon the maximum allowed limit each vehicle class met when originally sold, rather than basing the entire off-road category on the standards for motorcycles. This philosophy is already used in the standards set for on-road in-use vehicles and is also appropriate for off-road vehicles.

Testimony suggested that boats be separated into categories according to type of exhaust outlet system used, and that a 20 inch near field standard be established for those systems that exhaust to the atmosphere. The 50 foot moving standard is identical to that established by the Oregon Marine Board. The near field 20 inch standard was derived from the 50 foot standard and is an equivalent standard.

The Motor Vehicle Sound Measurement Procedure Manual, NPC-21, is proposed to be amended to include procedures for testing motor-cycles at a distance of 20 inches from the end of the exhaust pipe.

Other proposed amendments to the manual add specific references indicating that the appropriate procedure is applicable to boats and other off-road vehicle classes.

Staff also proposes to include amendments to the manual that incorporate standard procedural deviations that have been approved by the Department and are now appropriate for inclusion in the manual.

Director's Recommendation

It is the Director's recommendation that the Commission adopt the following as attached to this report:

1. Amendments to Noise Control Regulations for Industry and Commerce, OAR 340-35-035, and amendments to the Definitions, OAR 340-35-015.
2. Amendments to Noise Control Regulations for In-Use Motor Vehicles, OAR 340-35-030.
3. Amendments to procedure manual NPC-21, Motor Vehicle Sound Measurement Procedure Manual.



WILLIAM H. YOUNG
Director

JH:dro
4/11/77
Attachments

DEPARTMENT OF ENVIRONMENTAL QUALITY
 PROPOSED AMENDMENT TO CHAPTER 340, OREGON ADMINISTRATIVE RULES
 DIVISION 3
 AIR POLLUTION CONTROL STANDARDS FOR AIR PURITY AND QUALITY
 Subdivision 5
 NOISE CONTROL REGULATIONS

Subdivision 5 is hereby proposed to be amended as follows: new material is indicated by brackets; material deleted is lined out.

35-035 NOISE CONTROL REGULATIONS FOR INDUSTRY AND COMMERCE.

(1) ~~Noise Standards~~ [Standards and Regulations]

- (a) [Existing Noise Sources]. No person owning or controlling an [existing] industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at the [an] appropriate measurement point [,specified in subsection (3) (b) of this section,] exceed these [the] levels specified in Table G, except as otherwise provided in these rules.

The statistical noise levels defined in Table G shall be evaluated by the Department before January 1, 1977 and recommendations shall be presented to the Commission before July 1, 1977.

(b) New Noise Sources.

- [(A) New Sources Located on Previously Used Sites.] After January 1, 1975, No person owning or controlling a new industrial or commercial noise source [located on a previously used industrial or commercial site] shall cause or permit the operation of that noise source, if the [statistical] noise levels generated by that new source and measured at the [an] appropriate [measurement] point [, specified in subsection (3) (b) of this section,] exceed the noise levels [specified] in Table H, except as otherwise provided in these rules.

- [(B) New Sources Located on Previously Unused Site.]

[(1)] Notwithstanding the allowable levels in Table H No person [owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site] shall cause or permit the operation of a--new--industrial or commercial [that] noise source on property previously un-occupied by an industrial or commercial noise source if the noise levels generated [or indirectly caused] by that new industrial or commercial noise source increase the ambient statistical noise levels, L_{10} or L_{50} , in any one hour by more than 10 dBA [in any one hour, or exceed the levels specified in Table H], as measured at the [an] appropriate measurement point [, as specified in subsection (3) (b) of this section.]

[(11)] The ambient statistical noise level of the [a] new [industrial or commercial noise] source [on a previously unused industrial or commercial site] shall include all noises emitted [generated or indirectly caused] by [or attributable to] the industrial or commercial [that] source [including all of its related] and related activities. Exemptions defined in subsection [Sources exempted from the requirements of section 35-035(1), which are identified in subsections] (5)(b), (5)(c), (5)(d), (5)(e), (5)(f), (5)(j), (5)(k) and (5)(l) of this section, will [shall] not be excluded from this ambient measurement.

- (c) Modified Noise Sources. After January 1, 1975 and before January 1, 1978, no person owning or controlling an existing industrial or commercial noise source shall modify that noise source so as to violate the following rules:
- (A) If prior to modification an industrial or commercial noise source does not exceed the noise levels in Table H, the modified industrial or commercial noise source shall not exceed the noise levels in Table H, except as otherwise provided in these rules.

(B) If prior to modification an existing industrial or commercial noise source exceeds the noise levels in Table H, but does not exceed the noise levels in Table G, then the modification shall not cause an increase in the existing statistical noise levels, except as otherwise provided in these rules.

(d) Quiet Areas. No person [owning or controlling an industrial or commercial noise source located either within the boundaries of a Quiet Area or outside its boundaries] shall cause or permit industrial or commercial noise levels to [the operation of that noise source if the statistical noise levels generated by that source] exceed the statistical noise levels specified in Table I as measured at the boundary of any area designated a Quiet Area [within the Quiet Area and not less than 400 feet (122 meters) from the noise source.]

If the noise source lies within the boundaries of a Quiet Area, the levels detailed in Table I shall not be exceeded at 400 feet from the noise source.

(e) Impulse Sound. Notwithstanding the noise rules in Tables G through I, no person [owning or controlling an industrial or commercial noise source] shall cause or permit the operation of an industrial or commercial [that] noise source which emits [if] an impulsive sound [is emitted] in air [by that source which exceeds the peak sound pressure levels specified below], as measured at the [an] appropriate measurement point [, as specified in subsection (3) (b) of this section]: which has a peak sound pressure level in excess of 100 dB during the hours 7 a.m. to 10 p.m. and 80 dB between the hours of 10 p.m. and 7 a.m., except as otherwise provided in these rules.

(f) Octave Bands and Audible Discrete Tones. When the Director has reasonable cause to believe that statistical noise levels specified in Tables G, H, or I [the requirements of subsections (1)(a), (1)(b), (1)(c) or (1)(d) of this section] do not adequately protect the health, safety or welfare

of the public as provided for in ORS Chapter 467, the Department may require the noise source to meet the following rules:

- (A) [Octave Bands.] No person [owning or controlling an industrial or commercial noise source] shall cause or permit the operation of an industrial or commercial [that] noise source for more than 6 minutes- [if] in any one hour [such operation generates a median octave band sound pressure level which], as measured at the [an] appropriate measurement point, [specified in subsection (3) (b) of this section,] if such operation generates octave band sound pressure levels which exceed those [exceeds applicable levels] specified in Table J.
- (B) [One-third Octave Bands.] No person [owning or controlling an industrial or commercial noise source] shall cause or permit the operation of an industrial or commercial [that] noise source for more than 6 minutes [if] in any one hour [such operation generates a median one-third octave band sound pressure level which], as measured at the [an] appropriate measurement point [, specified in subsection (3) (b) of this section,] if such operation generates an audible one-third octave band sound pressure level which when measured [and] in a one-third octave band at the [a] preferred frequencies [frequency,] exceeds the arithmetic average of the median sound pressure levels of the two adjacent one-third octave bands on either side of such

one-third octave band by:

- (i) 5 dB for such one-third octave band with a center frequency from 500 Hertz to 10,000 Hertz, inclusive. Provided: such one-third octave band sound pressure level exceeds the sound pressure level of each adjacent one-third octave band, or;
- (ii) 8 dB for such one-third octave band with a center frequency from 160 Hertz to 400 Hertz, inclusive. Provided: such one-third octave band sound pressure level exceeds the sound pressure level of each adjacent one-third octave band, or;
- (iii) 15 dB for such one-third octave band with a center frequency from 25 Hertz to 125 Hertz, inclusive. Provided: such one-third octave band sound pressure level exceeds the sound pressure level of each adjacent one-third octave band.

This rule shall not apply to audible discrete tones having a one-third octave band sound pressure [level] 10 [dB] or more dB below the allowable sound pressure levels specified in Table J for the octave band which contains such one-third octave band.

(2) Compliance. Upon written notification from the Director, the owner or controller of an industrial or commercial noise source operating in violation of the adopted rules shall submit a compliance schedule acceptable to the Department. The schedule will set forth the dates, terms, and conditions by which the person responsible for the noise source shall comply with the adopted rules.

(3) Measurement

(a) Sound measurements [procedures] shall conform to ~~test~~ [those] procedures [which are] adopted by the Commission [and set forth] in ~~procedure manual~~

entitled Noise Pollution Control Section 7 [Sound Measurement Procedures Manual] (NPCS-2[1]), or to [such other] methods [procedures as are] approved in writing by the Department.

(b) [Unless otherwise specified], the appropriate measurement point used shall be that point on the noise sensitive property, (A) or (B) whichever [described below], which is further from the noise source:

(A) 25 feet [7.6 meters)] toward the noise source from that point on the noise sensitive building nearest the noise source,

(B) ~~At~~ That point on the noise sensitive property line nearest the noise source.

(4) Monitoring and Reporting

(a) Upon written notification from the Department, persons owning or controlling an industrial or commercial noise source shall monitor and record the statistical noise levels and operating times of equipment, facilities, operations, and activities, and shall submit such data to the Department in the form and on the schedule requested by the Department. [Procedures for] such measurements shall conform to ~~the test~~ [those] procedures [which are] adopted by the Commission [and set forth] in Noise Pollution Control Section 7 [Sound Measurement Procedures Manual] (NPCS-2[1]).

(b) Nothing in this section shall preclude the Department from conducting separate or additional noise tests and measurements. Therefore, when requested by the Department, the owner or operator of an industrial or commercial noise source shall provide the following:

(A) access to the site,

(B) reasonable facilities, where available, including but not limited to electric power and ladders adequate to perform the testing,

(C) cooperation in the reasonable operation, manipulation, or shutdown of various equipment or operations as needed to ascertain the source of sound and measure its emission.

(5) Exemptions: [Except as otherwise provided in subsection (1)(b)(B)(ii)]

the rules in section 35-035 (1) shall not apply to:

- (a) Emergency equipment not operated on a regular or scheduled basis.
- (b) Warning devices not operating continuously for more than 5 minutes.
- (c) Sounds created by the tires or motor used to propel any road vehicle complying with the noise standards for road vehicles.
- (d) Sounds created by railroad trains. This exception applies only when such railroad train is either in motion or idling during loading, unloading, coupling, uncoupling, refueling, or other similar operations, provided that the total idling time for such operations does not exceed 60 minutes. [Sounds resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad only to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Pub.L. 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in section 17 (c)(2) of the Act.]
- (e) Sounds created by bells, chimes, or carillons.
- (f) Sounds not electronically amplified [which are] created by [or generated at] sporting, amusement, and entertainment events, except [those sounds which] as controlled [are regulated] under other noise standards. [An event is a noteworthy happening and does not include informal, frequent or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time.]

- (g) Sounds that originate on construction sites.
 - (h) Sounds created in repairing or replacing the [construction or maintenance of] capital equipment of a public utility distribution system.
 - (i) Sounds created by lawn care maintenance and snow removal equipment.
 - (j) Sounds that originate at airports that are directly related to aircraft flight operations (i.e., taxiing, landing takeoff and flight) [generated by the operation of aircraft and subject to preemptive federal regulation.]
This exception does not apply to aircraft engine testing, or any other activity conducted at the airport that is not directly related to flight operations, [and any other activity not preemptively regulated by the federal government.]
 - (k) Sounds created by the operation of road vehicle auxiliary equipment complying with the noise rules for such equipment.
 - (l) Sounds created by agricultural activities, other than silviculture.
- (6) Exceptions: - Upon written request from the owner or controller of the [an] industrial or commercial noise source, the Department may authorize exceptions to the rules [section 35-035(1)], pursuant to section 35-035(1) [35-010], for:
- (a) Unusual and/or infrequent events.
 - (b) Industrial or commercial facilities previously established in areas of new development of noise sensitive property.
 - (c) Those industrial or commercial noise sources whose statistical noise levels at the appropriate measurement point are exceeded by any noise source external to the industrial or commercial noise source in question.
 - (d) Noise sensitive property owned or controlled by the person who controls or owns the noise source or noise sensitive property located on land zoned exclusively for industrial or commercial use.

35-015 Definitions. As used in this subdivision:

- (1) "Ambient Noise" means the all-encompassing noise associated with a given environment, being usually a composite of sounds from many sources near and far.
- (2) "Any one hour" means any period of 60 consecutive minutes during the 24-hour day.
- (3) "Commission" means the Environmental Quality Commission.
- (4) "Construction" shall mean building or demolition work and shall include all activities thereto such as clearing of land, earthmoving, and landscaping, but shall not include the production of construction materials.
- (5) "Department" means the Department of Environmental Quality.
- (6) "Director" means the Director of the Department.
- (7) "Emergency Equipment" means noise emitting devices required to avoid or reduce the severity of accidents. Such equipment includes, but is not limited to, safety valves and other pressure relief devices.
- (8) "Existing Industrial or Commercial Noise Source" means any Industrial or Commercial Noise Source ~~in operation on or before~~ [for which installation or construction was commenced prior to] January 1, 1975.
- (9) "Farm Tractor" means any Motor Vehicle designed primarily for use in agricultural operations for drawing or operating plows, mowing machines, or other implements of husbandry.
- (10) "Impulse Sound" means either a single pressure peak or a single burst (multiple pressure peaks) for a duration of less than one second as measured on a peak unweighted sound pressure measuring instrument.
- (11) "In-Use Motor Vehicle" means any Motor Vehicle which is not a New Motor Vehicle.
- (12) "Industrial or Commercial Noise Source" means that source of noise which generates Industrial or Commercial Noise Levels.

- (13) "Industrial or Commercial Noise Levels" means those noises generated by a combination of equipment, facilities, operations, or activities employed in the production, storage, handling, sale, purchase, exchange, or maintenance of a product, commodity, or service and those noise levels generated in the storage or disposal of waste products. ~~Noise levels generated in the construction or maintenance of capital equipment are not included in this definition.~~
- (14) "Motorcycle" means any Motor Vehicle, except Farm Tractors, designed to travel on not more than three wheels which are in contact with the ground.
- (15) "Motor Vehicle" means any vehicle which is, or is designed to be self-propelled or is designed or used for transporting persons or property. This definition excludes airplanes, but includes water craft.
- (16) "New Industrial or Commercial Noise Source" means any Industrial or Commercial Noise Source for which installation or construction was commenced after January 1, 1975 on a site not previously occupied by the industrial or commercial noise source in question.
- (17) "New Motor Vehicle" means a Motor Vehicle whose equitable or legal title has never been transferred to a Person who in good faith purchases the New Motor Vehicle for purposes other than resale. The model year of such vehicle shall be the year so specified by the manufacturer, or if not so specified, the calendar year in which the new motor vehicle was manufactured.
- (18) "Noise Level" means weighted Sound Pressure Level measured by use of a metering characteristic with an "A" frequency weighting network and reported as dBA.
- (19) "Noise Sensitive Property" means real property on [or in] which people normally sleep, attend [or on which exist facilities normally used by people as] schools, churches, and [or] public libraries. Property used in industrial or agricultural activities is not defined to be Noise Sensitive Property unless it meets the above criteria in more than an incidental manner.

- (20) "Octave Band Sound Pressure Level" means the sound pressure level for the sound being measured within the specified octave band. The reference pressure is 20 micropascals (20 micronewtons per square meter).
- (21) "Off-Road Recreational Vehicle" means any Motor Vehicle, including water craft, used off Public Roads for recreational purposes. When a Road Vehicle is operated off-road the vehicle shall be considered an Off-Road Recreational Vehicle if it is being operated for recreational purposes.
- (22) "One-Third Octave Band Sound Pressure Level" means the sound pressure level for the sound being measured within the specified one-third octave band at the Preferred Frequencies. The reference pressure is 20 micropascals (20 micronewtons per square meter).
- (23) "Person" means the United States Government and agencies thereof, any state, individual, public or private corporation, political subdivision, governmental agency, municipality, industry, co-partnership, association, firm, trust, estate, or any other legal entity whatever.
- (24) "Preferred Frequencies" means those mean frequencies in Hertz preferred for acoustical measurements which for this purpose shall consist of the following set of values: 20, 25, 31.5, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, 10,000, 12,500.
- [(25)] "Previously Unused Industrial or Commercial Site" means property which has not been used by any industrial or commercial noise source during the 20 years immediately preceding commencement of construction of a new industrial or commercial source on that property. Agricultural activities and silvicultural activities of an incidental nature shall not be considered as industrial or commercial operations for the purposes of this definition.]

- (25) [(26)] "Propulsion Noise" means that noise created in the propulsion of a Motor Vehicle. This includes, but is not limited to, exhaust system noise, induction system noise, tire noise, cooling system noise, aerodynamic noise and, where appropriate in the test procedure, braking system noise. This does not include noise created by Road Vehicle Auxiliary Equipment such as power take-offs and compressors.
- (26) [(27)] "Public Roads" means any street, alley, road, highway, freeway, thoroughfare, or section thereof in this state used by the public or dedicated or appropriated to public use.
- (27) [(28)] "Quiet Area" means any land or facility such as a wilderness area, national park, state park, game reserve, wildlife breeding area, amphitheater, or any other area designated by the Commission as an [appropriate] area where the qualities of serenity, tranquility, and quiet are of extraordinary significance and serve an important public need, [such as, without being limited to, a wilderness area, national park, state park, game reserve, wildlife breeding area or amphitheater.] The Department will [shall] submit recommended areas [areas suggested by the public as Quiet Areas,] to the Commission for designation as Quiet Areas, [, with the Department's recommendation.]
- (28) [(29)] "Racing Events" means any competition using Motor Vehicles, conducted under a permit issued by the governmental authority having jurisdiction or, if such permit is not required, under the auspices of a recognized sanctioning body. This definition includes, but is not limited to, events on the surface of land and water.
- (29) [(30)] "Racing Vehicle" means any Motor Vehicle that is designed to be used exclusively in Racing Events.
- (30) [(31)] "Road Vehicle" means any Motor Vehicle registered for use on Public Roads, including any attached trailing vehicles.
- (31) [(32)] "Road Vehicle Auxiliary Equipment" means those mechanical devices which are built in or attached to a Road Vehicle and are used primarily for

the handling or storage of products in that Motor Vehicle. This includes, but is not limited to, refrigeration units, compressors, compactors, chippers, power lifts, mixers, pumps, blowers, and other mechanical devices.

{32} [(33)] "Sound Pressure Level" (SPL) means 20 times the logarithm to the base 10 of the ratio of the root-mean-square pressure of the sound to the reference pressure. SPL is given in decibels (dB). The reference pressure is 20 micro-pascals (20 micronewtons per square meter).

{33} [(34)] "Statistical Noise Level" means the Noise Level which is equal [equalled] or is exceeded a stated percentage of the time. An $L_{10} = 65$ dBA implies that in any hour of the day 65 dBA can be equalled or exceeded only 10% of the time, or for 6 minutes.

{34} [(35)] "Warning Device" means any device which signals an unsafe or potentially dangerous situation.

TABLE A

New Motor Vehicle Standards

Moving Test At 50 Feet (15.2 meters)

| <u>Vehicle Type</u> | <u>Effective For</u> | <u>Maximum Noise Level, dBA</u> |
|--|---|---------------------------------|
| Motorcycles | 1975 Model | 86 |
| | 1976 Model | 83 |
| | 1977-1982 Models | 81 |
| | 1983-1987 Models | 78 |
| | Models after 1987 | 75 |
| Snowmobiles as defined in ORS 481.048 | 1975 Model | 82 |
| | 1976-1978 Models | 78 |
| | Models after 1978 | 75 |
| Truck in excess of 10,000 pounds [(4536 kg)] GVWR | 1975 Model | 86 |
| | 1976-1981 Models or Models manufactured after Jan. 1, 1978 and before Jan. 1, 1982 | 83 |
| | Models manufactured after Jan. 1, 1982 and before Jan. 1, 1985 | 80 |
| | Models manufactured after Jan. 1, 1985 | (Reserved) |
| Automobiles, light trucks, and all other road vehicles | 1975 Model | 83 |
| | 1976-1980 Models | 80 |
| | Models after 1980 | 75 |
| Bus as defined under ORS 481.030 | 1975 Model | 86 |
| | 1976-1978 Models | 83 |
| | Models after 1978 | 80 |

TABLE B

In-Use [Road] Vehicle Standards

Stationary Test

| <u>Vehicle Type</u> | <u>Model Year</u> | <u>Maximum Noise Level, dBA</u> | <u>Minimum Distance from Vehicle to Measurement Point</u> |
|---|----------------------------------|---------------------------------|---|
| Vehicles in excess of 10,000 pounds [(4536 kg)] GVWR or GCWR engaged in interstate commerce as permitted by Title 40, Code of Federal Regulations, Part 202, Environmental Protection Agency (Noise Emission Standards-Motor Carriers Engaged in Interstate Commerce) | All | 88 | 50 feet (15.2 meters) |
| All other trucks in excess of 10,000 pounds [(4536 kg)] GVWR | Before 1976 | 94 | 25 feet (7.6 meters) |
| | 1976-1981 | 91 | 25 feet (7.6 meters) |
| | after 1981 | 88 | 25 feet (7.6 meters) |
| Motorcycles | Before-1976 [1975 and Before] | 94 [102] | 25 feet (7.6 meters) [20 inches (1/2 meter)] |
| | 1976 | 91 | 25 feet (7.6 meters) |
| | 1977-1982 | 89 | 25 feet (7.6 meters) |
| | 1983-1987 | 86 | 25 feet (7.6 meters) |
| | After 1987- | 83 | 25 feet (7.6 meters) |
| | [After 1975] | [99] | [20 inches (1/2 meter)] |
| Front-engine automobiles, light trucks and all other front-engine road vehicles | All | 95 | 20 inches (1/2 meter) |
| Rear-engine automobiles and light trucks and mid-engine automobiles and light trucks | All | 97 | 20 inches (1/2 meter) |
| Buses as defined under ORS 481.030 | Before 1976 | 94 | 25 feet (7.6 meters) |
| | 1976-1978 | 91 | 25 feet (7.6 meters) |
| | After 1978 | 88 | 25 feet (7.6 meters) |

TABLE C

In-Use [Road] Vehicle Standards

Moving Test At 50 Feet (15.2 meters) or Greater At Vehicle Speed

| <u>Vehicle Type</u> | <u>Model Year</u> | <u>Maximum Noise Level, dBA</u> | |
|---|-------------------|---------------------------------|-----------------------------------|
| | | 35 mph [(56 kph)] or less | Greater than 35 mph [(56 kph)] |
| Vehicles in excess of 10,000 pounds [(4536 kg)] GVWR or GCWR engaged in interstate commerce as permitted by Title 40, Code of Federal Regulations, Part 202, Environmental Protection Agency (Noise Emission Standards-Motor Carriers Engaged in Inter- state Commerce) | All | 86 | 90 |
| All other trucks in excess of 10,000 pounds [(4536 kg)] GVWR | Before 1976 | 86 | 90 |
| | 1976-1981 | 85 | 87 |
| | After 1981 | 82 | 84 |
| Motorcycles | Before 1976 | 84 | 88 |
| | 1976 | 81 | 85 |
| | 1977-1982 | 79 | 83 |
| | 1983-1987 | 76 | 80 |
| | After 1987 | 73 | 77 |
| Automobiles, light trucks and all other road vehicles | Before 1976 | 81 | 85 |
| | 1976-1980 | 78 | 82 |
| | After 1980 | 73 | 77 |
| Buses as defined under ORS 481.030 | Before 1976 | 86 | 90 |
| | 1976-1978 | 85 | 87 |
| | After 1978 | 82 | 84 |

TABLE D
Off-Road Recreational Vehicle Standards
Allowable Noise Limits

| <u>Model-Year</u> | <u>Maximum-Noise-Level, -dBA</u> | |
|-------------------|--|---|
| | <u>Stationary-Test</u> | <u>Moving-Test</u> |
| | <u>25-Feet-(7.6-meters)-Or-Greater</u> | <u>50-Feet-(15.2-meters)-Or-Greater</u> |
| Before-1976 | 94 | 88 |
| 1976 | 91 | 85 |
| 1977-1982 | 89 | 83 |
| 1983-1987 | 86 | 80 |
| After-1987 | 83 | 77 |

| <u>[Vehicle Type]</u> | <u>[Model Year]</u> | <u>[Maximum Noise Level (dBA) and Distance from Vehicle to Measurement Point]</u> | |
|------------------------|--|---|---|
| | | <u>[Stationary Test 20 Inches (1/2 Meter)]</u> | <u>[Moving Test at 50 Feet (15.2 Meters)]</u> |
| [Motorcycles] | [1975 and Before] [After 1975] | [102] [99] | |
| [Snowmobiles] | [1975 and Before] [1976-1978] [After 1978] | | [84] [80] [77] |
| [Boats] | | | |
| [Underwater Exhaust] | [A11] | | [84] |
| [Atmosphere Exhaust] | [A11] | [100] | [84] |
| [All Others] | | | |
| [Front Engine] | [A11] | [95] | |
| [Mid and Rear Engines] | [A11] | [97] | |

TABLE E[Ambient Standards for Vehicles Operated Near Noise Sensitive Property]

Allowable Noise Limits

| <u>Time</u> | <u>Maximum Noise Level, dBA</u> |
|------------------|---------------------------------|
| 7 a.m. - 10 p.m. | 60 |
| 10 p.m. - 7 a.m. | 55 |

TABLE F[Auxiliary Equipment Driven by Primary Engine Noise Standards]

Stationary Test At 50 Feet [(15.2 meters)] Or Greater

| <u>Model Year</u> | <u>Maximum Noise Level, dBA</u> |
|-------------------|---------------------------------|
| Before 1976 | 88 |
| 1976-1978 | 85 |
| After 1978 | 82 |

TABLE G[Existing Industrial and Commercial Noise Source Standards]

Allowable Statistical Noise Levels in Any One Hour

| <u>Pre-1978</u> | | <u>Post - 1977</u> | |
|--------------------------|--------------------------|--------------------------|--------------------------|
| <u>7 a.m. - 10 p.m.</u> | <u>10 p.m. - 7 a.m.</u> | <u>7 a.m. - 10 p.m.</u> | <u>10 p.m. - 7 a.m.</u> |
| L ₅₀ - 60 dBA | L ₅₀ - 55 dBA | L ₅₀ - 55 dBA | L ₅₀ - 50 dBA |
| L ₁₀ - 65 dBA | L ₁₀ - 60 dBA | L ₁₀ - 60 dBA | L ₁₀ - 55 dBA |
| L ₁ - 80 dBA | L ₁ - 65 dBA | L ₁ - 75 dBA | L ₁ - 60 dBA |

TABLE H[New Industrial and Commercial Noise Source Standards]

Allowable Statistical Noise Levels in Any One Hour

| <u>7 a.m. - 10 p.m.</u> | <u>10 p.m. - 7 a.m.</u> |
|--------------------------|--------------------------|
| L ₅₀ - 55 dBA | L ₅₀ - 50 dBA |
| L ₁₀ - 60 dBA | L ₁₀ - 55 dBA |
| L ₁ - 75 dBA | L ₁ - 60 dBA |

TABLE I[Industrial and Commercial Noise Source Standards for Quiet Areas]

Allowable Statistical Noise Levels in Any One Hour

| <u>7 a.m. - 10 p.m.</u> | <u>10 p.m. - 7 a.m.</u> |
|--------------------------|--------------------------|
| L ₅₀ - 50 dBA | L ₅₀ - 45 dBA |
| L ₁₀ - 55 dBA | L ₁₀ - 50 dBA |
| L ₁ - 60 dBA | L ₁ - 55 dBA |

TABLE J[Median Octave Band Standards for Industrial and Commercial Noise Sources]

Allowable Octave Band Sound Pressure Levels

| <u>Octave Band Center Frequency, Hz</u> | <u>7 a.m. - 10 p.m.</u> | <u>10 p.m. - 7 a.m.</u> |
|---|-------------------------|-------------------------|
| 31.5 | 68 | 65 |
| 63 | 65 | 62 |
| 125 | 61 | 56 |
| 250 | 55 | 50 |
| 500 | 52 | 46 |
| 1000 | 49 | 43 |
| 2000 | 46 | 40 |
| 4000 | 43 | 37 |
| 8000 | 40 | 34 |



MOTOR VEHICLE
SOUND
MEASUREMENT
PROCEDURES
MANUAL

Procedure Manual NPC-21 is hereby proposed to be amended as follows: material deleted is lined-out; material to be added is indicated by brackets.

REVISION RECORD

INSTRUCTIONS FOR USE: All revisions of this manual will be numbered to assure each manual holder that he has received all revisions. The date and initials of the person inserting revisions to the manual should be entered on this revision record opposite the appropriate revision number. If the sequence is broken, copies of the missing revisions may be requested from the Noise Control Section.

| <u>Rev. No.</u> | <u>Date Inserted</u> | <u>Initials</u> |
|-----------------|----------------------|--------------------------|
| 1. | <u>7-8-74</u> | <u>JH</u> |
| 2. | <u>8-27-76</u> | <u>JH</u> EGC Amendments |
| 3. | _____ | _____ |
| 4. | _____ | _____ |
| 5. | _____ | _____ |
| 6. | _____ | _____ |
| 7. | _____ | _____ |
| 8. | _____ | _____ |
| 9. | _____ | _____ |
| 10. | _____ | _____ |
| 11. | _____ | _____ |
| 12. | _____ | _____ |
| 13. | _____ | _____ |
| 14. | _____ | _____ |
| 15. | _____ | _____ |
| 16. | _____ | _____ |
| 17. | _____ | _____ |
| 18. | _____ | _____ |
| 19. | _____ | _____ |

FOREWORD

The Motor Vehicle Sound Measurement Procedures Manual has been prepared to specify the equipment to be used and the procedures established in the manual when carefully followed, will ensure that the noise readings obtained are accurate, will support enforcement action, and aid in reducing motor vehicle noise.

The scope of this manual includes sound measurements for new motor vehicles, on-highway motor vehicles and stationary testing of off-highway and on-highway motor vehicles.

The objective of the manual is to establish procedures to implement the objectives of the Environmental Quality Commission. Further, if the practices and procedures herein are adhered to, the result will be a uniform enforcement program which will accomplish the intent of the Legislature and fulfill the Commission's responsibility under ORS Chapter 467.

Office of the Administrator
Air Quality Control Division
Department of Environmental Quality

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CHAPTER 1

INTRODUCTION

1.1 Policy

- 1.1.1 The Department of Environmental Quality, through the Noise Pollution Control Section, shall establish a noise measurement program to implement the laws and regulations applying to motor vehicle noise.
- 1.1.2 The Noise Pollution Control Section and cooperating enforcement agencies shall be responsible for motor vehicle noise measurement.
- 1.1.3 This manual contains procedures for the Noise Pollution Control Section, Enforcement Division, and other persons taking motor vehicle sound measurements. Guidance is provided for in the comments.

1.2 Authority

- 1.2.1 Statutory and administrative law governing authority to the guidance and direction contained in this manual is found in the following sources:
 - a. Oregon Revised Statutes, Chapter 467, Sections 467.010, 467.020, 467.030, 467.050, 467.990.
 - b. Oregon Administrative Rules, Chapter 340, Department of Environmental Quality, Air Quality Control Division.

1.3. Instruments and Training

- 1.3.1 Specific requirements for instruments and personnel are defined under procedure manual, Noise Pollution Control Section - 2, Requirements for Sound Measuring Instruments and Personnel.
- 1.3.2 Allied departments, divisions or agencies who select sound measuring instruments for measuring noise emissions should secure the assistance of qualified engineers in the field of sound measurement in preparing specifications and making purchases of such instruments.
- 1.3.3 Personnel making noise measurements shall be carefully trained in the techniques of noise measurements, use of required instruments, instrument calibration and problems which may be encountered when performing such tasks.

CHAPTER 2

STATIONARY MOTOR VEHICLE

Sound Level Measurement At 25 Feet

- 2.1 Scope. This Chapter establishes procedures for setting up and calibrating sound measuring equipment and conducting tests to determine the sound level output of a stationary vehicle, as measured 25 feet from the vehicle. The near field test procedure at 20 inches (.5 meter) is presented in Chapter 6.

[Motor vehicles in excess of 10,000 pounds GVWR or GCWR engaged in interstate commerce shall conform to measurement procedures and methodologies specified in Compliance with Interstate Motor Carrier Noise Emission Standards of the Federal Highway Administration, Department of Transportation (49 CFR 325).]

- 2.2 Measurement Sites. Measurement sites shall be free of sound-reflecting objects within fifty feet of the microphone and fifty feet of the vehicle to be tested. (See Figure 2-1)

Comment: A "Sound-reflecting surface" is any object or landscape surface in the immediate vicinity of a measurement site which reflects sufficient sound to require the application of a correction factor to the sound level meter reading. Surfaces which are not sound-reflecting surfaces are:

- a. Any surface that measures less than eight feet in length in a direction parallel to the portion of the microphone line on which the microphone is positioned, regardless of height (such as a telephone booth or a tree trunk) or less than one foot in height, regardless of length (such as a curb or guard rail).
- b. Any vertical surface, regardless of size (such as a billboard) with the lower edge more than fifteen feet above the roadway.
- c. Any uniformly smooth slanting surface with less than a forty-five degree slope above horizontal.
- d. Any slanting surface with a forty-five to ninety degree slope above the horizontal where the line at which the slope begins to exceed forty-five degrees is more than fifteen feet above the roadway.
- e. Any trees, bushes, shrubs, hedges, grass, or other vegetation.

All other surfaces are considered sound-reflecting surfaces.

- 2.2.1 Microphone Location. The microphone shall be located twenty-five feet + six inches from the rear or from either side of the vehicle to be tested. The locus of points thus defined is the microphone line. (See Figure 2-1) The microphone shall be located at the point on the microphone line at which the maximum sound level occurs.

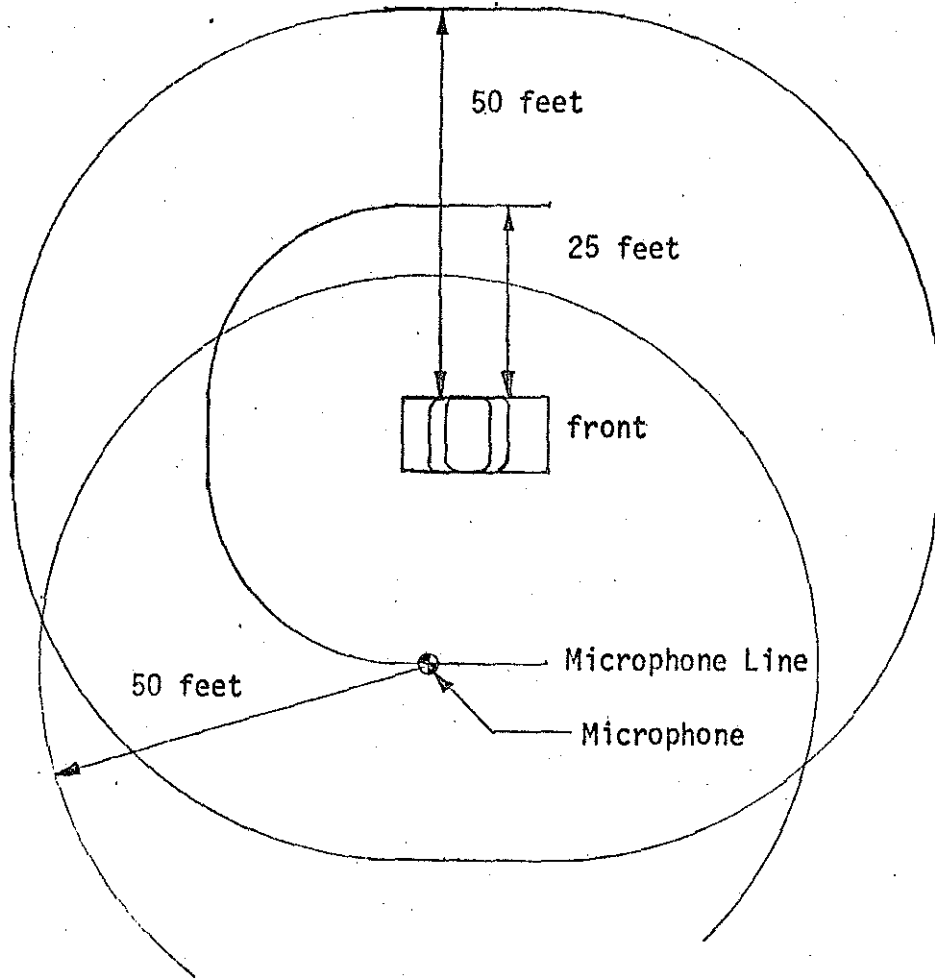


Fig. 2.1 Stationary Measurement Site

2.3 Sound Level Measuring Precaution

- 2.3.1 Wind. Do not conduct measurements when wind velocity at the test location exceeds **ten miles per hour.**
- 2.3.2 Precipitation. Do not conduct measurements when precipitation is falling. However, measurements may be taken when streets are wet.
- 2.3.3 Ambient Noise. The ambient sound level shall be at least 10 dBA below the sound level of the vehicle being measured.
- 2.3.4 Recording. The sound level recorded shall be the highest level obtained during each test, disregarding unrelated peaks due to extraneous ambient noises.

2.4 Equipment Setup and Use

- 2.4.1 General. All types of sound level meters shall be field calibrated immediately prior to use using the procedures described in the factory instruction manual.
- 2.4.2 Battery Check. Batteries in both the meter and calibrator shall be checked before calibration.
- 2.4.3 Instrument Calibration. The instrument shall be set to the correct level range, weighting scale and meter response. The calibrator shall be placed on the microphone of the meter. The output indicated on the meter shall then be adjusted to the correct calibration level.
- 2.4.4 Microphone Height. The sound level meter may be hand held or placed on a tripod. The microphone shall be positioned four and one-half feet above the ground.
- 2.4.5 Windscreens. Windscreens made of open cell polyurethane foam furnished by the instrument manufacturer shall be placed over the microphone after calibration.

COMMENT The windscreen reduces the effect of wind noise and protects the microphone diaphragm from dust or other airborne matter.

- 2.4.6 Annual Calibration Within one year prior to use, each set of sound measuring instruments, sound level meter including octave band filter, and calibrator, shall receive a laboratory calibration in accordance to the manufacturer's specifications. This calibration shall be traceable to the National Bureau of Standards.

COMMENT An inspection label will be attached to each instrument set to determine when the calibration was performed.

2.5 Sound Level Measurement

- 2.5.1 Preliminary Steps. The following steps shall be followed before taking a measurement.

- (a) Turn meter on
- (b) Switch meter to "A" weighting scale
- (c) Switch meter to "FAST" response
- (d) Set the meter to the appropriate range to measure the anticipated sound level.

- 2.5.2 Mounting. The sound level meter shall be hand held or placed on a tripod according to the manufacturer's instructions.

- 2.5.3 Orientation. The orientation of the sound level meter microphone shall be according to the manufacturer's instructions to obtain random incidence.

- 2.5.4 Variations. Allowances are necessary due to unavoidable variations in measurement sites and test equipment. Vehicles are not considered in violation unless they exceed the regulated limit by 2 dBA or more.

2.6 Vehicle Test Procedure

- 2.6.1 Vehicle Sound Level. The sound levels for stationary motor vehicles shall be determined by tests performed according to the following procedures.

- 2.6.2 Location. The microphone shall be located on the microphone line at the position where the maximum sound level is expected to occupy. (see Figure 2-1).

- 2.6.3 Preliminary Tests. Sufficient preliminary tests shall be made to enable the driver to become thoroughly familiar with the test procedure.

2.6.4 Vehicle Operation. The vehicle shall be stationary, in a neutral gear, at its normal operating temperature.

a. Governed Engines. Engines with speed governors shall be run at low idle with the throttle closed. The throttle shall then be fully opened as fast as possible. As soon as the engine reaches and stabilizes at governed speed, the throttle shall be fully closed as quickly as possible.

b. Non-Governed Engines. Engines without speed governors shall be operated the same as governed engines except that the throttle shall be closed quickly enough to prevent excessive engine speed and possible damage to the engine. Drivers of vehicles supplied with tachometers should use the tachometer to monitor engine speed.

2.6.5 Visual Reading. The highest sound level observed, exclusive of peaks due to unrelated ambient noise, shall be reported for each test.

2.6.6 Reported Sound Level. The reported sound level for the vehicle shall be the highest reading which is no more than one dB higher than the next highest reading.

2.6.7 Stationary Motor Vehicle Test Form. A form to record all pertinent information and data is presented in Figure 2-2. This form, NPC-24 or any other Department approved form for this use, shall be used for stationary tests.

STATIONARY VEHICLE NOISE TEST

NOISE POLLUTION DIVISION
DEPARTMENT OF ENVIRONMENTAL QUALITY

DATE

| | | | | | | | |
|--|--|---|--|--|----------|-------|------------|
| YEAR | VEHICLE MAKE | VEHICLE TYPE | LICENSE NO. | MODEL | | | |
| REGISTERED OWNER | | ADDRESS | | | | | |
| DRIVER | D.L. NO. | ADDRESS | | | | | |
| ENGINE TYPE | HP | ENGINE DISPLACEMENT | LOCATION | VEHICLE MILEAGE | | | |
| EXHAUST OUTLET <input type="checkbox"/> Single <input type="checkbox"/> L. Side <input type="checkbox"/> Rear <input type="checkbox"/> Dual <input type="checkbox"/> R. Side <input type="checkbox"/> Vertical | CHECK POSITION AND SIZE OF OUTLET <input type="checkbox"/> Straight <input type="checkbox"/> 45° to rear <input type="checkbox"/> 45° to Side <input type="checkbox"/> ___ dia | | RESONATORS <input type="checkbox"/> Single <input type="checkbox"/> Dual | MUFFLER TYPE TIRE SIZE GEAR RATIOS Diff. ___ : ___ Spkt. ___ : ___ (No. of Teeth) | | | |
| RECORDER MODEL AND DEQ NO. | METER MODEL AND DEQ NO. | | CALIBRATOR AND DEQ NO. | | | | |
| TEST DRIVER | TEST ENGINEER | METER CHECK <input type="checkbox"/> BAT. <input type="checkbox"/> WINDSCREEN <input type="checkbox"/> "A" SCALE <input type="checkbox"/> FAST <input type="checkbox"/> CALIB. | | | | | |
| OPERATING CONDITIONS | Time | READINGS | | TEST CONDITIONS | | | |
| | | dBa | LOCATION NUMBER | | MAX. RPM | | |
| | | | | WEATHER CONDITION | TEMP. | %R.H. | WIND SPEED |
| | | | | Sketch in this space the measurement site peculiarities, and using the proper symbols indicate the direction of wind, vehicle orientation and reading locations. Key: WIND DIRECTION - - - - -> VEHICLE <- - -> MICROPHONE LOCATION NO. <□> | | | |
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| | | | | | | | |

INSTRUMENTATION SET UP AT 25 FT FROM EDGE OF VEHICLE

NPCS-24

Figure 2.2
Stationary Vehicle Noise Test

CHAPTER 3

ON-HIGHWAY [IN-USE VEHICLE MOVING] SOUND LEVEL MEASUREMENTS

- 3.1 Scope. This chapter describes the procedure for selecting sites and setting up equipment for measurement of noise from vehicles on the highway. [off-road or on water.]
- 3.2 Measurement Sites.
- 3.2.1 Types of Sites. Two types are established for measuring vehicles in use on the highway. They are a standard measuring site requiring a large clear open area and a restricted measuring site in which sound-reflecting objects are permitted. When selecting measuring sites, care shall be taken to measure sites carefully and determine if a correction factor must be applied.
- 3.2.2 Standard Measuring Sites. Standard measuring sites are those where the microphone can be placed 50 feet from the center of the vehicle path and where there are no sound-reflecting objects within 100-foot radius of the microphone and a 100-foot radius of the microphone point (which is the point on the vehicle path that is closest to the microphone). (See Figure 3-1) When making measurements of vehicle sound levels in standard measuring sites, the instrument readings shall be recorded with no correction factor applied.
- 3.2.3 Restricted Measuring Sites. Restricted measuring sites are those where the distance from the center of the vehicle path to the microphone is other than 50 feet or where there are sound-reflecting surfaces closer than 100 feet from the microphone or the microphone point. Vehicle noise measurements may be made in such areas when the proper correction factors described in this chapter are applied to the recorded sound levels. (See Figure 3-2)
- 3.2.4 Measuring Distance. The actual distance from the microphone to the microphone point at the center of the vehicle path may range from 35 to 118 feet when the factor obtained from Figure 3-3 is added to the sound level meter readings to correct the reading to what it would be at the standard measuring distance of 50 feet.

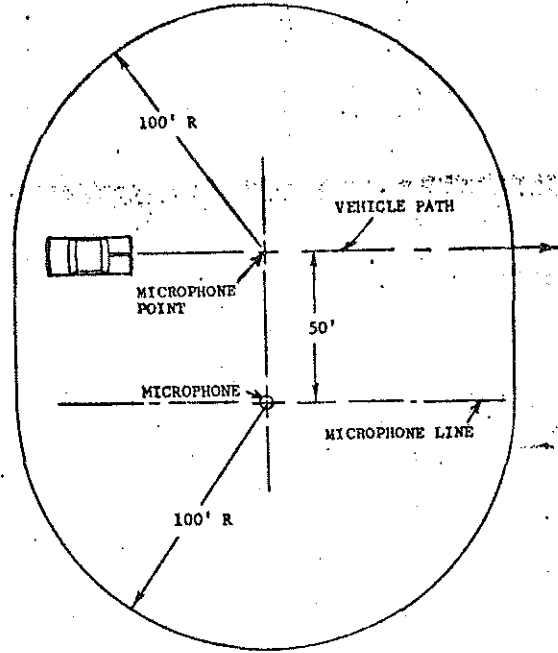


Fig. 3-1. Standard Highway-Measuring Site

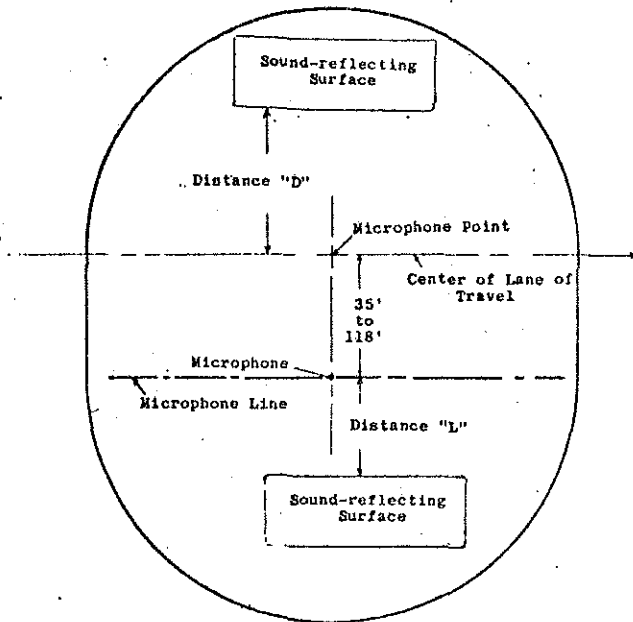


Fig. 3-2. Restricted Highway-Measuring Site

| <u>Distance from Microphone to Roadway [Pathway] Centerline</u> | <u>dB A Correction Factor</u> |
|---|-----------------------------------|
| 35 - 39 ft. | -3 |
| 39 - 43 ft. | -2 |
| 43 - 48 ft. | -1 |
| 48 - 58 ft. | 0 |
| 58 - 70 ft. | +1 |
| 70 - 83 ft. | +2 |
| 83 - 99 ft. | +3 |
| 99 -118 ft. | +4 |

Fig. 3-3 Measuring Distance Correction Factors

Example: If the distance between the microphone and the roadway [pathway] centerline is 36 feet instead of 50 feet and a vehicle is measured at 90 dBA, the recorded reading will be as follows:

| | |
|--------|---------------------|
| 90 dBA | Uncorrected reading |
| -3 dBA | Correction factor |
| <hr/> | |
| 87 dBA | Corrected reading |

3.2.5 Sound-reflecting Surfaces. A "sound-reflecting surface" is any object or landscape surface in the immediate vicinity of a measurement site which reflects sufficient sound to require the application of a correction factor to the sound level meter reading.

- a. Correction factors determined from paragraph 3.2.7 may be applied only when sound-reflecting surfaces are basically parallel to the lane of travel.
- b. A basically parallel surface may have irregularities or projections of not more than two feet measured perpendicular to the lane of travel, with the distance to the microphone line or vehicle path measured from the closest point of the projection.

3.2.6 Surfaces Not Requiring Correction Factors. Correction factors shall not be applied to the sound level reading when the following surfaces are within the measuring area defined by paragraph 3.2.2:

- a. Any surface that measures less than eight feet in length in a direction parallel to the vehicle path, regardless of height (such as telephone booth or tree trunk) or less than one foot in height, regardless of length (such as a curb or guard rail).
- b. Any vertical surface, regardless of size (such as billboard) with the lower edge more than fifteen feet above the roadway. [surface.]
- c. Any uniformly smooth slanting surface with less than a forty-five degree slope above horizontal.
- d. Any slanting surface with a forty-five to ninety degree slope above horizontal where the line at which the slope begins to exceed forty-five degrees is more than fifteen feet above the roadway. [surface.]
- e. Any trees, brushes, shrubs, hedges, grass or other vegetation.

3.2.7 Correction Factors for Sound-reflecting Surfaces. Correction factors to be applied to sound level meter readings when there are sound-reflecting surfaces within 100 feet of either the microphone or microphone point are determined as follows:

- a. Reflecting Surfaces. Sites where there are sound-reflecting surfaces basically parallel to the vehicle path within the clear area of the standard site may be used by measuring the distances shown in Figure 3.4 and 3.5, and applying the correction factor obtained from the nomogram in Figure 3-6.

- b. Smooth Embankments. The point of measurement from smooth embankments shall be the place on the embankment where the slope begins to exceed forty-five degrees above horizontal. (See Figure 3-4) The point of measurement from irregular embankments shall be the place on the embankment where the vegetation, concrete, asphalt, dirt or other relatively smooth cover.

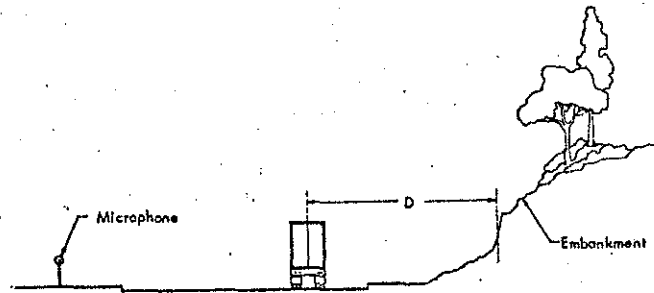


Fig. 3-4. Measurement of Distance to Embankment

- c. Taking Measurements. To determine the correction factor for sound-reflecting surfaces within the measuring site, measure the distances shown in Figure 3-5. Measurement "D" is the shortest distance between the sound-reflecting surface and the centerline of the lane of travel. Measurement "L" is the shortest distance between the sound-reflecting surface and a line parallel to the lane of travel that passes through the microphone (microphone line).

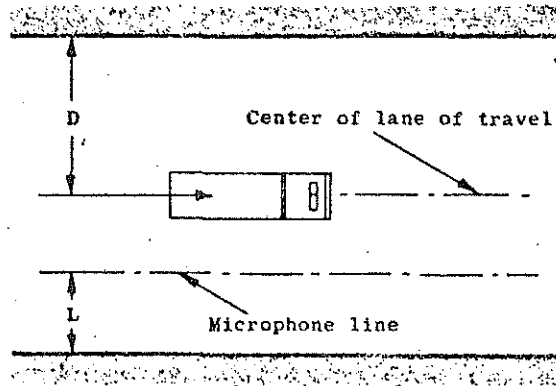
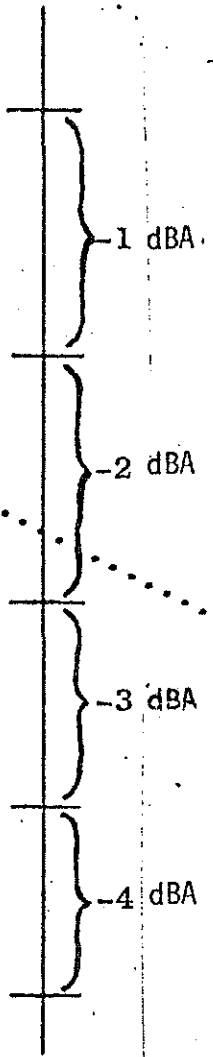
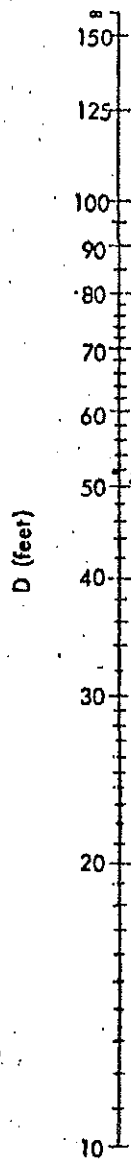


Fig. 3-5 Correction Factor Distances "D" and "L"

- d. Determining Correction Factor. Locate the points on the left and right scales of the nomogram (Figure 3-6) corresponding to the distances "D" and "L." Place a straight edge across the nomogram so that it connects the two points. The point where the straight edge intersects the center axis indicates the correction factor to be applied to the sound level meter reading.

Distance from center of vehicle path to reflecting surface.



Distance from microphone line to reflecting surface.

On centerline read dBA correction to be subtracted from meter reading.

Fig. 3-6. Nomogram for Reflecting Surfaces

- e. Example. The dotted line in Figure 3-6 illustrates the use of the nomogram for a reflecting surface fifty-two feet from the center of the lane of travel (distance "D") and one twenty-five feet from the microphone line (distance "L"). These measurements plotted on the nomogram result in a correction factor of -2 dBA. With the microphone at the standard measuring distance of fifty feet and a vehicle measured at ninety dBA, the corrected reading would be recorded as follows.

| | |
|---------------|----------------------------|
| 90 dBA | Uncorrected reading |
| <u>-2 dBA</u> | Correction from Figure 2-6 |
| 88 dBA | Corrected reading |

- 3.2.8 Combination of Reflecting Surfaces and Non-standard Measuring Distance. Example. If the distance between the microphone and microphone point is seventy-four feet instead of the standard distance of fifty feet and the sound-reflecting surfaces are the same distances as described in the example given above, two corrections are necessary.

| | |
|---------------|--|
| 90 dBA | Uncorrected reading |
| <u>-2 dBA</u> | Correction for sound-reflecting surfaces |
| 88 dBA | |
| <u>+2 dBA</u> | Correction for measuring distance |
| 90 dBA | Corrected reading |

- 3.2.9 Selection of Sites. Selection of sites shall be subject to the following restrictions:

a: Roadways. Roadways selected for sound level measuring sites shall be paved with concrete or asphalt.

[a. Pathways

- i) Road vehicle sites shall be paved with concrete or asphalt
- ii) Snowmobile sites shall be covered with snow or live vegetation no more than four inches in height
- iii) Boat sites shall be on water with waves less than ± twelve inches
- iv) All other sites shall be on hard packed earth or live vegetation of less than four inches in height.]

b. Tunnels and Overpasses. Sound measurements shall not be made within 100 feet of a tunnel or overpass through which the roadway passes.

c. Overhangs. The vehicle path and microphone shall not be within fifty feet of overhangs on buildings which project more than two feet from the wall of the building.

- d. Reflecting Surfaces Close to Microphone. Sound reflecting surfaces, other than the ground [or water], shall be no closer than ten feet from the microphone line.
- e. Reflecting Surfaces Close to Lane of Travel. Sound reflecting surfaces shall be no closer than ten feet from the center of the lane of travel for a distance of 100 feet parallel to the vehicle path on either side of the microphone point.
- f. Non-parallel Reflecting Surfaces. Large reflecting surfaces that are not basically parallel to the lane of travel shall be 100 feet or more from the microphone or microphone point. (See Figure 3-7).

3.3 Sound Level Measuring Precautions

- 3.3.1 Identification. It is most important that the noise recorded is actually from the vehicle being measured. Care must be taken to ensure that noise from another vehicle does not add to that from the one being measured.
- 3.3.2 Intensity. The sound level of the vehicle under scrutiny must rise at least 6 dBA before and fall at least 6 dBA after the maximum sound level occurs.
- 3.3.3 Recording. The sound level recorded shall be the highest level obtained as the vehicle passes by, disregarding unrelated peaks due to extraneous ambient noises.
- 3.3.4 Wind. Always use the wind screen on the microphone when taking measurements. Do not conduct measurements when wind velocity at the test location exceeds ten miles per hour.
- 3.3.5 Precipitation. Do not conduct measurements when precipitation is falling ~~or when streets are wet.~~ Streets shall be dry during road vehicle measurements.
- 3.3.6 Ambient Noise. The ambient sound level shall be at least 10 dBA below the sound level of the vehicle being measured.

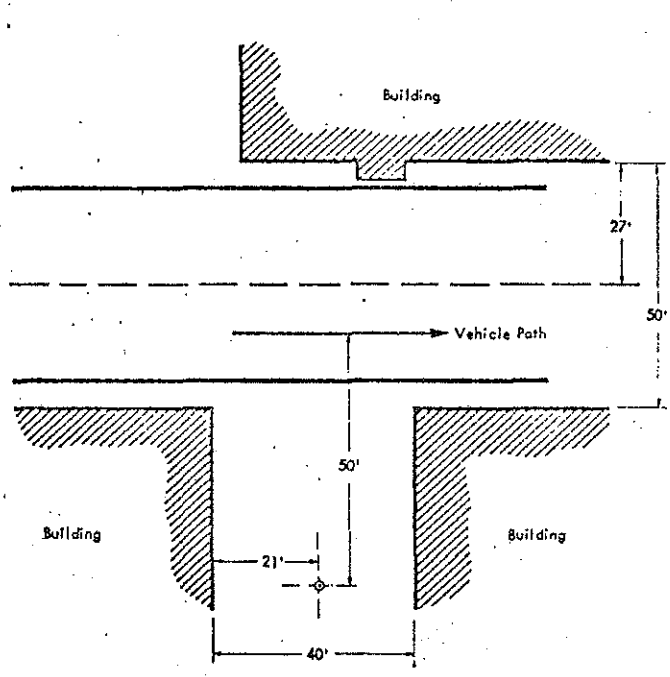


Fig. 3-7. Unacceptable Measuring Site

3.4 Equipment Setup and Use

3.4.1 General. All types of sound level meters shall be field calibrated immediately prior to use using the procedures described in the factory instruction manual.

2.4.2 Battery Check. Batteries in both the meter and calibrator shall be checked before calibration.

3.4.3 Instrument Calibration. The instrument shall be set to the correct level range, weighting scale and meter response. The calibrator shall be placed on the microphone of the meter. The output indicated on the meter shall then be adjusted to the correct calibration level.

3.4.4 Microphone Height. The microphone shall be placed on a tripod if an extension cable is used. If the cable is not used, the sound level meter with the microphone attached may be hand held or placed on a tripod. The microphone shall be positioned at height of $4 \pm 1/2$ ft as shown in Figure 3.8.

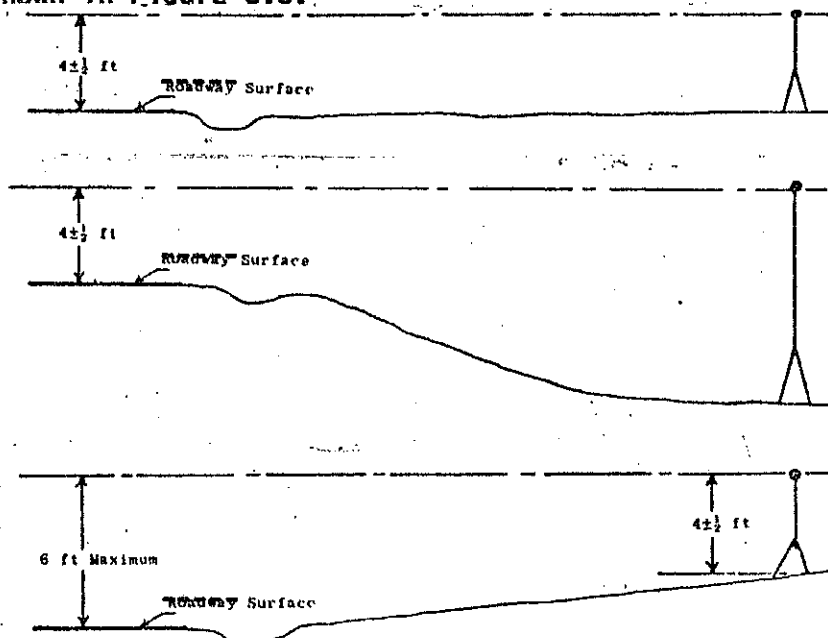


Fig. 3-8. Microphone Height

3.4.5 Windscreens. Windscreens made of open cell polyurethane foam furnished by the instrument manufacturer shall be placed over the microphone after calibration.

COMMENT The windscreen reduces the effect of wind noise and protects the microphone diaphragm from dust or other airborne matter.

3.4.6 Annual Calibration. Within one year prior to use, each set of sound measuring instruments, sound level meter including octave band filter, and calibrator, shall receive a laboratory calibration in accordance to the manufacturer's specifications. This calibration shall be traceable to the National Bureau of Standards.

COMMENT An inspection label will be attached to each instrument set to determine when the calibration was performed.

3.5 Sound Level measurement

3.5.1 Preliminary Steps. The following steps shall be followed before taking a measurement.

- a) Turn meter on
- b) Switch meter to "A" weighting scale
- c) Switch meter to "FAST" response
- d) Set the meter to the appropriate range to measure the anticipated sound level.

3.5.2 Mounting. The sound level meter shall be hand held or placed on a tripod according to the manufacturer's instructions.

3.5.3 Orientation. The orientation of the sound level meter microphone shall be according to the manufacturer's instructions to obtain random incidence.

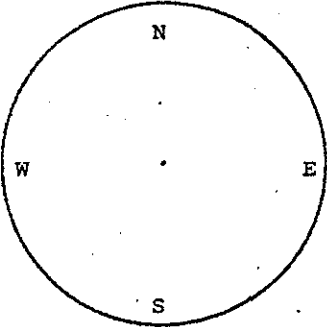
3.5.4 Variations. Allowances are necessary due to unavoidable variations in measurement sites and test equipment. Vehicles are not considered in violation unless they exceed the regulated limit by 2 dBA or more.

3.6 Vehicle Test Procedures

The moving vehicle test can be made after the following steps are accomplished.

- a) The test site is selected and correction factors are determined as defined in Section 3.2.
- b) The necessary measuring precautions are taken as described in Section 3.3.
- c) The test equipment is setup as described in Section 3.4.

A form to record all pertinent information and data is presented in Figure 3-9. This form, NPC-25, or any other Department approved form for this use shall be used for the moving vehicle noise tests.

| | | | | | | | | | | |
|--|--|--------------|---|-------------------------------------|---------|---|--------------|--|---|--|
| MOVING VEHICLE NOISE TEST | | | | NOISE POLLUTION DIVISION | | | | DATE | | |
| | | | | DEPARTMENT OF ENVIRONMENTAL QUALITY | | | | | | |
| YEAR | | VEHICLE MAKE | | VEHICLE TYPE | | LICENSE NO. | | MODEL | | |
| REGISTERED OWNER | | | | ADDRESS | | | | | | |
| DRIVER | | | D.L. NO. | | ADDRESS | | | | | |
| ENGINE TYPE | | | HP | ENGINE DISPLACEMENT | | | LOCATION | | VEHICLE MILEAGE | |
| EXHAUST OUTLET <input type="checkbox"/> Single <input type="checkbox"/> L. Side <input type="checkbox"/> Rear <input type="checkbox"/> Dual <input type="checkbox"/> R. Side <input type="checkbox"/> Vertical | | | CHECK POSITION AND SIZE OF OUTLET <input type="checkbox"/> Straight <input type="checkbox"/> 45° to rear <input type="checkbox"/> 45° to side <input type="checkbox"/> ___ dia. | | | RESONATORS <input type="checkbox"/> Single <input type="checkbox"/> Dual | MUFFLER TYPE | TIRE SIZE _____ x _____ | GEAR RATIOS Diff. _____ : _____ Spkt. _____ : _____ (No. of Teeth) | |
| RECORDER MODEL AND DEQ NO. | | | | METER MODEL AND DEQ NO. | | | | CALIBRATOR AND DEQ NO. | | |
| TEST DRIVER | | | TEST ENGINEER | | | METER CHECK <input type="checkbox"/> BAT. <input type="checkbox"/> WINDSCREEN <input type="checkbox"/> "A" SCALE <input type="checkbox"/> FAST <input type="checkbox"/> CALIB. | | | | |
| OPERATING CONDITIONS | | TIME | dBA | CORRECTIONS Distance Reflect | | Correct dBA | EST. MPH | TEST CONDITIONS | | |
| | | | | | | | | WEATHER CONDITION | TEMP. | |
| | | | | | | | | %RH | WIND VEL. | |
| | | | | | | | | Indicate by proper symbols the direction of the wind, vehicle path, and microphone location. | | |
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INSTRUMENTATION SET UP AT 50 FT. FROM CENTERLINE OF TRAVEL.

NPCS-25

Figure 3-9
Moving Motor Vehicle Test

CHAPTER 4

NEW VEHICLE SOUND LEVEL MEASUREMENT

- 4.1 Scope. This Chapter establishes procedures for setting up and calibrating sound measuring equipment and conducting tests to determine vehicle sound level output.
- 4.2 Test Area and Personnel
- 4.2.1 Test Area. The test area shall be a flat open space free of large upright sound-reflecting surfaces, such as parked vehicles, signboards, building, or hillsides, located within 100 feet radius of the microphone and of the following unmarked points on the vehicle path as shown in Figure 4-1.
- The microphone point, which is the location on the vehicle path closest to the microphone.
 - A point fifty feet before the microphone point.
 - A point fifty feet beyond the microphone point.

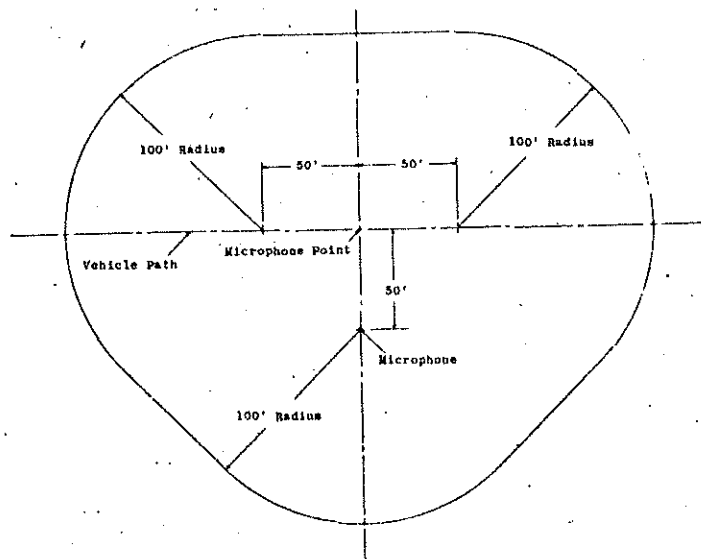


Fig. 4-1. New Vehicle Test Area Layout

4.2.2 Ground Condition. The surface of the ground within the measuring site for road vehicles shall be smooth asphalt or concrete free of snow, soil or ashes in at least the triangular area formed by the microphone location and points on the vehicle path 50 feet before and beyond the microphone point. The ground surface in the above area for snowmobiles shall be live vegetation (grass) no more than four inches in height.

4.2.3 Roadway Surface. The surface of the vehicle path shall be dry, smooth asphalt or concrete pavement free of extraneous material, except that the pathway for snowmobiles shall be covered with live vegetation (grass) no more than four inches in height [or a maximum of 3 inches of loose snow over a base of at least 2 inches of compacted snow.]

4.2.4 Wind. Do not conduct sound measurements when wind velocity at the test area exceeds ten miles per hour.

4.2.5 Personnel Location. Exercise care to prevent interference with sound level measurements caused by personnel in the measuring area.

a. Bystander Location. Bystanders shall remain at least fifty feet from the microphone and the vehicle being measured during sound level measurements.

b. Technician Location. The technician making direct readings from the sound level meter with microphone attached shall stand with the instrument positioned in accordance with the manufacturer's instructions.

4.3 Equipment Setup and Use

4.3.1 General. All types of sound level meters shall be field calibrated immediately prior to use using the procedures described in the factory instruction manual.

4.3.2 Battery Check. Batteries in both the meter and calibrator shall be checked before calibration.

4.3.3 Instrument Calibration. The instrument shall be set to the correct level range, weighting scale, and meter response. The calibrator shall be placed on the microphone of the meter. The output indicated on the meter shall then be adjusted to the correct calibration level.

4.3.4 Microphone Location. Attach the microphone or sound level meter to the tripod, extending the tripod legs so that the microphone, when aimed at the microphone point, will be at a height of $4 \pm \frac{1}{2}$ ft. above the plane of the roadway surface. Position the tripod so the microphone is at a distance of 50 ± 1 ft. from the center of the lane of travel.

COMMENT Connect extension cable between the instruments. Secure the cable to the foot of the tripod leg nearest the recorder location. This will help prevent the tripod from being pulled over by an accidental tug on the cable.

- 4.3.5 Windscreens. Windscreens made of open cell polyurethane foam furnished by the instrument manufacturer shall be placed over the microphone after calibration.

COMMENT The windscreen reduces the effect of wind noise and protects the microphone diaphragm from dust or other airborne matter.

- 4.3.6 Annual Calibration. Within one year prior to use, each set of sound measuring instruments, sound level meter including octave band filter, and calibrator, shall receive a laboratory calibration in accordance to the manufacturer's specifications. This calibration shall be traceable to the National Bureau of Standards.

COMMENT An inspection label will be attached to each instrument set to determine when the calibration was performed.

4.4 Sound Level Measurement

- 4.4.1 Preliminary Steps. The following steps shall be followed before taking a measurement.

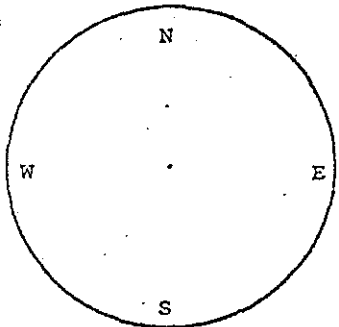
- a) Turn meter on
- b) Switch meter to "A" weighting scale
- c) Switch meter to "FAST" response
- d) Set the meter to the appropriate range to measure the anticipated sound level.

- 4.4.2 Mounting. The sound level meter shall be placed on a tripod according to the manufacturer's instructions.

- 4.4.3 Orientation. The orientation of the sound level meter microphone shall be according to the manufacturer's instructions to obtain random incidence.

- 4.4.4 Variations. Allowances are necessary due to unavoidable variations in measurement sites and test equipment. Vehicles are not considered in violation unless they exceed the regulated limit by 2 dBA or more.

- 4.4.5 Weather Measurement. Record wind velocity and direction with a wind gauge and temperature and relative humidity with a sling psychrometer or other Department approved instruments.
- 4.4.6 Data Recording. Record all required vehicle data, type of test equipment, and weather information on the New Vehicle Test Form, (NPCS-26), as shown in Figure 4-2 or any other form approved in writing by the Department.

| | | | | | | | | | | |
|--|--------------|------|---|---------------------|-------------------------------------|---|--|---------------------------|---|-----------|
| NEW VEHICLE NOISE TEST | | | | | DEPARTMENT OF ENVIRONMENTAL QUALITY | | | DATE | | |
| YEAR | VEHICLE MAKE | | | VEHICLE TYPE | | | LICENSE NO. | | MODEL | |
| REGISTERED OWNER | | | | ADDRESS | | | | | | |
| DRIVER | | | D.L. NO. | | ADDRESS | | | | | |
| ENGINE TYPE | | | HP | ENGINE DISPLACEMENT | | | LOCATION | | VEHICLE MILEAGE | |
| EXHAUST OUTLET <input type="checkbox"/> Single <input type="checkbox"/> L. Side <input type="checkbox"/> Rear <input type="checkbox"/> Dual <input type="checkbox"/> R. Side <input type="checkbox"/> Vertical | | | CHECK POSITION AND SIZE OF OUTLET <input type="checkbox"/> Straight <input type="checkbox"/> 45° to rear <input type="checkbox"/> 45° to side <input type="checkbox"/> ___ dia. | | | RESONATORS <input type="checkbox"/> Single <input type="checkbox"/> Dual | MUFFLER TYPE | TIRE SIZE ____ x _____ | GEAR RATIOS Diff. ____ : ____ Spkt. ____ : ____ (No. of Teeth) | |
| RECORDER MODEL AND DEQ NO. | | | METER MODEL AND DEQ NO. | | VEHICLE SUPPLIED BY | | | CALIBRATOR AND DEQ NO. | | |
| TEST DRIVER | | | TEST ENGINEER | | | METER CHECK <input type="checkbox"/> BAT. <input type="checkbox"/> WINDSCREEN <input type="checkbox"/> "A" SCALE <input type="checkbox"/> FAST <input type="checkbox"/> CALIB. | | | | |
| OPERATING CONDITIONS | | TIME | DBA READINGS | | MAXIMUM | | TEST CONDITIONS | | | |
| | | | L.S. | R.S. | RPM | MPH | WEATHER CONDITION | TEMP. | %RH | WIND VEL. |
| | | | | | | | <p>Indicate by proper symbols the direction of the wind, vehicle path, and microphone location.</p> <div style="text-align: center;">  </div> <p>Key: Wind Direction ---> Vehicle Path <---> Microphone Location <◇></p> | | | |
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INSTRUMENTATION SET UP AT 50 FT. FROM CENTERLINE OF TRAVEL.

NPCS-2/6

Figure 4-2
New Vehicle Test
-25-

4.5 New Vehicle Test Procedure

4.5.1 Vehicle Sound Level. The sound levels for new motor vehicles shall be determined by tests performed according to procedures established for each particular class of vehicle.

4.5.2 Definitions. For the purpose of these procedures, the following terms have the meanings indicated:

- a. Maximum RPM. "Maximum rpm" means the maximum governed engine speed, or if uncontrolled, the rpm at maximum engine horsepower as determined by the engine manufacturer in accordance with the procedures in Society of Automotive Engineers Standard, Engine Rating Code - Spark Ignition - SAE J245, April 1971, or Engine Rating Code Diesel - SAE J270, September 1971.
- b. Microphone Point. "Microphone point" means the unmarked location on the center of the lane of travel that is closest to the microphone.
- c. Vehicle Reference Point. "Vehicle reference point" means the location of the vehicle used to determine when the vehicle is at any of the points on the vehicle path. The primary vehicle reference point is the front of the vehicle.

4.5.3 Operation.

- a. Preliminary Runs. Sufficient preliminary runs shall be made to enable the test driver to become familiar with the operation of the vehicle and to stabilize engine operating conditions.
- b. Test Runs. At least four test runs shall be made for each side of the vehicle.
- c. Reported Noise Level. The reported sound level for each side of the vehicle shall be on the average of the two highest readings on that side which are within 2 dBA of each other. The sound level reported for the vehicle shall be the sound level of the loudest side.
- d. Visual Reading and Recording. Visual readings shall be taken from the sound level meter during preliminary test runs and recorded. The readings from the sound level meter shall be compared with those of the recorder and there shall be no more than + 0.5 dBA variation between the readings. When the variation is greater, the equipment shall be checked and recalibrated. If the variation still exists, the test shall be conducted using only direct readings from the sound level meter.

4.5.4 Motorcycles. Motorcycles shall be tested as follows:

- a. Vehicle Path. The test area shall include a vehicle path of sufficient length for safe acceleration, deceleration, and stopping of the vehicle.
- b. Test Area Layout. The following points and zones shown in Figure 4-3 where only one directional approach is illustrated for purposes of clarity, shall be established on the vehicle path so that measurements can be made on both sides of the vehicle:
 1. Microphone point.
 2. Acceleration point - a location 25 feet before the microphone point.
 3. End point - a location 100 feet beyond the microphone point.

4. End zone - the last 75-foot distance between the microphone point and the end point.

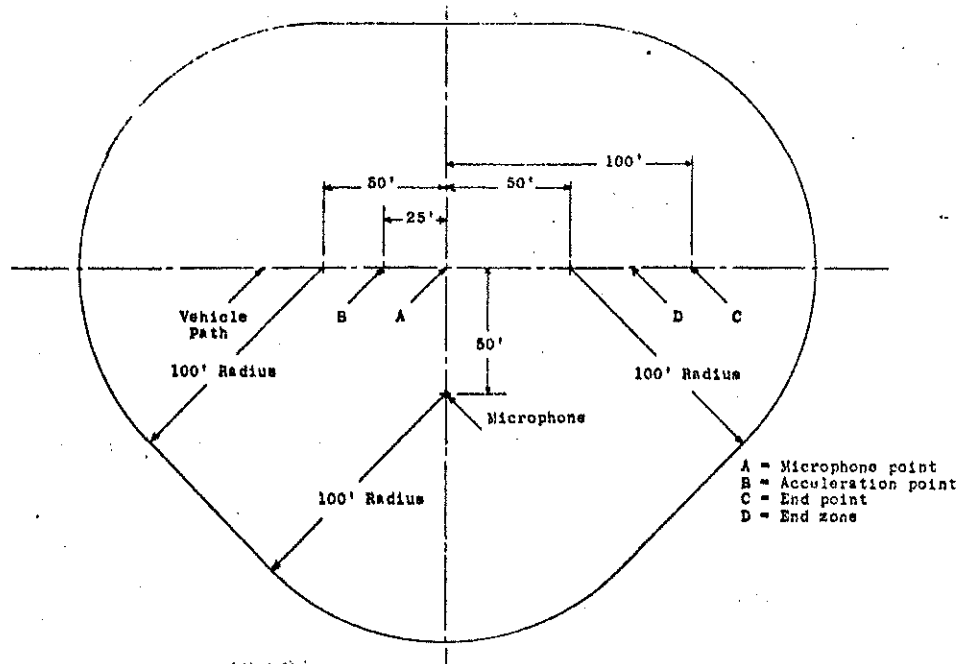


Fig. 4- 3. Test Area Layout for Motorcycles

- c. Test Procedures. Vehicles shall be tested according to the following procedures:
 1. Gear Selection. Motorcycles shall be operated in second gear. Vehicles which reach maximum rpm at less than 30 mph or before a point of 25 feet beyond the microphone point shall be operated in the next higher gear.

[If the motorcycle has an automatic transmission or torque converter, then gear selection shall follow the following procedure:

If the gear range is selectable, employ the lowest range. If the vehicle reaches maximum rpm at less than 30 mph or before a point 25 feet beyond the microphone point (see Figure 4-3), use the next higher range. If maximum rpm is reached before a point 25 feet beyond the microphone point when the vehicle is in the highest gear range, then the throttle shall be opened less rapidly, but in such a manner that full throttle and maximum rpm are attained while within the end zone.

If the gear range is not selectable, then the throttle shall be opened less rapidly, but in such a manner that full throttle and maximum rpm are attained while within the end zone.]

2. Acceleration. The vehicle shall proceed along the test path at a constant approach speed which corresponds either to an engine speed of 60 percent of maximum rpm or to 30 mph, whichever is lower. When the vehicle reference point reaches the acceleration point, the throttle shall be rapidly and fully opened. The throttle shall be held open until the vehicle reference point reaches the end point or until the maximum rpm is reached within the end zone, at which point the throttle shall be closed. Wheel slip shall be avoided.
3. Deceleration. Tests during deceleration shall be conducted when deceleration noise appears excessive. The vehicle shall proceed along the vehicle path at maximum rpm in the same gear selected for the tests during acceleration. When the reference point on the vehicle reaches the acceleration point, the throttle shall be rapidly closed and the vehicle shall be allowed to decelerate to less than 1/2 of maximum rpm.
4. Engine Temperature. The engine temperature shall be within normal operating range before each test run.
5. Test Weight. The total weight of test driver and test instrumentation shall be 165 lbs. For small drivers, additional weights shall be used to bring the total to 165 lbs.

4.5.5 Snowmobiles. Snowmobiles shall be tested as follows:

- a. Vehicle Path. The test area shall include a vehicle path of sufficient length for safe acceleration, deceleration, and stopping of the vehicle.
- b. Test Area Layout. The following points and zones shown in Figure 4-3, where only one directional approach is illustrated for the purposes of clarity, shall be established on the vehicle path so that measurements can be made on both sides of the vehicle.
 1. Microphone point.
 2. End point - a location 50 feet beyond the microphone point.
 3. Acceleration point - a location on the vehicle path established as follows: Position the vehicle headed away from the microphone point with the vehicle reference point at 25 feet from the microphone point. From a standing start with transmission in low gear, rapidly apply wide-open throttle, accelerating until maximum rpm is attained. The location on the vehicle path where maximum rpm was attained is the acceleration point for test run in the opposite direction.
 4. Maximum rpm zone.

- c. Test Procedures. From a standing start, with transmission in low gear and the vehicle reference point positioned at the acceleration point, the throttle shall be rapidly and fully opened and held through the maximum rpm zone until the reference point on the vehicle reaches the end point after which the throttle shall be closed.

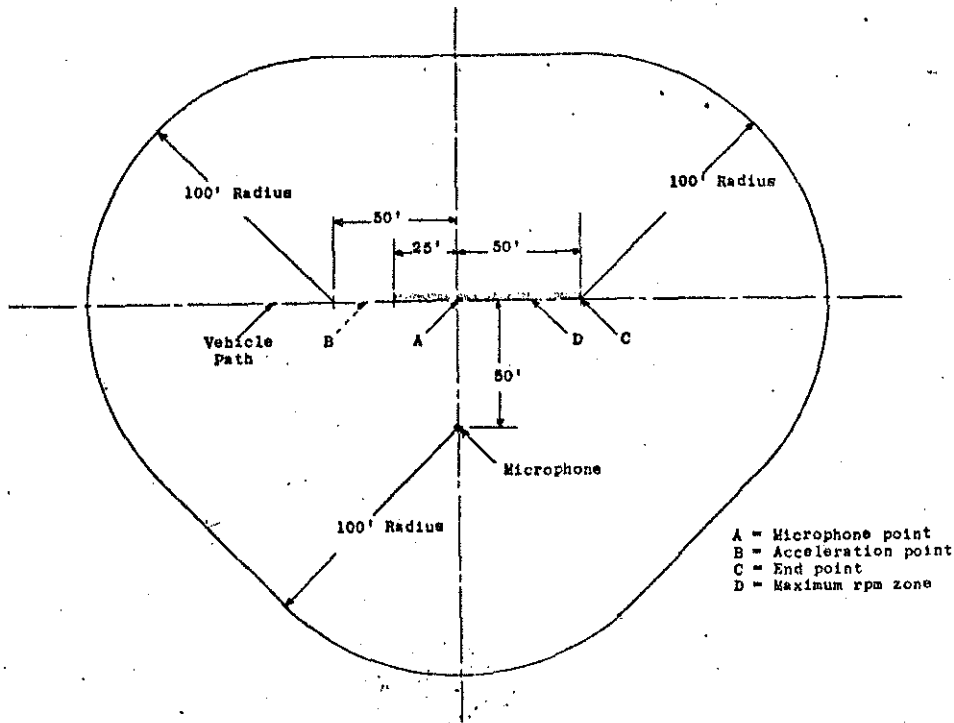


Fig. 4-4. Test Area Layout for Snowmobiles

4.5.6 Heavy Trucks, Truck Tractors, and Buses. The test procedure for vehicles with a manufacturer's gross vehicle weight rating of ~~6,000~~ [10,000] lbs or more shall be as follows:

(1) Test Area Layout. The test area shall include a vehicle path of sufficient length for safe acceleration, deceleration, and stopping of the vehicle. The following points and zones shall be established on the vehicle path as shown in Figure 4, where only one directional approach is illustrated for purposes of clarity.

- (A) Microphone point
- (B) Acceleration point - a location 50 ft before the microphone point
- (C) End point - a location 50 ft beyond the microphone point
- (D) End zone - the last 40-ft distance between the microphone point and the end point.

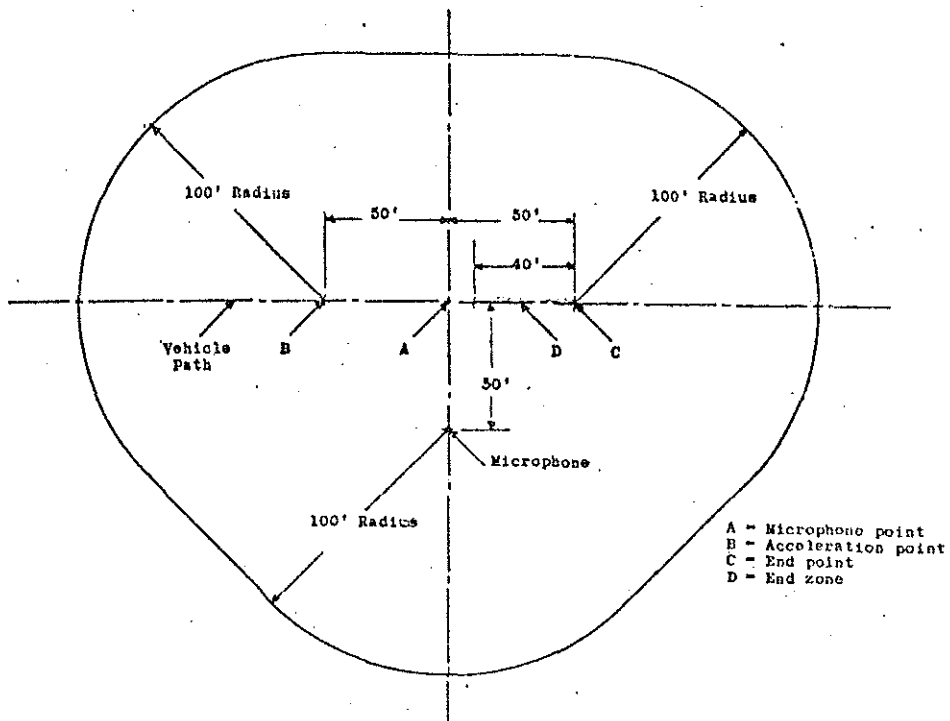


Figure 4-5 Test Area Layout for Trucks

(2) Gear Selection. A gear shall be selected (manual or automatic transmission) which will result in the vehicle beginning at an approach rpm of no more than $2/3$ maximum rpm at the acceleration point and reaching maximum rpm within the end zone without exceeding 35 mph.

(A) When maximum rpm is attained before reaching the end zone, the next higher gear shall be selected, up to the gear where maximum rpm produces over 35 mph.

(B) When maximum rpm still occurs before reaching the end zone, the approach rpm shall be decreased in 100 rpm increments until maximum rpm is attained within the end zone.

(C) When maximum rpm is not attained until beyond the end zone, the next lower gear shall be selected until maximum rpm is attained within the end zone.

(D) When the lowest gear still results in reaching maximum rpm beyond the end zone, the approach rpm shall be increased in 100 rpm increments above $2/3$ maximum rpm until the maximum rpm is reached within the end zone.

(3) Acceleration. The vehicle shall proceed along the vehicle path maintaining the approach engine rpm in the gear selected for at least 50 ft before reaching the acceleration point. When the vehicle reference point reaches the acceleration point, the throttle shall be rapidly and fully opened and held open until maximum rpm is attained within the end zone, at which point the throttle shall be closed.

(4) Deceleration. Tests during deceleration shall be conducted when deceleration noise appears excessive. The vehicle shall proceed along the vehicle path at maximum rpm in the same gear selected for the tests during acceleration. When the vehicle reference point reaches the microphone point, the throttle shall be rapidly closed and the vehicle allowed to decelerate to less than $1/2$ maximum rpm. Vehicles equipped with exhaust brakes shall also be tested with the brake full on immediately following closing of the throttle.

(5) Engine Temperature. The engine temperature shall be within normal operating range throughout each test run.

[(6) Demand-Activated Fans. If the test vehicle contains a demand-activated fan, the fan may be in the "off" position during the test.]

4.5.7 Light Trucks, Truck Tractors, Buses, Cars and All Other Vehicles. The test procedure for trucks, truck tractors, and buses with a manufacturer's gross vehicle weight rating of less than 6,000 [10,000] lbs, and all passenger cars shall be as follows:

(1) Test Area Layout. The test area shall include a vehicle path of sufficient length for safe acceleration, deceleration, and stopping of the vehicle. The following points and zones shall be established on the vehicle path as shown in Figure 5, where only one directional approach is illustrated for purposes of clarity:

- (A) Microphone point
- (B) Acceleration point - a location 25 ft before the microphone point
- (C) End point - a location 100 ft beyond the microphone point
- (D) End zone - the last 75-ft distance between the microphone point and the end point.

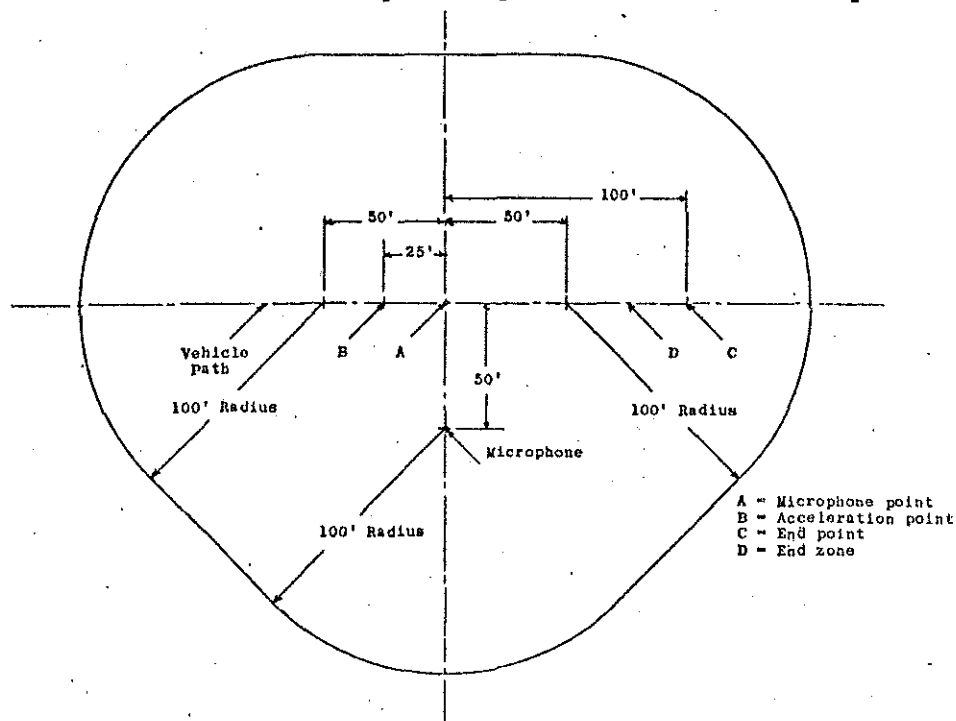


Figure 4-6 Test Area Layout for Passenger Cars

(2) Gear Selection. Motor vehicles equipped with three-speed manual transmissions and with automatic transmissions shall be operated in first gear. Vehicles equipped with manual transmissions of four or more speeds shall be operated in first gear and in second gear. Vehicles which reach maximum rpm at less than 30 mph or before reaching the end zone shall be operated in the next higher gear. Auxiliary step-up ratios (overdrive) shall not be engaged on vehicles so equipped.

(3) Acceleration. The vehicle shall proceed along the vehicle path at a constant speed of 30 mph in the selected gear for at least 50 ft before reaching the acceleration point. When the vehicle reference point reaches the acceleration point, the throttle shall be rapidly and fully opened. The throttle shall be held open until the vehicle reference point reaches the end point or until maximum rpm is reached within the end zone. At maximum rpm, the throttle shall be closed sufficiently to keep the engine just under maximum rpm until the end point, at which time the throttle shall be closed.

(4) Deceleration. Tests during deceleration shall be conducted when deceleration noise appears excessive. The vehicle shall proceed along the vehicle path at maximum rpm in the same gear selected for the tests during acceleration. When the vehicle reference point reaches the acceleration point, the throttle shall rapidly be closed and the vehicle allowed to decelerate to less than 1/2 of maximum rpm.

(5) Engine Temperature. The engine temperature shall be within normal operating range throughout each test run. The engine shall be idled in neutral for at least one minute between runs.

CHAPTER 5

AUXILIARY EQUIPMENT SOUND LEVEL MEASUREMENT

- 5.1 Scope. This Chapter establishes procedures for setting up and calibrating sound measuring equipment and conducting tests to determine the sound level output of auxiliary motor vehicle equipment.
- 5.2 Measurement Sites. Measurement sites shall be free of sound-reflecting objects within one-hundred feet of the microphone and one-hundred feet of the vehicle to be tested.
 - 5.2.1 Microphone Location. The microphone shall be located fifty feet + six inches from the rear or from either side of the equipment to be tested. The locus of points thus defined is the microphone line. (See Figure 5-1) The microphone should be located at the point on the microphone line at which the maximum sound level occurs.
 - 5.2.2 Sound-reflecting Surfaces. A "sound-reflecting surface" is any object or landscape surface in the immediate vicinity of a measurement site which reflects sufficient sound to require the application of a correction factor to the sound level meter reading. Surfaces which are not sound-reflecting surfaces are defined in paragraph 5.2.3, and all other surfaces are considered sound-reflecting surfaces.
 - 5.2.3 Surfaces Which are not Sound-reflecting. The following surfaces may be present in the test area:
 - a. Any surface that measures less than eight feet in length in a direction parallel to the portion of the microphone line on which the microphone is positioned, regardless of height (such as a telephone booth or a tree trunk) or less than one foot in height, regardless of length (such as a curb or guard rail).
 - b. Any vertical surface, regardless of size (such as a billboard with the lower edge more than fifteen feet above the roadway).
 - c. Any uniformly smooth slanting surface with less than a forty-five degree slope above horizontal.

- d. Any slanting surface with a forty-five to ninety degree slope above the horizontal where the line at which the slope begins to exceed forty-five degrees is more than fifteen feet above the roadway.
- e. Any trees, bushes, shrubs, hedges, grass or other vegetation.

5.3 Sound Level Measuring Precaution

- 5.3.1 Wind. Do not conduct measurements when wind velocity at the test location exceeds **ten miles per hour.**
- 5.3.2 Precipitation. Do not conduct measurements when precipitation is falling. However, measurements may be taken when streets are wet.
- 5.3.3 Ambient Noise. The ambient sound level shall be at least 10 dBA below the sound level of the equipment being measured.
- 5.3.4 Recording. The sound level recorded shall be the highest level obtained during each test, disregarding unrelated peaks due to extraneous ambient noises.

5.4 Equipment Setup and Use

- 5.4.1 Microphone Height. The sound level meter may be hand held or placed on a tripod. The microphone shall be positioned four and one-half feet above the ground.
- 5.4.2 Windscreens. Windscreens made of open cell polyurethane foam furnished by the instrument manufacturer may be placed over the microphone after calibration. The wind-screen reduces the effect of wind noise and protects the microphone diaphragm from dust or other airborne matter.
- 5.4.3 Sound Level Meter Setup and Use. Procedures for setup, calibration and use of the sound level meter is contained in this section.

a) General

All types of sound level meters shall be calibrated using the procedures described in the factory instruction manual. All instruments shall be calibrated prior to use. A general discussion of calibration procedures follows.

b) Battery Check

The state of the battery shall be checked before the calibration of the instrument. Batteries in both the meter and the calibrator shall be checked.

c) Instrument Calibration

The instrument shall be set to the correct level range, weighting scale and meter response. The calibrator shall be placed on the microphone of the meter. The output indicated on the meter is then adjusted to the correct calibration level using a screwdriver on the adjustment screw.

d) Annual Calibration

Annually, or when determined to be necessary, each set of sound measuring instruments, sound level meter and calibrator, shall be returned for calibration to the manufacturer's specifications. An inspection label will be attached to each instrument set to determine when the calibration was performed.

e) Sound Level Measurement

1. The following steps should be followed before taking a measurement:
 - (a) Turn the meter on
 - (b) Switch on the "A" weighting scale
 - (c) Switch on the "FAST" meter response
 - (d) Set the meter to the appropriate number to measure the anticipated sound level
2. The sound level meter should be hand-held or placed on a tripod according to the manufacturer's instructions.
3. The orientation of the microphone should be according to the manufacturer's instructions.
4. Allowances are necessary due to unavoidable variations in measurement sites and test equipment. Equipment is not considered in violation unless it exceeds the regulated limit by 2 dBA or more.

5.5 Equipment Test Procedure

- 5.5.1 Vehicle Sound Level. The sound levels for auxiliary equipment shall be determined by tests performed according to the following procedures.
- 5.5.2 Location The microphone shall be located on the microphone line at the position where the maximum sound level is expected to occupy (See Figure 5-1)
- 5.5.3 Preliminary Tests. Sufficient preliminary tests shall be made to enable the operator to become thoroughly familiar with the equipment.
- 5.5.4 Equipment Operation. The equipment shall be operated at the combination of load and speed which produces the maximum sound level without violating the manufacturer's operation specifications.

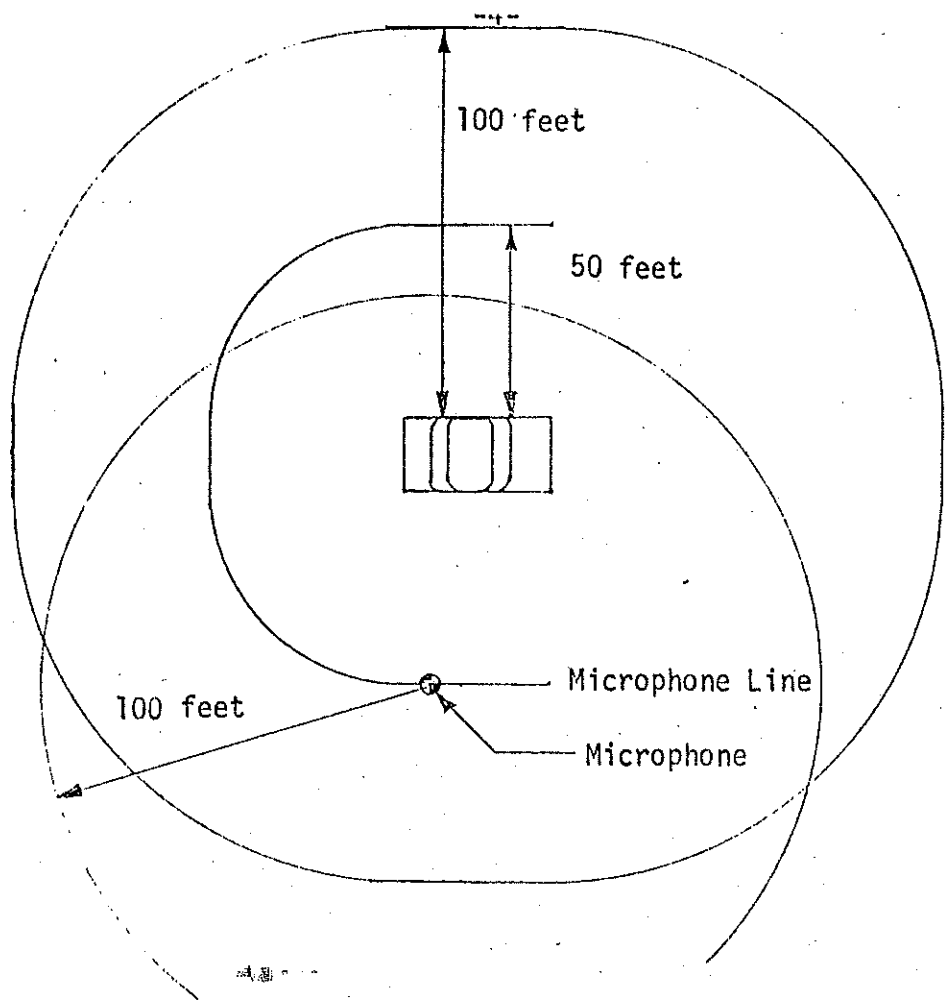


Figure 5-1. Auxiliary Equipment Measurement Site

- 5.5.5 Visual Reading. The highest sound level observed, exclusive of and peaks due to unrelated ambient noise, shall be reported for each test.
- 5.5.6 Reported Sound Level. The reported sound level for the vehicle shall be the highest reading which is no more than one dB higher than the next highest reading.
- 5.5.7 Auxiliary Equipment Test Form. A form to record all pertinent information and data is presented in Figure 5-2. This form, or any other Department approved form for this use, shall be used for auxiliary equipment tests.

| | | | | | | | | | |
|--|----------------|--|-------------------------|--|---|------------------------|-------|--------------------|------------|
| AUXILIARY EQUIPMENT NOISE TEST | | | | NOISE POLLUTION DIVISION DEPARTMENT OF ENVIRONMENTAL QUALITY | | | DATE | | |
| YEAR | EQUIPMENT MAKE | EQUIPMENT TYPE | | LICENSE NO. | | MODEL | | | |
| REGISTERED OWNER | | | ADDRESS | | | | | | |
| DRIVER | | D.L. NO. | | ADDRESS | | | | | |
| ENGINE TYPE | | Primary Secondary | HP | ENGINE DISPLACEMENT | | LOCATION | | EQUIP. MILEAGE/HR. | |
| EXHAUST OUTLET | | CHECK POSITION AND SIZE OF OUTLET | | | RESONATORS | MUFFLER TYPE | | | |
| <input type="checkbox"/> Single <input type="checkbox"/> L. Side <input type="checkbox"/> Rear | | <input type="checkbox"/> Straight <input type="checkbox"/> 45° to rear | | | <input type="checkbox"/> Single | | | | |
| <input type="checkbox"/> Dual <input type="checkbox"/> R. Side <input type="checkbox"/> Vertical | | <input type="checkbox"/> 45° to Side <input type="checkbox"/> ___ dia | | | <input type="checkbox"/> Dual | | | | |
| RECORDER MODEL AND DEQ NO. | | | METER MODEL AND DEQ NO. | | | CALIBRATOR AND DEQ NO. | | | |
| TEST DRIVER | | TEST ENGINEER | | METER CHECK | | | | | |
| | | | | <input type="checkbox"/> BAT. <input type="checkbox"/> WINDSCREEN <input type="checkbox"/> "A" SCALE <input type="checkbox"/> FAST <input type="checkbox"/> CALIB. | | | | | |
| OPERATING CONDITIONS | Time | READINGS | | MAX. RPM | TEST CONDITIONS | | | | |
| | | dBA | LOCATION NUMBER | | | | | | |
| | | | | | WEATHER CONDITION | | TEMP. | %R.H. | WIND SPEED |
| | | | | | <p>Sketch in this space the measurement site peculiarities, and using the proper symbols indicate the direction of wind, vehicle orientation and reading locations.</p> <p>Key: WIND DIRECTION - - - - - VEHICLE ← → MICROPHONE LOCATION NO. ◻</p> | | | | |
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INSTRUMENTATION SET UP AT 50 FT FROM EDGE OF VEHICLE

NPCS-27

Figure 5-2
Auxiliary Equipment Noise Test

CHAPTER 6

NEAR FIELD STATIONARY MOTOR VEHICLE

SOUND LEVEL MEASUREMENTS

20 Inches (1/2 Meter)

- 6.1 Scope. This chapter establishes procedures for setting up and calibrating sound measuring equipment and conducting tests to determine the sound level output of a stationary vehicle as measured 20 inches (.5 meter) from the exhaust exit. This procedure allows testing indoors and at sites limited in open space.
- 6.2 Initial Inspection.
- 6.2.1 Subjective Evaluation. Before a vehicle is tested to the near field procedures, a subjective evaluation of the vehicle noise shall be made by experienced personnel to determine if an objective test is necessary. The subjective test, using the human ear as a sensing device, shall be conducted at engine idle and during rapid partial throttle opening in neutral gear. The inspector shall stand on the exhaust exit side and near the rear of the vehicle during this evaluation. The exhaust noise shall not be discernably louder than the engine noise and they shall blend together to be acceptable.

6.2.2 Visual Inspection. If a vehicle is found to be subjectively loud, a visual inspection of the exhaust system shall be conducted. This inspection should include the entire system from the engine to the outlet pipe.

Comment: Under Oregon Administrative Rules Chapter 340 Section 35-035 the following defects are a violation.

- a) No muffler
- b) Leaks in the exhaust system
- c) A pinched outlet pipe

6.2.3 Near Field Test. If the subjective evaluation warrants further inspection and the visual check does not disclose a violation, then the vehicle shall be subjected to the near field noise test as described in Section 6.5. This test uses a sound level meter to measure the noise level of the vehicle under controlled test conditions.

6.3 Measurement Sites.

6.3.1 Vehicle Location. The vehicle must rest on the open [water, ground or] pavement, the shop floor, or on a dynamometer. It should not be on a hoist, rack, or over a pit. Shop doors should be open to avoid excessively high readings and reflective surfaces should be as far as possible from the sound level meter.

6.3.2 Bystanders. Bystanders should not stand within 10 feet [3 meters] of the microphone or vehicle during noise tests, except for operating personnel.

6.3.3 Wind. Do not conduct noise measurements when wind velocity at the test location exceeds 10 [20] miles per hour [(32 km/hr)].

6.3.4 Precipitation. Do not conduct noise measurements if precipitation is falling, unless the microphone and instruments are protected from moisture.

Warning: Do not let any moisture on microphone. This will cause damage.

Do not attempt to clean microphone.

6.3.5 Ambient Noise. The ambient noise levels shall be at least 10 dBA below the sound level of the vehicle being tested.

[Comment: For rear engine automobiles and light trucks, close the engine hood as much as possible to minimize engine noise.]

6.4 Equipment Setup and Use.

6.4.1 Meter Specifications. The specifications for sound level meters are defined in Noise Pollution Control Section manual NPCS-2 Requirements for Sound Measuring Instruments and Personnel. The minimum meter required is a Type II as defined by American National Standards Institute number S.I. 4-1971.

6.4.2 Battery. A battery check shall be conducted on the Meter and Calibrator before each calibration.

6.4.3 Calibration. The sound level meter shall be field calibrated immediately prior to use following procedures described by the manufacturer's instruction manual. Meters should be calibrated at least at the beginning and end of each business day and at intervals not exceeding 2 hours when the instrument is used for more than a 2-hour period.

Comment: If the instrument is damaged or in need of service, contact the Noise Pollution Control office or Motor Vehicles office.

6.4.4 Annual Calibration. Within one year prior to use, each set of sound level meters shall receive a laboratory calibration in accordance with the manufacturer's specifications. This calibration shall be traceable to the National Bureau of Standards.

Comment: An inspection label will be attached to each instrument to determine when the calibration was performed.

6.4.5 Windscreens. Windscreens of open cell polyurethane foam furnished by the manufacturer shall be placed over the microphone after calibration. This will protect it from dust or other airborne matter.

Warning: Do not let exhaust gases impinge on microphone.

6.4.6 Meter Setting. The meter shall be set on the "A" scale and used in the slow response mode.

6.4.7 Tachometer. A calibrated engine tachometer shall be used to determine when the test RPM is attained. Tachometers shall have the following characteristic:

Steady state accuracy of $\pm 2\%$ of full scale.

The tachometer shall be calibrated at least once a year in accordance with manufacturer's calibration procedures.

6.5 Sound Level Measurements.

6.5.1 Preliminary Steps:

- a) Field calibration.
- b) Windscreen on.
- c) Set meter to the appropriate range to measure the anticipated sound level.
- d) Switch to "A" weighting scale and slow response mode.
- e) Turn meter on.

6.5.2 Mounting. The sound level meter shall be hand-held or placed on a tripod according to the manufacturer's instructions.

6.5.3 Orientation. The orientation of the sound level meter microphone shall be according to factory instructions.

Comment: Generally, the operating personnel will be to one side. The

"General Radio" 1565B Sound Level Meter shall be oriented such that the microphone points aft and the sound path will "graze" the surface of the microphone. (See Figure 4} [6.1 and 6.2])

6.5.4 Microphone Position. The microphone for the sound level meter shall be at the same height as the center of the exhaust outlet but no closer to the pavement [surface] than 8 in. (203 mm). The microphone shall be positioned with its longitudinal axis parallel to the ground, 20 in. (508 mm) from the edge of the exhaust outlet, and 45 ± 10 deg from the axis of the outlet (Figure 6.1 [& 6.2]). For exhaust outlets located inboard from the vehicle body, the microphone shall be located at the specified angle and at least 8 in. (203 mm) from the nearest part of the vehicle.

[For motorcycles with more than one outlet per side, the measurement shall be made at the rearmost outlet.]

[Note: If a measuring device is attached to the exhaust outlet and the meter to maintain proper distance, ensure no vibrations from the vehicle are transmitted to the instrument.]

6.5.5 Vehicle Operation. Vehicles tested to determine exhaust system sound levels shall be operated as follows:

a) Automobiles and Light Trucks [and other Automotive Powered Vehicles].

The engine shall be operated at normal operating temperatures with transmission in park or neutral. Sound level measurements shall be made at $3/4$ (75%) of the RPM for rated horsepower ± 50 [100] RPM of meter reading.

Comment: Tables of the 75% RPM (test RPM) versus the engines are given in the Near Field Motor Vehicle Test RPM Tables, NPC5-31.

b) Motorcycles. [The rider shall sit astride the motorcycle in a normal riding position with both feet on the ground. The engine shall be operated at normal operating temperatures with

the transmission in neutral. If no neutral is provided, the motorcycle shall be operated either with the rear wheel 5-10 cm (2-4 in) clear of the ground, or with the drive chain or belt removed.

The sound level measurement shall be made with the engine speed stabilized at one of the following values:]

[(A) If the motorcycle engine data is available, test the motorcycle at 1/2 (50%) of the RPM for maximum rated horsepower \pm 100 RPM.]

[(B) If the engine data is not available and if the motorcycle has a tachometer indicating the manufacturer's recommended maximum engine speed ("Red Line"), test the motorcycle at 45% of the "Red Line" RPM \pm 100 RPM.]

[Note: Motorcycle tachometers generally show a red area at the upper part of the scale. The "Red Line RPM" is the lowest value within the red area.]

[(C) If the engine data and red line RPM are not available, test the motorcycle at:]

[(i) 3500 RPM \pm 100 RPM for motorcycles with total cylinder displacement between 0-950 cc (0-58 in³)]

[(ii) 2800 RPM \pm 100 RPM for motorcycles with total cylinder displacement greater than 950 cc (58 in³)]

c) Trucks and Buses. To be determined.

6.5.6 Reported Sound Levels. The reported exhaust system sound level reading shall be the highest reading obtained during the test, exclusive of peaks due to unrelated ambient noise or extraneous impulsive type noise obtained during

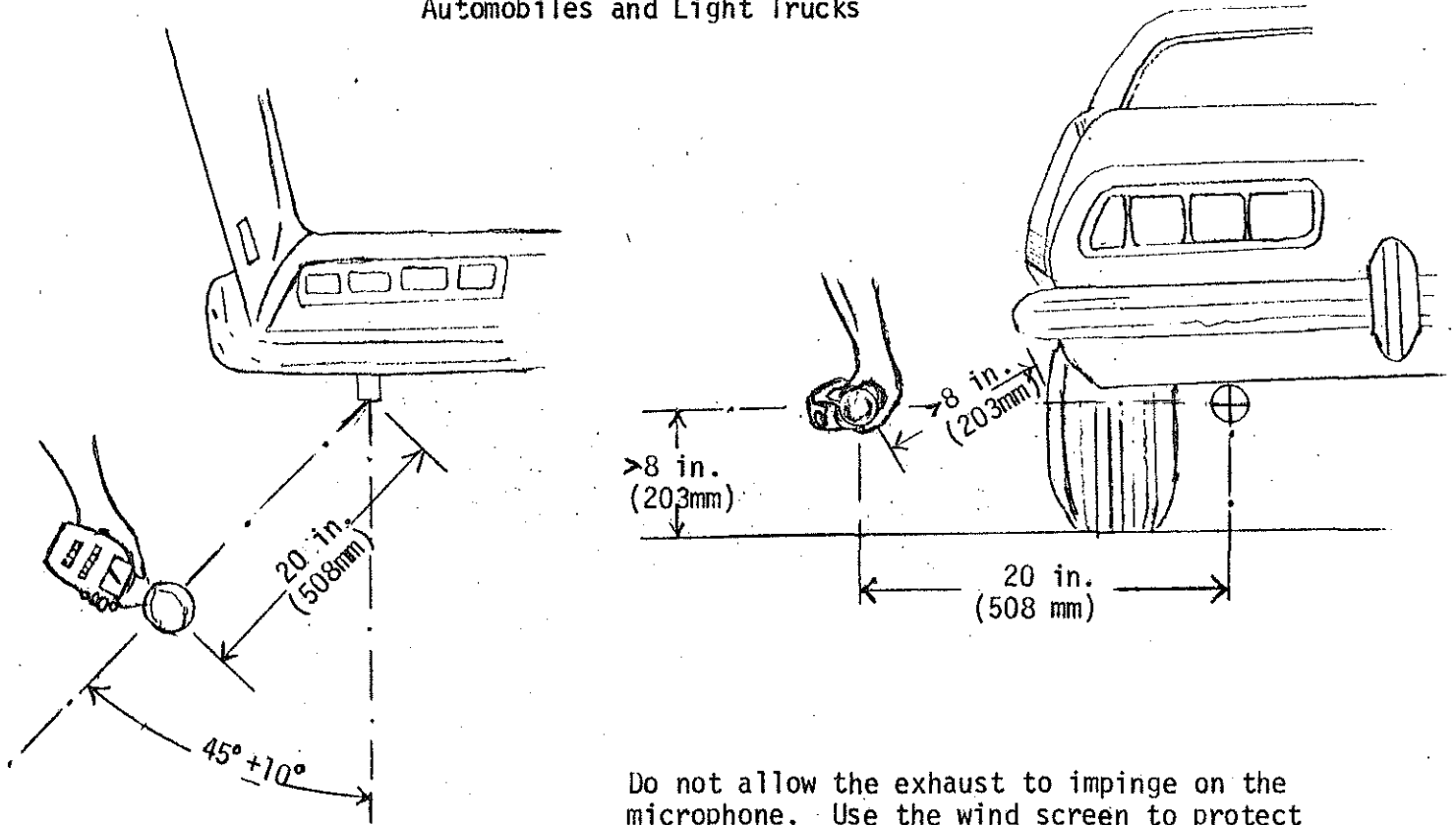
the acceleration or deceleration portion of the test. When there is more than one exhaust outlet, the reported sound level shall be for the loudest outlet.

Comment: The purpose of this test is to measure exhaust noise, so there should not be any other noises within 10 dBA below the exhaust noise. (See Ambient Noise)

6.5.7 Variations. Allowances are necessary due to unavoidable variations in measurement sites and test equipment. Vehicles are not considered in violation unless they exceed the regulated limit by the value shown in the following table or more.

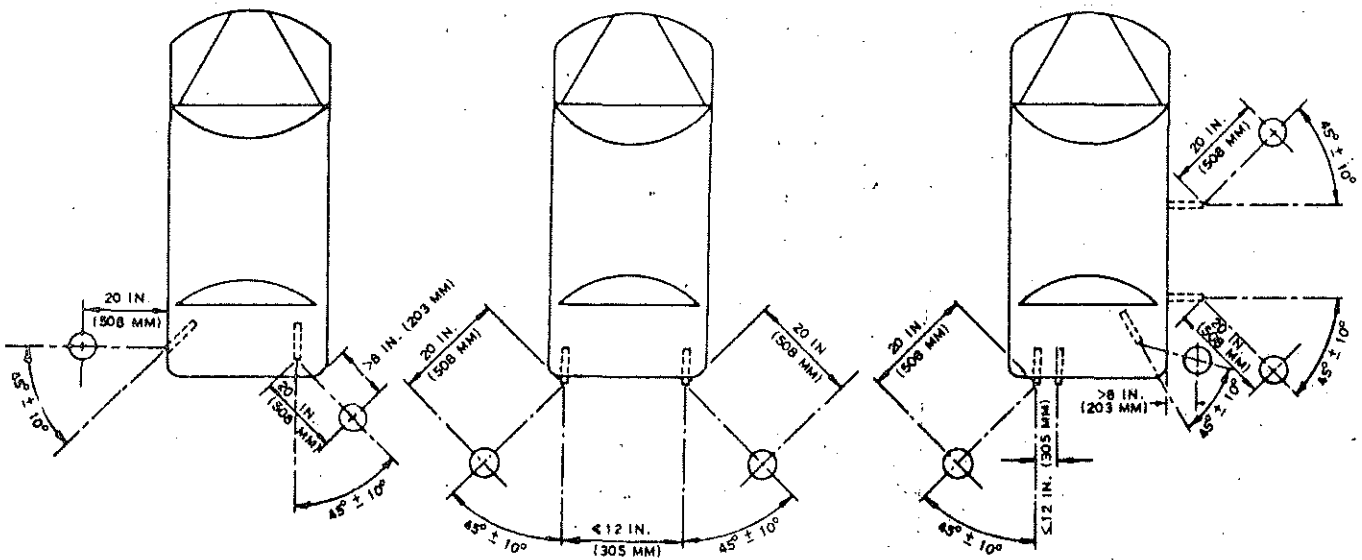
| <u>Sound Level Meter Type</u> | <u>Allowable Exceedance</u> |
|-------------------------------|-----------------------------|
| ANSI Type I | 1 dBA |
| ANSI Type II | 2 dBA |

Figure 4 [6.1]
Microphone Placement for
Automobiles and Light Trucks



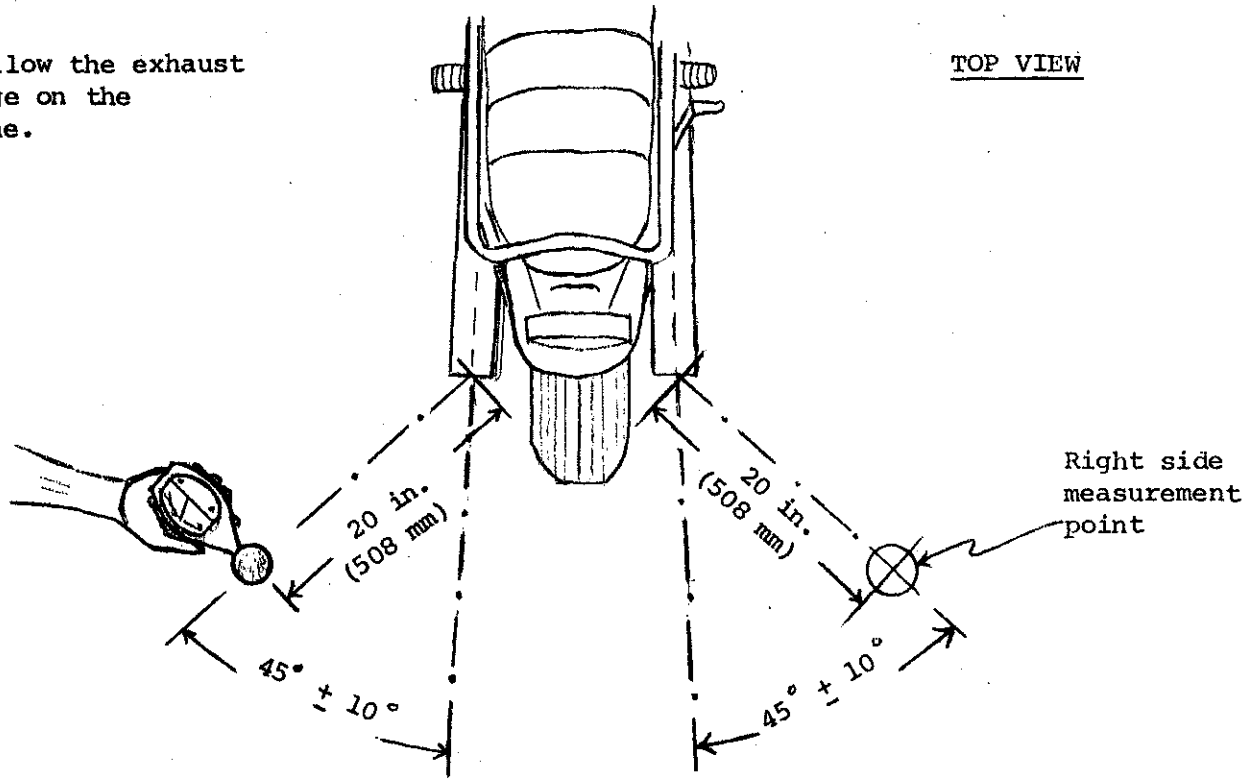
Do not allow the exhaust to impinge on the microphone. Use the wind screen to protect the microphone.

For dual exhausts, measure both and record the higher of the two readings.

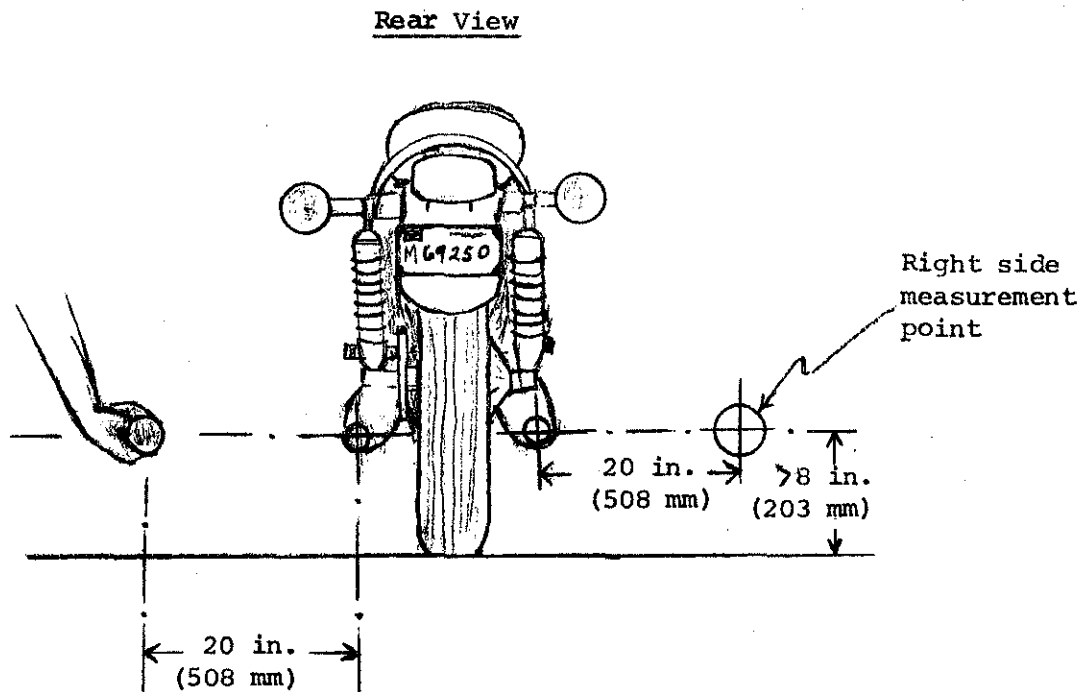


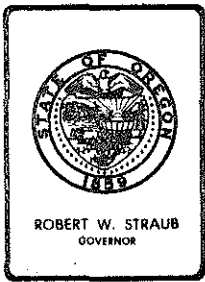
[Figure 6.2]
Microphone Placement for
Motorcycles

Do not allow the exhaust
to impinge on the
microphone.



For exhaust outlets on both sides, measure both and report the highest of the two readings.





Environmental Quality Commission

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

To: Environmental Quality Commission
From: Hearing Officer
Subject: Hearing Report - March 23, 1977 hearing regarding proposed amendments to Noise Regulations

SUMMARY

The hearing commenced on March 23, 1977 in room 602 of the Multnomah County Courthouse. Approximately 25 persons attended. Some testimony was offered at the hearing and some was submitted by mail shortly after the hearing.

SUMMARY OF TESTIMONY

Mr. Russell Jura representing Yamaha Motor Corporation, U.S.A.

Mr. Jura supported the near-field test for motorcycles and applauded it as an efficient step toward gaining compliance with the noise requirements for in-use motorcycles.

With regard to snowmobiles which Yamaha manufactures, Mr. Jura supported the testimony of Mr. Muth.

Dr. Kenneth Haevernick, Oregon State Snowmobile Association (OSSA)

Dr. Haevernick reported his organization to be a non-profit one comprised of 2700 snowmobiles and a forum for all organized snowmobile interests in Oregon, including 25 snowmobile clubs.

It was his testimony that the Department was ill advised in thinking that there is a need for reducing the test distance to 25 feet. There was contended to be ample room for setting up a 50-foot test which could be done as quickly and accurately as a 25-foot test.

It was also contended to be unwise to set for in-use snowmobiles a more stringent standard than was required of them when built. The contention was based on the probability that many owners would have difficulty getting machines into compliance where the manufacturers may have left the industry, parts may not be available, and the standard is more stringent than that for which the machine was designed.



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Also, it was noted that most individual users do not have the money to get equipment to determine if their vehicles are in compliance.

Finally, Dr. Haevernick advised that his association was deeply concerned with the manufacturer's specifications for snowmobiles made after 1978. He stated his association's intention to file a petition addressing the matter.

Mr. Roy W. Muth representing the Snowmobile Safety and Certification Committee. (SSCC) Mr. Muth testified essentially as follows:

Beginning about 9 years ago the industry set out to reduce noise and has reduced the noise (as of February 1, 1975 manufacturing dates) by about 94%.

Many snowbelt states have taken the simpler approach of requiring an adequate muffler. The remaining states regulate snowmobiles with "A" scale limitations as follows:

| | |
|-----------------------|--------------------|
| 12 states and Canada: | 78 dBA at 50 feet |
| 6 states | 82 dBA at 50 feet |
| 1 state | 82 dBA at 100 feet |
| 1 state | 84 dBA at 50 feet |

A two-year study for the EPA is underway to determine if EPA should regulate snowmobile sound levels.

Seven states have regulations calling for snowmobile sound levels of 73 dBA in future.

Based on the claims of one manufacturer, New York required 73 dBA by May of 1974 (a 1970 law).

Connecticut, Massachusetts, Minnesota, and Rhode Island followed suit.

The boasted machine was quiet. It was also heavy, large, expensive and unpopular. In 1975 its manufacturer withdrew from the snowmobile market.

Prior to the effective date of the 73 dBA requirements, four states withdrew from it, relaxing to 78 dBA.

With the dBA levels adjusted to reflect the 6 dBA difference between a 50-foot test and a 25-foot test, the proposed rule would set the following limits (at 50 feet):

| | |
|--|--------|
| Snowmobiles produced in 1975 or before | 84 dBA |
| in 1976 through 1978 | 80 dBA |
| after 1978 | 77 dBA |

The above would require that snowmobiles on the trails be from 3 to 6 dBA's quieter than current regulations provide.

The proposals would mean as follows:

Pre-1973 snowmobiles (manufactured before the industry imposed its own 82 dBA standard) will be required to perform more quietly than they were designed to perform.

Those owning snowmobiles built from 1973 to 1978 would have to maintain every noise-related component in peak condition so as not to exceed the 2 dBA allowed for normal wear and tear of equipment. For some makes no longer on the market, parts might be difficult to buy.

If the snowmobile industry does not change its present 78 dBA manufacturing design, those who buy new vehicles after 1978 will be required to make them operate more quietly than they were designed to operate.

There is no need to be more stringent than the industry's 78 dBA standard. Complaints are few and, as old models are replaced by new, complaints will be fewer.

Therefore it is proposed that the sound level limits for snowmobiles proposed for Table D of OAR 340-35-035 not be adopted.

Snowmobiles were removed from the EPA list of major sources after the industry refuted erroneous estimates of their sound energy.

Presently four research organizations are engaged in a \$220,000 study of the regulations affecting snowmobiles, the feasibility of meeting them, and the economic and environmental impacts pertaining.

The noise made by today's machines is 93-3/4 percent reduced from that of the early, unmuffled snowmobiles. Formidable obstacles were overcome in doing this, including the requirements of weight control, and operating capabilities at extremes of outdoor temperature and elevation.

The process of noise reduction is a "real world" process being undertaken by thousands in the industry. Abstract theory and speculation is inappropriate.

There is little possibility that today's snowmobiles present a threat of speech interference, sleep interference or hearing damage to the operator.

Tests were cited which tended to disprove theories that even louder snowmobiles are unusually disruptive to wildlife habits.

There were cited some statistics regarding average noise sources from the noise universe which were taken as support for the proposition that the modern snowmobile is not offensive.

It was noted too that snowmobiles are often routed into areas which have natural sound barriers, such as trees or hills.

The impact on snowmobile users is dealt with at length in the report and it is concluded the levels of noise present, when consideration is given to average use patterns, present no problem by OSHA standards.

Regarding the proposal to reduce the test distance from 50 to 25 feet, it was contended that this would be contrary to the testing procedures specified in SAE J192a which is widely embraced. The result would be confusion in comparing the Department's test data with historical data from other jurisdictions or agencies. It was also argued that there is more than ample space in which to conduct a 50-foot test. It was urged that the proposal not be adopted.

It was reported that a large segment of the industry labels their new vehicles with the SSCC label, indicating the machines will pass the 78 dBA, 50-foot test. The result to date was said to be 375,000 safer, quieter snowmobiles in the hands of consumers. To snowmobile purchasers the "cost of quiet" was 26 million at retail over this past season alone. This added cost, combined with other cost increases, has already dampened the market. The number of active manufacturers was reported to have dropped from 129 to 8 in the last 6 years.

The industry and the nine million North Americans who enjoy snowmobiling need to know that only reasonable requirements will be imposed. The industry's survival is threatened by uncertainty such as that engendered by those jurisdictions which imposed a 73 dBA standard only to have to withdraw it upon discovery of its deficiency.

The importance of recreation to the physical and psychological well-being of people was reported to be reason for very careful scrutiny of regulations tending to inhibit mechanically-intensive recreational pursuits.

It was stressed that snowmobiling provides new horizons and alternatives to many citizens who are snowbound during much of the year.

It was noted that, in addition to 78 dBA maximum at wide open throttle, the SSCC had adopted a maximum of 73 dBA at 15 mph. This was said to address itself to the normal-use mode as well as extremes. It was suggested both these standards should be incorporated in independent verification of compliance, such as the SSCC label. Four eastern states were reported to have required independent certification, a measure said to insure adherence to the standards and to prevent unfair competition in the industry.

The 1978 manufacturers' standard of 75 dBA was singled out as a provision of the current rules in dire need of review.

Mr. Robert Jolin

Mr. Jolin is a motorcycle dealer. As such, he feels that the majority of those who make, sell, and ride motorcycles are damaged by the few who ride unlawfully noisy vehicles. It was his feeling that peer group pressure from fellow enthusiasts would be the most effective way to convince the noisy minority to change behavior. A public relations campaign through a joint agency-industry effort was suggested. (Mr. John's suggestion is under review by the Department's public affairs office).

Mr. James J. Ray, representing the Bonneville Power Administration.

Other than as specified in the staff report, BPA's testimony addresses the entire scheme of the regulations as they relate to utility-used sources. His comments are attached in full. They raise potentially grave issues whose resolution can hopefully be the subject of prompt, informal discussion between the two agencies.

Mr. John B. Walsh, representing U.S. Suzuki Motor Corporation.

Suzuki supports the proposal of a new 1/2 meter stationary noise test to aid in enforcement of noise standards for in-use vehicles.

Active use of the test to stop users of excessively noisy vehicles was urged.

It was suggested that the "rapid throttle opening" test be modified to provide against too much exuberance by the tester which could overly strain the engine. 50 to 60% of maximum rpm was suggested as the highest throttling necessary.

Since some "leaks" were said to be a result of vehicle design, a proscription against only those leaks in the exhaust system which result in a noise increase was recommended.

A pilot testing program was recommended to resolve discrepancies to be expected from the wide range of tachometers and ignition systems on motorcycles. Inconsistent readings might fail a vehicle which is not really malfunctioning.

It was urged that the minimum distance to the ground from the test microphone was superfluous and would cause undue labor for testers.

Suzuki suggested that rpm data on various engines be added to the testing manuals with a note in the rules indicating such availability.

Also, ± 100 rpm was suggested as a more realistic rpm testing tolerance than the proposed ± 50 rpm.

The title "In-Use Road Vehicle Standards" was suggested for Tables B and C.

Finally, Suzuki found the proposed levels for new off-road motorcycles to be within 2 to 4 decibels of the level Suzuki finds appropriate. Suzuki offered to cooperate with the agency in finding the proper levels.

Mr. James Hadley, representing the Oregon State Marine Board.

It was suggested that boats exhausting under water be required to meet the Marine Board's 84 dBA at 50 feet while those exhausting above water can be required to meet a reasonable DEQ standard.

Mr. and Mrs. Arthur Fuqua, Beaverton.

Mr. and Mrs. Fuqua own two 1968 vintage snowmobiles from which they get considerable recreational joy. They are unable to afford newer vehicles and are extremely dismayed that proposed regulations might forfeit the snowmobiles they now have and leave them unable to enjoy this form of winter recreation. They are 55 years of age.

W.P. Walker, Milwaukie.

Mr. Harrison asks who will enforce the standards.

Mr. Dean Hill, Milwaukie.

Mr. Hill does not object to motorcycles but he finds there are far too many excessively loud ones, especially at night and in the summer. Also, he finds there are too many loud snowmobiles disturbing people and nature.

Mr. Carl Anderson, Troutdale.

Mr. Anderson reports that the cost to industry of producing quieter vehicles is outweighed by the long range cost in health effects to society from noise pollution.

He discounts the claim that technology is not available to meet the standards.

Mr. and Mrs. A.J. Fraser, Portland.

Mr. and Mrs. Fraser contend that voluntary programs won't work and that the agency is duty-bound to invoke mandatory noise controls. It is reported that, where they live, the couple can set their clocks by overly loud motorcycles when the bars close.

Mr. Arnildo J. Uppiano, Lostine.

Mr. Uppiano is a rancher and he has had several occasions of trespass on his property by off-road enthusiasts using no mufflers on their machines. The noise itself is, he believes, a form of trespass.

Mr. Uppiano dismisses the theory that no regulation is needed because of a lack of complaints. He calls for a tough regulation.

Finally, Mr. Uppiano posits a novel law of psychometrics, an inverse correlation between intelligence and noise tolerance. "The louder the machine, the dumber the person who is driving it."

COMMENTS

The rules, as proposed, have been filed with the Energy Facility Siting Council pursuant to ORS 469.520.

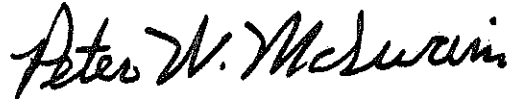
A copy of the comments of BPA has been sent to the Council also.

The above was in addition to the other, routine matters of public notice and filing which normally precede rule-adoption.

RECOMMENDATION

Your hearing officer makes no recommendation on the proposed rules.

Respectfully submitted,

A handwritten signature in black ink that reads "Peter W. McSwain". The signature is written in a cursive style with a large initial "P".

Peter W. McSwain
Hearing Officer



OFFICE OF
THE ADMINISTRATOR

United States Department of the Interior

BONNEVILLE POWER ADMINISTRATION
P.O. BOX 3621, PORTLAND, OREGON 97208

In reply refer to: **AJ**

MAR 30 1977

Mr. Joe B. Richards
Chairman, Environmental
Quality Commission
State of Oregon
1234 S.W. Morrison
Portland, Oregon 97205

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

R E C E I V E D

MAR 31 1977

OFFICE OF THE DIRECTOR

Dear Mr. Richards:

We welcome the opportunity to review and propose amendments, for your consideration, to the Oregon State Noise Regulations. In the spirit of the developing relationship between the State of Oregon and Bonneville Power Administration, we view this as an opportunity to further our cooperative relationships. Our review has not been limited to the revisions proposed by the Department of Environmental Quality, but encompasses the totality of the regulation in its application to electric power transmission facilities in the Northwest environment. Our purpose is to assist the Commission and the Department in the preparation of noise regulations which consider the unique aspects of electric transmission facilities and are practical for all parties concerned, including the public, and that can be logically interpreted and applied in a technical and legal sense to design, operation and enforcement.

Background and Present Status

Long before the enactment of regulations regarding audible noise, the Bonneville Power Administration was responsive to environmental considerations, including the audible noise of its operating and proposed transmission lines. Our current 500-kV designs are the result of continuing investigations and design changes to minimize the corona and audible noise while delivering reliable power to our customers at economical rates.

The electric utility industry and the Federal government are presently involved in intensive studies of audible noise from transmission facilities, with the end purpose being guidelines for establishing appropriate psychoacoustical annoyance levels, and measurement methods and procedures. Also, the U.S. Environmental Protection Agency is circulating, for review, a draft document for a "Proposed National

Letter to Mr. Joe Richards, Chairman, Environmental Quality Commission,
Portland, Oregon; Subj: Oregon State Noise Regulations

Strategy for Noise Abatement and Control." The results of these efforts will provide considerable information for the development of State noise regulations for transmission facilities.

Transmission and distribution line audible noise from hardware and conductors is essentially a foul weather phenomenon. At typical operating gradients, the hardware and conductors operate below the corona onset voltage in dry weather. During wet weather, water droplets forming on the conductors and hardware cause the electric field surface gradient to exceed the corona onset level, resulting in streamer discharges and bursts of acoustic pressure waves. This audible noise is characterized primarily by a broad band crackling or hiss type of noise. Occasionally, pure tone components consisting of a 120-Hz pure tone and its harmonics are also present.

Technical Inadequacies of Proposed Revised Regulations

1. In general, the regulations do not recognize the statistical differences and relative significance between electric transmission facilities and other noise sources. For instance, audible noise from overhead electrical conductors and hardware has a considerably different statistical occurrence than motor vehicle noise, and is not as statistically significant as noise caused by wind, rain and thunder.
2. "Any one hour" allows selecting either worst or best hours for both ambient and noise source. The selected hour would be arbitrary and subjective. As such, it does not permit logical interpretation or application in a technical or legal sense. On new facilities the 10dBA above ambient levels, on an "any one hour" basis, is not well defined for the design and operation of transmission lines and power substations. Absolute levels are preferable. On a quiet, still day, say 25dBA ambient noise level, a light breeze could raise the noise level by more than 10dBA. Even though a 10dBA increase can be detected by the human ear, it is not necessarily annoying.
3. The octave band requirements listed in table J are not based on annoyance levels from electric transmission facilities. Research work is currently being performed by the National Bureau of Standards and by the Electric Power Research Institute on annoyance levels from these sources. These results will directly relate noises from these facilities with psychoacoustic effects. Without these findings, the octave band requirements for utility operation are premature and arbitrary.

Letter to Mr. Joe Richards, Chairman, Environmental Quality Commission,
Portland, Oregon; Subj: Oregon State Noise Regulations

4. Considering the number of people directly affected, the audible noise from existing electric transmission facilities in the Northwest is acceptable to the general public, with very few exceptions, based on our record of complaints. The revision of the regulations should include consideration of this statistical record.
5. Additional specific comments are as follows:

35-035(1)(a)

Requiring certain existing equipment to comply with the same requirement as that for new equipment should be discretely evaluated in terms of the effects on the industry. Our studies and experience have shown that noise reduction of new equipment can generally be accomplished at relatively lower cost compared to that required for quieting existing equipment.

What procedure was used by the Department to evaluate the statistical noise levels defined in table G before January 1, 1977? Did this evaluation include comparison with the U.S. Environmental Protection Agency's latest suggested levels? How will the difference between these levels and the Oregon State regulations on noise levels be rectified or justified? (These same questions apply to regulations of neighboring states where interstate operations are involved).

It is not clear that this paragraph applies only to noise sensitive property. The term "an appropriate measurement point" is described in 35-035(3)(b) but this is the only clue as to the application. The same comment applies to 35-035(1)(b)(A) and 35-035(1)(b)(B).

35-035(1)(a) and (b)

Can the Department require that a noise source be shut down? If so, under what procedures? Who will accept the responsibility for the economic impact from such a shut down? Ref. "No person. . . shall cause or permit the operation of that noise source if the noise levels. . . exceed the levels specified . . ."

35-035(1)(b)(B)(i)

The allowable absolute levels specified in table H are stringent. The additional requirement that the L10 and L50 ambient statistical levels be held to differential increases of less than 10dBA for

Letter to Mr. Joe Richards, Chairman, Environmental Quality Commission,
Portland, Oregon; Subj: Oregon State Noise Regulations

each hour of the year is impractical and unnecessarily stringent. Some locations experience occasional hours of extremely low noise levels. The regular operation of nearly any type of device would raise an ambient level of 25 dBA by more than 10 dBA. The 10 dBA requirement, although not applicable, could not be met in a normal library.

35-035(1)(b)(B)(ii)

This paragraph is confusing as written. Is it speaking to the ambient level without the new noise source or is it speaking to the noise level (not ambient) of the new noise source?

35-035(1)(d) Quiet Areas

The intent of quiet area requirements is not clear. The regulations require that sources within a quiet area comply with levels specified in table I at a distance of 400 feet from the source, whereas sources located outside the quiet area must comply with table I at the boundary of the quiet area. From this, it would appear that more stringent requirements are placed on sources located outside the quiet area (but within 400 feet of the quiet area) than for sources within the quiet area itself. This would not appear to be the intention of the regulations. It is necessary that designated quiet areas be identified as soon as possible so the impacts of future projects and land use can be evaluated in the planning stages.

35-035(1)(f) Octave Bands and Audible Discrete Tones

Numerous revisions have been made to clarify this section. Our experience shows that designing future installations to meet the specified "A," octave, and one-third octave band requirements is practically an insurmountable task for a broad band corona type noise source. Furthermore, the inherent noise characteristics of some broad band noises may comply with all requirements except for some of the higher frequency octave band requirements. This brings up the question as to what basis was used in establishing the octave band requirements? In effect, is 43 dB in the 8 kHz octave band more detrimental to the health, safety, or welfare of the public than is 43 dB in the 1 kHz band? What studies or information are the octave band requirements based upon?

Letter to Mr. Joe Richards, Chairman, Environmental Quality Commission,
Portland, Oregon; Subj: Oregon State Noise Regulations

35-035(1)(f)(A)

The meaning of "median octave band sound pressure level . . . for . . . periods equal to or greater than six (6) total minutes" is unclear.

35-035(1)(f)(B)

This is unclear. Does this mean that the L10 level for any one-third octave can exceed one but not both of the L50 levels of adjacent one-third octave by more than the specified amounts?

35-035(3)(b)

The term, appropriate measurement point, is essentially defined here. Move this part to the definition section.

35-035(5) Exemptions

Would a temporary transformer unit installed at a substation for a period of 1 to 1½ years (during repair of a faulty unit) be exempt under "(a) Emergency . . ." This time interval is considered to be common practice for the electric utility industry.

Based on the comments contained in this written testimony, BPA feels that power substations and transmission lines should be specifically exempt from these regulations until such time as practical regulations can be developed.

35-035(4) Monitoring and Reporting

Statistical noise level measurement techniques and terminology are described in the "Sound Measurement Procedures Manual" published by the Oregon Department of Environmental Quality. Regarding noise measurement, this document states that "measurements shall not be taken when precipitation is falling." Does this include ambient as well as noise source measurements? It might appear that noise generated by precipitation, such as heavy rainfall on a metal roof, is not of concern.

35-105(2) Definitions

"Any one hour" is not consistent with the philosophy of basing regulations on statistical noise levels, since it allows selection

Letter to Mr. Joe Richards, Chairman, Environmental Quality Commission, Portland, Oregon; Subj: Oregon State Noise Regulations

of the worst hour, which could occur only once a year for example. On a statistical basis it would be more appropriate to use a mean hour for a 1-year interval. In addition, the statistical noise level limits should not be more severe than the actual statistical levels for weather-caused noise.

35-015(8) and (16) Definitions

Is an industrial or commercial site so designated by zoning laws alone?

Impact on Transmission Facilities

At the present time, we cannot assure that new transmission facilities can be economically designed to meet the regulation for new noise sources located on a previously unused site. Even if feasible, they may require an excessively large right-of-way. Based upon the most onerous interpretation of the regulation, including the proposed revisions, the estimated cost to ratepayers would be in excess of \$350 million for modifications to existing BPA transmission facilities. A less desirable, but possibly more economic solution, would be to purchase a larger right-of-way. Modifications of this magnitude would require at least 20 years to accomplish and could not begin until after filing an Environmental Impact Statement. The impacts from the modifications to transmission lines, both physical and economic, could outweigh the benefits.

Recommendations

A definite need exists for the State to make a concerted effort to coordinate the establishment of noise regulations with adjacent states and with local governments. Transmission lines in numerous instances cross state lines. Coordination between states is essential to optimize standards for interstate lines. Also, since a transmission line may be several hundred miles in length, it is feasible it could be subject to several local noise regulations as communities set their individual regulations.

Land use planning agencies and the DEQ must insure coordination so that noise sensitive properties will not be developed within the influence of existing electric transmission facilities. Also, it is essential that land uses be established so that impacts of future electric transmission facilities can be considered during planning, location and design.

Letter to Mr. Joe Richards, Chairman, Environmental Quality Commission,
Portland, Oregon; Subj: Oregon State Noise Regulations

We propose that the State of Oregon, in cooperation with the electrical utilities, enter into deliberations aimed at prescribing standards which are practical, technically sound, and economically feasible for electric transmission facilities.

These combined efforts would bring to bear on the problem not only the experts of the Department of Environmental Quality but also the combined engineering talent and experience of the utility industry. Such a cooperative program, perhaps a first in the nation, would address this difficult problem in a responsible and realistic manner.

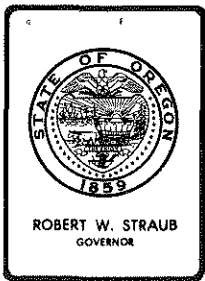
BPA pledges its full support as a participant in such a program.

Sincerely yours,



E. Willard
Assistant to the Administrator -
Interagency Relations

cc:
John Hector
Dept. of Environmental Quality
1234 S.W. Morrison
Portland, Oregon 97205



Environmental Quality Commission

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

To: Environmental Quality Commission
From: Director
Subject: Agenda Item J, April 22, 1977, EQC Meeting

Request for Authorization to hold a Public Hearing to
Allocate Open Field Burning Acreages and Consider for
Adoption Amendments to OAR Chapter 340, Section 26-005
through 26-025

Discussion

As specified in ORS 468.475, it is the responsibility of the Environmental Quality Commission prior to June 1, 1977 to:

1. Consult with the Oregon Field Sanitation Committee and to hold public hearing to receive testimony on whether:
 - a. There are insufficient numbers of workable machines that can reasonably be made available to sanitize the acreage if an acreage reduction is ordered;
 - b. There are insufficient methods available for straw utilization and disposal; and
 - c. Reasonable efforts have been made to develop alternative methods of field sanitation and straw utilization and disposal, and such methods have been utilized to the maximum reasonable extent.
2. Adopt field burning rules for Multnomah, Washington, Clackamas, Marion, Polk, Yamhill, Linn, Benton and Lane Counties, which provide for a more rapid phased reduction by certain permit areas, depending on particular local air quality conditions and soil characteristics, the extent, type or amount of open field burning of perennial grass seed crops, annual grass seed crops and grain crops and the availability of alternative methods of field sanitation and straw utilization and disposal.



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The Commission shall authorize issuance of permits up to the statutorily set maximum acreage only if, after the hearing, the Commission finds, a, b, and c above.

The Department's staff has, throughout the year maintained contact with the Field Sanitation Committee, representatives from Oregon State University, fire district representatives, the Oregon Seed Council and other appropriate agencies, organizations and individuals. Additional meetings with those involved parties are scheduled for the months of April and May. Amendments to the existing Agricultural Burning Rules being considered for the forthcoming field burning season are briefly as follows: (Attachment)

1. Establishment of the total acreage to be open burned during the 1977 burning season, Section 26-013(1)(a).
2. Revision of Section 26-013(5) to apply to 1977.
3. Editorial changes include:
 - a. The removal of the July 1, 1975 dates in 26-012(1) and (2),
 - b. The removal of the mandatory May 1 date in 26-013(2), and
 - c. The removal of the July 10, 1975 date in 26-013(3).

Proposed Timing

In order to comply with the statutory date set by ORS 468.475(6), it is the Department's intent to adhere to the following schedule:

1. March 18, 1977, meet with the fire district representatives to distribute 1977 registration forms and discuss acreage reduction procedures.
2. April 5, 1977, meet with the Field Sanitation Committee to request its recommendations and certification of the acreage that can be reasonable expected to be sanitized during 1977.
3. April 22, 1977, obtain authorization from the EQC to hold a public hearing.
4. May 3, 1977, meet with representatives of the Field Sanitation Committee, representatives from Oregon State University and other appropriate agencies to receive their input concerning allocation strategies for the 1977 burning season.
5. April-May, mail out notice of public hearing for rule adoption.
6. May 11, 1977, meet with the Field Sanitation Committee to obtain its recommendations and certification of the acreage that can be reasonable expected to be sanitized during 1977.

7. May 27, 1977, hold a public hearing for the purpose of receiving testimony prior to the allocation of open field burning acreages and adoption of amendments to OAR Chapter 340, Section 26.

Director's Recommendation

It is the recommendation of the Director that a public hearing before the Environmental Quality Commission be authorized (time and place to be set by the Director) for the purpose of carrying out the Commission's responsibilities under current law and as a prerequisite to the allocation of allowable burn acreages and the consideration for adoption of amendments to OAR Chapter 340, Section 26-005 through 26-030.



WILLIAM H. YOUNG

SF:sw

PROPOSED AMENDMENTS TO OAR CHAPTER 340, SECTION 26-005 THROUGH 26-025

26-012 · REGISTRATION AND AUTHORIZATION OF ACREAGE TO BE OPEN BURNED.

(1) On ~~[or before July 1, 1975 and on]~~ or before April 1 of each ~~[subsequent]~~ year, all acreages to be open burned under this rule shall be registered with the local fire permit issuing agency or its authorized representative.

(2) Registration of acreage ~~[after July 1, 1975 and]~~ after April 1 of each ~~[subsequent]~~ year shall require:

(a) Approval of the Department.

(b) An additional late registration fee of \$1 per acre if the late registration is determined by the Department to be the fault of the late registrant.

26-013 LIMITATION AND ALLOCATION OF ACREAGE TO BE OPEN BURNED.

(1) Maximum acreage to be open burned under these rules each year shall not exceed the following:

(a) During ¹⁹⁷⁷ ~~[1976]~~, not more than ^{95,000} ~~[95,000]~~ acres.

(b) In 1978 and each year thereafter, the Commission, after taking into consideration the factors listed in sub-section (2) or ORS 468.460, may by order issue permits for the burning of not more than 50,000 acres.

Each
(2) [~~On or before May 1 of any~~ year], the Commission shall seek certification from the Field Sanitation Committee of the numbers of acres that can be sanitized by feasible alternative methods and the Committee's recommendations as to the general location and types of fields to be sanitized utilizing feasible alternative methods.

(3) On or before [~~July 10, 1975 and~~] June 1 of each [subsequent] year, the Commission shall, after public hearing, establish an allocation of registered acres that can be open burned that year. In establishing said acreage allocation, the Commission shall consult with OSU and the Oregon Field Sanitation Committee and may consult with other interested agencies and shall, pursuant to ORS 468.460(2) and ORS 468.475(4) consider means of more rapid reduction of acres burned each year than provided by ORS 468.475(2).

(4) Acres burned on any day by approved field sanitizers shall not be applied to open field burning acreage allocations or quotas, and such sanitizers may be operated under either marginal or prohibition conditions.

(5) For the ¹⁹⁷⁷ [~~1976~~] burning season, in the event that more than ^{95,000} [~~95,000~~] acres are registered to be burned, the Department may issue acreage allocations to growers totaling not more than ^{95,000} [~~95,000~~] acres plus ten (10) percent or ^{104,500} [~~214,500~~] acres. The Department shall monitor burning and shall cease to issue burning quotas when a total of ^{95,000} [~~195,000~~] acres have been reported burned.

(a) Allocations to growers will be made by applying a first and second allocation procedure:

(A) A first allocation will be made to each grower based on all of his registered acreage up to and including 100 acres.

(B) A second allocation will be made to each grower having more than 100 registered acres based on the grower's proportional share of the unallocated remainder of the total $\frac{104,500}{214,500}$ acre grower allocation.

(b) The fire district allocation shall be the sum of all first allocations applied to growers within the district plus the proportionate district share of the unallocated portion of the $\frac{95,000}{195,000}$ total burnable acres.

(c) In an effort to insure that permits are available in areas of greatest need, to coordinate completion of burning, and to achieve the greatest possible permit utilization, the Department may adjust, in cooperation with the fire districts, allocations of the $\frac{95,000}{195,000}$ burnable acres made to those fire districts.

(d) Transfer of allocations for farm management purposes may be made within and between fire districts on a one-in/one-out basis under the supervision of the Department. Transfer of allocations between growers are not permitted after $\frac{95,000}{195,000}$ acres have been burned within the Valley.

(e) Except for additional acreage allowed to be burned by the Governor pursuant to ORS 468.475(5), no fire district shall allow acreage to be burned in excess of their allocations assigned pursuant to (b),

(c) and (d) above.

(f) In $\frac{1977}{1976}$ the Department may supervise "wide area energy concentrated convective ventilation experiments" to investigate the possible use of the techniques as an alternative to open burning. The total acreage involved with such experimentation shall not exceed that amount specifically authorized in writing by the Department and shall not exceed 10,000 acres.

DEPARTMENT OF ENVIRONMENTAL QUALITY
Chapter 340

Subdivision 6
Agricultural Operations
AGRICULTURAL BURNING

26-005 DEFINITIONS. As used in this general order, regulation and schedule, unless otherwise required by context:

(1) Burning seasons:

(a) "Summer Burning Season" means the four month period from July 1 through October 31.

(b) "Winter Burning Season" means the eight month period from November 1 through June 30.

(2) "Department" means the Department of Environmental Quality.

(3) "Marginal Conditions" means conditions defined in ORS 468.450(1) under which permits for agricultural open burning may be issued in accordance with this regulation and schedule.

(4) "Northerly Winds" means winds coming from directions in the north half of the compass, at the surface and aloft.

(5) "Priority Areas" means the following areas of the Willamette Valley:

(a) Areas in or within 3 miles of the city limits of incorporated cities having populations of 10,000 or greater.

(b) Areas within 1 mile of airports serving 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 3 miles of the city limits of the City of Lebanon.

(e) Areas on the west side of and within 1/4 mile of these highways; U.S. Interstate 5, 99, 99E and 99W. Areas on the south side of and within 1/4 mile of U.S. Highway 20 between Albany and Lebanon, Oregon Highway 34 between Lebanon and Corvallis, and Oregon Highway 228 from its junction south of Brownsville to its rail crossing at the community of Tulsa.

(6) "Prohibition Conditions" means atmospheric conditions under which all agricultural open burning is prohibited (except where an auxiliary fuel is used such that combustion is nearly complete, or an approved sanitizer is used).

(7) "Southerly Winds" means winds coming from directions in the south half of the compass, at the surface and aloft.

(8) "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.

(9) "Commission" means the Environmental Quality Commission.

(10) "Local Fire Permit Issuing Agency" means the County Court or Board of County Commissioners or Fire Chief of 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.

(11) "Open Field Burning Permit" means a permit issued by the Department pursuant to Section 2 of SB 311.

(12) "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.

(13) "Validation Number" means a unique three-part number issued by a local fire permit issuing agency which validates a specific open field burning permit for a specific acreage on a specific day. The first part of the validation number shall indicate the number of the month and the day of issuance, the second part the hour of authorized burning based on a 24 hour clock and the third 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 would be 0826-1430-070).

(14) "Open Field Burning" means burning of any perennial grass seed field, annual grass seed field or cereal grain field in such manner that combustion air and combustion products are not effectively controlled. Field burning utilizing a device other than an approved field sanitizer shall constitute open field burning.

(15) "Approved Field Sanitizer" means any field burning device that has been approved by the Field Sanitation Committee and the Department as a feasible alternative to open field burning.

(16) "Approved Experimental Field Sanitizer" means any field burning device that has been approved by the Field Sanitation Committee and the Department for trial as a potentially feasible alternative to open field burning or as a source of information useful to further development of field sanitizers.

(17) "After-Smoke" means persistent smoke resulting from the burning of a grass seed or cereal grain field with a field sanitizer, and emanating from the grass seed or cereal grain stubble or accumulated straw residue at a point ten (10) feet or more behind a field sanitizer.

(18) "leakage" means any smoke which is not vented through a stack and is not classified as after-smoke, and is produced as a result of using a field sanitizer.

(19) "Committee" means Oregon Field Sanitation Committee.

(20) "Approved Pilot Field Sanitizer" means any field burning device that has been observed and endorsed by the Committee and the Department as an acceptable but improvable alternative to open field burning, the operation of which is expected to contribute information useful to further development and improved performance of field sanitizers.

(21) "Approved Alternative Methods" means any method approved by the Committee and the Department to be a satisfactory alternative method to open field burning.

(22) "Approved Interim Alternative Method" means any interim method approved by the Committee and the Department as an effective method to reduce or otherwise minimize the impact of smoke from open field burning.

(23) "Approved Alternative Facilities" means any land, structure, building, installation, excavation, machinery, equipment or device approved by the Committee and the Department for use in conjunction with an Approved Alternative Method or an Approved Interim Alternative Method for field sanitation.

26-010 GENERAL PROVISIONS. The following provisions apply during both summer and winter burning seasons in the Willamette Valley unless otherwise specifically noted.

(1) Priority for Burning. On any marginal day, priorities for agricultural open burning shall follow those set forth in ORS 468.450 which give perennial grass seed field used for grass seed production first priority, annual grass seed fields used for grass seed production second priority, grain fields third priority and all other burning fourth priority.

(2) Permits required.

(a) No person shall conduct open field burning within the Willamette Valley without first obtaining a valid open field burning permit from the Department and a fire permit and validation number from the local fire permit issuing agency for any given field for the day that the field is to be burned.

(b) Applications for open field burning permits shall be filed on Registration/Application forms provided by the Department.

(c) Open field burning permits issued by the Department are not valid until acreage fees are paid pursuant to ORS 468.480(1)(b) and a validation number is obtained from the appropriate local fire permit issuing agency for each field on the day that the field is to be burned.

(d) As provided in ORS 468.465(1), permits for open field burning of cereal grain crops shall be issued only if the person seeking the permit submits to the issuing authority a signed statement under oath or affirmation that the acreage to be burned will be planted to seed crops (other than cereal grains, hairy vetch, or field pea crops) which require flame sanitation for proper cultivation.

(e) Any person granted an open field burning permit under these rules shall maintain a copy of said permit at the burn site at all times during the burning operation and said permit shall be made available for at least one year after issuance for inspection upon request by appropriate authorities.

(f) At all times proper and accurate records of permit transactions and copies of all permits shall be maintained by each agency or person involved in the issuance of permits, for inspection by the proper authority.

(g) Permit agencies or persons authorized to participate in the issuance of permits shall submit to the Department, on forms provided, weekly summaries of field burning permit data, during the period July 1 to October 15.

(h) All debris, cutting and prunings shall be dry, cleanly stacked and free of dirt and green material prior to being burned, to insure as nearly complete combustion as possible.

(i) No substance or material which normally emits dense smoke or obnoxious odors may be used for auxiliary fuel in the igniting of debris, cutting or prunings.

(j) Use of approved field sanitizers shall require a fire permit, and permit agencies or agents shall keep up-to-date records of all acreages burned by such sanitizers.

26-011 CERTIFIED ALTERNATIVE TO OPEN FIELD BURNING

(1) Approved pilot field sanitizers, approved experimental field sanitizers, or propane flammers may be used as alternatives to open field burning subject to the provisions of this section.

(2) Approved Pilot Field Sanitizers

(a) Procedures for submitting application for approval of pilot field sanitizers.

Applications shall be submitted in writing to the Department and shall include, but not be limited to, the following:

- (i) Design plans and specifications;
 - (ii) Acreage and emission performance data and rated capacities;
 - (iii) Details regarding availability of repair service and replacement parts;
 - (iv) Operational instructions;
 - (v) Letter of approval from the Field Sanitation Committee.
- (b) Emission Standards for Approved Pilot Field Sanitizers.

(A) Approved pilot field sanitizers shall be required to demonstrate the capability of sanitizing a representative and harvested grass field or cereal grain stubble with an accumulative straw and stubble fuel load of not less than 1.0 tons/acre, dry weight basis, and which has an average moisture content not less than 10%, at a rate of not less than 85% of rated maximum capacity for a period of 30 continuous minutes without exceeding emission standards as follows:

- (i) 20% average opacity out of main stack;
- (ii) Leakage not to exceed 20% of the total emissions;
- (iii) No significant after-smoke originating more than 25 yards behind the operating machine.

(B) The Department shall certify in writing to the Field Sanitation Committee and the manufacturer, the approval of the pilot field sanitizer within thirty (30) days of the receipt of a complete application and successful compliance demonstration with the emission standards of 2(b)(A). Such approval shall apply to all machines built to the specifications of the Department certified field sanitation machine.

(C) In the event of the development of significantly superior field sanitizers, the Department may decertify approved pilot field sanitizers previously approved, except that any unit built prior to this decertification in accordance with specifications of previously approved pilot field sanitizers shall be allowed to operate for a period not to exceed seven years from the date of delivery provided that the unit is adequately maintained as per (2)(c)(A).

(c) Operation and/or modification of approved pilot field sanitizers.

(A) Operating approved pilot field sanitizers shall be maintained to design specifications (normal wear expected) i.e., skirts, shrouds, shields, air bars, ducts, fans, motors, etc., shall be in place, intact and operational.

(B) Modifications to the structure or operating procedures which will knowingly increase emissions shall not be made.

(C) Any modifications to the structure or operating procedures which result in increased emissions shall be further modified or returned to manufacturer's specifications to reduce emissions to original levels or below as rapidly as practicable.

(D) Open fires away from the sanitizers shall be extinguished as rapidly as practicable.

(3) Experimental field sanitizers identified in writing as experimental units by the Committee and not meeting the emission criteria specified in 2(b)(A) above, may receive Department authorization for experimental use for not more than one season at a time, provided:

(a) The Committee shall report to the Department field burning manager the locations of operation of experimental field sanitizers.

(b) The Committee shall provide the Department an end-of-season report of experimental field sanitizer operations.

(c) Open fires away from the machines shall be extinguished as rapidly as practicable.

(4) Propane Flamers. Open propane flaming is an approved alternative to open field burning provided that all of the following conditions are met:

(a) Field sanitizers are not available or otherwise cannot accomplish the burning.

(b) The field stubble will not sustain an open fire.

(c) One of the following conditions exist:

(A) The field has been previously open burned and appropriate fees paid.

(B) The field has been flail-chopped, mowed, or otherwise cut close to the ground and loose straw has been removed to reduce the straw fuel load as much as practicable.

26-012 · REGISTRATION AND AUTHORIZATION OF ACREAGE TO BE OPEN BURNED.

(1) On ~~[or before July 1, 1975 and on]~~ or before April 1 of each ~~[subsequent]~~ year, all acreages to be open burned under this rule shall be registered with the local fire permit issuing agency or its authorized representative.

(2) Registration of acreage ~~[after July 1, 1975 and]~~ after April 1 of each ~~[subsequent]~~ year shall require:

(a) Approval of the Department.

(b) An additional late registration fee of \$1 per acre if the late registration is determined by the Department to be the fault of the late registrant.

(3) Copies of all Registration/Application forms shall be forwarded to the Department promptly by the local fire permit issuing agency.

(4) The local fire permitting agency shall maintain a record of all registered acreage by assigned field number, location, type of crop, number of acres to be burned and status of fee payment for each field.

(5) Burn authorizations shall be issued by the local fire permit issuing agency up to daily quota limitations established by the Department and shall be based on registered fee-paid acres and shall be issued in accordance with the priorities established by sub-section 26-010(1) of these rules, except that fourth priority burning shall not be permitted from July 15 to September 15 of any year unless specifically authorized by the Department.

(6) No local fire permit issuing agency shall authorize open field burning of more acreage than may be sub-allocated annually to the District by the Department pursuant to Section 26-013(5) of these rules.

26-013 LIMITATION AND ALLOCATION OF ACREAGE TO BE OPEN BURNED.

(1) Maximum acreage to be open burned under these rules each year shall not exceed the following:

(a) During ¹⁹⁷⁷~~1976~~, not more than ^{95,000}~~195,000~~ acres.

(b) In 1978 and each year thereafter, the Commission, after taking into consideration the factors listed in sub-section (2) or ORS 468.460, may by order issue permits for the burning of not more than 50,000 acres.

Each
 (2) ~~[On or before May 1 of any]~~ year, the Commission shall seek certification from the Field Sanitation Committee of the numbers of acres that can be sanitized by feasible alternative methods and the Committee's recommendations as to the general location and types of fields to be sanitized utilizing feasible alternative methods.

(3) On or before ~~[July 10, 1975 and]~~ June 1 of each ~~[subsequent]~~ year, the Commission shall, after public hearing, establish an allocation of registered acres that can be open burned that year. In establishing said acreage allocation, the Commission shall consult with OSU and the Oregon Field Sanitation Committee and may consult with other interested agencies and shall, pursuant to ORS 468.450(2) and ORS 468.475(4) consider means of more rapid reduction of acres burned each year than provided by ORS 468.475(2).

(4) Acres burned on any day by approved field sanitizers shall not be applied to open field burning acreage allocations or quotas, and such sanitizers may be operated under either marginal or prohibition conditions.

1977
 (5) For the ~~[1976]~~ burning season, in the event that more than ^{95,000} ~~[95,000]~~ acres are registered to be burned, the Department may issue acreage allocations to growers totaling not more than ^{95,000} ~~[95,000]~~ acres plus ten (10) percent or ^{104,500} ~~[114,500]~~ acres. The Department shall monitor burning and shall cease to issue burning quotas when a total of ^{95,000} ~~[195,000]~~ acres have been reported burned.

(a) Allocations to growers will be made by applying a first and second allocation procedure:

(A) A first allocation will be made to each grower based on all of his registered acreage up to and including 100 acres.

(B) A second allocation will be made to each grower having more than 100 registered acres based on the grower's proportional share of the unallocated remainder of the total $\frac{104,500}{214,500}$ acre grower allocation.

(b) The fire district allocation shall be the sum of all first allocations applied to growers within the district plus the proportionate district share of the unallocated portion of the $\frac{95,000}{195,000}$ total burnable acres.

(c) In an effort to insure that permits are available in areas of greatest need, to coordinate completion of burning, and to achieve the greatest possible permit utilization, the Department may adjust, in cooperation with the fire districts, allocations of the $\frac{95,000}{195,000}$ burnable acres made to those fire districts.

(d) Transfer of allocations for farm management purposes may be made within and between fire districts on a one-in/one-out basis under the supervision of the Department. Transfer of allocations between growers are not permitted after $\frac{95,000}{195,000}$ acres have been burned within the Valley.

(e) Except for additional acreage allowed to be burned by the Governor pursuant to ORS 468.475(5), no fire district shall allow acreage to be burned in excess of their allocations assigned pursuant to (b), (c) and (d) above.

(f) In $\frac{1977}{1976}$ the Department may supervise "wide area energy concentrated convective ventilation experiments" to investigate the possible use of the techniques as an alternative to open burning. The total acreage involved with such experimentation shall not exceed that amount specifically authorized in writing by the Department and shall not exceed 10,000 acres.

(6) The Department may authorize burning on an experimental basis, and may also, on a fire district by fire district basis, issue limitations more restrictive than those contained in these regulations when in their judgement it is necessary to attain air quality.

26-015 WILLAMETTE VALLEY SUMMER BURNING SEASON REGULATIONS

(1) Classification of Atmospheric Conditions. All days will be classified as marginal or prohibition days under the following criteria:

(a) Marginal Class N conditions: Forecast northerly winds and maximum mixing depth greater than 3500 feet.

(b) Marginal Class S conditions: Forecast southerly winds.

(c) Prohibition conditions: Forecast northerly winds and maximum mixing depth 3500 feet or less.

(2) Quotas.

(a) Except as provided in this subsection, the total acreage of permits for open field burning shall not exceed the amount authorized by the Department for each marginal day. Daily authorizations of acreages shall be issued in terms of basic quotas or priority area quotas as listed in Table 1, attached as Exhibit A and incorporated by reference into this regulation and schedule, and defined as follows:

(A) The basic quota represents the number of acres to be allowed throughout a permit jurisdiction, including fields located in priority areas, on a marginal day on which general burning is allowed in that jurisdiction.

(B) The priority area quota represents the number of acres allowed within the priority areas of a permit jurisdiction on a marginal day when only priority area burning is allowed in that jurisdiction.

(b) Willamette Valley permit agencies or agents not specifically named in Table 1 shall have a basic quota and priority area quota of 50 acres only if they have registered acreage to be burned within their jurisdiction.

(c) In no instance shall the total acreage of permits issued by any permit issuing agency or agent exceed that allowed by the Department for the marginal day, except as provided for 50 acre quotas as follows: When the established daily acreage quota is 50 acres or less, a permit may be issued to include all the acreage in one field providing that field does not exceed 100 acres and provided further that no other permit is issued for that day. For those districts with a 50 acre quota, permits for more than 50 acres shall not be issued on two consecutive days.

(d) The Department may designate additional areas as Priority Areas, and may adjust the basic acreage quotas or priority area quotas of any permit jurisdiction, where conditions in their judgment warrant such action.

(3) Burning Hours may begin at 9:30 a.m. PDT, under marginal conditions but no open field burning may be started later than one-half hour before sunset nor be allowed to continue burning later than one and one-half hour after sunset. Burning hours may be reduced by the fire chief or his deputy when necessary to protect from danger by fire.

(4) Extent and Type of Burning.

(a) Prohibition. Under prohibition conditions, no fire permits or validation numbers for agricultural open burning shall be issued and no burning shall be conducted, except where an auxiliary liquid or gaseous fuel is used such that combustion is essentially complete, or an approved field sanitizer is used.

(b) Marginal Class N Conditions. Unless specifically authorized by the Department, on days classified as Marginal Class N burning may be limited to the following:

(A) North Valley: one basic quota may be issued in accordance with Table 1.

(B) South Valley: one priority area quota for priority area burning may be issued in accordance with Table 1.

(c) Marginal Class S Conditions. Unless specifically authorized by the Department on days classified as Marginal Class S conditons, burning shall be limited to the following:

(A) North Valley: One basic quota may be issued in accordance with Table 1 in the following permit jurisdictions: Aumsville, Drakes Crossing, Marion County District 1, Silverton, Stayton, Sublimity, and the Marion County portion of the Clackamas-Marion Forest Protection District. One priority area quota may be issued in accordance with Table 1 for priority area burning in all other North Valley jurisdictions.

(B) South Valley: One basic quota may be issued in accordance with Table 1.

(d) Special Restrictions on Priority Area Burning. No field may be burned on the upwind side of any city, airport, or highway within a priority area.

TABLE 1
FIELD BURNING ACREAGE QUOTAS
NORTH VALLEY AREAS

| <u>County/Fire District</u> | <u>Quota</u> | |
|------------------------------|--------------|-----------------|
| | <u>Basic</u> | <u>Priority</u> |
| <u>North Valley Counties</u> | | |
| <u>Clackamas County</u> | | |
| Canby RFPD | 50 | 50 |
| Clackamas County #54 | 50 | 0 |
| Clackamas - Marion FPA | 50 | 0 |
| Estacada RFPD | 75 | 0 |
| Molalla RFPD | 59 | 0 |
| Monitor RFPD | 50 | 0 |
| Scotts Mills RFPD | <u>50</u> | <u>0</u> |
| Total | <u>375</u> | <u>50</u> |
| <u>Marion County</u> | | |
| Aumsville RFPD | 50 | 0 |
| Aurora-Donald RFPD | 50 | 50 |
| Drakes Crossing RFPD | 50 | 0 |
| Hubbard RFPD | 50 | 0 |
| Jefferson RFPD | 225 | 50 |
| Marion County #1 | 100 | 50 |
| Marion County Unprotected | 50 | 50 |
| Mt. Angel RFPD | 50 | 0 |

TABLE 1
(continued)

| <u>County/Fire District</u> | <u>Quota</u> | |
|----------------------------------|--------------|-----------------|
| | <u>Basic</u> | <u>Priority</u> |
| <u>North Valley Counties</u> | | |
| <u>Marion County (continued)</u> | | |
| St. Paul RFPD | 125 | 0 |
| Salem City | 50 | 50 |
| Silverton RFPD | 300 | 0 |
| Stayton RFPD | 150 | 0 |
| Sublimity RFPD | 250 | 0 |
| Turner RFPD | 50 | 50 |
| Woodburn RFPD | <u>125</u> | <u>50</u> |
| Total | <u>1675</u> | <u>350</u> |
| <u>Polk County</u> | | |
| Polk County Non-District | 50 | 0 |
| Southeast Rural Polk | 400 | 50 |
| Southwest Rural Polk | <u>125</u> | <u>50</u> |
| Total | <u>575</u> | <u>100</u> |
| <u>Washington County</u> | | |
| Cornelius RFPD | 50 | 50 |
| Forest Grove RFPD | 50 | 0 |
| Forest Grove, State Forestry | 50 | 0 |
| Hillsboro | 50 | 50 |
| Washington County FPD #1 | 50 | 50 |
| Washington County FPD #1 | <u>50</u> | <u>50</u> |
| Total | <u>300</u> | <u>200</u> |

TABLE 1
(continued)

| <u>County/Fire District</u> | <u>Quota</u> | |
|------------------------------|--------------|-----------------|
| | <u>Basic</u> | <u>Priority</u> |
| <u>North Valley Counties</u> | | |
| <u>Yamhill County</u> | | |
| Amity RFPD | 125 | 50 |
| Carlton RFPD | 50 | 50 |
| Dayton RFPD | 50 | 50 |
| Dundee RFPD | 50 | 0 |
| McMinnville RFPD | 150 | 75 |
| Newberg RFPD | 50 | 0 |
| Sheridan RFPD | 75 | 50 |
| Yamhill RFPD | <u>50</u> | <u>0</u> |
| Total | <u>600</u> | <u>275</u> |
| | | |
| <u>North Valley Total</u> | <u>3575</u> | <u>975</u> |

Table 1
(continued)

SOUTH VALLEY AREAS

| <u>County/Fire District</u> | <u>Quota</u> | |
|---|--------------|-----------------|
| | <u>Basic</u> | <u>Priority</u> |
| <u>South Valley Counties</u> | | |
| <u>Benton County</u> | | |
| County Non-District & Adair | 350 | 175 |
| Corvallis RFPD | 175 | 125 |
| Monroe RFPD | 325 | 50 |
| Philomath RFPD | 125 | 100 |
| Western Oregon FPD | <u>100</u> | <u>50</u> |
| Total | <u>1075</u> | <u>500</u> |
| <u>Lane County</u> | | |
| Coburg RFPD | 175 | 50 |
| Creswell RFPD | 75 | 100 |
| Eugene RFPD | | |
| (Zumwalt RFPD) | 50 | 50 |
| Junction City RFPD | 325 | 50 |
| Lane County Non-District | 100 | 50 |
| Lane County RFPD #1 | 350 | 50 |
| Santa Clara RFPD | 50 | 50 |
| Thurston-Walterville | 50 | 50 |
| West Lane FPD | <u>50</u> | <u>0</u> |
| Total | <u>1225</u> | <u>450</u> |
| <u>Linn County</u> | | |
| Albany RFPD (inc. N. Albany, Palestine, Co. Unprotected Areas) | 625 | 125 |
| Brownsville RFPD | 750 | 50 |

Table 1
(continued)

| <u>County/Fire District</u> | <u>Quota</u> | |
|--------------------------------|--------------|-----------------|
| | <u>Basic</u> | <u>Priority</u> |
| <u>South Valley Counties</u> | | |
| <u>Linn County (continued)</u> | | |
| Halsey-Shedd RFPD | 2050 | 200 |
| Harrisburg RFPD | 1350 | 50 |
| Lebanon RFPD | 325 | 325 |
| Lyons RFPD | 50 | 0 |
| Scio RFPD | 175 | 0 |
| Tangent RFPD | <u>925</u> | <u>325</u> |
| Total | <u>6250</u> | <u>1075</u> |
| | | |
| <u>South Valley Total</u> | <u>8550</u> | <u>2025</u> |

26-020 WINTER BURNING SEASON REGULATIONS.

(1) Classification of atmospheric conditions:

(a) Atmospheric conditions resulting in computer air pollution index values in the high range, values of 90 or greater, shall constitute prohibition conditions.

(b) Atmospheric conditions resulting in computed air pollution index values in the low and moderate ranges, values less than 90, shall constitute marginal conditions.

(2) Extent and Type of Burning.

(a) Burning Hours. Burning hours for all types of burning shall be from 9:00 a.m. until 4:00 p.m., but may be reduced when deemed necessary by the fire chief or his deputy. Burning hours for stumps may be increased if found necessary to do so by the permit issuing agency. All materials for burning shall be prepared and the operation conducted, subject to local fire protection regulations, to insure that it will be completed during the allotted time.

(b) Certain Burning Allowed Under Prohibition Conditions. Under prohibition conditions no permits for agricultural open burning may be issued and no burning may be conducted, except where an auxiliary liquid or gaseous fuel is used such that combustion is essentially complete, or an approved field sanitizer is used.

(c) Priority for Burning on Marginal Days. Permits for agricultural open burning may be issued on each marginal day in each permit jurisdiction in the Willamette Valley, following the priorities set forth in ORS 468.450 which gives perennial grass seed fields used for grass seed production first priority, annual grass seed fields used for grass seed production second priority, grain fields third priority and all other burning fourth priority.

26-025 CIVIL PENALTIES. In addition to any other penalty provided by law:

(1) Any person who intentionally or negligently causes or permits open field burning contrary to the provisions of ORS 468.450, 468.455 to 468.485, 476.380 and 478.960 shall be assessed by the Department a civil penalty of at least \$20, but not more than \$40 for each acre so burned.

(2) Any person planting contrary to the restrictions of subsection (1) of ORS 468.465 shall be assessed by the Department a civil penalty of \$25 for each acre planted contrary to the restrictions.

(3) Any person who violates any requirements of these rules shall be assessed a civil penalty pursuant to OAR Chapter 340, Division 1, Subdivision 2, CIVIL PENALTIES.

26-030 TAX CREDITS FOR APPROVED ALTERNATIVE METHODS, APPROVED INTERIM ALTERNATIVE METHODS OR APPROVED ALTERNATIVE FACILITIES.

(1) As provided in Oregon Laws 1975 Chapter 559 and ORS Chapter 468, approved alternative methods, approved interim alternative methods or approved alternative facilities are eligible for tax credit as pollution control facilities as described in ORS 468.155 through 468.190.

(2) Approved alternative facilities eligible for pollution control facility tax credit shall include:

(a) Mobile equipment including but not limited to:

(A) Straw gathering, densifying and handling equipment.

(B) Tractors and other sources of motive power.

(C) Trucks, trailers, and other transportation equipment.

(D) Mobile field sanitizers (approved models and approved pilot models) and associated fire control equipment.

- (E) Equipment for handling all forms of processed straw.
- (F) Special straw incorporation equipment.
- (b) Stationary equipment and structures including but not limited

to:

- (A) Straw loading and unloading facilities.
- (B) Straw storage structures.
- (C) Straw processing and in plant transport equipment.
- (D) Land associated with stationary straw processing facilities.
- (E) Drainage tile installations which will result in a reduction of acreage burned.

(3) Equipment and facilities included in an application for certification for tax credit under this rule will be considered at their current depreciated value and in proportion to their actual use to reduce open field burning as compared to their total farm or other use.

(4) Procedures for application and certification of approved alternative facilities for pollution control facility tax credit.

(a) Preliminary certification for pollution control facility tax credit.

(A) A written application for preliminary certification shall be made to the Department prior to installation or use of approved alternative facilities in the first harvest season for which an application for tax credit certification is to be made. Such application shall be made on a form provided by the Department and shall include but not be limited to:

- (i) Name, address and nature of business of the applicant.
- (ii) Name of person authorized to receive Department requests for additional information.
- (iii) Description of alternative method to be used.

(iv) A complete listing of mobile equipment and stationary facilities to be used in carrying out the alternative methods and for each item listed include:

(a) Date or estimated future date of purchase.

(b) Percentage of use allocated to approved alternative methods and approved interim alternative methods as compared to their total farm or other use.

(v) Such other information as the Department may require to determine compliance with state air, water, solid waste, and noise laws and regulations and to determine eligibility for tax credit.

(B) If, upon receipt of a properly completed application for preliminary certification for tax credit for approved alternative facilities the Department finds the proposed use of the approved alternative facilities are in accordance with the provisions of ORS 468.175, it shall, within 60 days, issue a preliminary certification of approval. If the proposed use of the approved alternative facilities are not in accordance with provisions of ORS 468.175, the Commission shall, within 60 days, issue an order denying certification.

(b) Certification for pollution control facility tax credit.

(A) A written application for certification shall be made to the Department on a form provided by the Department and shall include but not be limited to the following:

(i) Name, address and nature of business of the applicant.

(ii) Name of person authorized to receive Department requests for additional information.

(iii) Description of the alternative method to be used.

(iv) For each piece of mobile equipment and/or for each stationary facility, a complete description including the following information as applicable:

(a) Type and general description of each piece of mobile equipment.

(b) Complete description and copy of proposed plans or drawings of stationary facilities including buildings and contents used for straw storage, handling or processing of straw and straw products or used for storage of mobile field sanitizers and legal description of real property involved.

(c) Date of purchase or initial operation.

(d) Cost when purchased or constructed and current value.

(e) General use as applied to approved alternative methods and approved interim alternative methods.

(f) Percentage of use allocated to approved alternative methods and approved interim alternative methods as compared to their farm or other use.

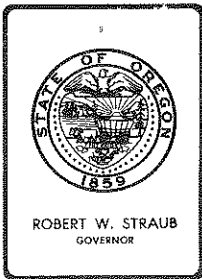
(B) Upon receipt of a properly completed application for certification for tax credit for approved alternative facilities or any subsequently requested additions to the application, the Department shall return within 120 days the decision of the Commission and certification as necessary indicating the portion of the cost of each facility allocable to pollution control.

(5) Certification for tax credits of equipment or facilities not covered in OAR Chapter 340, Section 26-030(1) through 26-030(4) shall be processed pursuant to the provisions of ORS 468.165 through 468.185.

(6) Election of type of tax credit pursuant to ORS 468.170(5).

(a) As provided in ORS 468.170(5), a person receiving the certification provided for in OAR Chapter 340, Section 26-030(4)(b) shall make an irrevocable election to take the tax credit relief under ORS 316.097, 317.072, or the ad valorem tax relief under ORS 307.405 and shall inform the Department of his election within 60 days of receipt of certification documents on the form supplied by the Department with the certification documents.

(b) As provided in ORS 468.170(5) failure to notify the Department of the election of the type of tax credit relief within 60 days shall render the certification ineffective for any tax relief under ORS 307.405, 316.097 and 317.072.



Environmental Quality Commission

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

MEMORANDUM

TO: Environmental Quality Commission
FROM: William H. Young, Director
SUBJECT: Agenda Item No. K, April 22, 1977, EQC Meeting

Water Quality Program - Status Report on 208/Water Quality Management Planning Program

Introduction

The Department of Environmental Quality Water Quality Division is currently undertaking a major planning effort which will make a significant contribution to the control of non-point source impacts on water quality. This planning effort is funded by the Environmental Protection Agency under Section 208 of Public Law 92-500. The grant amount is \$1,200,000. The DEQ and other state agencies are contributing matching support of \$400,000 through in-kind services, for a total project cost of \$1,600,000.

The Emergency Board, at its February 1976 meeting, authorized the DEQ to apply for the EPA grant. The project was reviewed by the EQC at the July meeting. A preliminary workplan was submitted to the Emergency Board in August 1976, followed by a revised workplan in October 1976. The Emergency Board approved the workplan and authorized expenditure of the funds.

The workplan was submitted to EPA in August 1976 and was approved in October 1976. The project must be completed by November 1978.

Water Quality Management Planning

The Statewide Water Quality Management Plan which was adopted on December 20, 1976 is the first component of the continuing planning effort and is mainly point source oriented. Included are general policies and guidelines, general implementation procedures, beneficial uses to be protected, water quality standards not to be exceeded, and minimum design criteria for treatment and control of wastes (point source).



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The current non-point source (208) planning project will add to the evolving Water Quality Management Plan and the State's Continuing Planning Process.

208 Project Description

Major elements of the non-point source planning project now underway, are discussed as follows:

1. Public Involvement. The objectives of this element are to develop and implement a continuing public involvement program which will insure both wide spread participation of interested publics and inform the general public. This program may be considered a pilot project which will be modified for agencywide use.

A major component of the public involvement program is the Policy Advisory Committee. This committee meets once a month to review project progress and raise water quality issues and provide policy guidance to the Department and contractors. Considerable DEQ staff time is committed to the support of this committee. The functions of the committee are: Advise on water quality goals and objectives; identify problems and suggest solutions; review study proposals and progress; inform the public of problems and solutions; serve as focal point for local citizen involvement; and relate state water quality to local government needs.

The responsible agency for implementation is DEQ, through the Public Affairs Office. A contract has been developed with Lewis and Clark College to prepare a monthly newsletter. A contract has been developed with the Oregon State University Extension Service to act as an information exchange mechanism. The Extension Service will be holding meetings with the agricultural community, inviting news stories and publishing a newsletter.

Current public involvement efforts are directed toward thirty-two meetings which are now being conducted. These meetings will cover all the geographic areas of the state and are directed toward agricultural groups and the general public. The purpose of the meeting is to introduce the entire spectrum of water quality management, both point and non-point source, to explore the non-point source program, and to elicit public responses on water quality problems. The public responses will be used to help guide DEQ staff efforts for the remainder of the program.

In addition, the three-volume Water Quality Management Plan, adopted by the EQC in December 1976, is briefly discussed and is available to participants at the meetings. Fall meetings will provide the opportunity for wide-spread involvement in review and recommendation of Basin Plans and the initial statewide assessment of non-point sources.

2. Forest Practices Act Evaluation. The objective of this element is to evaluate the effectiveness of the existing Forest Practices Act rules to curb adverse impacts on water quality. The DEQ has contracted with

the Department of Forestry to carry out the project. The DOF has sub-contracted the actual evaluative study to Oregon State University. The PAC Forestry Sub-Committee, composed of individuals representing a wide range of forestry concerns, had the opportunity to review the OSU study workplan and outline before initiation.

The first draft of the OSU evaluation has been sent out for agency and public review and comment. Briefly, the OSU evaluation concluded that existing forest practice rules system is adequate for the protection of water quality, but that the administration of the rules is inadequate. Better training and addition of more personnel to administer the Act is strongly recommended.

Following the 30-day period of review and comment, the final report will be reviewed by the Policy Advisory Committee. The OSU report will be sent to the three Forest Practices Act regional rules committees for analysis and recommendations for strengthening forest practices rules. The State Board of Forestry will act on recommendations dealing with both strengthening forest practices rules and administrative rules. Following the Board of Forestry recommendations, the Environmental Quality Commission must concur with the recommendations. Ultimately, DEQ will recommend to the Governor that the forest practice rules be declared the "Best Management Practices" and further, that the Department of Forestry be designated as the management agency.

3. Sediment Reduction-Dryland Wheat Areas. The objectives of this element are to carry out an investigation of non-point source problems resulting from erosion and to delineate these problem areas on county maps. The next step is to identify "Best Management Practices" which are available to reasonably treat these problems and reduce their impact on water quality. The final step is to develop an appropriate implementation program.

The responsible agency is the State Soil and Water Conservation Commission (SSWCC). The SSWCC has contracted with the U.S. Soil Conservation Service (SCS) to carry out much of the work. Water quality committees have been established to help SSWCC staff members in identifying erosion problems. An interim report will be prepared for distribution in fall 1977.

4. Irrigation Return Flow-Bear Creek Basin. The objectives of this element are to first identify and quantify water quality problems associated with irrigation return flows and second to establish "Best Management Practice" to reduce the adverse impact of the return flows.

The Rogue Valley Council of Governments (RVCOG) is responsible for this project. The basic monitoring work has been subcontracted to the U.S. Geological Survey (USGS). The DEQ, Jackson County and private contractors are also participating in the monitoring work.

At this time, well over \$100,000 has been spent on monitoring Bear Creek and irrigation return flows. While it has been conclusively established that there are water quality problems in Bear Creek, the causes of these problems have not been clearly identified. An inter-agency team of representatives from DEQ, EPA, USGS, and RVCOG are now analyzing and interpreting the monitoring data. The second part of the project -- development of "Best Management Practices" for irrigation return flows -- is contingent upon the data interpretation.

5. Streambank Erosion. The objective of this element is to further inventory the streambank erosion problems statewide. The problems will be ranked according to severity and a priority list will be developed. Several "pilot projects" will be established to evaluate alternative management programs. Examples may include incentive programs, county ordinances, or statewide regulations.

The responsible agency is SSWCC. Subcontracts have been developed with SCS. At this point available data has been collected and a literature review is partially complete. The next step is to rank the problems and establish the geographical locations for the pilot projects. Pilot project planning has already commenced in Wallowa County.

6. Assessment. There are two phases to the assessment element. Phase I is a statewide assessment of location, type, and severity of water quality problems caused by non-point source pollution. This will provide a means for assigning basin priorities for non-point source water quality management. It will define problem and non-problem areas.

Phase II is a cause-effect erosion related evaluation of selected basins which involves development of interagency team approach for assessing non-point source pollution. The approach will provide a means for describing the environmental conditions in which each Best Management Practice is best applied and a process for continuing evaluation of the effectiveness of applied Best Management Practices. The approach will also provide information to enable resource managers to determine where land management remedial measures are needed.

The DEQ is conducting the assessment in-house through a five-member interagency team assembled specifically for the two-year study. The team is composed of hydrologists, biologists, a forester and a physical geographer.

The Phase I is scheduled for completion by January 1978. The water quality problem analysis can be used in the development of the other non-point source projects. The Phase II is scheduled for completion by November 1978. The non-point source water quality problems will be displayed on maps.

7. Septic Tanks. The purpose of this study is first to identify service areas on a statewide basis for the collection and transport of septic pumpage. The second point of the project is to identify and select disposal sites. This will include an analysis of what engineering changes will be needed on sewage treatment plants selected as disposal sites. The third point of the study is to develop an implementation program.

The responsible agency is DEQ. A private contractor will be retained to carry out a transportation and engineering analysis. Work on this project is scheduled to begin May 1, 1977.

8. Minimum Streamflows. The objective of this element is to evaluate minimum streamflows already established for aquatic life and determine if the minimum flows are adequate for water quality purposes. A secondary objective is to prioritize streams suffering from low flows.

The responsible agency is the State Water Resources Department. Work on this project is scheduled to begin in mid-April 1977.

9. Interagency Coordination. The objective of this element is to develop or propose refinements of the process whereby the water quality management responsibilities of the various state, local, and federal agencies are coordinated and simplified. This element will result in suggested regulatory and legislative changes which would (1) produce a more rational long-term management of the resources that influence water quality and (2) simplify and integrate water quality regulatory procedure.

The responsible unit is the Governor's Assistant for Natural Resources. Most of the work so far has been the development of the proposal for a Department of Resource Management and development of various proposals for alternate structure of resource regulation in Oregon State government.

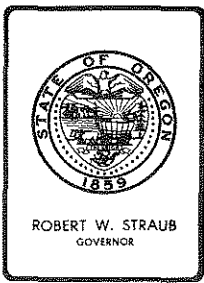
Additional Efforts

There is considerable water quality related planning work underway by regional planning agencies in the Portland, Salem, Eugene, and Medford areas. These efforts must be coordinated with the Department's plan and appropriately incorporated into the statewide plan.

Finally, it should be noted that the current DEQ planning effort is not all inclusive. For example, planning for control of construction practices and urban stormwater runoff control will probably begin after November 1978 and will key off of present regional planning agency efforts.



WILLIAM H. YOUNG
Director



Environmental Quality Commission

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission
From: Director
Subject: Agenda Item L, April 22, 1977, EQC Meeting

Subsurface Sewage Disposal Rules - Staff Report on
Geographic Region Rule B, OAR 340-71-030(9)

Background

Geographic Region Rule B was developed as a staff effort to meet an apparent need expressed by some of the Department's county contract agents. The rule, as proposed, assumed the existing general rule of utilizing sand for septic tank effluent disposal to be valid. That rule provides that disposal fields that have a separation of four (4) feet between the bottom of the trench and the permanent water table are acceptable. Data to either prove or refute that assumption is woefully inadequate.

During the development of Region Rule B, not enough time was devoted to study of its possible effects on ground water. There was a general staff knowledge that major aquifers existed on the coast, but there seemed to be an acceptance that the rule could be expected to protect those aquifers.

It now appears quite obvious that the ground water question was not studied adequately before recommending the rule for adoption.

Geographic Region Rule B was adopted by the Commission October 15, 1976, to become effective January 1, 1977. Prior to adoption, the rule was taken to public hearings in three locations; Coos Bay, Astoria and Salem, in September, 1976. Very little testimony was received either in opposition or support.

At their December 20, 1976 meeting, the Commission adopted a temporary rule delaying the effective date of the rule to May 1, 1977. This action was based on the fact that a news article in the Daily Astorian gave an erroneous date for the public hearing in Astoria. Some residents of Clatsop County claim they were misled by the news article and appeared to testify the day after the hearing was actually conducted.



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The Commission directed an additional public hearing be held in the Clatsop County area. That hearing was held on March 1, 1977, in Gearhart. Much more testimony was received at this hearing than any of the other three. The hearings officer's report is attached.

After the development of Region Rule B was well under way in the Fall of 1976, the Department's Regional office in Salem initiated action to review the Clatsop Plains moratorium that was established in 1970 to protect the ground water aquifer.

At a public hearing on March 31, 1977, the Commission took testimony on the Clatsop Plains moratorium issue. On April 1, 1977, the Commission adopted the Director's recommendation, with minor modifications, to strengthen the moratorium on subsurface sewage disposal systems to protect the ground water aquifer from further degradation.

Discussion

Geographic Region Rule B is in conflict with reasons for establishing the Clatsop Plains moratorium; that is, protection of ground water. This rule would allow additional systems under conditions detrimental to ground water aquifers.

The State Water Resources Department staff has advised us that a number of coastal aquifers, in addition to the Clatsop Plains aquifer, exist and are in need of protection as future domestic water supply sources. However, the geographic extent of these aquifers is not well enough defined at this time to permit their exemption from the provisions of Geographic Region Rule B.

Considerable testimony has been received to the effect that the adoption of this rule will be detrimental to county comprehensive planning efforts. A number of persons testified to the need for delaying the effective date of the rule to coincide with adoption of comprehensive plans. This is also the recommendation of the Land Conservation and Development Commission (LCDC) staff.

When county comprehensive plans are adopted and LCDC goals and guidelines implemented to protect prime farm lands, additional alternative sewage disposal systems and methods will be needed since development of much subsurface suitable land will probably be prohibited. Alternatives could take the form of systems proved under the Experimental Systems Program as well as a package of Geographic Region Rules. Such an approach should go a long way in reducing the traumatic impacts expected from the above actions.

In the absence of Geographic Region Rule B, the variance mechanism provided for in ORS 454.657 and OAR 340-75-015 may be utilized as a possible method of obtaining a permit under the conditions dealt with in Region Rule B.

Conclusions

1. Geographic Regional Rule B is in conflict with the reason for establishing the Clatsop Plains moratorium; protection of ground water aquifers.
2. Implementation of Rule B without extensive modification could be detrimental to future county comprehensive plans. Inadequate information exists upon which to propose modification of the rule to be workable and still protect ground water.
3. Additional alternative sewage disposal options will be needed in the future to assist in implementing county comprehensive plans.
4. Pending further development of options, the variance mechanism affords an opportunity for obtaining a permit provided surface or ground water pollution and health hazards would not occur.

Recommendation

It is the Director's recommendation that:

1. Geographic Region Rule B be repealed by the Commission's adopting the proposed amendment to Oregon Administrative Rules Chapter 340, Division 7, OAR 340-71-030(9) as set forth in Attachment "A"; and that such order or repeal become effective upon its prompt filing with the Secretary of State.
2. Staff be directed to evaluate the existing subsurface rules dealing with sand and to propose any revisions that may be necessary for protection of usable ground water aquifers.

3. Staff be directed to continue ongoing efforts to develop regional alternatives (including the concepts of Rule B and acceptable systems from the experimental program) that can be used in conjunction with county comprehensive plans.
4. The Commission adopt the policy statement contained in Attachment "B" encouraging the Water Resources Department to identify those ground water aquifers that need to be protected as present or future domestic water supply sources.



WILLIAM H. YOUNG
Director

TJO/jms
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Attachments (2)

ENVIRONMENTAL QUALITY COMMISSION

Amendment to Oregon Administrative Rules
Chapter 340, Division 7

OAR 340-71-030(9), commonly known as Geographic Region Rule B, is hereby repealed in its entirety.

Adopted by the Environmental Quality Commission April 22, 1977.

POLICY STATEMENT

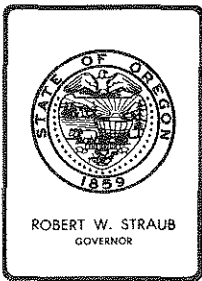
In keeping with the intent of ORS 454.685, and for the purpose of providing protection of potable ground water supplies, it shall be the policy of the Environmental Quality Commission to cause public hearings to be held on the question of prohibiting or limiting construction of subsurface or alternative sewage disposal systems in areas containing an aquifer suitable for domestic use, upon receiving evidence that such aquifer is or may be endangered and in need of protection.

In determining whether a public hearing shall be ordered, the Commission shall give particular consideration to recommendations of the State of Oregon Water Resources Department.

Further, the Commission encourages the Water Resources Department, on its own initiative, to identify aquifers that should be protected.

Adopted April 22, 1977

Joe B. Richards, Chairman



Environmental Quality Commission

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

March 16, 1977

MEMORANDUM

TO: Environmental Quality Commission

FROM: Hearing Officer

SUBJECT: Hearing Report: March 1, 1977 Hearing on Geographic Region Rule B (OAR 340-71-030(9))

Summary of Procedure

Pursuant to notice as published in the February 1, 1977 OAR Bulletin and as mailed to those on the regular lists kept for such purposes, the hearing was convened at 7:30 p.m. on Tuesday, March 1, 1977 in the conference room of the City Hall in Gearhart, Oregon.

Approximately 30 persons attended of whom 15 offered testimony.

Summary of Testimony

Roy L. Burns, Director, Lane County Water Pollution Control Division (copy attached):

Mr. Burns expressed concern for those in Lane County who might arbitrarily be prevented from installing systems in dune sands. Since such sands are void of structural cohesion, he reported, their mechanical placement would in no way alter their treatment capabilities. It was noted that the rules now accept a four foot minimum clearance to permanent groundwater, and recognize dune sands as adequate soil. Hence, Mr. Burns concluded, such conditions should be approved for a system in dune sands whether naturally occurring or brought about by man-made fill.

For the reasons stated, Mr. Burns reported Lane County's support of Rule B.

Ron Maxted, resident of Gearhart:

Mr. Maxted opposed Rule B for its potential encouragement of development on wetlands which he felt should remain pristine. The rule was found particularly offensive at present, a time when Gearhart was still trying to formulate its comprehensive plan.



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He urged postponement of the rule on the added ground that further information was needed to determine if septic tanks were polluting groundwater in the area.

Carolyn Maxted, resident of Gearhart:

Ms. Maxted opposed the rule because it might either ruin the area's aquifer or necessitate a sewer, two options she found undesirable.

She added that environmentally fragile wetlands might be threatened by development in a manner contra to LCDC goals.

Finally, she felt the citizens of Gearhart would prefer not to have extensive development in the remaining open spaces.

In response to inquiry, Ms. Maxted reported that surface water from the Warrenton system supplied Gearhart with the exception of a few existing shallow wells, one of which was hers.

William Berg, representing the Gearhart Homeowner's Association (copy attached):

Mr. Berg, on behalf of his association, found the proposed rule unacceptable on several grounds:

1) The rule would allow development on environmentally sensitive wetlands, encourage poor resource management, and conflict with LCDC goals 5 (conservation of open spaces, scenic and historic areas, and natural resources), 6 (maintenance and improvement of air, land and water resources), 7 (prevention of development subject to natural disasters), 16 (protection of estuarine resources), 17 (protection of coastal shorelines), and 18 (protection of beach and dune areas).

2) The proposal was argued to foster development in areas which later inventories and plans might indicate as desirable to reserve undeveloped. This possibility was said to violate LCDC goals 1 (citizen involvement) and 2 (land use planning processes).

3) The proposal was said to anticipate flood plain mapping and thereby interfere with a tool being used to plan the area's land.

4) The proposal was argued to threaten increased pollution of the aquifer.

5) The proposal was found to be an ironic approval of unproven disposal scheme, counter to the Department's policy of extensively monitoring even truly effective new systems before allowing widespread use.

6) The use of terms such as "permanent water table", and "unconsolidated sands" was said to lend the rule to arbitrary, even whimsical, interpretation.

In response to inquiry, Mr. Berg reported his sixth objection would be met if the objectionable terms were functionally dealt with elsewhere in the rules and "flagged" within the proposal itself.

The EPA publication, Impacts of Construction Activities on Wetlands of the United States was cited for authority that the country has already forfeited 45% of its productive wetlands through construction which had often been enhanced and facilitated by public agencies. The proposal was said to further threaten wetlands and the fish crops dependent on them.

Mr. Berg, in response to inquiry, stated his present desire for rescission of the rule entirely would be tempered if a later redrafting provided for sand on sand fills only where resources like those in the Clatsop Plains area would not be involved. He felt it would be premature to have any such rule presently effective in the Clatsop Plains area.

Mr. Berg stated himself unsure of the number of undeveloped lots in Gearhart which might receive septic systems under the rule. He predicted knowledge would be the result of inventories now being conducted with LCDC cooperation. A year was said to be the likely time span. CH₂M Hill's tentative flood plain map (to be finalized in about a month) was cited as a source of some information on the question.

Mr. Berg understood that a number of vacant parcels had been under county ownership until the county recently began selling them to private parties.

Kent A. Smith, City Councilman, City of Gearhart (copy attached):

Conveyed by written testimony only was Mr. Smith's opposition to the proposed rule. His reasons were those of potential groundwater degradation and change in the character of the area by increased development prior to an effective comprehensive plan.

Mark Loring:

Mr. Loring rejected the proposal for its potential degradation of vital clean water and its potential encouragement of rapid, unwanted change through development.

Mary D. Leeper, Gearhart resident (copy attached):

Ms. Leeper presented testimony, written and oral, opposing the rule for lack of study into its possible effect on groundwater and its potential undercutting of land use planning efforts.

She was not convinced that otherwise soggy and unsuitable sites could be made suitable by a fill, a fill subject to wind and water erosion.

Ms. Leeper recounted a survey indicating that over 80% of permanent and seasonal residents of Gearhart favored a limitation on building development. The Clatsop Plains Citizens Advisory Committee was reportedly also concerned about development pressure.

It was Ms. Leeper's contention that the rule should not precede a thorough study, including data gathered during the rainy season.

Mentioned as results of the levelling of a parcel near Neocoxie Creek to low tide mark were allowing waters of the Creek to flow over the parcel, removing erosion-controlling brush, and evicting a flock of ducks. This, Ms. Leeper believed, had occurred in anticipation of the effective date of the proposed rule.

Ms. Leeper cited from page 155 of the Oregon Coastal Management Program the admonition that "plans should buffer and separate those land uses which create or lead to conflicting requirements and impacts upon the air, water, and land resources". Her contention was that it is impossible to separate land use and sanitary considerations.

Robert and Janet Legg, Gearhart residents (copy attached):

Mr. and Mrs. Legg were opposed to the proposal because it would complicate the land use and waste disposal planning now underway. The South Clatsop Plains Sewer Advisory Committee was reported to favor a genuinely scientific study of water quality in the area.

Bruce Mason, Clatsop County Health Sanitarian:

Mr. Mason voiced his support of the proposal based on its scientific soundness.

Stewart J. Bell, representing the Clatsop Environmental Council:

Mr. Bell endorsed Mr. Berg's position, particularly with regard to the possibility of groundwater pollution.

Mr. Bell inquired if coastal areas with water table within two feet of the surface were not, by definition, to be considered protected wetlands.¹

Mr. Bell wondered if goals pertaining to wetlands should be addressed more thoroughly.

¹According to the EPA Policy Statement, wetlands include "...marshes, swamps, bogs, and other low-lying areas, which during some period of the year will be covered in part by natural nonflood waters..." (38 FR 10834, March 20, 1973).

Kent Mathiot, Oregon Department of Water Resources:

Mr. Mathiot stated the proposal would affect the active and stabilized dune complexes along the Oregon Coast. It was his opinion that the rule would threaten any aquifers underlying the dune areas. Mr. Mathiot's testimony was guided by his expertise as a hydrogeologist with the Groundwater Division of DWR.

In response to inquiry, Mr. Mathiot stated that the Clatsop Plains area had been identified as a potential aquifer which could yield up to 20,000,000 gallons of water per day.

Also identified, he reported, were aquifers north of Coos Bay in the Florence area. Mr. Mathiot reported that, in this time of drought, he was receiving daily inquiry about less expansive potential aquifers in dune areas. It was Mr. Mathiot's prediction that many of the dune areas would prove useful for limited groundwater development.

Mr. Mathiot stated that developmental pressures in certain areas of Lane County were threatening uninvestigated but potentially valuable groundwaters.

Mr. Mathiot was unaware of any similar groundwaters in noncoastal areas of the state. He pointed out that dune sands are unique in that they are the last phase of the natural sediment-sorting process. Their particle size was said to contribute to their ability to store groundwater.

In response to inquiry, Mr. Mathiot explained that once development has occurred, it becomes much more difficult to restore and protect groundwater. East Multnomah County was given as an example where a valuable aquifer exists but is very difficult to restore to cleanliness due to development which has taken place.

Mr. Mathiot felt that the studies done so far on the Clatsop Plains aquifer had been sufficient to provide planners with guidance and to warrant the inference that increased use of septic systems will result in increased chemical contamination of the groundwaters.

Robert S. Whitman, resident of Gearhart:

Mr. Whitman was opposed to the use of "sand on sand" systems. He felt this would add more problems, cause more chemicals to reach the groundwater, and make the installation of costly sewer systems necessary.

Caroline Ward, Gearhart resident:

Mrs. Ward stated her agreement with Mr. Berg, Ms. Leeper, and others who testified in opposition to the rule.

Ron Miller, attorney, environmentalist:

Mr. Miller stated that he considered himself an environmentalist and had donated his professional time to incorporating the Clatsop Environmental Council. However, Mr. Miller could see no reason why the proposed rule was not sound and workable. He saw no reason to differentiate between naturally placed or mechanically placed fill. Mr. Miller felt that no health hazards were involved with properly working septic systems and their presence in an area tended to make the prospect of expensive sewerage even less attractive.

David W. Megrath, resident of Gearhart:

As a student of local government planning activities for fifteen years, Mr. Megrath was neither specifically in favor of the rule change nor opposed to it. He was concerned that, whether or not the rule was sensible for other areas, it would amount to a general relaxation of standards in the Clatsop Plains area.

Mr. Megrath reported that after the frequent winter rain storms, the dunes often have puddles on top of them, a circumstance that makes them less suited for septic systems.

Mr. Megrath felt that a general relaxation of the rules in the Clatsop Plains area, where there are numerous other constraints on the successful use of septic systems, would be inappropriate unless the rule provided criteria such as a suitable way of protecting the aquifer.

Mr. Megrath felt that if a boundary could be established then the proposal would make sense for some areas outside the area which needs protection.

It was cautioned that much of the area which does not meet requirements under present rules but which might meet the requirements with a fill was area which is seasonally or occasionally inundated by high tides. Such sites should not be the subject of relaxed rules, he cautioned.

Mr. Megrath found it objectionable that the rule proposal did not specify the depth of sand since he understood some areas to consist of only a shallow layer of sand underlain by cobblestone or other material which fails to properly treat effluent.

It was further objected that adoption of the proposal would put great pressure on sanitarians to permit development in areas close to inland streams and lakes.

On the other side of the issue, Mr. Megrath recalled that he had been denied a system for lack of an additional foot of soil over the groundwater. Under the proposal, he estimated, he would have obtained a permit. Mr. Megrath recommended waiting until the land use planning process was completed and then adopting a rule which would permit fills where development is called for by land use criteria.

John P. Doney, resident of Hammond:

Mr. Doney reported that he had long awaited the sewerage of Hammond and had been denied permission to install a septic system and build himself a home on land he owns in Hammond. Mr. Doney felt that under the proposal he would be allowed a fill system.

Mr. Doney questioned the effect of the rule proposal on an application he had pending.

He was resentful that the state park next to his home had been the object of massive grading of sand and was permitted to install systems while he was not.

Mr. Doney was asked to discuss his particular problem with Mr. Osborne after the hearing.

Mr. Miller noted that the City of Hammond had been talking about the need for sewers for twelve years and might for twelve more. He said the waiting being done by those such as Mr. Doney was attended by daily escalation in construction costs. Mr. Miller found Mr. Doney's case to be an excellent example of the need for the proposed rule.

Lyle Ordway, Clatsop County resident:

Mr. Ordway recalled his many years of residence in the area, his eight years of service on the Clatsop County Board of Commissioners, and his service on the Citizen's Advisory Committee which drafted the sub-surface disposal regulations.

Mr. Ordway noted that to get a variance Mr. Doney would have to pay a \$150 fee, hire an engineer to design a system, and hope he could convince the agency to approve it. The variance procedure was criticized as too costly.

Mr. Ordway went on to express his dismay that the Commission had delayed the proposal's effective date. He stated there were many homes in the area with successful septic systems. There was a need to adopt the proposal, he argued, because of the inequity in the present rule.

Mr. Ordway stated his awareness of the need to protect groundwater and contended this was a planning problem which would be addressed by himself and others at the March 31 hearing on the Clatsop Plains moratorium. He felt there could be development of the urban growth area with protection of the aquifer in case it's decided the aquifer is the best place to get the water.

Mr. Ordway's contention was that those opposing the proposal were not addressing the environment but were interested in growth control.

He stressed that the goal should be to control pollution, not to work toward the eliminating of all pollution.

He urged that "sand on sand" fills be allowed and the planners be allowed to do their job of deciding the best use of land outside urban growth areas.

In response to inquiry, Mr. Ordway felt there were a considerable number of lots in Clatsop County urban growth areas that could be developed only if the proposal were adopted, perhaps 2000.

The question was posed as to whether the best use of the aquifer in some areas might be to dispose of sewage.

Mr. Miller conjectured that the estimate 2000 lots in urban areas would probably include in ten years less than 200 applications under the "sand on sand" proposal.

Mr. Ordway felt that tests for winter water tables might result in a higher number of applications under the rule.

In the meantime, he argued, areas in Seaside, Shoreline Estates, etc. were already subdivided and could not be used.

Bruce Prater, resident of Gearhart:

Mr. Prater cautioned that the rule might result in filling activities in waterways which would upset their natural function. He was also concerned that many yards of sand could be dumped on wetlands to use as a subdivision.

Mr. Prater was informed that no lands with a natural water table within two feet of the surface could qualify.

Woodrow Willson, resident of Clatsop Plains:

Mr. Willson objected to the notion that some of the sand area should be preserved, pointing out its unsuitability for agriculture.

Mr. Mathiot informed him that the aquifer dome lies in line with Sunset Lake and Neocoxie Creek.

Mr. Willson urged that boundaries should be established which would recognize the location and flow of the aquifer before property owners were restricted in their use of property.

As a member of a group of Clatsop Plains landowners, Mr. Willson was investigating the facts. Mr. Mathiot agreed to assist him in getting information.

Mike Morgan, Land Use Coordinator for the Clatsop-Tillamook Inter-governmental Council:

Mr. Morgan took no position on the wisdom of the proposal. He contended that land use was a direct issue in that the proposal would address matters covered in all nineteen goals of the LCDC.

Mr. Morgan cautioned that adoption of the rule now might frustrate the ongoing planning effort.

Mr. Morgan recommended that the Commission review the policies set forth in the Clatsop County Environmental Plan to find a wealth of information.

It was reported that Warrenton and Hammond had comprehensive plans while the county the other cities (except Seaside) had applied for planning funds to address the coastal goals. The county was reported to have been very active at planning for the last four or five years. Gearhart was reportedly close to adopting a plan.

Addressing Mr. Doney's problem, Mr. Morgan felt the proposal might be appropriate for areas with an adopted comprehensive plan.

Mr. Burns added to his earlier statement his emphasis that Lane County, as a contract agent issuing permits, was charged with the duty to see that permits be granted only where compatible with local planning considerations.

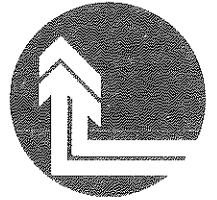
R. E. Baker, Sanitarian, DEQ Southwest Regional Office (copy attached):

Mr. Baker disagreed with the proposal because of a lack of research on the effectiveness of treatment. He urged in the alternative a rule applying only in areas where natural sand runs ten feet deep with water tables no less than three feet deep. (See exact language in attached copy.)

Respectfully submitted,



Peter W. McSwain
Hearing Officer



February 28, 1977

TO: Environmental Quality Commission

FROM: Roy Burns, Director
Lane County
Water Pollution Control Division

RE: Position Statement, Geographic Region Rule 'B'

In the Oregon Administrative Rules pertaining to subsurface and alternative sewage disposal, it is stated that requirements for the construction, operation and maintenance of subsurface and alternative sewage disposal systems were adopted "for the purpose of restoring and maintaining the quality of the public waters and of protecting the public health and general welfare of the people of the State of Oregon."

Included in these requirements is a minimum separation of four feet between the bottom point of the effective sidewall of a disposal trench and the highest level attained by a permanent water table. Since this requirements does not discriminate as to soil type, it must be concluded that the authors (primarily DEQ staff) felt that a minimum of four feet was sufficient to adequately treat septic tank effluent in any acceptable soil type. The soil textural classification represented by dunal sand is an acceptable soil type under the regulations.

Because dunal sand is a single grain material totally lacking in cohesive structure, mechanical placement would not alter its nature or otherwise detract from any ability to treat septic tank effluent. For this reason, measureable standards acceptable in naturally occurring dunal sand deposits should be as acceptable in mechanically placed sand. It is therefore evident that if such acceptable measureable standards exist then regional Rule 'B' should be adopted on the basis of those standards.

GC/gr

GEARHART HOMEOWNERS ASSOCIATION

P. O. BOX 545

GEARHART, OREGON 97138

1 March 1977

TO: Department of Environmental Quality

FROM: William Berg, President, Gearhart Homeowners Association

SUBJECT: Testimony at public hearing 3/1/77 regarding Geographic Region Rule B
("Sand on sand" septic tank drainfield installation)

I have been authorized by the Board of Directors of the Gearhart Homeowners Association to submit the following testimony in opposition to the proposed rule change which would permit septic tank drainfield installations in sand-on-sand fill.

Reasons:

- 1) The Rule Change has already been interpreted by local developers and sanitarians to apply to environmentally sensitive wetlands, including flood plains and areas adjacent to coastal streams and estuaries. The Rule Change therefore not only encourages bad resources management; it also conflicts directly with goals and guidelines of the statewide land use planning process (especially LCDC goals 5,6,7,16,17, and 18).
- 2) Gearhart and Clatsop County are now engaged in the orderly process, with assistance from LCDC, of planning the land in Clatsop Plains. During the next two years, studies and inventories will be made of such open spaces, scenic areas, and natural and coastal resources as citizens may recognize to be worth conserving. Gearhart itself will seek to implement the citizens' desire, as outlined in its tentative comprehensive land use plan, to preserve the low-density residential character of the community. The sand-on-sand rule change, by promoting population density in areas which might have been identified and reserved for conservation in the course of the planning process, effectively frustrates the planning process and violates LCDC goals 1 and 2, which together form the cornerstone of land use planning.
- 3) HUD flood plain mapping has not been completed in Clatsop Plains. By anticipating its completion, and by anticipating the adoption of flood plain ordinances by appropriate jurisdictions within Clatsop Plains, the Rule Change again frustrates the timely and orderly development of an important tool in the land planning process.
- 4) The rule change would result in an artificially inflated density of septic tank installations in Gearhart. The DEQ itself claims to be concerned with nitrate levels in local groundwater, and has emphasized the inability of sand to remove nitrates. The Rule Change would therefore pose yet another threat to the quality of the environment and to the conservation of an important natural resource.
- 5) The Rule Change would approve a new method of on-site wastewater disposal

DEQ - Sand-on-sand
Berg testimony 3/1/77 cont.

without adequate advance monitoring - a method whose effectiveness in protecting groundwater from pollutants is dubious, even in theory. The principle of best management practices seems here to be sacrificed to the accommodation of developer interests. We find it ironical that the Department of Environmental Quality prolongs monitoring of truly effective types of on-site systems for years, even though their use has been approved in other states and countries.

- 6) The Rule Change is so vaguely worded as to be subject to arbitrary or even whimsical interpretation. Identification of "the permanent water table or the permanently perched water table", for example, must take seasonal fluctuation of the water table into account. The Rule Change does not attempt to do so. "Unconsolidated sand" is subject to a broad range of interpretation; local sanitarians and developers, for instance, in anticipation of the Rule Change, have referred to areas with true soil profiles of at least 11 inches as "unconsolidated sand".

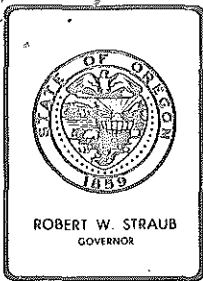
For the above reasons, we find that the Rule Change would be detrimental both to the quality of the environment and to the land use planning process. We recommend that it be rescinded entirely by the Environmental Quality Commission, and that any such proposal, if reintroduced at some future date, be so worded as to apply only in areas of the State where natural resources, including groundwater quality, would not be endangered.

In conclusion, we thank the DEQ for giving citizens an opportunity to express their views at this special public hearing.



William Berg, President
Gearhart Homeowners Association

Encl.: Letter from P. W. McSwain



Department of Environmental Quality

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 Telephone (503) 229-5383

February 2, 1977

Mr. Bill Berg
President, GHA
Gearhart Homeowners Association
P.O. Box 545
Gearhart, Oregon 97138

Dear Mr. Berg:

This will respond to your January 27 request of Mr. Osborne.

We have enclosed the staff report which was before the Commission on October 15, 1976. Also included is a consolidated hearing report.

As you will note from reading these minutes, Geographic Rule B was adopted as only a part of the total rules. Therefore, at the time of the adoption the Commission deliberated little, if at all, on this specific subject of Rule B.

We hope this material will be sufficient to inform you. If we can be of further assistance please let us know.

Sincerely,

WILLIAM H. YOUNG
Director

Peter W. McSwain
P.T.

Peter W. McSwain
Hearing Officer

PWM:vt
Enc.



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March 1, 1977

Department of Environmental Quality:

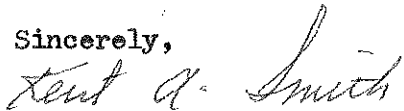
As I am unable to attend tonight's public hearing, I would like to take this opportunity to submit written testimony that I am unalterably opposed to the relaxation of the sand on sand restriction for building.

It seems inconsistent with your agency's goals to lift this restriction, while at the same time being concerned with groundwater degradation in south Clatsop Plains. It should be noted that the question of nitrates has not yet been satisfactorily resolved. Is it not possible that lifting this ban could intensify the concerns you have expressed about the pollution of groundwater?

Also, I feel there are other potentially negative impacts on this particular area by this restriction's being lifted. I think a great deal more consideration and study on your part might bring you to realize that our precious wetlands will be adversely affected.

The people of Gearhart do not want the character of this area to change to a point which would occur if this ban is lifted. We are in the process of adopting a comprehensive land use plan which speaks against using ecologically sensitive areas for building. My hope is that you will consider the wishes of local planning whose goal is to preserve the coastal character of this community.

Sincerely,



Kent A. Smith
Councilman,
City of Gearhart.

DEQ Public Hearing March 1, 1977 7:30 P. M. Gearhart City Hall

Testimony concerning Geographic Region Rule-B

Presented by: Mary D. Leeper

495 Woodland Ave PO. Box 442

Gearhart, Ore. 97138 738-5043

How and why did the recent sand-on-sand ruling by the Environmental Quality Commission evolve? On Oct. 15, 1976, the EQC adopted a packet to correct minor deficiencies through the Adoption of Proposed Amendments to Oregon Administrative Rules Chapter 340, Division 7, Sections 71, 72, 73, and 74 Pertaining to Subsurface and Alternative Systems of Sewage Disposal. Geographic Region Rule -B was included in that packet. Due to the fact GRR-B was nestled amongst the group, it is questionable whether much discussion occurred on the GRR-B change.

What types of vacant coastal wetlands are affected by this decision? The answer appears to be unknown. In many coastal areas the lands that will be considered for sand-on-sand fills will be areas subject to natural disasters and hazards. These areas are to be protected according to the coastal goals.

Several months ago a chunk of property next to Neacoxie Creek in Gearhart was cleared down to the low tide mark in anticipation of the Jan. 1, 1977 effective date for Geographic Region Rule -B. To the untrained eye, it is obvious the Neacoxie flows over portions of land that have been cleared. This bank brush provided erosion control and a home to a flock of ducks. With all the heavy rains the North Coast normally receives, it is not unusual to drive over a small amount of moving water on the road that crosses the Neacoxie. The remainder of the land cleared for sand fill is somewhat more elevated, but only to the extent that it is not affected by moving water. The land is extremely soggy nearly year round. With this tract of land cleared nothing protects the surface soil from the gusting southwest wind. If indeed there is 2 feet of sand free from groundwater, which is highly doubtful, the additional 4 feet of sand fill will also be subject to wind and water erosion.

At this point it may be argued that the only way to combat this type of problem is through proper land use planning at the local level. We would like to be able to separate land use and sanitary considerations but it is an impossible task. They are inseparably linked. On page 155 of the Oregon Coastal Management Program it states in the guidelines that "plans should buffer and separate those land uses which create or lead to conflicting requirements and impacts upon the air, water and land resources." It is my understanding there are only two cities in the State of Oregon with approved and adopted comprehensive land use plans, Medford and Eagle Point. These two cities do not even begin to create a percentage of cities complying. Gearhart is coming down the stretch

with plans to have their comprehensive plan in compliance by Now. 1977. The planner first hired by the city did not address the plan to all the goals and guidelines, so we have sections to create and others to update. Clatsop County does not even have a comprehensive plan close to compliance. How can a city plan properly if important decisions, such as the sand-on-sand ruling, are made before a city or county has an approved and adopted comprehensive plan. The sand-on-sand ruling undermines most all comprehensive land use plans that are in the development stages.

We have heard much discussion about pressures by developers to build on smaller lots, lots affected by high groundwater, etc. Fine, but how about the wishes of the people of an area. A recent survey taken in Gearhart shows that 83.2% of the permanent residents and 85.5% of the seasonal residents favored a limitation on building development (42% of the 500 questionnaires were returned). At a recent meeting of the Clatsop Plains Citizens Advisory Committee, they too, were concerned about impending development pressures.

Yet, a small group does have some great plan to change our land. We are being manipulated by development pressure and the sand-on-sand decision will have a great effect on how our land is used. At no time can anyone recall someone checking the Gearhart property, referred to earlier in this report, to see if it would be detrimental to the environment to have an area such as that filled. How can a decision such as the sand-on-sand ruling be made without any study into the potential effects? No clearing or filling should be allowed on any property for this purpose until a thorough study is done, part of which should take place during the rainy season.

It is interesting to note that for the past year the DEQ has been saying that Gearhart has degrading groundwater problems. This is another highly debatable area that can be argued at great length. However, one obvious fact that cannot be ignored is these areas which might be filled with sand are not considered buildable at the present time. Why would adding a mere 4 feet of sand suddenly make it a safe, sensible building lot? Would not the high groundwater during the wet seasons affect the treatment capabilities of the septic tank on a fill? A fill has been considered improper until the Oct 15 sand-on-sand ruling. Will the sand-on-sand ruling dictate a state decision on sewerage treatment rather than the people trying to solve their problems through best management practices? Gearhart people are willing to make changes in their everyday practices to maintain a clean environment. This decision will in fact lead to more population saturation than the residents desire or ever envisioned. The sand-on-sand decision conflicts with all types of land use planning that is presently being so vigorously worked on by the people. It is an illogical and senseless rule. If soggy land were meant to be built on, the property would have passed sanitation requirements without needing a fill.

Throughout the Oregon Coastal Management Program it is apparant that coastal shorelands, estuaries, beaches and dunes, etc. have been investigated in great detail.. We can only hope the same investigative vigor is extended in finding the effects of Geographic Region Rule -B prior to its inception. Until such a time as a comprehensive study can be completed and evaluated, the Oct. 15 decision on Geographic Region Rule -B should be reversed.

Mary D. Leeper

P.O. Box 55
Gearhart, Oregon
February 24, 1977

Gearhart City Hall
Gearhart, Oregon

Dear Mayor Kulland, Councilmen, Planning Commission Members,
and other concerned citizens of Gearhart:

Due to a prior commitment, we are unable to attend the
March 1st, D.E.Q. Public Hearing concerning the addition of
a subsection allowing sand-on-sand fill.

We are adamantly opposed to such a maneuver. Gearhart
and the rest of the Clatsop Plains are in the midst of solving
their waste disposal problems and protecting their natural
resources at the same time. The South Clatsop Plains Sewer
Advisory Committee has recommended that the D.E.Q. conduct
a genuinely scientific study of water quality in the Clatsop
Plains area. They have also requested that building be
partially restricted.

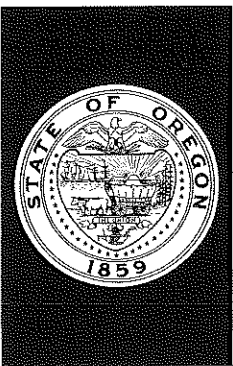
Obviously, if Gearhart and/or the rest of the Clatsop
Plains allow sand-on-sand building to occur now, it will
complicate the situation.

We strongly urge that Geographic Region B be
completely rejected.

Sincerely,

Robert S. Legg
Janet Legg

Robert and Janet Legg
785 A St.
Gearhart



DEPARTMENT OF ENVIRONMENTAL QUALITY

SOUTHWEST REGION

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MEDFORD BRANCH OFFICE
SOUTHWEST REGION
223 W. Main St. Room 202
Medford, Or. 97501 - 776-6010

ROBERT W. STRAUB
GOVERNOR

RICHARD P. REITER
Region Manager

February 3, 1977

RECEIVED
FEB - 8 1977

Peter McSwain
Department of Environmental Quality
1234 S. W. Morrison
Portland, Oregon 97205

DEPT. OF ENVIRONMENTAL QUALITY

RE: WQ-SS - General
Geographic Region Rule B

Dear Mr. McSwain:

While it is desirable to adopt a rule which will provide for the installation of a greater number of subsurface sewage disposal systems in otherwise unapprovable areas, it is not desirable to do so when no research has been done to document satisfactory treatment of sewage when disposed of in non-restrictive soils with a minimum separation distance between the disposal trench effective sidewall and the permanent or permanently perched water table. Based on the above, I would like to go on record as being not in favor of the proposed rule.

If adopted, I would suggest the following changes in the rule as written (underlined added):

- (a) In areas where the permanent water table or permanently perched water table will be within four (4) feet of the bottom point of the effective sidewall of the disposal trench and the soil on the parcel is medium or fine unconsolidated sand, from the natural ground surface to a minimum depth of ten (1) feet, permits may be issued provided:
 - (a)(A) The permanent or permanently perched water table is no closer than thirty-six (36) inches of the natural ground surface.
- (b) Fills shall be adequate in size to accommodate a drainfield sized in accordance with subsection 71-030(3)(c) of these rules (In Table 6 "Depth to temporarily perched groundwater" shall be interpreted as depth to permanent or permanently perched water table) and:


Peter McSwain
February 3, 1977
Page Two

(b)(A) To accomodate a fill side slope of 3 to
1 or more gentle.

If you have any questions, please contact me.

Sincerely,

WILLIAM H. YOUNG
Director


R. E. Baker, R.S.
Regional Sanitarian

REB:fs

Don't send - withdrawn

Call 4/18/77 Katanusky to Sawyer
- Withdraw.



ENVIRONMENTAL QUALITY COMMISSION

1234 S.W. MORRISON STREET • PORTLAND, ORE. 97205 • Telephone (503) 229-5696

ROBERT W. STRAUB
GOVERNOR

MEMORANDUM

TO: Environmental Quality Commission

FROM: William H. Young, Director

SUBJECT: Denial of PGE Request for Preliminary Certification for Tax Credit of Sewage Treatment Facilities

Background

Portland General Electric Co. submitted on February 28, 1977 a request for preliminary certification for tax credit pursuant to ORS 468.175 of sewage treatment facilities at the Trojan Nuclear Plant. Under ORS 468.175, The Department can grant certification but denial must be by Commission order.

Evaluation

ORS 468.155(2) provides in part as follows: "'Pollution control facility' or 'facility' does not include septic tanks or other facilities for human waste, nor any property installed, constructed or used for the moving of sewage to the collecting facilities of a public or quasi-public sewerage system,"

The Department thus concludes that the facility for which PGE has requested preliminary certification is not legally eligible for such certification -- thus, preliminary certification must be denied.

Director's Recommendation

It is recommended that the preliminary certification for tax credit of proposed sewage treatment facilities at the Trojan Nuclear Plant be denied for the reason that ORS 468.155(2) excludes such facilities from tax credit eligibility.

A handwritten signature in cursive script, appearing to read "Bill".

WILLIAM H. YOUNG
Director

WDL/HLS:ak
April 15, 1977



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KLAMATH FALLS, OREGON 97601

April 21, 1977

Environmental Quality Commission
1234 S.W. Morrison Street
Portland, OR 97205

Dear Commission Members:

I would like to respond to your memorandum in reference to Agenda item F, EQC meeting, April 22, 1977, which I received on Wednesday, April 20, 1977.

In reference to Evaluations:

Item 5-B: Approximately one-half of the materials in the dump burned on March 10, 1977, were of a size that could not have been loaded into hoppers or trucks to be hauled to the Klamath Disposal Site without considerable further dismantling. Specifically, these items were the demolition from the planer mill tear down which occurred in the spring of 1976.

From estimates of box rental and dumping fees from Klamath Disposal and discussions with others we estimate a cost of from \$5,000.00 to \$12,000.00 per year for off-site disposal. Based on this cost we conclude that off-site disposal is not a practical alternative to the present methods.

Item 5-C: Forced Air Pit Incineration: Although some of these units have been observed by DEQ to be within compliance, proper operation is affected by the condition of the pit walls, material level in the pit, and wind conditions. In addition cardboard and lightweight materials come out of the air stream and also create fly-ash problems. In addition, our plant site does not provide an area where an "in ground" pit may be dug. This would necessitate the purchase of refractory pit liners at an additional cost of \$10,000.00 for the smallest machine available. This included with transportation and other installation preparations is the basis for our minimum investment estimate of approximately \$30,000.00. This, in addition to our reports from Cam-Ran Corp. of questionable performance of these units and that some of these units have been removed from service, reinforces our conclusion that an on-site pit incinerator is not a practical alternative.

The rental cost of \$500.00 per week quoted in the staff report does not include the transportation charges of \$2.00 per mile each way, plus the need to provide a front end loader at a cost of \$40.00 per hour during the operation of the unit. Our contract estimate,

from Cam-Ran Corp., to burn the pile in place on March 10 was \$5,000.00. They also stated that unless they had other contracts in the area, even at this price, they did not feel this contract was a practical thing for them because of the distance involved.

Item 6: JELD-WEN, inc., maintains that open burning of the dump properly carried out is not a detriment to the local environment. It is also significant, as stated in the memorandum, that no complaints were received during the March, 1977, burning of the dump and the demolished homes at the Thomas Lumber Company site.

In addition to the usage of hogs and chip bins, installation of our waste wood fired boiler plant, construction of the fiber door plant, collection of scrap metal and banding, we have instituted further efforts, since the DEQ letter of March 11, 1977, to minimize further the collection of materials in our dump. These include cycling some materials through the hogs which were previously taken to the dump and removal of refuse from the present building expansion to off-site disposal.

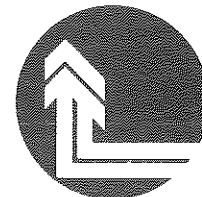
Conclusions:

1. JELD-WEN, inc., has made a very substantial effort to minimize materials which cannot be utilized in manufacturing operations.
2. The Klamath Basin has an airshed which is of high quality most of the time. Burning of the dump, once per year, at a time when vertical air rising and geological conditions are favorable, does not detrimentally impact the local environment. This is supported by the success of the burns conducted in March, 1977, and is very significantly attested to by the fact that no complaints were received by the DEQ, the Klamath County Fire Marshal, or JELD-WEN, inc.
3. The amount of waste which is burned in the dump pile is small in comparison to that which is annually burned in frequent slash fires, agricultural burns, and even the wood consumed in domestic fireplaces for home heating in the area.
4. Present alternatives are not economically practical in relation to the present method of disposal and its lack of harmful effects on the quality of the local airshed.

Members of the Commission, we have demonstrated in fact that alternatives to the present method of disposal are impractical and that harmful effects to the airshed from this once per year burn are not caused. We, therefore, request the Commission to rule favorably to burn the dump on an annual basis.

Stan Meyers, P.E.
Assistant Corporate Engineer

SM:dcp
cc: William H. Young, Director

M E M O R A N D U M

DATE: April 21, 1977

TO: Environmental Quality Commission

FROM: Roy Burns, Lane County through Jack Osborne,
Supervisor, Subsurface and Alternative Systems, DEQ

RE: Report on Amendment Request Fee Waiver on Repair
Permits in Selected Geographical Areas

In many cases, small population clusters with failing subsurface systems do not opt to install sanitary sewers and sewage treatment. In these cases, a responsible government action is to attempt concentrated staff activities on repairing deficient systems.

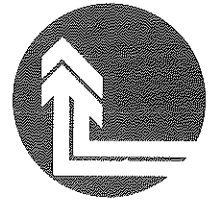
Lane County is currently involved with one community (unincorporated) of 600 people in such an action. County personnel will be visiting with individuals May 4th, 5th and 6th to design repairs. This community is the first of what may be as high as six such areas.

Concentrated corrective actions and procedures are in the interest of the general health, safety and welfare of all the citizens of Lane County, as well as the State of Oregon by removing partially treated or untreated domestic waste rapidly from potential human contact. We are requesting consideration of repair permit fee elimination for specific locations and conditions.

The basic purpose to be served by this amendment is to encourage voluntary compliance and thereby eliminate costly administrative and legal personnel hours of the Lane County Water Pollution Control Division and Department of Environmental Quality.

The proposed amendment is offered as an additional incentive for prompt action by individual home owners.

RB:d1



M E M O R A N D U M

DATE: 4/21/77

TO: Chairman Joe Richards, Environmental Quality Commission

FROM: Roy Burns, Lane County - Through Jack Osborne, DEQ

RE: Requested Amendment
 OAR Chapter 340, Division 7, Subdivision 2
72-015 - Fees for Permits and Licenses

The Lane County Board of Commissioners request amendment of OAR Chapter 340 to provide for certain fee exemptions pursuant to state law. This Division, on behalf of the Board, offers the following requested amendment which would be 72-015 4(e) if adopted.

The fees to be charged by the County of Lane shall be as follows:

| | |
|---|----------|
| New Construction Installation Permit..... | \$100.00 |
| Alteration..... | \$25.00 |
| Extension Permit..... | \$25.00 |
| Repair Permit..... | \$25.00 |
| Evaluation Reports..... | \$75.00 |
| Repair Permits Meeting the Following Criteria.. | -0- |

- A. A defined area based upon a formal study such as a health hazard or sewer plan that results in adoption of corrective actions for individual systems.
- B. An application must be made by owner or owner's agent within 30 days of initial written notification.
- C. The system to be repaired that will be fee exempt must be for an owner occupied housing unit.