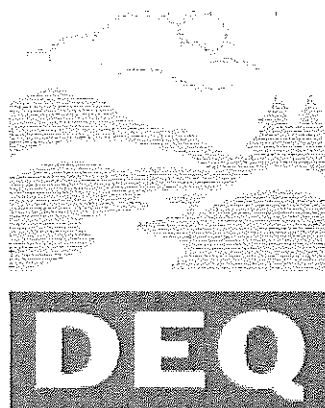


4/8/1983

**OREGON  
ENVIRONMENTAL QUALITY  
COMMISSION MEETING  
MATERIALS**



State of Oregon  
**Department of  
Environmental  
Quality**

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OREGON ENVIRONMENTAL QUALITY COMMISSION MEETING

April 8, 1983

**NOTE:** Meeting begins  
at 8:30 a.m.

Autzen Senate Chamber  
George Putnam University Center  
Willamette University  
Salem, Oregon

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AGENDA

8:30 am CONSENT ITEMS

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

APPROVED A. Minutes of February 25, 1983, EQC meeting.

APPROVED B. Monthly Activity Report for January and February, 1983.

APPROVED C. Tax Credits.

8:35 am PUBLIC FORUM

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

HEARING AUTHORIZATIONS

APPROVED D. Request for authorization to conduct a public hearing on the modification of rules for hazardous waste storage by generators, OAR 340-63-215(8) and 340-63-405(1)(a).

ACTION AND INFORMATION ITEMS

Public testimony will be accepted on the following, except items for which a public hearing has previously been held. Testimony will not be taken on items marked with an asterisk (\*). However, the Commission may choose to question interested parties present at the meeting.

APPROVED \* E. Proposed adoption of amendments to Noise Control Rules, OAR 340-35-015, 35-025, 35-030, 35-035, 35-040 and 35-045; and Procedure Manuals 1, 2, 21 and 35.

APPROVED \* F. Proposed adoption of amendments to the New Source Review, Hot Mix Asphalt Plant, Volatile Organic Compound, and Stack Height Rules as amendments to State Implementation Plan.

APPROVED \* G. Request for adoption of rules for North Florence Dunal Aquifer in Lane County that would:

1. Modify Geographic Regional Rule OAR 340-71-400(2) for the general North Florence Aquifer; and
2. Establish special water quality protection for Clear Lake and its watershed by adding a special protection clause to the Mid-Coast Basin Water Quality Management Plan, OAR 340-41-270(1) and establish a moratorium on new on-site waste disposal systems, OAR 340-71-460(6)(f).

(MORE)

- APPROVED \* H. Proposed repeal of Mid-Willamette Area Nuisance Rule, OAR 340-29-020, in response to comments by Legislative Counsel.
- BOUNDARIES  
APPROVED;  
DRYER LIMITS  
DELETED
- APPROVED I. Proposed adoption of amendments to veneer dryer emission limitations (OAR 340-30-20) and revised particulate nonattainment area boundaries within the Medford/Ashland AQMA.
- APPROVED J. Consideration of a request for further extension of a variance from OAR 340-25-315(1)(b), veneer dryer emission limits, by Mt. Mazama Plywood Company, Sutherlin.
- GRANTED K. Request for a variance from OAR 340-21-015(2)(b), visible air contaminant limits; OAR 340-21-030(2), particulate emission limits; and OAR 340-21-060(2), fugitive emissions, for Oregon Sun Ranch, Inc., Prineville.
- APPEAL DENIED L. Gailen Adams' appeal of hearings officer's decision affirming civil penalty.
- DEFERRED M. Hayworth Farms' appeal of hearings officer's decision affirming civil penalty.
- GRANTED N. Reconsideration of Dale Moore's appeal of variance officer's denial of variance from on-site sewage rules.
- DENIED O. Request by Oregon Environmental Council for a declaratory ruling on applicability of certain statutes and rules to DEQ's jurisdiction over the spraying of the pesticide Sevin into Tillamook Bay.
- ACCEPTED P. Willamette Valley Regional Manager's Report.
- ACCEPTED Q. Informational report: Marion County Solid Waste Program and request for extension on closure of Brown's Island Landfill.
- POSTPONED ~~R. Informational report: Solid waste variances status and usage~~
- ACCEPTED S. Informational report: Motor Vehicle Emission Inspection Program, 1981-1982.
- POSTPONED ~~T. Informational report: Beryllium use and waste handling survey, requested by the Commission in response to concerns about provisions of standards for hazardous air contaminants rules.~~
- ACCEPTED U. Informational report: Contested case status.

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Because of the uncertain length of time needed, the Commission may deal with any item at any time in the meeting except those set for a specific time. Anyone wishing to be heard on any item not having a set time should arrive at 8:30 am to avoid missing any item of interest.

The Commission will lunch in Dining Room #1, George Putnam University Center, Willamette University. The Commission will not meet for breakfast.

**NOTE:** The meeting will begin at 8:30 a.m.

THESE MINUTES ARE NOT FINAL UNTIL APPROVED BY THE EQC

MINUTES OF THE ONE HUNDRED FORTY-SIXTH MEETING

OF THE

OREGON ENVIRONMENTAL QUALITY COMMISSION

February 25, 1983

On Friday, February 25, 1983, the one hundred forty-sixth meeting of the Oregon Environmental Quality Commission convened at the Medford City Hall, Medford, Oregon. Present were Commission members Chairman Joe B. Richards, Mr. Fred J. Burgess, Vice-Chairman; Mrs. Mary V. Bishop; Mr. Wallace B. Brill; and Mr. James Petersen. Present on behalf of the Department were its Director, William H. Young, and several members of the Department staff.

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

BREAKFAST MEETING

The breakfast meeting convened at 7:30 a.m. at the Thunderbird Motor Inn in Medford. Commissioners Richards, Burgess, Bishop, Brill, and Petersen were present. Also present were several members of the Department staff.

The following items were discussed:

1. Legislation update: The Director reviewed the status of the Department's proposed legislation. The woodstove bill was discussed, as well as the tax credit aspects of that bill.
2. Sevin application to Tillamook Bay: A letter from Senator Mike Thorne to the Chairman was read to the Commission members. The letter suggested that the Commission not involve itself in the Sevin issue and requested that the EQC deny the petition submitted by the Oregon Environmental Council.
3. Gary Grimes, Regional Manager of the Southwest Region, reported his office has had a request from the Legislature to prepare a report on the Department's activities relative to gold miners, especially regarding potential enforcement action.

FORMAL MEETING

Commissioners Richards, Burgess, Bishop, Brill, and Petersen were present for the formal meeting.

AGENDA ITEM A: MINUTES OF THE JANUARY 14, 1983 EQC MEETING

It was MOVED by Commissioner Bishop, seconded by Commissioner Petersen and carried unanimously that the Minutes be approved as submitted.

AGENDA ITEM B: MONTHLY ACTIVITY REPORT FOR DECEMBER 1982

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

The Commission requested that Linda Zucker, Hearings Officer, review the Contested Case Log for them at the next meeting.

AGENDA ITEM C: TAX CREDITS

Ron Elsner, Linnton Plywood, spoke in opposition to the Department's recommendation regarding Application T-1572.

Jack Payne, CH2M Hill, outlined reasons why Linnton Plywood should be eligible for solid waste tax credits on the above application.

Robert Oslund, Georgia-Pacific, described in detail why the tax credit on Application T-1578 should be granted for improved solid waste handling.

Bob Brown and Ernie Schmidt, Solid Waste Division, answered questions from the Commission on the above tax credit applications.

It was MOVED by Commissioner Burgess, seconded by Commissioner Bishop, and passed unanimously that the Director's Recommendation be approved. Tax credit applications T-1572 and T-1578 were denied.

PUBLIC FORUM

Alex Austin, Timber Products, thanked the Commission and the Department for their advice and interest and for coming to meet with them in Medford.

AGENDA ITEM D: AUTHORIZATION TO HOLD A PUBLIC HEARING TO CONSIDER  
PROPOSED INCREASES IN AIR CONTAMINANT DISCHARGE PERMIT  
FEES (OAR 340-20-155, TABLE 1, AND OAR 340-20-165).

The Department is proposing to increase the Air Contaminant Discharge Permit fees to partially offset inflationary costs within the permit processing system and to exempt some small sources having negligible air quality impact.

It is proposed to increase the filing fee from \$50 to \$75 and to increase the compliance determination fees an average of 7.8 percent. A public hearing is scheduled for Friday, April 15, 1983.

#### Director's Recommendation

Based upon the summation, it is recommended that the Commission authorize a public hearing to obtain testimony on proposed changes to Air Contaminant Discharge Fees, OAR 340-20-155, Table 1, and OAR 340-20-165.

#### AGENDA ITEM E: REQUEST FOR AUTHORIZATION TO HOLD A PUBLIC HEARING ON A PROPOSED AMENDMENT OF WATER QUALITY PERMIT FEES (OAR 340-45-070, TABLE 2) TO INCREASE REVENUES FOR THE 1983-85 BIENNium.

The Water Quality Division is requesting authorization to hold a hearing regarding an increase in Water Quality Permit Fees.

The revised Water Quality Fee Schedule does the following:

1. Raises filing fees from \$25 to \$50.
2. Increases the fees for land disposal of waste waters to better correspond to the staff time involved.
3. Increases all annual compliance determination fees. The fee increase ranges from \$25 per year for the minor sources up to \$125 per year for major sources.

The hearing is tentatively scheduled for 10:00 a.m., April 15, 1983.

#### Director's Recommendation

Based on the summation, the Director recommends that the Commission authorize the Department to hold a public hearing on a proposed amendment of the Water Quality Permit Fee Schedule (OAR 340-45-070, Table 2).

#### AGENDA ITEM F: REQUEST FOR AUTHORIZATION TO CONDUCT PUBLIC HEARINGS ON PROPOSED AMENDMENTS TO RULES GOVERNING ON-SITE SEWAGE DISPOSAL (INCLUDING PROPOSED FEE INCREASES). OAR 340-71-100 THROUGH 340-71-600 AND 340-73-080.

Agenda Item "F" is a request for authorization to conduct public hearings on the question of amending the On-Site Sewage Disposal Rules. Testimony would be received on several housekeeping and substantive amendments, including adjustments to the schedule of fees. Hearings are proposed to be held in five locations throughout the state on April 5, 1983.

#### Director's Recommendation

Based upon the Summation, it is recommended that the Commission authorize public hearings, to take testimony on the question of amending OAR 340-71-100 through 340-71-600 and OAR 340-73-080, as presented in Attachment C.

AGENDA ITEM G: REQUEST FOR AUTHORIZATION TO CONDUCT A PUBLIC RULEMAKING HEARING FOR ESTABLISHING A SPECIAL GROUNDWATER QUALITY PROTECTION RULE IN THE DESCHUTES BASIN WATER QUALITY MANAGEMENT PLAN OAR 340-41-580(1) FOR THE LAPINE SHALLOW AQUIFER.

Proposed Action to:

Authorize the Department to conduct a public rulemaking hearing for establishing a special water quality protection clause in the Deschutes Basin Water Quality Management Plan (OAR 340-41-580(1) for the LaPine Shallow Aquifer.

During the past two years, Deschutes County has engaged in an intensive groundwater study in and around the LaPine area. The study was completed this past August with the development of the LaPine Aquifer Management Plan. This plan was presented to the public and subsequently accepted by Deschutes County, who instructed staff to implement it.

The Department has developed the proposed rule to show our support for this plan and establish the Commission's policy for protecting the groundwater in the LaPine area.

Director's Recommendation

Based on the Summation, it is recommended that the Commission authorize the Department to conduct a public rulemaking hearing on whether to add a special groundwater quality protection rule to the Deschutes Basin Water Quality Management Plan for the LaPine Area Shallow Aquifer as set forth in Attachment A.

It was MOVED by Commissioner Burgess, seconded by Commissioner Brill, and passed unanimously that the Director's Recommendation on the above four items, Items D, E, F, and G, be approved.

AGENDA ITEM H: PUBLIC HEARING AND CONSIDERATION OF ADOPTION OF THE MEDFORD-ASHLAND AQMA PARTICULATE CONTROL STRATEGY AS A REVISION OF THE STATE OF OREGON CLEAN AIR IMPLEMENTATION PLAN.

This agenda item was scheduled by the Commission at its last meeting to hear public testimony and consider adoption of the Medford particulate control strategy. Over the past two years, the Department has been working with Jackson County, the local Air Quality Advisory Committee and local cities on a plan to deal with the serious particulate problem in the Medford-White City area.

Director's Recommendation

Based on the Summation, the Director recommends that, barring any unforeseen major adverse comments at the hearing, the EQC adopt the Medford-Ashland AQMA Particulate Control Strategy as a revision of the State of Oregon Clean Air Implementation Plan (SIP). The SIP revision includes: primary and secondary standard attainment

strategies; OAR 340-30-020 (revision), OAR 340-30-043 (new), OAR 340-30-044 (new), and OAR 340-30-045 (revision); and redefinition of the nonattainment area boundaries. The documents making up the SIP revision are included in Attachments 3 and 4.

Merlyn Hough, Air Quality Division, outlined for the Commission the Medford/Ashland AQMA particulate control strategy.

John Hallet, Medford City Council and Jackson County Air Quality Committee, spoke in support of the Department's recommendation but opposed the shrinking of the nonattainment boundaries.

John L. Smith, Secretary/Manager, Southern Oregon Timber Industries Association, spoke generally in favor of the Department's proposed action.

Genevieve Sage, Oregon Lung Association, Southern Region, spoke in support of the proposed particulate control strategy.

Jim Capp, Jackson County Planning Coordinator, said that the County supports the Department's strategy but complained that they had no opportunity for input into the decision to reduce the boundaries.

Hayes Rossman, Jackson County Air Quality Committee, had personal concerns about deleting Talent and Phoenix from the boundaries because of their meteorological history.

Vera Morrell, League of Women Voters, supports the Department's proposal.

Patricia Kuhn, former member of Jackson County Air Quality Advisory Committee, spoke generally in favor the Director's Recommendation.

Bill Carlson, Husky Industries, is concerned about the Department's apparent change of direction to controlling emissions to meet the secondary instead of merely the primary standard.

Lynn Newbry, Medford Corporation, supports SOTIA's testimony but does not support the veneer dryer emission standards.

Garrett Andrew, Boise Cascade Corp., spoke to the Commission on the emission control strategy for veneer dryers.

Merlyn Hough, answered questions from the Commission regarding the so-called "trigger mechanism" which had been supported by some of the previous testimony.

It was MOVED by Commissioner Petersen, seconded by Commissioner Bishop, and passed unanimously that the Director's Recommendation be approved, but omitting the sections relating to veneer dryers and the nonattainment area boundaries. These sections should be brought back for consideration of these two matters at the next EQC meeting on April 8. The City of Medford, Jackson County, and the Air Quality Advisory Committee should be invited to review the boundary issue for any additional input before that meeting.

AGENDA ITEM I: REPORT ON DISPOSAL OF LIQUID SCINTILLATION COUNTING WASTE  
AT ARLINGTON POLLUTION CONTROL CENTER.

On March 11, 1981, the Nuclear Regulatory Commission deregulated certain medical research and medical procedure wastes (liquid scintillation counting and animal carcass wastes containing radioactivity) because:

1. The chemical (flammable, toxic) or biological (pathogenic) hazards were greater than the radiological hazard.
2. The chemical or biological fluids could increase the leaching and migration of radioactivity from other wastes in a burial trench.
3. Valuable trench volume (only three commercial low-level radioactive waste disposal sites operating at this time) was being used up by wastes whose principal hazards were chemical or biological.
4. Other acceptable alternatives existed in the form of incinerators, solid or hazardous waste landfills, and sanitary sewers that could handle some or all of the LSC and animal carcass wastes.

In response to this action, the 1981 Legislature provided that these wastes could be treated or disposed of at a licensed hazardous waste disposal facility.

The Department, in cooperation with the Health Division, has determined that liquid scintillation counting waste can be properly managed as an ignitable waste without any rule changes. To provide for management of contaminated animal carcasses would require additional rules. We are not proposing any rules at this time since these wastes can continue to be disposed of at Washington's Hanford site.

It was recommended that the Commission concur with the Department's decision to allow LSC wastes to be disposed of at Arlington under the same prior-approval program as is applied to any other industrial hazardous waste.

Director's Recommendation

Based upon the Evaluation and Conclusion, it is recommended that the Commission concur with the Director's decision to allow LSC waste to be disposed of at the APCC. As with other chemically hazardous waste, generators of LSC wastes would be subjected to the prior approval program currently in effect.

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

AGENDA ITEM J: PROPOSED ADOPTION OF AMENDMENTS TO POLLUTION CONTROL BOND  
FUND RULES FOR SEWERAGE PROJECTS, OAR CHAPTER 340,  
DIVISION 81.

At the December EQC meeting, the Commission authorized the Department to hold a hearing on proposed revised rules for use of the Pollution control Bond Fund for sewerage works construction. The hearing was held January 11, 1983.

The initial proposed rules were modified in two main areas as a result of the testimony:

The definition of the term "loan" was changed to delete a sentence expressing preference for General Obligation Bonds as security for loans. The rules elsewhere require EQC approval of loans secured by other than General Obligation Bonds.

The criteria for prioritizing loan requests were rewritten. This part of the rule is clearly the most complex. Criteria that everyone would consider fair and equitable are difficult if not impossible to develop. We are recommending criteria that draw on available data from the Loan Applicant's adopted budget and plan for facilities. We do not anticipate having to prioritize projects during the next year or two. During this time we propose to test the criteria. Refinements can then be proposed if they prove necessary.

The Department is recommending that the Commission repeal the existing rules OAR 340-81-005 through 81-050) and adopt the rules contained in Attachment D of the staff report in their place.

Director's Recommendation

Based on the Summation, it is recommended that the Commission repeal the existing rules contained in OAR 340-81-005 through 340-81-050 and enact the rules contained in Attachment D in lieu thereof.

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

AGENDA ITEM M: SIGNIFICANT SOUTHWEST REGION ACTIVITIES AND CONCERNS.

It has been nearly two years since the Commission has met in the Southwest Region. This report included a county-by-county presentation of significant environmental activities and concerns in the region.

The report was accepted by the Commission.

There being no further business, the meeting was adjourned.

Respectfully submitted,



Jan Shaw  
EQC Assistant



STATE OF OREGON  
DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

TO:

*Kowalczyk* → *Haze*  
*Jan Shaw*

DATE: May 26, 1983

FROM:

Jan Shaw

SUBJECT: Corrected EQC Minutes

Here is a corrected copy (substitute page 5) of the EQC Minutes for the April 8 meeting for your files.

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED  
MAY 26 1983

AIR QUALITY CONTROL



~~THESE MINUTES ARE NOT FINAL UNTIL APPROVED BY THE EQC~~

MINUTES OF THE ONE HUNDRED FORTY-SEVENTH MEETING

OF THE

OREGON ENVIRONMENTAL QUALITY COMMISSION

April 8, 1983

On Friday, April 8, 1983, the one hundred forty-seventh meeting of the Oregon Environmental Quality Commission convened at Willamette University, Salem, Oregon. Present were Commission members Chairman Joe B. Richards, Mr. Fred J. Burgess, Vice-Chairman; Mr. Wallace B. Brill; and Mr. James Petersen. Commissioner Mary Bishop was absent. Present on behalf of the Department were its Director, William H. Young, and several members of the Department staff.

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

There was no breakfast meeting.

FORMAL MEETING

Commissioners Richards, Burgess, Brill, and Petersen were present for the formal meeting. Commissioner Bishop was absent.

AGENDA ITEM A: MINUTES OF THE FEBRUARY 25, 1983 EQC MEETING

It was MOVED by Commissioner Burgess, seconded by Commissioner Brill and carried unanimously that the Minutes be approved as submitted.

AGENDA ITEM B: MONTHLY ACTIVITY REPORTS FOR JANUARY AND FEBRUARY 1983

It was MOVED by Commissioner Petersen, seconded by Commissioner Burgess and carried unanimously that the Director's Recommendation be approved.

AGENDA ITEM C: TAX CREDITS

It was MOVED by Commissioner Petersen, seconded by Commissioner Burgess, and carried unanimously that the Director's Recommendation be approved.

PUBLIC FORUM

No one chose to appear.

AGENDA ITEM D: REQUEST FOR AUTHORIZATION TO CONDUCT A PUBLIC HEARING ON  
THE MODIFICATION OF RULES FOR HAZARDOUS WASTE STORAGE OR  
TREATMENT BY GENERATORS, OAR 340-63-215(8) and  
340-63-405(1) (a).

Due to a high potential for human health and environmental damage, hazardous waste requires special management controls. This need has been recognized since 1971, when Oregon initially adopted hazardous waste legislation. However, in 1976, the Resource Conservation and Recovery Act made hazardous waste management a federal activity but included provisions for EPA to authorize a state program to operate in lieu of the federal program.

The authorization process consists of Interim and Final Authorization. The purpose of Interim Authorization is to give a state time to bring its program into compliance with federal standards. The DEQ is currently preparing major revisions to its rules with that objective in mind.

Interim Authorization also consists of two phases. The DEQ received Phase I Interim Authorization on July 16, 1981, and is currently seeking Phase II Interim Authorization. The proposed rules will clear up a program deficiency which is currently an obstacle to the DEQ receiving Phase II Interim Authorization.

Director's Recommendation

Based upon the Summation, it is recommended that the Commission authorize a public hearing to take testimony on the proposed modifications of OAR 340-63-215(8) and 340-63-405(1) (a).

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

AGENDA ITEM O: PETITION BY OREGON ENVIRONMENTAL COUNCIL FOR DECLARATORY  
RULING REGARDING DEQ JURISDICTION OVER SPRAYING OF THE  
PESTICIDE SEVIN INTO TILLAMOOK BAY.

The Oregon Environmental Council has, by petition, asked the Commission to issue a Declaratory Ruling to the effect that various provisions of ORS Chapter 468 and OAR Chapter 340 require the DEQ to assume jurisdiction over pest control spraying on oyster beds in Tillamook Bay and require that permits be obtained from DEQ prior to any such spraying.

The Department has exercised its administrative authority and elected not to require such permits because ORS 509.140 specifically gives control of such activities to the Fish and Wildlife Commission.

Since the statutory authority of the Department is quite broad, the Department believes it is appropriate for the Commission to consider the matter and issue a Declaratory Ruling.

The Department recommended that the Commission assign the petition to its hearings officer to hear and propose a ruling for its consideration at a later meeting (Option 2).

#### Director's Recommendation

It is recommended that the Commission accept the petition and assign it to the Commission's Hearings Officer for hearing and preparation of a proposed ruling in accordance with Option 2 above.

John Charles, OEC, had no new testimony but supported the Director's Recommendation. He thinks there is a jurisdictional gap and wants DEQ to act as the lead agency in the water quality aspect of this matter.

David Rhoten, attorney for the oyster growers, claimed that the mid-May spraying date is of a critical nature which, if not met, could cripple or destroy the oyster industry in Oregon.

It was MOVED by Commissioner Burgess, seconded by Commissioner Brill, and passed that the petition be denied.

Commissioner Burgess said he thought it would be useful to review the mechanisms by which state agencies exchange information in their decision-making process. He moved to request staff to put together an appropriate study of the Department's interaction with other agencies to assure that there is adequate information exchange to avoid jurisdictional conflicts in matters like these. Commissioner Brill seconded the motion. Chairman Richards voted no. The motion passed.

#### AGENDA ITEM Q: STATUS OF MARION COUNTY SOLID WASTE PROGRAM AND REQUEST FOR EXTENSION ON CLOSURE OF BROWN'S ISLAND LANDFILL.

Marion County has been trying to locate a new regional landfill to replace Brown's Island since January 1974. The Commission ordered Brown's Island closed by no later than July 1983 and asked for annual progress reports beginning in 1978. Marion County has made considerable progress, but the energy and landfill alternatives are currently before the Court of Appeals on land-use matters and no energy contract has been signed. Fortunately, there is considerable unused space remaining at Brown's Island, space that was expected to be used by 1983. Marion County wants permission to use the space until their alternatives are in place but no later than 1986. Failure to grant this request might force a request for mandatory landfill siting pursuant to ORS 459.047 to .057 (SB-925).

#### Director's Recommendation

Based on the Summation, it is recommended that the Commission approve Marion County's March 11, 1983 extension request, modified as follows:

1. The Department may favorably respond to a request from either Marion County or Brown's Island, Inc., to amend the current Solid Waste Disposal Permit to allow continued disposal of municipal solid waste at Brown's Island until a replacement facility is available or May 29, 1986, whichever comes first, provided current lease agreements at Brown's Island are extended.

2. After May 29, 1986, demolition waste and other approved materials may be accepted at Brown's Island subject to appropriate environmental conditions and until grades prescribed in Department approved site operation and closure plans are achieved. This action neither prohibits nor allows energy facility ash residues at the site.
3. Approvable engineering plans to assure continuing protection against flood hazards and repair of resulting erosion shall be submitted by not later than September 1983 for Department review.
4. A modified site operation and closure plan shall be submitted for Department review and approval by no later than six (6) months before municipal solid waste is delivered to facilities other than Brown's Island.

It is further recommended that Marion County continue to submit annual progress reports on August 1 of each year which show progress toward replacement of Brown's Island and development of a long-range solid waste management program. If at any time it is deemed by the Director that sufficient progress is not being made by the County, the Director should bring it to the immediate attention of the Commission.

Randy Franke, Chairman, Marion County Commission, gave a brief chronology of events in this matter and said that they hoped to begin construction in the fall of this year.

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

AGENDA ITEM M: DEQ v. HAYWORTH, APPEAL OF THE HEARINGS OFFICER'S FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER NO. 33-AQ-WVR-80-187.

This is an appeal of a hearings officer's order affirming a \$4,660 civil penalty for unauthorized open field burning. Respondent has challenged several aspects of the hearings officer's decision.

James Walton, Respondent's attorney, was present to argue his client's position. The Department was represented by Michael Huston, Assistant Attorney General.

The Commission was provided with the parties' briefs and a copy of the transcript of the hearing.

James Walton, attorney for respondents, described the informal practices which he claims the respondent followed and which were tacitly approved by the Department.

Michael Huston, Assistant Attorney General representing the Department, concurred with the hearing officer's opinion.

It was MOVED by Commissioner Petersen and seconded by Commissioner Burgess to accept the respondent's Exceptions 2 and 3 and deny all other exceptions, basically granting the appeal. Commissioners Petersen and Burgess voted

yes. Chairman Richards voted no; Commissioner Brill abstained. The motion failed for lack of a majority vote.

It was MOVED by Commissioner Brill and seconded by Commissioner Burgess to schedule another hearing of the matter before the Commission. Chairman Richards and Commissioner Petersen voted no. The motion failed for lack of a majority, and no action was taken.

The matter was rescheduled for the Work Session at the end of the meeting.

AGENDA ITEM I: PROPOSED ADOPTION OF AMENDMENTS TO VENEER DRYER EMISSION LIMITATIONS (OAR 340-30-020) AND REVISED PARTICULATE NONATTAINMENT AREA BOUNDARIES WITHIN THE MEDFORD-ASHLAND AQMA.

This agenda item continues the discussion from the last EQC meeting on two portions of the Medford particulate control strategy. At the last meeting, the Commission deferred action on proposed revisions to:

- The Medford particulate nonattainment area boundaries; and
- The Medford veneer dryer rule.

Since the last EQC meeting, the Department has discussed these items with the local Air Quality Advisory Committee in two meetings. The Committee's comments from its first meeting are outlined in the staff report.

Director's Recommendation

The Director's recommendation outlined in the staff report remains unchanged. The Commission should be aware, however, that the Department is not strongly opposed to the alternative (to the proposed veneer dryer rule revision) supported by the Jackson County Air Quality Advisory Committee.

Henry Rust, Timber Products, Medford, opposed the Director's Recommendation.

John L. Smith, Secretary/Manager, SOTIA, and Jackson County Air Quality Committee, read into the record a letter from Medford Mayor Lou Hannum which requested a revision to the Medford Particulate Plan which would change to April 1, 1988, the date by which to consider additional control measures to attain and maintain state ambient particulate standards. Mr. Smith opposed Director's Recommendation No. 1 and strongly recommended that the Commission consider Alternative No. 2.

It was MOVED by Commissioner Brill, seconded by Commissioner Burgess, and passed unanimously that Alternative No. 2 (set out below) of the amended staff report and retention of the AQMA boundaries be approved.

2. Revise the Medford Particulate Plan to indicate that a hearing will be held no later than April 1, 1988 to determine and adopt additional control measures which are needed to attain and maintain compliance with state ambient particulate standards (Attachment 4).

AGENDA ITEM E: PROPOSED ADOPTION OF AMENDMENTS TO NOISE CONTROL RULES:  
OAR 340-35-015, 35-025, 35-030, 35-035, 35-040 AND  
35-045 AND PROCEDURE MANUALS: 1, 2, 21, AND 35.

Staff has developed general amendments to the noise control rules and procedure manuals to improve their effectiveness, eliminate misinterpretations, and streamline their implementation. The desired result of these proposed amendments is to ease the implementation of the noise rules by both Department staff and other jurisdictions that are enforcing the state standards. Also, it is hoped that those controlled by these rules will find them more understandable and thus reduce their burden on them and our staff. The proposed amendments were the subject of public hearings in Portland and Medford and were modified as the result of the hearings process.

Director's Recommendation

Based on the Summation, it is recommended that the Commission adopt Attachment B as a permanent rule. Attachment B includes:

- a) Proposed Amended Definition, OAR 340-35-015.
- b) Proposed Amended Noise Control Regulations for the Sale of New Motor Vehicles, OAR 340-35-030.
- c) Proposed Amended Noise Control Regulations for In-Use Motor Vehicles, OAR 340-35-030.
- d) Proposed Amended Noise Control Regulations for Industry and Commerce, OAR 340-35-035.
- e) Proposed Amended Noise Control Regulations for Motor Sports Vehicles and Facilities, OAR 340-35-040.
- f) Proposed Amended Noise Control Regulations for Airports, OAR 340-35-040.
- g) Proposed Amended Sound Measurement Procedure Manual, NPC-1.
- h) Proposed Amended Requirements for Sound Measuring Equipment and Personnel, NPC-2.
- i) Proposed Amended Motor Vehicle Sound Measurement Procedures Manual, NPC-21.
- j) Proposed Amended Motor Race Vehicles and Facility Sound Measurement and Procedure Manual, NPC-35.

Bill Paulus, West Coast Grocers, spoke in opposition to the Director's Recommendation and described noise problems inherent in grocery facilities.

Ken Anderson, neighbor of West Coast Grocers facility in Salem, complained of high decibel readings in his residence from idling trucks which also affects three other residences in that area.

Dick Huntley, Operations Manager of West Coast, described the uses of the facility's areas adjacent to the noise-sensitive residences.

The Department received a telegram from the Motorcycle Industry Council with some proposed changes to the proposed Table 4's moving test limits for off-road recreational vehicles, and it was submitted to the Commission for their consideration.

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

AGENDA ITEM F: ADOPTION OF PROPOSED CHANGES IN THE NEW SOURCE REVIEW, HOT MIX ASPHALT PLANT, VOLATILE ORGANIC COMPOUND AND STACK HEIGHT RULES IN THE STATE IMPLEMENTATION PLAN.

The Department is proposing several changes in the New Source Review, Hot Mix Asphalt Plant, Volatile Organic Compound, and Stack Height rules. These proposed changes are of a minor nature, and the Department feels that these changes will have no significant impact on air quality or sources. A public hearing was held on the proposed rule revisions on January 17, 1983. Several minor changes were made in response to the comments received, and it is now recommended that the proposed rule revisions be adopted.

Director's Recommendation

Based on the above Summation and after considering the public comments that were submitted, it is recommended that the Commission adopt the proposed rule changes shown in Attachment 5 and incorporate them into the State Implementation Plan.

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

AGENDA ITEM G: REQUEST FOR ADOPTION OF RULES FOR THE NORTH FLORENCE DUNAL AQUIFER IN LANE COUNTY THAT WOULD:

- (1) MODIFY GEOGRAPHIC AREA RULE OAR 340-7-400 (2) FOR THE GENERAL NORTH FLORENCE AQUIFER; AND
- (2) ESTABLISH SPECIAL WATER QUALITY PROTECTION FOR CLEAR LAKE AND ITS WATERSHED BY ADDING A SPECIAL PROTECTION CLAUSE TO THE MID-COAST BASIN WATER QUALITY MANAGEMENT PLAN, OAR 340-41-270 AND ESTABLISH A MORATORIUM ON NEW ON-SITE WASTE DISPOSAL SYSTEMS, OAR 340-71-460 (6) (f).

The 208 project is now complete and the Commission is being requested to take action to protect water quality in the Clear Lake watershed and the North Florence dunal aquifer area. The watershed and the aquifer area are two distinct hydrological units, and somewhat different control strategies are being requested for each unit.

By way of background, the Commission adopted a geographic area rule to protect the dunal aquifer on an interim basis in September 1980, pending completion of the study. The Lane County Commissioners, after completion of the study, and after numerous public meetings and a hearing, adopted an order on October 27, 1982: 1) establishing a land division and construction moratorium within Clear Lake watershed; and 2) petitioning the EQC to amend the geographic area rule.

On December 3, 1982, the EQC authorized the Department to conduct a public hearing. The hearing was held on February 16, 1983. Based on the 208 study recommendation, Lane County actions, and the testimony given at the hearing, the Department is requesting EQC action to:

1. Modify the geographic area rule (Attachment 1) to protect North Florence dunal aquifer area.

2. Amend the Mid-Coast Basin Water Quality Management Plan (Attachment B) and adopt a new moratorium rule (Attachment C) to protect the Clear Lake watershed to maintain it as a pristine domestic water supply.

Director's Recommendation

Based on the findings in the Summation, it is recommended that the Commission:

1. Amend the North Florence Geographic Area Rule, OAR 340-71-400(2) by deleting the current rule language and adopt the new language contained in Attachment A.
2. Amend the Mid-Coast Basin Water Quality Management Plan, by adopting a Special Policies and Guidelines section, OAR 340-41-270, (Attachment B).
3. Adopt the Clear Lake Watershed Specific Moratorium Rule, OAR 340-71-460(6) (f), (Attachment C).

Roy Burns, Lane County, answered questions from the Commission regarding the boundaries of the aquifer. He suggested new language be included in Attachment C of the proposed moratorium rule.

Tom Nicholson, Nicholson & Clark, Attorneys, Florence, representing residents in the moratorium area, supports Roy Burns' April 6 memorandum regarding a two-year time limitation. They oppose the moratorium because there are no time limitations in place.

It was MOVED by Commissioner Burgess, seconded by Commissioner Petersen, and passed unanimously that the Director's Recommendation be approved with the following added language:

"A new moratorium area rule to remain in effect until July 1, 1985,  
OAR 340-71-460(6) (f), is hereby adopted as follows:"

(Underlined language is added.)

AGENDA ITEM H: PROPOSED REPEAL OF MID-WILLAMETTE AREA NUISANCE RULE,  
OAR 340-29-020, IN RESPONSE TO COMMENTS BY LEGISLATIVE  
COUNSEL.

The Commission adopted an air pollution nuisance rule (340-29-020) on June 11, 1982. A Legislative Counsel Committee's October 22, 1982 letter and report singled out the rule as not being within the cited enabling legislation and as being too vague to be constitutional.

A hearing in February authorized by the Commission did not receive any testimony on this matter.

After evaluating the arguments for repealing, repairing, or retaining the rule, the Department is now recommending that the Commission repeal the rule.

### Director's Recommendation

Based on the Summation, it is recommended that the Commission repeal OAR 340-29-020.

It was MOVED by Commissioner Petersen, seconded by Commissioner Burgess, and passed unanimously that the Director's Recommendation be approved. The staff was further directed to look into the possibility of proposing a rule which would cover those situations in which the public health was not necessarily endangered but which would be considered a public nuisance situation.

AGENDA ITEM J: REQUEST FOR AN ADDITIONAL EXTENSION OF A VARIANCE FROM OAR 340-25-315(1) (b), DRYER EMISSION LIMITS, BY MT. MAZAMA PLYWOOD COMPANY, SUPPLEMENTARY REPORT TO THE DECEMBER 3, 1982 EQC MEETING.

This is a request by Mt. Mazama Plywood Company for an additional time extension on a variance from veneer dryer emission standards for their mill located in Sutherlin. An interim time extension was granted by the Commission on December 3, 1982. The company has proposed a schedule to achieve compliance by August 1984.

The Department is recommending a compliance schedule to complete emission controls at an earlier date than has been proposed by the company.

### Director's Recommendation

Based on the Summation, it is recommended that the Commission grant an extension to the variance with final compliance and incremental progress steps for Mt. Mazama Plywood Company as follows:

1. By July 1, 1983, issue purchase orders for all major emission control equipment components.
2. By December 1, 1983, begin construction and/or installation of the emission control equipment.
3. By May 1, 1984, complete installation of emission control equipment and demonstrate compliance with both mass emission and visible standards.

James Klein, Mt. Mazama Plywood, reiterated his company's position on this matter which is that the company would unquestionably shut down if they are required to comply with the Department's recommendation.

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

AGENDA ITEM K: REQUEST FOR A VARIANCE FROM OAR 340-21-015(2) (b), VISUAL  
EMISSION LIMITS, OAR 340-21-060(2), FUGITIVE EMISSIONS FOR  
OREGON SUN RANCH, INC., PRINEVILLE.

Oregon Sun Ranch operates a cat litter packaging plant northwest of the city of Prineville. Dust from unloading bulk bentonite creates a serious nuisance for neighbors. The company has failed to meet specific dates for purchasing dust-control equipment and has submitted another schedule which could result in compliance by mid-May. The company would like a variance encompassing this compliance schedule.

Director's Recommendation

Based upon the findings in the Summation, it is recommended that the Commission deny the original variance from OAR 340-21-015(2) (b), OAR 340-21-030(2) and OAR 340-21-060(2) as requested by Oregon Sun Ranch, Inc.; it is also recommended that the Commission approve a variance from the above rules to May 2, 1983 and if final design and construction drawings are submitted to the Department on this date, extend the variance to May 9, 1983 and if construction begins on this date, extend the variance to May 16, 1983. If any of these dates are not met, the variance is automatically terminated. If these dates are not met and the facility continues to operate, the Department be directed to take appropriate enforcement action to achieve compliance at the Prineville facility.

Chester Christ, representing neighbors of Oregon Sun Ranch, Prineville, questioned the accuracy of the company's unaudited financial statement and described some pictures of the alleged dust clouds from the plant.

Barbara Haslinger, attorney for Oregon Sun Ranch, asked for a ten-day grace period to be included after any possible termination date of the variance. She claimed that the company is committed to the suggested system even though it is a financial hardship.

Bob Danko, DEQ Bend office, in answer to a question from the Commission, replied that he thought the company was on a good compliance pattern.

It was MOVED by Commissioner Burgess, seconded by Commissioner Brill, and passed that the Director's Recommendation from the amended staff report be approved. The word "revoked" in that Recommendation was changed to "terminated." Commissioner Petersen voted no.

Chairman Richards left the meeting room at this point and returned later in the meeting.

AGENDA ITEM L: APPEAL OF GAILLEN ADAMS FROM HEARINGS OFFICER'S DECISION  
IN CASE NO. 31-SS-NWR-82-51.

The Department assessed a \$100 civil penalty against Gailen Adams for installing a portion of a subsurface sewage disposal system without first obtaining the required permit, and Mr. Adams requested a hearing to challenge the penalty. The hearing officer found, in part, that the work performed by Mr. Adams, a licensed installer, constituted unpermitted installation of a portion of a system and affirmed the penalty. Mr. Adams now asks the Commission to review the hearings officer's decision.

Gailen Adams, Rt 1, Box 172, Otis, described the circumstances under which he began backhoe work on Ronald Cook's property, which unpermitted work is the subject of this civil penalty. He claimed he was told by Cook that Cook had a permit, but he did not see that permit.

Ronald Cook, property owner, confirmed what Adams had said.

It was MOVED by Commissioner Brill, seconded by Commissioner Petersen, and passed unanimously that the hearing officer's decision be upheld. The appeal was denied.

Chairman Richards had returned by this time but abstained from voting on this matter.

AGENDA ITEM N: REQUEST FOR RECONSIDERATION OR REHEARING ON DALE MOORE  
ON-SITE SEWAGE SYSTEM VARIANCE APPEAL.

At the October 15, 1982 EQC meeting, the Commission affirmed the variance officer's decision to deny a requested variance from on-site sewage disposal rules by Dale Moore for property located in Tillamook County.

Mr. Moore has petitioned the Commission to reconsider its denial and refer the matter back to the variance officer with instructions to articulate his concerns about the applicant's proposed design and give the applicant an opportunity to satisfy those concerns.

This matter was initially scheduled for the January 14, 1983 meeting but was deferred at the request of the applicant.

As indicated in the January 14, 1983 staff report, the Department believes the variance officer has properly rendered a decision and recommends that the Commission let stand its prior decision on the appeal.

Jonathan Hoffman, attorney for the applicant, described his client's reasons for a request for reconsideration of this matter.

Steve Wilson, Earth Sciences, Inc., answered technical questions from the Commission.

It was MOVED by Commissioner Petersen, seconded by Commissioner Brill, and passed unanimously that the variance be granted. The Commission voted not to rehear the matter but to reconsider its earlier position and grant the variance request. The matter was remanded to the variance officer to prepare the variance.

AGENDA ITEM M (continued):

James Walton, requested to be released from any previous agreement with the Commission to remand the previous vote to the consideration of the fifth (and absent) member of the Commission. The Commission agreed that they would not hold Mr. Walton to this agreement. He will submit a brief and the Department will file an Answer on the dispute regarding the validity of the previous vote.

Chairman Richards left the meeting at this point.

AGENDA ITEM S: INFORMATIONAL REPORT ON THE MOTOR VEHICLE EMISSION  
INSPECTION PROGRAM 1981-1982

This is an informational report on the operation of the Motor Vehicle Emission Inspection Program. The purpose of this report is to provide the Commission a summary and update on the program's operation during 1981 and 1982. The report contains an overview summary followed by various appendices, which describe legislative history, program operations, emission characteristics of vehicles, air quality discussion and other support documentation about the program.

Director's Recommendation

It is recommended that the Commission accept this informational report on the motor vehicle emission inspection program.

Bill Jasper, Vehicle Inspection Division, reviewed the accomplishments of the VIP program for the 1981-82 period.

It was MOVED by Commissioner Petersen, seconded by Commissioner Brill, and passed unanimously that the report be accepted.

AGENDA ITEM U: INFORMATIONAL REPORT: CONTESTED CASE STATUS.

In response to Chairman's Richards request at the last EQC meeting on April 8, EQC Hearing Officer Linda Zucker prepared a report on the status of some long-time contested cases and presented it to the Commission.

The report was accepted.

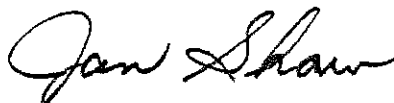
It was MOVED by Commissioner Brill, seconded by Commissioner Petersen, and passed unanimously that the meeting be adjourned and to move into a work session for further field burning discussion.

WORK SESSION

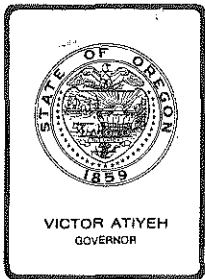
Sean O'Connell, Manager of the Field Burning Program, outlined at length for the Commission the changes and improvements which have been made since this 1980 case in the field burning program and described how unlikely it is that misunderstanding of the rules or perceived accepted methods could occur now. The Commission will await Mr. Walton's brief and the Department's Answer on the question of the validity of the previous votes of the Commission in this matter. When that question is resolved, the Commission may reconsider the Hayworth Farm's appeal at a future meeting.

There being no further discussion, the group adjourned.

Respectfully submitted,



Jan Shaw  
EQC Assistant



## *Environmental Quality Commission*

Mailing Address: BOX 1760, PORTLAND, OR 97207

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

### MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. B, April 8, 1983, EQC Meeting  
January and February, 1983 Program Activity Reports

### Discussion

Attached are the January and February, 1983 Program Activity Reports.

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

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

The purposes of this report are:

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

### Recommendation

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

*William H. Young*  
William H. Young  
Director

M. Downs:k  
229-6485  
March 17, 1982  
Attachments  
MK616 (1)

DEPARTMENT OF ENVIRONMENTAL QUALITY

Monthly Activity Report

January and February 1983

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| Summary of Noise Control Actions .....                 | 18                            | 39                             |
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## DEPARTMENT OF ENVIRONMENTAL QUALITY

## MONTHLY ACTIVITY REPORT

AQ, WQ, SW Divisions  
(Reporting Unit)

January 1983  
(Month and Year)

SUMMARY OF PLAN ACTIONS

|                                                   | Plans<br>Received |           | Plans<br>Approved |           | Plans<br>Disapproved |           | Plans<br>Pending |
|---------------------------------------------------|-------------------|-----------|-------------------|-----------|----------------------|-----------|------------------|
|                                                   | <u>Month</u>      | <u>FY</u> | <u>Month</u>      | <u>FY</u> | <u>Month</u>         | <u>FY</u> |                  |
| <u>Air</u>                                        |                   |           |                   |           |                      |           |                  |
| Direct Sources                                    | 4                 | 38        | 5                 | 47        | 0                    | 0         | 11               |
| Small Gasoline<br>Storage Tanks<br>Vapor Controls | 0                 | 0         | 0                 | 0         | 0                    | 0         | 0                |
| TOTAL                                             | 4                 | 38        | 5                 | 47        | 0                    | 0         | 11               |
| <u>Water</u>                                      |                   |           |                   |           |                      |           |                  |
| Municipal                                         | 13                | 105       | 7                 | 92        | 0                    | 3         | 18               |
| Industrial                                        | 4                 | 31        | 0                 | 44        | 0                    | 0         | 7                |
| TOTAL                                             | 17                | 136       | 7                 | 136       | 0                    | 3         | 25               |
| <u>Solid Waste</u>                                |                   |           |                   |           |                      |           |                  |
| Gen. Refuse                                       | 1                 | 13        | 0                 | 9         | 0                    | 0         | 4                |
| Demolition                                        | 0                 | 0         | 0                 | 0         | 0                    | 0         | 0                |
| Industrial                                        | 1                 | 12        | 1                 | 11        | 0                    | 0         | 5                |
| Sludge                                            | 4                 | 7         | 4                 | 8         | 0                    | 0         | 0                |
| TOTAL                                             | 6                 | 32        | 5                 | 28        | 0                    | 0         | 9                |
| <u>Hazardous<br/>Wastes</u>                       | -                 | -         | -                 | -         | -                    | -         | -                |
| <br><u>GRAND TOTAL</u>                            | <br>27            | <br>206   | <br>17            | <br>211   | <br>0                | <br>3     | <br>45           |

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

| COUNTY                               | NUMBER | SOURCE                  | PROCESS DESCRIPTION       | DATE OF ACTION | ACTION    |
|--------------------------------------|--------|-------------------------|---------------------------|----------------|-----------|
| MULTNOMAH                            | 687    | CONTINENTAL LIME INC    | STORAGE/TRANSFER FACILITY | 01/25/83       | WITHDRAWN |
| JACKSON                              | 833    | BOISE CASCADE CORP      | STUD MACHINE INSTAL       | 01/10/83       | APPROVED  |
| MULTNOMAH                            | 871    | CASCADE CONSTRUCTION CO | BAGHOUSE UPGRADING        | 01/11/83       | APPROVED  |
| JACKSON                              | 877    | SISKIYOU MEMORIAL PARK  | REPLACEMENT CREMATOR      | 01/28/83       | APPROVED  |
| MULTNOMAH                            | 878    | LITTLE CHAPEL OF CHIMES | REPLACEMENT CREMATOR      | 01/23/83       | APPROVED  |
| TOTAL NUMBER QUICK LOOK REPORT LINES |        |                         | 5                         |                |           |

# DEPARTMENT OF ENVIRONMENTAL QUALITY

## MONTHLY ACTIVITY REPORT

Air Quality Division  
(Reporting Unit)

January, 1983  
(Month and Year)

### SUMMARY OF AIR PERMIT ACTIONS

|                         | Permit<br>Actions<br>Received |           | Permit<br>Actions<br>Completed |           | Permit<br>Actions<br>Pending | Sources<br>Under<br>Permits | Sources<br>Reqr'g<br>Permits |
|-------------------------|-------------------------------|-----------|--------------------------------|-----------|------------------------------|-----------------------------|------------------------------|
|                         | <u>Month</u>                  | <u>FY</u> | <u>Month</u>                   | <u>FY</u> |                              |                             |                              |
| <u>Direct Sources</u>   |                               |           |                                |           |                              |                             |                              |
| New                     | 2                             | 22        | 3                              | 17        | 19                           |                             |                              |
| Existing                | 3                             | 6         | 0                              | 16        | 16                           |                             |                              |
| Renewals                | 9                             | 91        | 11                             | 72        | 87                           |                             |                              |
| Modifications           | <u>4</u>                      | <u>23</u> | <u>1</u>                       | <u>24</u> | <u>20</u>                    |                             |                              |
| TOTAL                   | 18                            | 142       | 15                             | 129       | 142                          | 1733                        | 1768                         |
| <u>Indirect Sources</u> |                               |           |                                |           |                              |                             |                              |
| New                     | 0                             | 3         | 2                              | 4         | 2                            |                             |                              |
| Existing                | 0                             | 0         | 0                              | 0         | 0                            |                             |                              |
| Renewals                | 0                             | 0         | 0                              | 0         | 0                            |                             |                              |
| Modifications           | <u>2</u>                      | <u>2</u>  | <u>2</u>                       | <u>2</u>  | <u>2</u>                     |                             |                              |
| TOTAL                   | 2                             | 5         | 4                              | 6         | 4                            | 206                         | 208                          |
| <u>GRAND TOTALS</u>     | 20                            | 147       | 19                             | 135       | 146                          | 1939                        | 1976                         |

### Number of Pending Permits

### Comments

|            |                                              |
|------------|----------------------------------------------|
| 19         | To be reviewed by Northwest Region           |
| 8          | To be reviewed by Willamette Valley Region   |
| 6          | To be reviewed by Southwest Region           |
| 3          | To be reviewed by Central Region             |
| 3          | To be reviewed by Eastern Region             |
| 26         | To be reviewed by Program Planning Section   |
| 30         | To be reviewed by Program Operations Section |
| 31         | Awaiting Public Notice                       |
| 16         | Awaiting end of 30-day period                |
| <u>142</u> | TOTAL                                        |

AZ72  
MAR.5 (8/79)

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

| COUNTY      | SOURCE                    | PERMIT<br>NUMBER | APPL.<br>RECEIVED | STATUS        | DATE<br>ACHIEVED | TYPE<br>APPL. PSEL |
|-------------|---------------------------|------------------|-------------------|---------------|------------------|--------------------|
| CLACKAMAS   | ESTACADA ROCK PRODUCTS    | 03               | 2570 10/15/82     | PERMIT ISSUED | 01/03/83         | RNW                |
| MULTNOMAH   | ASH GROVE CEMENT CO       | 26               | 1591 03/10/82     | PERMIT ISSUED | 01/03/83         | MOD                |
| MULTNOMAH   | BUNGE CORPORATION (KERR)  | 26               | 2003 07/14/82     | PERMIT ISSUED | 01/03/83         | RNW                |
| POLK        | VALLEY CONCRETE           | 27               | 4022 07/28/82     | PERMIT ISSUED | 01/03/83         | RNW                |
| YAMHILL     | CC HEISEL COMPANY INC     | 36               | 5310 03/17/82     | PERMIT ISSUED | 01/03/83         | RNW                |
| PORT.SOURCE | PETER KIEWIT SON'S CO     | 37               | 0095 10/01/82     | PERMIT ISSUED | 01/03/83         | RNW Y              |
| PORT.SOURCE | JOHNSON ROCK PRODUCTS INC | 37               | 0201 12/01/82     | PERMIT ISSUED | 01/03/83         | RNW Y              |
| PORT.SOURCE | WILDISH MEDFORD S & G CO. | 37               | 0250 12/01/82     | PERMIT ISSUED | 01/03/83         | RNW                |
| JACKSON     | WHITE CITY DRY KILN INC.  | 15               | 0053 04/26/82     | PERMIT ISSUED | 01/17/83         | RNW                |
| MARION      | COMMERCIAL SAND & GRAVEL  | 24               | 5947 09/21/82     | PERMIT ISSUED | 01/17/83         | RNW                |
| PORT.SOURCE | TILLAMOOK COUNTY CRUSHER  | 37               | 0185 09/03/82     | PERMIT ISSUED | 01/17/83         | RNW                |
| PORT.SOURCE | NORTHWEST SAND & GRVEL PD | 37               | 0283 11/02/82     | PERMIT ISSUED | 01/17/83         | RNW                |
| PORT.SOURCE | HOWARD LOGSDON LOGGING    | 37               | 0294 10/13/82     | PERMIT ISSUED | 01/17/83         | NEW                |
| PORT.SOURCE | BALL, BALL & BROSAMER INC | 37               | 0295 09/09/82     | PERMIT ISSUED | 01/17/83         | NEW                |
| UMATILLA    | ALUMAX PACIFIC CORP       | 30               | 0074 08/24/82     | PERMIT ISSUED | 01/20/83         | NEW                |

TOTAL NUMBER QUICK LOOK REPORT LINES 15

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Air Quality Division

January, 1983

(Reporting Unit)

(Month and Year)

PERMIT ACTIONS COMPLETED

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

Indirect Sources

|            |                                                                  |          |                                       |
|------------|------------------------------------------------------------------|----------|---------------------------------------|
| Washington | Koll Center Creekside,<br>588 Spaces<br>File No. 39-8207         | 01/09/83 | Final<br>Permit<br>Issued             |
| Marion     | Salem Hospital Parking<br>Garage, 652 Spaces<br>File No. 24-8206 | 01/07/83 | Final<br>Permit<br>Issued             |
| Multnomah  | Banfield Transitway<br>Addendum No. 2<br>File No. 26-8012        | 01/28/83 | Final<br>Permit<br>Addendum<br>Issued |
| Jackson    | Rogue Valley Mall<br>Addendum No. 1<br>File No. 15-7926          | 01/28/83 | Final<br>Permit<br>Addendum<br>Issued |

MAR.6 (5/79)

## DEPARTMENT OF ENVIRONMENTAL QUALITY

## MONTHLY ACTIVITY REPORT

Water Quality Division  
(Reporting Unit)

January 1983  
(Month and Year)

PLAN ACTIONS COMPLETED (7)

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

MUNICIPAL WASTE SOURCES

|           |                                                                              |         |      |
|-----------|------------------------------------------------------------------------------|---------|------|
| Clatsop   | Sports Acres R.V. Park<br>Sewage Systems                                     | 1/7/83  | P.A. |
| Lane      | MWMC (C-74)<br>Springfield Sewer Collection<br>System Rehabilitation (MAJOR) | 1/12/83 | P.A. |
| Lane      | MWMC (C-75)<br>Eugene Minor Rehabilitation                                   | 1/12/83 | P.A. |
| Lane      | MWMC (C-12 rebid)<br>Willakenzie Pump Station                                | 1/12/83 | P.A. |
| Lane      | MWMC (E-10)<br>Willakenzie Pump Station Pumps                                | 1/12/83 | P.A. |
| Lane      | MWMC (E-41 rebid)<br>Aerators (AGRIPAC)                                      | 1/12/83 | P.A. |
| Multnomah | Lateral A, Sandy Crest<br>Central County Service District                    | 1/25/83 | P.A. |

MAR.3 (5/79) WG2040

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality Division

(Reporting Unit)

January 1983

(Month and Year)

PLAN ACTIONS COMPLETED 7

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

INDUSTRIAL WASTE SOURCES 0

## DEPARTMENT OF ENVIRONMENTAL QUALITY

## MONTHLY ACTIVITY REPORT

Water Quality Division  
(Reporting Unit)

January, 1983  
(Month and Year)

SUMMARY OF WATER PERMIT ACTIONS

|                                                 | Permit Actions<br>Received |         | Permit Actions<br>Completed |         | Permit<br>Actions<br>Pending | Sources<br>Under<br>Permits | Sources<br>Reqr'g<br>Permits |
|-------------------------------------------------|----------------------------|---------|-----------------------------|---------|------------------------------|-----------------------------|------------------------------|
|                                                 | Month                      | Fis.Yr. | Month                       | Fis.Yr. |                              |                             |                              |
|                                                 | * /**                      | * /**   | * /**                       | * /**   | * /**                        | * /**                       | * /**                        |
| <u>Municipal</u>                                |                            |         |                             |         |                              |                             |                              |
| New                                             | 1 /0                       | 1 /9    | 0 /2                        | 1 /16   | 1 /6                         |                             |                              |
| Existing                                        | 0 /0                       | 0 /0    | 0 /0                        | 0 /0    | 0 /0                         |                             |                              |
| Renewals                                        | 4 /1                       | 47 /8   | 15 /1                       | 31 /8   | 47 /5                        |                             |                              |
| Modifications                                   | 1 /0                       | 2 /1    | 0 /1                        | 1 /1    | 1 /0                         |                             |                              |
| Total                                           | 6 /1                       | 50 /18  | 15 /4                       | 33 /25  | 49 /11                       | 240/122                     | 241/128                      |
| <u>Industrial</u>                               |                            |         |                             |         |                              |                             |                              |
| New                                             | 0 /0                       | 3 /6    | 0 /3                        | 4 /4    | 2 /3                         |                             |                              |
| Existing                                        | 0 /0                       | 0 /0    | 0 /0                        | 0 /0    | 0 /1                         |                             |                              |
| Renewals                                        | 1 /3                       | 23 /24  | 4 /4                        | 13 /17  | 46 /19                       |                             |                              |
| Modifications                                   | 0 /0                       | 3 /0    | 1 /0                        | 4 /0    | 1 /0                         |                             |                              |
| Total                                           | 1 /3                       | 29 /30  | 5 /7                        | 21 /21  | 49 /23                       | 381/192                     | 383/196                      |
| <u>Agricultural (Hatcheries, Dairies, etc.)</u> |                            |         |                             |         |                              |                             |                              |
| New                                             | 0 /0                       | 0 /0    | 0 /0                        | 1 /0    | 1 /0                         |                             |                              |
| Existing                                        | 0 /0                       | 0 /0    | 0 /0                        | 0 /0    | 0 /0                         |                             |                              |
| Renewals                                        | 0 /0                       | 0 /0    | 0 /1                        | 0 /1    | 0 /0                         |                             |                              |
| Modifications                                   | 0 /0                       | 0 /0    | 0 /0                        | 0 /0    | 0 /0                         |                             |                              |
| Total                                           | 0 /0                       | 0 /0    | 0 /1                        | 1 /0    | 1 /0                         | 60 /15                      | 61 /15                       |
| <u>GRAND TOTALS</u>                             | 7 /4                       | 79 /48  | 20 /12                      | 55 /47  | 99 /34                       | 681/329                     | 685/339                      |

\* NPDES Permits

\*\* State Permits

14 General Permits Granted

MAR.5W (8/79) WG2025

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality Division  
(Reporting Unit)

January, 1983  
(Month and Year)

PERMIT ACTIONS COMPLETED

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

MUNICIPAL AND INDUSTRIAL SOURCES - NPDES (19)

|           |                                                          |         |                |
|-----------|----------------------------------------------------------|---------|----------------|
| Benton    | Knoll Terrace Park<br>STP, Lewisburg                     | 1-6-83  | Permit Renewed |
| Douglas   | Canyonville, STP                                         | 1-6-83  | Permit Renewed |
| Polk      | Independence, STP                                        | 1-6-83  | Permit Renewed |
| Polk      | Monmouth, STP                                            | 1-6-83  | Permit Renewed |
| Douglas   | Sutherlin, STP                                           | 1-6-83  | Permit Renewed |
| Yamhill   | Willamina, STP                                           | 1-6-83  | Permit Renewed |
| Lane      | Champ. International Corp.<br>Mapleton                   | 1-21-83 | Permit Renewed |
| Benton    | Corvallis Mobile Home Park<br>STP, Corvallis             | 1-21-83 | Permit Renewed |
| Lane      | Creswell, STP                                            | 1-21-83 | Permit Renewed |
| Umatilla  | Hermiston, STP                                           | 1-21-83 | Permit Renewed |
| Klamath   | Merrill, STP                                             | 1-21-83 | Permit Renewed |
| Yamhill   | Publishers Paper Co.<br>Newberg                          | 1-21-83 | Permit Renewed |
| Lane      | Springfield, STP                                         | 1-21-83 | Permit Renewed |
| Umatilla  | Stanfield, STP                                           | 1-21-83 | Permit Renewed |
| Linn      | Sunny Service Stations, Inc.<br>STP                      | 1-21-83 | Permit Renewed |
| Benton    | West Hills S.D., STP                                     | 1-21-83 | Permit Renewed |
| Benton    | Western Pulp Products Co.<br>Corvallis Airport Ind. Park | 1-21-83 | Permit Renewed |
| Linn      | Willamette Industries<br>Albany Pulp & Paper             | 1-21-83 | Permit Renewed |
| Clackamas | Wilsonville, STP                                         | 1-21-83 | Permit Renewed |

MAR.6 (5/79) WG1800

## DEPARTMENT OF ENVIRONMENTAL QUALITY

## MONTHLY ACTIVITY REPORT

|                                                   |                                          |
|---------------------------------------------------|------------------------------------------|
| <u>Water Quality Division</u><br>(Reporting Unit) | <u>January, 1983</u><br>(Month and Year) |
|---------------------------------------------------|------------------------------------------|

PERMIT ACTIONS COMPLETED

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

MUNICIPAL AND INDUSTRIAL SOURCES - STATE PERMITS (11)

|            |                                                      |          |                |
|------------|------------------------------------------------------|----------|----------------|
| Hood       | Arlie Bryant Co.<br>Asphaltic Plant<br>Hood River    | 1-6-83   | Permit Renewed |
| Marion     | Mallories Dairy Inc.<br>Silverton                    | 1-6-83   | Permit Renewed |
| Umatilla   | Alumax Pacific Corp.<br>Umatilla                     | 1-6-83   | Permit Issued  |
| Washington | Resers Fine Foods, Inc.<br>Beaverton-Food processing | 1-6-83   | Permit Issued  |
| Yamhill    | Stayton Canning Co.<br>Dayton Plant                  | 1-6-83   | Permit Renewed |
| Umatilla   | Hermiston Hide & Tallow<br>Hermiston                 | 1-26-83  | Permit Issued  |
| Marion     | McKillip Bros. Meat Co.<br>St. Paul                  | 1-26-813 | Permit Renewed |
| Marion     | Shiny Rock Mining Corp.<br>Mehama-Jawbone Flats      | 1-26-83  | Permit Renewed |
| Clatsop    | Sport Acres R.V. Park, STP                           | 1-26-83  | Permit Issued  |
| Jackson    | U. S. Dept. of Interior<br>Hyatt Lake, STP           | 1-26-83  | Permit Issued  |
| Harney     | Harney Co. School District<br>UHIJ & 4, STP          | 1-26-83  | Permit Renewed |

MUNICIPAL AND INDUSTRIAL SOURCES - MODIFICATIONS (2)

|           |                                                             |         |             |
|-----------|-------------------------------------------------------------|---------|-------------|
| Multnomah | Crown Zellerbach<br>Flexible Packaging Division<br>Portland | 1-6-83  | Addendum #1 |
| Marion    | Donald, STP                                                 | 1-26-83 | Addendum #1 |

MAR.6 (5/79) WG1800

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

|                                                   |                                          |
|---------------------------------------------------|------------------------------------------|
| <u>Water Quality Division</u><br>(Reporting Unit) | <u>January, 1983</u><br>(Month and Year) |
|---------------------------------------------------|------------------------------------------|

PERMIT ACTIONS COMPLETED

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

MUNICIPAL AND INDUSTRIAL SOURCES - GENERAL PERMITS (14)

Cooling Water, Permit 0100-J, File 32539 (4)

|           |                                                                      |         |                                  |
|-----------|----------------------------------------------------------------------|---------|----------------------------------|
| Multnomah | Owens-Illinois, Incorporated<br>Glass Container Division<br>Portland | 1-18-83 | Transferred to<br>General Permit |
| Lane      | Eugene Water & Electric<br>Leaburg Project<br>Eugene                 | 1-24-83 | Transferred to<br>General Permit |
| Lane      | Eugene Water & Electric<br>Carmen-Smith Project<br>Eugene            | 1-24-83 | Transferred to<br>General Permit |
| Lane      | Eugene Water & Electric<br>Walterville Project<br>Eugene             | 1-24-83 | Transferred to<br>General Permit |

Filter Backwash, Permit 0200J, File 32540 (2)

|         |                                 |         |                                  |
|---------|---------------------------------|---------|----------------------------------|
| Douglas | Milo Academy<br>WTP, Days Creek | 1-13-83 | Transferred to<br>General Permit |
| Wasco   | The Dalles, WTP                 | 1-26-83 | Transferred to<br>General Permit |

Aquatic Animal Production, Permit 0300J, File 32560 (2)

|        |                                                       |         |                                  |
|--------|-------------------------------------------------------|---------|----------------------------------|
| Morrow | Oregon Fish & Wildlife<br>Irrigon Fish Hatchery       | 1-10-83 | General Permit<br>Issued         |
| Wasco  | U. S. Dept. of Interior<br>Warm Springs Fish Hatchery | 1-10-83 | Transferred to<br>General Permit |

Log Storage, Permit 0400J, File 32544 (1)

|      |                                                  |         |                                  |
|------|--------------------------------------------------|---------|----------------------------------|
| Hood | Champ. International Corp.<br>Neal Creek Sawmill | 1-24-83 | Transferred to<br>General Permit |
|------|--------------------------------------------------|---------|----------------------------------|

Small Placer Mines, Permit 0600, File 34580 (3)

|           |                                               |         |                                  |
|-----------|-----------------------------------------------|---------|----------------------------------|
| Josephine | Clarence Pruess<br>Louise Creek Placer        | 1-13-83 | Transferred to<br>General Permit |
| Jackson   | Brian O'Gara<br>Pleasant Creek<br>Rogue River | 1-24-83 | General Permit<br>Issued         |
| Douglas   | Joseph Barnes<br>Course Gold Creek Placer     | 1-24-83 | Transferred to<br>General Permit |

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

|                               |                      |
|-------------------------------|----------------------|
| <u>Water Quality Division</u> | <u>January, 1983</u> |
| (Reporting Unit)              | (Month and Year)     |

PERMIT ACTIONS COMPLETED

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

MUNICIPAL AND INDUSTRIAL SOURCES - GENERAL PERMITS (cont'd.)

Gravel Mining, Permit 1000, File 32565 (2)

|         |                                          |        |                          |
|---------|------------------------------------------|--------|--------------------------|
| Douglas | TEECO, Inc.<br>Rock Crushing<br>Roseburg | 1-5-83 | General Permit<br>Issued |
| Douglas | Beaver State Sand & Gravel<br>Roseburg   | 1-5-83 | General Prmit<br>Issued  |

## DEPARTMENT OF ENVIRONMENTAL QUALITY

## MONTHLY ACTIVITY REPORT

Solid Waste Division  
(Reporting Unit)

January 1983  
(Month and Year)

SUMMARY OF SOLID AND HAZARDOUS WASTE PERMIT ACTIONS

|                        | Permit<br>Actions<br>Received |     | Permit<br>Actions<br>Completed |     | Permit<br>Actions<br>Pending | Sites<br>Under<br>Permits | Sites<br>Reqr'g<br>Permits |
|------------------------|-------------------------------|-----|--------------------------------|-----|------------------------------|---------------------------|----------------------------|
|                        | Month                         | FY  | Month                          | FY  |                              |                           |                            |
| <u>General Refuse</u>  |                               |     |                                |     |                              |                           |                            |
| New                    | 1                             | 3   | -                              | 3   | 1                            |                           |                            |
| Existing               | -                             | -   | -                              | -   | -                            |                           |                            |
| Renewals               | -                             | 12  | 3                              | 21  | 2                            |                           |                            |
| Modifications          | -                             | 7   | -                              | 7   | -                            |                           |                            |
| Total                  | 1                             | 22  | 3                              | 31  | 3                            | 176                       | 176                        |
| <u>Demolition</u>      |                               |     |                                |     |                              |                           |                            |
| New                    | -                             | -   | -                              | 1   | -                            |                           |                            |
| Existing               | -                             | -   | -                              | -   | -                            |                           |                            |
| Renewals               | -                             | 1   | -                              | 1   | -                            |                           |                            |
| Modifications          | -                             | 3   | -                              | 3   | -                            |                           |                            |
| Total                  | 0                             | 4   | 0                              | 5   | 0                            | 21                        | 21                         |
| <u>Industrial</u>      |                               |     |                                |     |                              |                           |                            |
| New                    | -                             | 4   | 1                              | 8   | 3                            |                           |                            |
| Existing               | -                             | -   | -                              | -   | -                            |                           |                            |
| Renewals               | 6                             | 16  | -                              | 7   | 13                           |                           |                            |
| Modifications          | 3                             | 3   | -                              | -   | 3                            |                           |                            |
| Total                  | 9                             | 23  | 1                              | 15  | 19                           | 100                       | 100                        |
| <u>Sludge Disposal</u> |                               |     |                                |     |                              |                           |                            |
| New                    | -                             | 5   | 5                              | 7   | -                            |                           |                            |
| Existing               | -                             | -   | -                              | -   | -                            |                           |                            |
| Renewals               | -                             | 2   | -                              | 2   | -                            |                           |                            |
| Modifications          | -                             | 2   | -                              | 3   | -                            |                           |                            |
| Total                  | 0                             | 9   | 5                              | 12  | 0                            | 17                        | 17                         |
| <u>Hazardous Waste</u> |                               |     |                                |     |                              |                           |                            |
| New                    | 39                            | 414 | 39                             | 414 | -                            |                           |                            |
| Authorizations         | -                             | -   | -                              | -   | -                            |                           |                            |
| Renewals               | -                             | -   | -                              | -   | -                            |                           |                            |
| Modifications          | -                             | -   | -                              | -   | -                            |                           |                            |
| Total                  | 39                            | 414 | 39                             | 414 | -                            | -                         | -                          |
| <u>GRAND TOTALS</u>    | 49                            | 472 | 48                             | 477 | 22                           | 314                       | 314                        |

SC847.A  
MAR.5S (4/79)

## DEPARTMENT OF ENVIRONMENTAL QUALITY

## MONTHLY ACTIVITY REPORT

Solid Waste DivisionJanuary 1983

(Reporting Unit)

(Month and Year)

PERMIT ACTIONS COMPLETED

| * County  | * Name of Source/Project                      | * Date of | * Action       | * |
|-----------|-----------------------------------------------|-----------|----------------|---|
| *         | * /Site and Type of Same                      | * Action  | *              | * |
| *         | *                                             | *         | *              | * |
| Klamath   | Weyerhaeuser, Bly<br>New landfill             | 1/6/83    | Permit issued  |   |
| Lincoln   | Logsdon Transfer Station<br>Existing facility | 1/7/83    | Permit renewed |   |
| Deschutes | Crane Prairie Lagoon<br>New sludge site       | 1/11/83   | Permit issued  |   |
| Deschutes | Paulina Lake Lagoon<br>New sludge site        | 1/11/83   | Permit issued  |   |
| Deschutes | Red Butte Lagoon<br>New sludge site           | 1/11/83   | Permit issued  |   |
| Jefferson | Cache Creek Lagoon<br>New sludge site         | 1/11/83   | Permit issued  |   |
| Klamath   | Mabel Butte Lagoon<br>New sludge site         | 1/11/83   | Permit issued  |   |
| Curry     | Wridge Creek Trans. Sta.<br>Existing facility | 1/20/83   | Permit renewed |   |
| Klamath   | Klamath Falls<br>Existing landfill            | 1/20/83   | Permit renewed |   |

## DEPARTMENT OF ENVIRONMENTAL QUALITY

## MONTHLY ACTIVITY REPORT

Solid Waste Division  
(Reporting Unit)

January 1983  
(Month and Year)

HAZARDOUS WASTE DISPOSAL REQUESTSCHEM-SECURITY SYSTEMS, INC., GILLIAM CO.WASTE DESCRIPTION

| # | #    | #    | #      | #       | #        | #      |
|---|------|------|--------|---------|----------|--------|
| # | Date | Type | Source | Present | Quantity | Future |
| # | #    | #    | #      | #       | #        | #      |

TOTAL DISPOSAL REQUESTS GRANTED - 39

OREGON - 10

|      |                                                  |                          |            |            |
|------|--------------------------------------------------|--------------------------|------------|------------|
| 1/6  | Fume line coke acid sludge                       | Asphalt plant            | 0          | 5 drums    |
| 1/6  | Flexo ink sludge with lead chromate              | Printing                 | 0          | 1500 gal.  |
| 1/6  | Aliphatic diamine, alcohol and isopropyl alcohol | Cleaning of asphalt tank | 0          | 600 gal.   |
| 1/11 | Transformers                                     | Contractor               | 0          | 258 cu.ft. |
| 1/12 | Photoresist stripper                             | Electronic co.           | 0          | 6 drums    |
| 1/12 | Electroless copper solution                      | Electronic co.           | 0          | 500 gal.   |
| 1/17 | Copper plating treatment sludge                  | Electropltn.             | 0          | 120 drums  |
| 1/17 | Ignitable ink sludge                             | Manuf. of bags           | 120 drums  | 6 drums    |
| 1/19 | Chromated copper arsenate solution               | Chemical co.             | 0          | 1000 gal.  |
| 1/26 | 2,4-D-contaminated cleanup debris                | Food process.            | 110 cu.ft. | 0          |

WASHINGTON - 21

|     |                                   |            |   |          |
|-----|-----------------------------------|------------|---|----------|
| 1/6 | Solvent-contaminated filter paper | Paint shop | 0 | 96 drums |
|-----|-----------------------------------|------------|---|----------|

SC847.E

MAR.15 (1/82)

| *<br>*<br>*<br>* | *<br>*<br>*<br>*                           | *<br>*<br>*<br>*     | *<br>*<br>*<br>* | *<br>*<br>*<br>* | *<br>*<br>*<br>* | *<br>*<br>*<br>* |
|------------------|--------------------------------------------|----------------------|------------------|------------------|------------------|------------------|
| Date             | Type                                       | Source               | Present          | Quantity         | Future           |                  |
| 1/6              | Paint booth sludge                         | Paint shop           | 0                | 60 drums         |                  |                  |
| 1/6              | Paint residues                             | Paint shop           | 500 tons         | 0                |                  |                  |
| 1/11             | Trichloroethylene-contaminated soil        | Foundry              | 4 drums          | 0                |                  |                  |
| 1/12             | Leaded gasoline tank bottoms               | Oil co.              | 7 drums          | 15 tons          |                  |                  |
| 1/19             | Chromic acid rinse water                   | Electropltn.         | 12,000 gal.      | 0                |                  |                  |
| 1/26             | Red lead empty paper bags                  | Paint manuf.         | 800 lb.          | 500 lb.          |                  |                  |
| 1/26             | Maleic hydrazide-contaminated clay         | Pesticide formulator | 9 drums          | 15 drums         |                  |                  |
| 1/26             | Methanol-water solution with organic acids | Electronic co.       | 0                | 720 gal.         |                  |                  |
| 1/26             | IPA/gum rosin                              | Electronic co.       | 5 gal.           | 0                |                  |                  |
| 2/1              | Sodium dichromate solution                 | Chemical co.         | 0                | 6500 gal.        |                  |                  |
| 2/1              | Hydrochloric acid solution                 | Chemical co.         | 2 drums          | 0                |                  |                  |
| 2/1              | Chlorinated organics-contaminated sand     | Chemical co.         | 0                | 4 drums          |                  |                  |
| 2/1              | Calcium chloride sludge                    | Chemical co.         | 0                | 50 drums         |                  |                  |
| 2/1              | Caustic-contaminated soil                  | Chemical co.         | 0                | 20 drums         |                  |                  |
| 2/1              | Chlorinated hydrocarbon-contaminated soil  | Chemical co.         | 0                | 60 drums         |                  |                  |
| 2/1              | Lead-contaminated filter cartridges        | Chemical co.         | 0                | 5 drums          |                  |                  |
| 2/1              | Lead-contaminated tank sludges             | Chemical co.         | 0                | 200,000 gal.     |                  |                  |
| 2/1              | Caustic-contaminated insulation            | Chemical co.         | 0                | 4 drums          |                  |                  |

SC847.E  
MAR.15 (1/82)

| # | #                | #                                                   | #                                | #         | #         | #      |
|---|------------------|-----------------------------------------------------|----------------------------------|-----------|-----------|--------|
| # | Date             | Type                                                | Source                           | Present   | Quantity  | Future |
| # | #                | #                                                   | #                                | #         | #         | #      |
|   | 2/1              | Industrial liquid cleaner                           | Chemical co.                     | 0         | 90 gal.   |        |
|   | 2/1              | Ink sludge with heavy metals                        | Printing                         | 0         | 100 drums |        |
|   | OTHER STATES - 8 |                                                     |                                  |           |           |        |
|   | 1/10             | Alkanolamines/ethylene-triethylene glycols solution | Natural gas sweetening (Alberta) | 0         | 10 drums  |        |
|   | 1/12             | Mercury-contaminated materials                      | Electric util. (Alberta)         | 0         | 10 drums  |        |
|   | 1/12             | Trichloroethane degreasing solvent                  | Fed. agency (Alberta)            | 0         | 5 drums   |        |
|   | 1/26             | Potassium chromate-contaminated materials           | Research lab. (Idaho)            | 0         | 825 gal.  |        |
|   | 1/26             | Nudrin insecticide-contaminated cleanup debris      | Spill (Hawaii)                   | 10 drums  | 10 drums  |        |
|   | 1/26             | PCB transformers                                    | Electric util. (Alaska)          | 0         | 500 gal.  |        |
|   | 1/26             | Monoethanolamine                                    | Mining co. (Alberta)             | 0         | 200 drums |        |
|   | 2/1              | Sulfinol reclaimer bottoms                          | Oil co. (Alberta)                | 400 drums | 200 drums |        |

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

|                       |                  |
|-----------------------|------------------|
| Noise Control Program | January, 1983    |
| (Reporting Unit)      | (Month and Year) |

SUMMARY OF NOISE CONTROL ACTIONS

| Source<br>Category        | New Actions<br>Initiated |           | Final Actions<br>Completed |           | Actions<br>Pending |                |
|---------------------------|--------------------------|-----------|----------------------------|-----------|--------------------|----------------|
|                           | <u>Mo</u>                | <u>FY</u> | <u>Mo</u>                  | <u>FY</u> | <u>Mo</u>          | <u>Last Mo</u> |
| Industrial/<br>Commercial | 9                        | 49        | 8                          | 51        | 102                | 101            |
| Airports                  |                          |           | 2                          | 8         | 1                  | 1              |

## DEPARTMENT OF ENVIRONMENTAL QUALITY

## MONTHLY ACTIVITY REPORT

Noise Control Program

January, 1983

(Reporting Unit)

(Month and Year)

FINAL NOISE CONTROL ACTIONS COMPLETED

| County    | Name of Source and Location                             | Date  | Action                        |
|-----------|---------------------------------------------------------|-------|-------------------------------|
| Multnomah | U.S. Postal Service, Kenton Branch,<br>Portland         | 01/83 | In Compliance.                |
| Lane      | Miller Dehydrater Company,<br>Eugene                    | 01/83 | Source Closed<br>due to fire. |
| Jackson   | Gold Dredge (Hall),<br>Central Point                    | 01/83 | In Compliance.                |
| Jackson   | Croman Lumber Mill (formerly<br>McGrew Lumber), Ashland | 01/83 | No Violation.                 |
| Jackson   | "Truck Repair,"<br>Medford                              | 01/83 | In Compliance.                |
| Jackson   | Westgaard Rock Quarry,<br>Ashland                       | 01/83 | Source Closed.                |
| Jackson   | Windsor Gold Mining,<br>Cave Junction                   | 01/83 | In Compliance.                |
| Josephine | Westbrook Wood Products<br>Kerby                        | 01/83 | Source Closed.                |
| Clackamas | Big Sky Ranch Airport,<br>Clackamas County              | 01/83 | Boundary Approved.            |
| Wallowa   | Flying I Ranch Airport,<br>Wallowa County               | 01/83 | Boundary Approved.            |

CIVIL PENALTY ASSESSMENTS  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
1983

CIVIL PENALTIES ASSESSED DURING MONTH OF JANUARY, 1983:

| <u>Name and Location<br/>of Violation</u> | <u>Case No. &amp; Type<br/>of Violation</u>                                                                        | <u>Date Issued</u> | <u>Amount</u> | <u>Status</u>                                                                               |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------|---------------|---------------------------------------------------------------------------------------------|
| City of Estacada<br>Estacada, Oregon      | WQ-NWR-83-08<br>Failed to immediately<br>notify the Department<br>of equipment breakdown<br>and sewage by-passing. | 1/28/83            | \$2,500       | Hearing request<br>and answer filed<br>2/16/83. Mitigi-<br>gation request<br>filed 2/22/83. |

| <u>ACTIONS</u>                                 | <u>LAST<br/>MONTH</u> | <u>PRESENT</u> |
|------------------------------------------------|-----------------------|----------------|
| Preliminary Issues                             | 7                     | 9              |
| Discovery                                      | 1                     | 1              |
| Settlement Action                              | 0                     | 1              |
| Hearing to be scheduled                        | 5                     | 4              |
| Hearing scheduled                              | 1                     | 2              |
| HO's Decision Due                              | 3                     | 2              |
| Briefing                                       | 0                     | 0              |
| Inactive                                       | 4                     | 4              |
| <br>SUBTOTAL of cases before hearings officer. | <br><u>21</u>         | <br><u>23</u>  |
| HO's Decision Out/Option for EQC Appeal        | 1                     | 1              |
| Appealed to EQC                                | 3                     | 4              |
| EQC Appeal Complete/Option for Court Review    | 1                     | 1              |
| Court Review Option Pending or Taken           | 0                     | 0              |
| Case Closed                                    | 0                     | 0              |
| <br>TOTAL Cases                                | <br><u>26</u>         | <br><u>29</u>  |

|                    |                                                                                                                                                                            |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15-AQ-NWR-81-178   | 15th Hearing Section case in 1981 involving Air Quality Division violation in Northwest Region jurisdiction in 1981; 178th enforcement action in Northwest Region in 1981. |
| ACDP               | Air Contaminant Discharge Permit                                                                                                                                           |
| AG1                | Attorney General 1                                                                                                                                                         |
| AQ                 | Air Quality                                                                                                                                                                |
| AQOB               | Air Quality, Open Burning                                                                                                                                                  |
| CR                 | Central Region                                                                                                                                                             |
| DEC Date           | Date of either a proposed decision of hearings officer or a decision by Commission                                                                                         |
| \$                 | Civil Penalty Amount                                                                                                                                                       |
| ER                 | Eastern Region                                                                                                                                                             |
| FB                 | Field Burning                                                                                                                                                              |
| RLH                | Robb Haskins, Assistant Attorney General                                                                                                                                   |
| Hrngrs             | Hearings Section                                                                                                                                                           |
| Hrgr Rfrr          | Date when Enforcement Section requests Hearing Section schedule a hearing                                                                                                  |
| VAK                | Van Kollias, Enforcement Section                                                                                                                                           |
| LMS                | Larry Schurr, Enforcement Section                                                                                                                                          |
| MWR                | Midwest Region (now WVR)                                                                                                                                                   |
| NP                 | Noise Pollution                                                                                                                                                            |
| NPDES              | National Pollutant Discharge Elimination System wastewater discharge permit.                                                                                               |
| NWR                | Northwest Region                                                                                                                                                           |
| FWO                | Frank Ostrander, Assistant Attorney General                                                                                                                                |
| OSS                | On-Site Sewage                                                                                                                                                             |
| P                  | Litigation over permit or its conditions                                                                                                                                   |
| Prtys              | All parties involved                                                                                                                                                       |
| Rem Order          | Remedial Action Order                                                                                                                                                      |
| Resp Code          | Source of next expected activity in case                                                                                                                                   |
| SW                 | Solid Waste Division                                                                                                                                                       |
| SWR                | Southwest Region                                                                                                                                                           |
| T                  | Litigation over tax credit matter                                                                                                                                          |
| Transcr            | Transcript being made of case                                                                                                                                              |
| <u>Underlining</u> | New status or new case since last month's contested case log                                                                                                               |
| WVR                | Willamette Valley Region                                                                                                                                                   |
| WQ                 | Water Quality Division                                                                                                                                                     |

CONTES.B (2)

## DEQ/EQC Contested Case Log

|                                                          | Hrng<br>Rqst | Hrng<br>Rfrl | DEQ<br>Atty | Hrng<br>Date    | Resp<br>Code | Case<br>Type & No.                                            | Case<br>Status                                                                                                                                            |
|----------------------------------------------------------|--------------|--------------|-------------|-----------------|--------------|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| ELL, Ronald                                              | 11/77        | 11/77        | RLH         | 01/23/80        | Prtys        | \$10,000 Fld Brn<br>12-AQ-MWR-77-241                          | <u>Stipulated settlement<br/>proposal to be presented<br/>to EQC 2/25/83.</u>                                                                             |
| WAH CHANG                                                | 04/78        | 04/78        | RLH         |                 | Prtys        | 16-P-WQ-WVR-78-2849-J<br>NPDES Permit<br>Modification         | Current permit in<br>force. Hearing<br>deferred.                                                                                                          |
| WAH CHANG                                                | 04/78        | 04/78        | RLH         |                 | Prtys        | 08-P-WQ-WVR-78-2012-J<br>NPDES Permit<br>Modification         | Current permit in<br>force. Hearing<br>deferred.                                                                                                          |
| M/V TOYOTA MARU<br>No. 10                                | 12/10/79     | 12/12/79     | RLH         |                 | Hrgs         | 17-WQ-NWR-79-127<br>Oil Spill Civil Penalty<br>of \$5,000     | Ruling due on requests<br>for partial summary<br>judgment.                                                                                                |
| HAYWORTH, John W.<br>dba/HAYWORTH FARMS<br>INC.          | 12/02/80     | 12/08/80     | LMS         | 04/28/81        | Resp         | 33-AQ-WVR-80-187<br>Field burning civil<br>penalty of \$4,660 | Resp. appealed hearings<br>officer's order. Brief<br>& exceptions due <u>2/14/83.</u>                                                                     |
| PULLEN, Arthur W.<br>dba/Foley Lakes<br>Mobile Home Park | 07/15/81     | 07/15/81     | RLH         |                 | Prtys        | 16-WQ-CR-81-60                                                | Dept. does not wish to<br>actively pursue further<br>enforcement action pend-<br>ing expected progress in<br>establishing a community<br>sewage facility. |
| FRANK, Victor                                            | 09/23/81     | 09/23/81     | LMS         | 06/08/82        | Hrgs         | 19-AQ-FB-81-05<br>FB civil penalty<br>of \$1,000              | Decision due.                                                                                                                                             |
| GATES, Clifford                                          | 10/06/81     |              | LMS         |                 | Hrgs         | 21-SS-SWR-81-90                                               | To be scheduled.                                                                                                                                          |
| SPEERLING, Wendell<br>dba/Sperling Farms                 | 11/25/81     | 11/25/81     | LMS         | <u>03/03/83</u> | Prtys        | 23-AQ-FB-81-15<br>FB Civil Penalty<br>of \$3,000              | <u>Hearing scheduled.</u>                                                                                                                                 |
| NOFZIGER, Leo                                            | 12/15/81     | 01/06/82     | LMS         | 06/29/82        | Hrgs         | 26-AQ-FB-81-18<br>FB Civil Penalty<br>of \$1,500.             | Decision due.                                                                                                                                             |
| OLD MILL MARINA                                          |              | 03/04/82     | LMS         | 01/06/83        | Prtys        | 27-AQOB-NWR-82-01<br>Open Burning Civil<br>Penalty            | <u>Decision issued 2/10/83.</u>                                                                                                                           |
| PULLEN, Arthur                                           | 03/16/82     |              | RLH         |                 | Prtys        | 28-WQ-CR-82-16                                                | See companion case above.                                                                                                                                 |
| BOWERS EXCAVATING<br>& FENCING, INC.                     | 05/20/82     |              | LMS         |                 | Hrgs         | 30-SW-CR-82-34                                                | To be scheduled.                                                                                                                                          |
| ADAMS, Gailen                                            |              |              | VAK         | 08/25/82        | Resp         | 31-SS-NWR-82-51                                               | To be reviewed by EQC<br>at April, '83 meeting.                                                                                                           |
| OLINGER, Bill<br>INC.                                    | 09/10/82     | 09/13/82     | RLH         |                 | Prtys        | 33-WQ-NWR-82-73                                               | Discovery.                                                                                                                                                |
| TOEDTEMEIER,<br>Norman                                   | 09/10/82     | 09/13/82     | LMS         |                 | Hrgs         | 34-AQOB-WVR-82-65                                             | To be scheduled.                                                                                                                                          |
| SYLER, Richard E.                                        | 09/20/82     | 09/28/82     | VAK         |                 | Hrgs         | 35-AQOB-WVR-82-76<br>OB civil penalty<br>of \$100.            | To be scheduled.                                                                                                                                          |
| LOGSTON, Howard                                          | 09/23/82     | 09/28/82     | LMS         |                 | Hrgs         | 36-AQ-ER-82-72<br>AQ civil penalty<br>of \$2,000.             | <u>Stipulated settlement<br/>proposal to be reviewed<br/>by EQC 2/25/83.</u>                                                                              |
| FRIENDS OF THE<br>EARTH/OREGON                           | 09/14/82     | 09/21/82     |             | 10/15/82        |              | 37-NWR-82<br>Petition to Amend<br>OAR 340-14-025(5)           | Final order issued<br>1/7/83. <u>Court of Appeal<br/>review option pending.</u>                                                                           |
| FIREBALL<br>CONSTRUCTION CORP.<br>& Glenn Dorsey         | 09/27/82     |              |             |                 | Resp         | 38-SS-SWR-82-85                                               | Preliminary Issues                                                                                                                                        |
| MOORE, Dale                                              | 12/06/82     | 12/08/82     |             | 01/14/82        |              | 40-SS-NWR-82<br>Appeal of variance<br>denial                  | To be before EQC at<br><u>April '83</u> meeting.                                                                                                          |
| HIPPET, James                                            | 12/02/82     | 12/06/82     | LMS         |                 | 22Prtys      | 39-AQ-FB-82-AG1<br>Ag. Burning civil                          | Preliminary Issues                                                                                                                                        |

## DEQ/EQC Contested Case Log

| Pet/Resp<br>Name                                      | Hrng<br>Rqst | Hrng<br>Rfrl | DEQ<br>Atty | Hrng<br>Date | Resp<br>Code | Case<br>Type & No.                                        | Case<br>Status                                                        |
|-------------------------------------------------------|--------------|--------------|-------------|--------------|--------------|-----------------------------------------------------------|-----------------------------------------------------------------------|
| GIANELLA, Vermont                                     | 12/17/82     |              |             |              |              | 41-AQ-FB-82-08                                            | Preliminary Issues                                                    |
| ROPP, Jess E.<br>dba/Ropp Seed &<br>Manufacturing Co. | 12/20/82     | 12/28/82     | VAK         |              |              | 42-AQ-FB-82-04                                            | Preliminary Issues                                                    |
| SCHLEGEL,<br>George L.                                | 12/30/82     | 01/03/83     | VAK         |              |              | 43-AQ-FB-82-05                                            | Preliminary Issues                                                    |
| FAXON, Jay<br>dba/Faxon Farms                         | 01/03/83     |              |             |              |              | 44-AQ-FB-82-07<br>FB Civil Penalty<br>of \$1,000          | Preliminary Issues                                                    |
| MARCA, Gerald                                         | 01/06/83     |              |             |              |              | 45-SS-SWR-82-101<br>46-SS-SWR-82-114                      | Preliminary Issues                                                    |
| ALTHAUSER,<br>Glenn L.                                | 01/28/83     |              | LMS         |              |              | 47-SW-NWR-82-111<br>Solid Waste Civil<br>Penalty of \$350 | Preliminary Issues                                                    |
| Oregon<br>Environmental<br>Council                    | 02/01/83     |              |             |              |              | 48-Declaratory<br>Ruling                                  | EQC to decide at its<br>2/25/83 meeting whether<br>to issue a ruling. |

## MONTHLY ACTIVITY REPORT

February 1983  
(Month and Year)

|                                             | <u>Plans Received</u> |           | <u>Plans Approved</u> |           | <u>Plans Disapproved</u> |           | <u>Plans Pending</u> |
|---------------------------------------------|-----------------------|-----------|-----------------------|-----------|--------------------------|-----------|----------------------|
|                                             | <u>Month</u>          | <u>FY</u> | <u>Month</u>          | <u>FY</u> | <u>Month</u>             | <u>FY</u> |                      |
| <u>Air</u>                                  |                       |           |                       |           |                          |           |                      |
| Direct Sources                              | 5                     | 43        | 2                     | 49        | 0                        | 0         | 14                   |
| Small Gasoline Storage Tanks Vapor Controls | 0                     | 0         | 0                     | 0         | 0                        | 0         | 0                    |
| TOTAL                                       | 5                     | 43        | 2                     | 49        | 0                        | 0         | 14                   |
| <u>Water</u>                                |                       |           |                       |           |                          |           |                      |
| Municipal                                   | 7                     | 112       | 17                    | 109       | 0                        | 3         | 11                   |
| Industrial                                  | 8                     | 39        | 5                     | 49        | 0                        | 0         | 5                    |
| TOTAL                                       | 15                    | 151       | 22                    | 158       | 0                        | 3         | 16                   |
| <u>Solid Waste</u>                          |                       |           |                       |           |                          |           |                      |
| Gen. Refuse                                 | 1                     | 14        | 0                     | 9         | 0                        | 0         | 5                    |
| Demolition                                  | 0                     | 0         | 0                     | 0         | 0                        | 0         | 0                    |
| Industrial                                  | 1                     | 13        | 0                     | 11        | 0                        | 0         | 6                    |
| Sludge                                      | 1                     | 8         | 0                     | 8         | 0                        | 0         | 1                    |
| TOTAL                                       | 3                     | 35        | 0                     | 28        | 0                        | 0         | 12                   |
| <u>Hazardous Wastes</u>                     | -                     | -         | -                     | -         | -                        | -         | -                    |
| GRAND TOTAL                                 | 23                    | 229       | 24                    | 235       | 0                        | 3         | 42                   |

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

| COUNTY                               | NUMBER | SOURCE                 | PROCESS DESCRIPTION    | DATE OF ACTION | ACTION   |
|--------------------------------------|--------|------------------------|------------------------|----------------|----------|
| BENTON                               | 860    | PERMAWOOD PRODUCTS INC | NEW ROOFING TILE PLANT | 01/26/83       | APPROVED |
| DESCHUTES                            | 873    | DIAMOND INTERNATIONAL  | BOILERS UPGRADING      | 01/11/83       | APPROVED |
| TOTAL NUMBER QUICK LOOK REPORT LINES |        |                        | 2                      |                |          |

## DEPARTMENT OF ENVIRONMENTAL QUALITY

## MONTHLY ACTIVITY REPORT

Air Quality Division  
(Reporting Unit)

February, 1983  
(Month and Year)

SUMMARY OF AIR PERMIT ACTIONS

|                         | Permit<br>Actions<br>Received |           | Permit<br>Actions<br>Completed |           | Permit<br>Actions<br>Pending | Sources<br>Under<br>Permits | Sources<br>Reqr'g<br>Permits |
|-------------------------|-------------------------------|-----------|--------------------------------|-----------|------------------------------|-----------------------------|------------------------------|
|                         | Month                         | FY        | Month                          | FY        |                              |                             |                              |
| <u>Direct Sources</u>   |                               |           |                                |           |                              |                             |                              |
| New                     | 1                             | 23        | 3                              | 20        | 17                           |                             |                              |
| Existing                | 1                             | 6         | 0                              | 16        | 15                           |                             |                              |
| Renewals                | 13                            | 104       | 12                             | 84        | 101                          |                             |                              |
| Modifications           | <u>2</u>                      | <u>26</u> | <u>4</u>                       | <u>28</u> | <u>16</u>                    |                             |                              |
| Total                   | 17                            | 159       | 19                             | 148       | 149                          | 1730                        | 1763                         |
| <u>Indirect Sources</u> |                               |           |                                |           |                              |                             |                              |
| New                     | 0                             | 3         | 0                              | 4         | 2                            |                             |                              |
| Existing                | 0                             | 0         | 0                              | 0         | 0                            |                             |                              |
| Renewals                | 0                             | 0         | 0                              | 0         | 0                            |                             |                              |
| Modifications           | <u>1</u>                      | <u>3</u>  | <u>0</u>                       | <u>2</u>  | <u>1</u>                     |                             |                              |
| Total                   | 1                             | 6         | 0                              | 6         | 3                            | <u>206</u>                  | <u>208</u>                   |
| <u>GRAND TOTALS</u>     | 18                            | 165       | 19                             | 154       | 152                          | 1936                        | 1971                         |

Direct Sources  
Number of  
Pending Permits

Comments

|           |                                            |
|-----------|--------------------------------------------|
| 21        | To be reviewed by Northwest Region         |
| 9         | To be reviewed by Willamette Valley Region |
| 9         | To be reviewed by Southwest Region         |
| 5         | To be reviewed by Central Region           |
| 2         | To be reviewed by Eastern Region           |
| 23        | To be reviewed by Program Operations       |
| 17        | To be reviewed by Planning & Development   |
| 32        | Awaiting Public Notice                     |
| <u>31</u> | Awaiting End of 30-day Period              |
| 149       | TOTAL                                      |

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

| COUNTY      | SOURCE                     | PERMIT<br>NUMBER | APPL.<br>RECEIVED | STATUS        | DATE<br>ACHIEVED | TYPE<br>APPL. PSEL |
|-------------|----------------------------|------------------|-------------------|---------------|------------------|--------------------|
| DOUGLAS     | HOOVER UNIVERSAL, INC      | 10               | 0121 01/20/83     | PERMIT ISSUED | 01/27/83         | MOD                |
| WASHINGTON  | NICOLAI, CONRAD VENEERS    | 34               | 2560 01/20/83     | PERMIT ISSUED | 01/27/83         | MOD                |
| WASHINGTON  | UNION OIL CO OF CALIF.     | 34               | 2652 12/29/82     | PERMIT ISSUED | 02/02/83         | MOD                |
| JACKSON     | GILL TERPENING, INC        | 15               | 0144 11/23/82     | PERMIT ISSUED | 02/03/83         | NEW                |
| MULTNOMAH   | PREMIER APARTMENTS         | 26               | 0077 12/02/82     | PERMIT ISSUED | 02/03/83         | RNW                |
| MULTNOMAH   | TUDOR ARMS APARTMENTS      | 26               | 0318 11/22/82     | PERMIT ISSUED | 02/03/83         | RNW                |
| MULTNOMAH   | LAWN APARTMENTS            | 26               | 0505 11/22/82     | PERMIT ISSUED | 02/03/83         | RNW                |
| MULTNOMAH   | MAYFAIR APARTMENTS         | 26               | 0685 11/29/82     | PERMIT ISSUED | 02/03/83         | RNW                |
| MULTNOMAH   | CHESTERBURY APTS           | 26               | 0720 12/01/82     | PERMIT ISSUED | 02/03/83         | RNW                |
| MULTNOMAH   | NORTHRUP MEDICAL CENTER    | 26               | 2818 11/24/82     | PERMIT ISSUED | 02/03/83         | RNW                |
| MULTNOMAH   | MEIER & FRANKS (NW IRVING) | 26               | 2898 12/07/82     | PERMIT ISSUED | 02/03/83         | RNW                |
| WASHINGTON  | CARNATION CO. CAN DIV.     | 34               | 2677 07/06/82     | PERMIT ISSUED | 02/03/83         | NEW                |
| JEFFERSON   | RAJNEEH NEO-SANNYAS INT    | 16               | 0021 12/01/82     | PERMIT ISSUED | 02/12/83         | NEW                |
| MARION      | CENEX AG, INC              | 24               | 0719 12/01/82     | PERMIT ISSUED | 02/12/83         | RNW                |
| YAMHILL     | BURLINGHAM MEEKER X        | 36               | 0009 12/01/82     | PERMIT ISSUED | 02/12/83         | RNW                |
| YAMHILL     | MCDANIEL GRAIN & FEED      | 36               | 6214 12/01/82     | PERMIT ISSUED | 02/12/83         | RNW                |
| PORT.SOURCE | ROY HOUCK CONSTR CO        | 37               | 0022 11/22/82     | PERMIT ISSUED | 02/12/83         | RNW Y              |
| JACKSON     | LOUISIANA PACIFIC CORP     | 15               | 0007 01/13/83     | PERMIT ISSUED | 02/16/83         | MOD                |
| PORT.SOURCE | TIDEWATER CONTRACTORS INC  | 37               | 0277 11/19/82     | PERMIT ISSUED | 02/17/83         | RNW                |

TOTAL NUMBER QUICK LOOK REPORT LINES 19

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

|                      |                      |
|----------------------|----------------------|
| <u>Water Quality</u> | <u>February 1983</u> |
| (Reporting Unit)     | (Month and Year)     |

PLAN ACTIONS COMPLETED 22

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

MUNICIPAL WASTE SOURCES 17

|           |                                                                                     |         |                          |
|-----------|-------------------------------------------------------------------------------------|---------|--------------------------|
| Multnomah | Argent Subdivision<br>SW Bucharest & SW 26th<br>Sanitary Sewers<br>Multnomah County | 2/1/83  | P.A.                     |
| Tillamook | Hillsdale Street Extension<br>Sanitary Sewers<br>Netarts-Oceanside                  | 2/4/83  | P.A.                     |
| Polk      | N. Monmouth Ave Extension<br>Sanitary Sewers<br>Monmouth                            | 2/4/83  | P.A.                     |
| Curry     | Loop Road Sanitary Sewer<br>Port Orford                                             | 2/10/83 | P.A.                     |
| Multnomah | Municipal Sludge Mechanical<br>Composting Facility<br>Portland (Columbia Blvd.)     | 2/14/83 | P.A.                     |
| Clackamas | L.I.E. #29 - Hood View Lane<br>Sanitary Sewers<br>Lake Oswego                       | 2/25/83 | P.A.                     |
| Linn      | Contract No. 3-Addendum #1<br>Sanitary Sewers<br>Millersburg                        | 2/25/83 | P.A.                     |
| Clackamas | Willamette View Estates<br>Sanitary Sewers<br>West Linn                             | 2/25/83 | P.A.                     |
| Linn      | Spray Irrigation System<br>Sanitary Sewers<br>City of Scio                          | 2/25/83 | Comments to<br>Engineers |
| Jackson   | 24th St. South of<br>Ave. G., Sanitary<br>Sewers, BCVSA                             | 2/28/83 | P.A.                     |

## DEPARTMENT OF ENVIRONMENTAL QUALITY

## MONTHLY ACTIVITY REPORT

|                  |                  |
|------------------|------------------|
| Water Quality    | February 1983    |
| (Reporting Unit) | (Month and Year) |

PLAN ACTIONS COMPLETED 22

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

MUNICIPAL WASTE SOURCES Continued

|           |                                                                                                                        |         |      |
|-----------|------------------------------------------------------------------------------------------------------------------------|---------|------|
| Lane      | Extension for L.D.S.<br>Meeting House<br>Sanitary Sewers<br>Junction City                                              | 2/28/83 | P.A. |
| Marion    | West Main Street-James Ave.<br>Sewer System Improvements<br>Silverton                                                  | 3/1/83  | P.A. |
| Clackamas | Contract C-1<br>Preload<br>Tri-Cities S.D.                                                                             | 3/1/83  | P.A. |
| Clackamas | Contract C-2<br>Excavation<br>Tri-Cities S.D.                                                                          | 3/1/83  | P.A. |
| Wasco     | Addition 2nd Cell to<br>Existing Treatment Lagoon<br>System & Sewer Extensions<br>Jesus Grove<br>City of Rajneeshpuram | 3/2/83  | P.A. |
| Wasco     | Additional Collection Lines<br>Jesus Grove<br>City of Rajneeshpuram                                                    | 3/2/83  | P.A. |
| Clackamas | Tri-City Service District<br>Sewage Treatment Plant                                                                    | 3/3/83  | P.A. |

## DEPARTMENT OF ENVIRONMENTAL QUALITY

## MONTHLY ACTIVITY REPORT

Water Quality Division  
(Reporting Unit)

February 1983  
(Month and Year)

PLAN ACTIONS COMPLETED 22

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

INDUSTRIAL WASTE SOURCES 5

|           |                                                                       |         |          |
|-----------|-----------------------------------------------------------------------|---------|----------|
| Marion    | Willamette Cherry Growers<br>pH Sensors, Side<br>Hill Screen<br>Salem | 2/14/83 | Approved |
| Tillamook | A & A Dairy, Inc.<br>Manure Control System<br>Tillamook               | 2/15/83 | Approved |
| Tillamook | Ron Marolf Dairy<br>Manure Control System<br>Tillamook                | 2/15/83 | Approved |
| Tillamook | Norman Miller Dairy<br>Manure Control System<br>Tillamook             | 2/15/83 | Approved |
| Tillamook | John Nagg<br>Manure Control System<br>Tillamook                       | 2/28/83 | Approved |

## DEPARTMENT OF ENVIRONMENTAL QUALITY

## MONTHLY ACTIVITY REPORT

Water Quality Division  
(Reporting Unit)

February, 1983  
(Month and Year)

SUMMARY OF WATER PERMIT ACTIONS

|                                                 | Permit Actions<br>Received |                  | Permit Actions<br>Completed |                  | Permit<br>Actions<br>Pending | Sources<br>Under<br>Permits | Sources<br>Reqr'g<br>Permits |
|-------------------------------------------------|----------------------------|------------------|-----------------------------|------------------|------------------------------|-----------------------------|------------------------------|
|                                                 | Month<br>* /**             | Fis.Yr.<br>* /** | Month<br>* /**              | Fis.Yr.<br>* /** | * /**                        | * /**                       | * /**                        |
| <u>Municipal</u>                                |                            |                  |                             |                  |                              |                             |                              |
| New                                             | 0 /3                       | 1 /12            | 0 /2                        | 1 /18            | 1 /6                         |                             |                              |
| Existing                                        | 0 /0                       | 0 /0             | 0 /0                        | 0 /0             | 0 /0                         |                             |                              |
| Renewals                                        | 2 /2                       | 49 /10           | 9 /1                        | 40 /9            | 40 /6                        |                             |                              |
| Modifications                                   | 1 /1                       | 3 /2             | 0 /0                        | 1 /1             | 2 /1                         |                             |                              |
| Total                                           | 3 /6                       | 53 /24           | 9 /3                        | 42 /28           | 43 /13                       | 239/124                     | 240/130                      |
| <u>Industrial</u>                               |                            |                  |                             |                  |                              |                             |                              |
| New                                             | 2 /1                       | 5 /7             | 0 /0                        | 4 /4             | 4 /6                         |                             |                              |
| Existing                                        | 0 /0                       | 0 /0             | 0 /0                        | 0 /0             | 0 /1                         |                             |                              |
| Renewals                                        | 6 /5                       | 29 /29           | 6 /0                        | 19 /17           | 45 /24                       |                             |                              |
| Modifications                                   | 0 /0                       | 3 /0             | 1 /0                        | 5 /0             | 0 /0                         |                             |                              |
| Total                                           | 8 /6                       | 37 /36           | 7 /0                        | 28 /21           | 49 /31                       | 384/193                     | 388/200                      |
| <u>Agricultural (Hatcheries, Dairies, etc.)</u> |                            |                  |                             |                  |                              |                             |                              |
| New                                             | 0 /0                       | 0 /0             | 0 /0                        | 1 /0             | 1 /0                         |                             |                              |
| Existing                                        | 0 /0                       | 0 /0             | 0 /0                        | 0 /0             | 0 /0                         |                             |                              |
| Renewals                                        | 0 /3                       | 0 /3             | 0 /0                        | 0 /1             | 0 /3                         |                             |                              |
| Modifications                                   | 0 /0                       | 0 /0             | 0 /0                        | 0 /1             | 0 /0                         |                             |                              |
| Total                                           | 0 /3                       | 0 /3             | 0 /0                        | 1 /2             | 1 /3                         | 61 /15                      | 62 /15                       |
| <u>GRAND TOTALS</u>                             | 11 /15                     | 90 /63           | 16 /3                       | 71 /51           | 93 /47                       | 684/332                     | 690/345                      |

\* NPDES Permits

\*\* State Permits

12 General Permits Granted (5 small heat pump)

NOTE: 1. Cancelled G.P. for Gilmore Steel  
2. Transferred G.P. from Champion International (Neal Creek) to Hanel Lmbr. Co.

MAR.5W (8/79) WG2131

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

|                                            |                                    |
|--------------------------------------------|------------------------------------|
| Water Quality Division<br>(Reporting Unit) | February, 1983<br>(Month and Year) |
|--------------------------------------------|------------------------------------|

PERMIT ACTIONS COMPLETED

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

MUNICIPAL AND INDUSTRIAL SOURCES - NPDES (15)

|           |                                                        |         |                |
|-----------|--------------------------------------------------------|---------|----------------|
| Klamath   | Klamath Falls<br>Spring Street STP                     | 2-15-83 | Permit Renewed |
| Wasco     | The Dalles, STP                                        | 2-15-83 | Permit Renewed |
| Linn      | Champion International<br>Lebanon                      | 2-22-83 | Permit Renewed |
| Columbia  | Clatskanie, STP                                        | 2-22-83 | Permit Renewed |
| Douglas   | Glide-Idleyld Park, STP                                | 2-22-83 | Permit Renewed |
| Linn      | Harrisburg, STP                                        | 2-22-83 | Permit Renewed |
| Klamath   | Malin, STP                                             | 2-22-83 | Permit Renewed |
| Benton    | Monroe, STP                                            | 2-22-83 | Permit Renewed |
| Linn      | Willamette Industries, Inc.<br>Foster Division         | 2-22-83 | Permit Renewed |
| Linn      | Willamette Industries, Inc.<br>Griggs Plywood Division | 2-22-83 | Permit Renewed |
| Linn      | Willamette Industries, Inc.<br>Sweet Home Division     | 2-22-83 | Permit Renewed |
| Klamath   | South Suburban S.D.<br>STP                             | 2-25-83 | Permit Renewed |
| Lane      | Cottage Grove, STP                                     | 2-25-83 | Permit Renewed |
| Lincoln   | Georgia Pacific Corp.<br>Toledo Plywood Plant          | 2-25-83 | Permit Renewed |
| Multnomah | Mobil Oil Corp.<br>Linnton Oil Terminal                | 2-25-83 | Permit Renewed |

MUNICIPAL AND INDUSTRIAL SOURCES - STATE PERMITS (3)

|         |                                                    |         |               |
|---------|----------------------------------------------------|---------|---------------|
| Clatsop | M G F Associates Condos<br>Gearhart Clubhouse, STP | 2-15-83 | Permit Issued |
|---------|----------------------------------------------------|---------|---------------|

MAR.6 (5/79) WG1800

## DEPARTMENT OF ENVIRONMENTAL QUALITY

## MONTHLY ACTIVITY REPORT

|                                                   |                                           |
|---------------------------------------------------|-------------------------------------------|
| <u>Water Quality Division</u><br>(Reporting Unit) | <u>February, 1983</u><br>(Month and Year) |
|---------------------------------------------------|-------------------------------------------|

PERMIT ACTIONS COMPLETED

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

STATE PERMITS cont'd.

|           |                                                         |         |                |
|-----------|---------------------------------------------------------|---------|----------------|
| Tillamook | Beverly Enterprises, Inc.<br>Tillamook Care Center, STP | 2-22-83 | Permit Issued  |
| Klamath   | Rainier Credit Corp.<br>Round Lake Estates, STP         | 2-28-83 | Permit Renewed |

MUNICIPAL AND INDUSTRIAL SOURCES - MODIFICATIONS (1)

|            |                                         |         |             |
|------------|-----------------------------------------|---------|-------------|
| Hood River | Duckwall-Pooley Fruit Co.<br>Hood River | 2-15-83 | Addendum #1 |
|------------|-----------------------------------------|---------|-------------|

MUNICIPAL AND INDUSTRIAL SOURCES - GENERAL PERMITS (7)Cooling Water, Permit 0100-J, File 32539 (4)

|           |                                                |         |                                  |
|-----------|------------------------------------------------|---------|----------------------------------|
| Marion    | Salem - General Services                       | 2-3-83  | General Permit Issued            |
| Multnomah | Northwestern Ice & Cold<br>Storage<br>Portland | 2-4-83  | Transferred to<br>General Permit |
| Marion    | Stuckart Lumber Co.<br>Idanha Sawmill          | 2-4-83  | Transferred to<br>General Permit |
| Yamhill   | Willamina Lumber Co.                           | 2-15-83 | Transferred to<br>General Permit |

Small Placer Mines, Permit 0600, File 34580 (1)

|           |                                                             |         |                                  |
|-----------|-------------------------------------------------------------|---------|----------------------------------|
| Josephine | Windsor Placer<br>(Formerly R & R Placer)<br>Illinois River | 2-10-83 | Transferred to<br>General Permit |
|-----------|-------------------------------------------------------------|---------|----------------------------------|

Portable Suction Dredge, Permit 0700J, File 34547 (1)

|         |                                                         |        |                       |
|---------|---------------------------------------------------------|--------|-----------------------|
| Jackson | James L. Byrne<br>(8" Suction Dredge<br>on Rogue River) | 2-2-83 | General Permit Issued |
|---------|---------------------------------------------------------|--------|-----------------------|

Seafood Processing, Permit 0900J, File 32585 (1)

|       |                                                  |         |                       |
|-------|--------------------------------------------------|---------|-----------------------|
| Curry | Burnt Hill Salmon<br>Ranch, Ltd.<br>Pistol River | 2-28-83 | General Permit Issued |
|-------|--------------------------------------------------|---------|-----------------------|

MAR.6 (5/79) WG1800

## DEPARTMENT OF ENVIRONMENTAL QUALITY

## MONTHLY ACTIVITY REPORT

Solid Waste Division

February 1983

(Reporting Unit)

(Month and Year)

SUMMARY OF SOLID AND HAZARDOUS WASTE PERMIT ACTIONS

|                        | Permit<br>Actions<br>Received |     | Permit<br>Actions<br>Completed |     | Permit<br>Actions<br>Pending | Sites<br>Under<br>Permits | Sites<br>Reqr'g<br>Permits |
|------------------------|-------------------------------|-----|--------------------------------|-----|------------------------------|---------------------------|----------------------------|
|                        | Month                         | FY  | Month                          | FY  |                              |                           |                            |
| <u>General Refuse</u>  |                               |     |                                |     |                              |                           |                            |
| New                    | -                             | 3   | -                              | 3   | 1                            |                           |                            |
| Existing               | -                             | -   | -                              | -   | -                            |                           |                            |
| Renewals               | -                             | 12  | 1                              | 22  | 1                            |                           |                            |
| Modifications          | -                             | 7   | -                              | 7   | -                            |                           |                            |
| Total                  | 0                             | 22  | 1                              | 32  | 2                            | 176                       | 176                        |
| <u>Demolition</u>      |                               |     |                                |     |                              |                           |                            |
| New                    | -                             | -   | -                              | 1   | -                            |                           |                            |
| Existing               | -                             | -   | -                              | -   | -                            |                           |                            |
| Renewals               | -                             | 1   | -                              | 1   | -                            |                           |                            |
| Modifications          | -                             | 3   | -                              | 3   | -                            |                           |                            |
| Total                  | 0                             | 4   | 0                              | 5   | 0                            | 21                        | 21                         |
| <u>Industrial</u>      |                               |     |                                |     |                              |                           |                            |
| New                    | -                             | 4   | 1                              | 9   | 2                            |                           |                            |
| Existing               | -                             | -   | -                              | -   | -                            |                           |                            |
| Renewals               | -                             | 16  | -                              | 7   | 13                           |                           |                            |
| Modifications          | -                             | 3   | -                              | -   | 3                            |                           |                            |
| Total                  | 0                             | 23  | 1                              | 16  | 18                           | 101                       | 101                        |
| <u>Sludge Disposal</u> |                               |     |                                |     |                              |                           |                            |
| New                    | 1                             | 6   | -                              | 7   | 1                            |                           |                            |
| Existing               | -                             | -   | -                              | -   | -                            |                           |                            |
| Renewals               | -                             | 2   | -                              | 2   | -                            |                           |                            |
| Modifications          | -                             | 2   | -                              | 3   | -                            |                           |                            |
| Total                  | 1                             | 10  | 0                              | 12  | 1                            | 17                        | 17                         |
| <u>Hazardous Waste</u> |                               |     |                                |     |                              |                           |                            |
| New                    | 43                            | 457 | 43                             | 457 | -                            |                           |                            |
| Authorizations         | -                             | -   | -                              | -   | -                            |                           |                            |
| Renewals               | -                             | -   | -                              | -   | -                            |                           |                            |
| Modifications          | -                             | -   | -                              | -   | -                            |                           |                            |
| Total                  | 43                            | 457 | 43                             | 457 | -                            | -                         | -                          |
| <u>GRAND TOTALS</u>    |                               |     |                                |     |                              |                           |                            |
|                        | 44                            | 516 | 45                             | 522 | 21                           | 315                       | 315                        |

SC862.A

MAR. 5S (4/79)

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

|                             |                      |
|-----------------------------|----------------------|
| <u>Solid Waste Division</u> | <u>February 1983</u> |
| (Reporting Unit)            | (Month and Year)     |

PERMIT ACTIONS COMPLETED

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

|           |                                                 |        |                |
|-----------|-------------------------------------------------|--------|----------------|
| Jefferson | Camp Sherman Transfer Sta.<br>Existing facility | 2/3/83 | Permit renewed |
| Klamath   | Gilchrist Timber<br>New facility                | 2/3/83 | Permit issued  |

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Solid Waste Division  
(Reporting Unit)

February 1983  
(Month and Year)

HAZARDOUS WASTE DISPOSAL REQUESTS

CHEM-SECURITY SYSTEMS, INC., GILLIAM CO.

WASTE DESCRIPTION

| *<br>*<br>*<br>* | *<br>Date<br>* | *<br>Type<br>* | *<br>Source<br>* | *<br>Present<br>* | *<br>Quantity<br>*<br>Future<br>* | *<br>* |
|------------------|----------------|----------------|------------------|-------------------|-----------------------------------|--------|
|------------------|----------------|----------------|------------------|-------------------|-----------------------------------|--------|

TOTAL DISPOSAL REQUESTS GRANTED - 43

OREGON - 7

|      |                                   |               |            |             |
|------|-----------------------------------|---------------|------------|-------------|
| 2/3  | PCB transformers                  | Railroad co.  | 0          | 200 gal.    |
| 2/3  | PCB liquid                        | Railroad co.  | 0          | 50 gal.     |
| 2/10 | Pesticide spill<br>cleanup debris | Contractor    | 172 cu.ft. | 0           |
| 2/10 | Thermite slag                     | Chemical co.  | 0          | 400,000 lb. |
| 2/14 | Chromic acid solution             | Electroplat.  | 0          | 1,500 gal.  |
| 2/14 | PCB-contaminated soil             | Spill         | 50 drums   | 0           |
| 2/24 | PCB transformers                  | Wood products | 0          | 700 gal.    |

WASHINGTON - 24

|      |                                           |                |          |          |
|------|-------------------------------------------|----------------|----------|----------|
| 2/2  | Bleaching powder                          | Fed. agency    | 5 drums  | 5 drums  |
| 2/3  | PCB capacitors                            | Hardware store | 0        | 4 units  |
| 2/3  | Methylene chloride/<br>phenol/formic acid | Paint strip.   | 0        | 27 drums |
| 2/3  | PCB-contaminated mat'l.                   | Chemical co.   | 0        | 3 drums  |
| 2/16 | PCB transformers                          | University     | 102 gal. | 0        |
| 2/16 | PCB oil                                   | University     | 3 drums  | 0        |

SC862.E  
MAR. 15 (1/82)

| *<br>*<br>* | *<br>Date<br>* | *<br>Type<br>*                                | *<br>Source<br>*       | *<br>Present<br>* | *<br>Quantity<br>Future<br>* | *<br>* |
|-------------|----------------|-----------------------------------------------|------------------------|-------------------|------------------------------|--------|
|             | 2/16           | PCB-contaminated transformers                 | University             | 9 cu.ft.          | 0                            |        |
|             | 2/16           | PCB-contaminated sacks, rags, pumps, etc.     | University             | 1 drum            | 0                            |        |
|             | 2/16           | PCB electrical connectors                     | University             | 12 gal.           | 0                            |        |
|             | 2/16           | Solidified contact cement                     | Fed. agency            | 0                 | 2 drums                      |        |
|             | 2/16           | Xylene/methylene butyl ketone solvent         | Painting               | 0                 | 2,640 gal.                   |        |
|             | 2/16           | IPA/butyl acetate/cellosolve acetate solvents | Painting               | 2,200 gal.        | 0                            |        |
|             | 2/16           | Tinning fluid/soldering oil with lead         | Electronic co.         | 0                 | 440 gal.                     |        |
|             | 2/16           | Organic salt/amine salt in IPA                | Electronic co.         | 0                 | 220 gal.                     |        |
|             | 2/16           | Paint thinner                                 | Research fac.          | 0                 | 500 gal.                     |        |
|             | 2/16           | PCB-contaminated solids                       | Wood products co.      | 5 drums           | 10 drums                     |        |
|             | 2/16           | Cytotoxic empty drug bottles                  | Research               | 0                 | 6 drums                      |        |
|             | 2/16           | Trichloroethane solv.                         | Fed. agency            | 0                 | 800 gal.                     |        |
|             | 2/16           | Tricresyl phosphate                           | Fed. agency            | 6 drums           | 0                            |        |
|             | 2/22           | Phenolic solution                             | Wood products industry | 4 drums           | 1,000 gal.                   |        |
|             | 2/22           | Solid acetone reclaimer bottoms               | Solvent recycling      | 0                 | 180 drums                    |        |
|             | 2/22           | Liquid acetone reclaimer bottoms              | Solvent recycling      | 0                 | 10 drums                     |        |
|             | 2/22           | Lab packs                                     | Fed. agency            | 0                 | 10 drums                     |        |
|             | 2/22           | Methylene chloride sludge                     | Railroad co.           | 0                 | 1 drum                       |        |

SC862.E  
MAR.15 (1/82)

| *<br>* Date<br>* | *<br>Type<br>* | *<br>Source<br>* | *<br>Quantity<br>* |                  | *<br>Future<br>* |
|------------------|----------------|------------------|--------------------|------------------|------------------|
|                  |                |                  | *<br>Present<br>*  | *<br>Future<br>* |                  |

OTHER STATES - 12

|      |                                                    |                       |          |           |  |
|------|----------------------------------------------------|-----------------------|----------|-----------|--|
| 2/3  | Maleic hydrazide growth retardant                  | Fed. agency (Montana) | 10 drums | 0         |  |
| 2/14 | Industrial greases                                 | Oil co. (B.C.)        | 38 drums | 100 drums |  |
| 2/14 | Pesticides                                         | University (B.C.)     | 12 drums | 100 drums |  |
| 2/14 | DDT/mercury-contaminated materials                 | Smelting (B.C.)       | 16 drums | 0         |  |
| 2/28 | Mercury-contaminated mat'l. in lab packs           | University (Hawaii)   | 0        | 2 drums   |  |
| 2/28 | Mixed lab chemicals in lab packs                   | University (Hawaii)   | 0        | 4 drums   |  |
| 2/28 | Scintillation fluid, toluene, dioxane in lab packs | University (Hawaii)   | 0        | 2 drums   |  |
| 2/28 | Mixed oxidizing agents in lab packs                | University (Hawaii)   | 0        | 2 drums   |  |
| 2/28 | Ignitable solvents in lab packs                    | University (Hawaii)   | 0        | 10 drums  |  |
| 2/28 | Consolidated non-ignitable solvents in lab packs   | University (Hawaii)   | 0        | 12 drums  |  |
| 2/28 | Pesticides/toxic chem. in lab packs                | University (Hawaii)   | 0        | 15 drums  |  |
| 2/28 | Acids/caustics in lab packs                        | University (Hawaii)   | 0        | 6 drums   |  |

SC862.E  
MAR.15 (1/82)

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Noise Control Program  
(Reporting Unit)

February, 1983  
(Month and Year)

SUMMARY OF NOISE CONTROL ACTIONS

| Source<br>Category        | New Actions<br>Initiated |           | Final Actions<br>Completed |           | Actions<br>Pending |                |
|---------------------------|--------------------------|-----------|----------------------------|-----------|--------------------|----------------|
|                           | <u>Mo</u>                | <u>FY</u> | <u>Mo</u>                  | <u>FY</u> | <u>Mo</u>          | <u>Last Mo</u> |
| Industrial/<br>Commercial | 4                        | 53        | 6                          | 57        | 100                | 102            |
| Airports                  |                          |           | 1                          | 9         | 1                  | 1              |

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

|                       |                  |
|-----------------------|------------------|
| Noise Control Program | February, 1983   |
| (Reporting Unit)      | (Month and Year) |

FINAL NOISE CONTROL ACTIONS COMPLETED

| County    | Name of Source and Location                    | Date  | Action            |
|-----------|------------------------------------------------|-------|-------------------|
| Multnomah | Pacific Rock Products, Portland                | 02-83 | Source Closed     |
| Multnomah | Rub-A-Dub Car Wash, NE 82nd & Glisan, Portland | 02-83 | In Compliance     |
| Benton    | BPA Wren Substation, Wren                      | 02/83 | In Compliance     |
| Linn      | Boise Cascade, Sweet Home                      | 02/83 | No Violation      |
| Linn      | M & K Forest Products, Sweet Home              | 02/83 | No Violation      |
| Linn      | P P & L Powerlines, Sweet Home                 | 02/83 | No Violation      |
| Multnomah | Waterfront Heliport, City of Portland          | 02/83 | Boundary Approved |

CIVIL PENALTY ASSESSMENTS  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
1983

CIVIL PENALTIES ASSESSED DURING MONTH OF FEBRUARY, 1983:

| <u>Name and Location<br/>of Violation</u>                                        | <u>Case No. &amp; Type<br/>of Violation</u>          | <u>Date Issued</u> | <u>Amount</u> | <u>Status</u>                             |
|----------------------------------------------------------------------------------|------------------------------------------------------|--------------------|---------------|-------------------------------------------|
| Lonny Lewis dba/<br>Valley Meat Co.<br>Corvallis, OR                             | AQOB-WVR-83-13<br>Open burned<br>commercial waste.   | 2/17/83            | \$250         | Mitigation<br>request received<br>3/3/83. |
| Anton Pearson &<br>Don Kessie<br>Blodgett, OR                                    | AQOB-WVR-83-04<br>Open burned<br>railroad ties.      | 2/17/83            | \$500         | Awaiting response<br>to notice.           |
| Stanley Mahan dba/<br>Stan Mahan Construction<br>and Emery Lanham<br>Medford, OR | AQOB-SWR-83-24<br>Open burned<br>construction waste. | 2/23/83            | \$150         | Awaiting response<br>to notice.           |
| Earl Ezell dba/<br>Weetack Drywall<br>Medford, OR                                | AQOB-SWR-83-25<br>Open burned<br>construction waste. | 2/23/83            | \$50          | Awaiting response<br>to notice.           |
| Grants Pass Moulding<br>Grants Pass, OR                                          | AQOB-SWR-83-26<br>Open burned<br>industrial waste.   | 2/23/83            | \$50          | Paid 3/8/83.                              |

GB1876

| <u>ACTIONS</u>                                 | <u>LAST<br/>MONTH</u> | <u>PRESENT</u> |
|------------------------------------------------|-----------------------|----------------|
| Preliminary Issues                             | 9                     | 7              |
| Discovery                                      | 1                     | 1              |
| Settlement Action                              | 1                     | 0              |
| Hearing to be scheduled                        | 4                     | 6              |
| Hearing scheduled                              | 2                     | 2              |
| HO's Decision Due                              | 2                     | 2              |
| Briefing                                       | 0                     | 0              |
| Inactive                                       | 4                     | 4              |
| <br>SUBTOTAL of cases before hearings officer. | <br><u>23</u>         | <br><u>22</u>  |
| HO's Decision Out/Option for EQC Appeal        | 1                     | 0              |
| Appealed to EQC                                | 4                     | 4              |
| EQC Appeal Complete/Option for Court Review    | 1                     | 0              |
| Court Review Option Pending or Taken           | 0                     | 0              |
| Case Closed                                    | 0                     | 5              |
| <br>TOTAL Cases                                | <br><u>29</u>         | <br><u>31</u>  |

|                    |                                                                                                                                                                            |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15-AQ-NWR-81-178   | 15th Hearing Section case in 1981 involving Air Quality Division violation in Northwest Region jurisdiction in 1981; 178th enforcement action in Northwest Region in 1981. |
| ACDP               | Air Contaminant Discharge Permit                                                                                                                                           |
| AG1                | Attorney General 1                                                                                                                                                         |
| AQ                 | Air Quality Division                                                                                                                                                       |
| AQOB               | Air Quality, Open Burning                                                                                                                                                  |
| CR                 | Central Region                                                                                                                                                             |
| DEC Date           | Date of either a proposed decision of hearings officer or a decision by Commission                                                                                         |
| \$                 | Civil Penalty Amount                                                                                                                                                       |
| ER                 | Eastern Region                                                                                                                                                             |
| FB                 | Field Burning                                                                                                                                                              |
| RLH                | Robb Haskins, Assistant Attorney General                                                                                                                                   |
| Hrngs              | Hearings Section                                                                                                                                                           |
| Hrng Rfrl          | Date when Enforcement Section requests Hearing Section schedule a hearing                                                                                                  |
| VAK                | Van Kollias, Enforcement Section                                                                                                                                           |
| LMS                | Larry Schurr, Enforcement Section                                                                                                                                          |
| NP                 | Noise Pollution                                                                                                                                                            |
| NPDES              | National Pollutant Discharge Elimination System wastewater discharge permit.                                                                                               |
| NWR                | Northwest Region                                                                                                                                                           |
| FWO                | Frank Ostrander, Assistant Attorney General                                                                                                                                |
| OSS                | On-Site Sewage                                                                                                                                                             |
| P                  | Litigation over permit or its conditions                                                                                                                                   |
| Prtys              | All parties involved                                                                                                                                                       |
| Rem Order          | Remedial Action Order                                                                                                                                                      |
| Resp Code          | Source of next expected activity in case                                                                                                                                   |
| SW                 | Solid Waste Division                                                                                                                                                       |
| SWR                | Southwest Region                                                                                                                                                           |
| T                  | Litigation over tax credit matter                                                                                                                                          |
| Transcr            | Transcript being made of case                                                                                                                                              |
| <u>Underlining</u> | New status or new case since last month's contested case log                                                                                                               |
| WVR                | Willamette Valley Region                                                                                                                                                   |
| WQ                 | Water Quality Division                                                                                                                                                     |

CONTES.B (2)

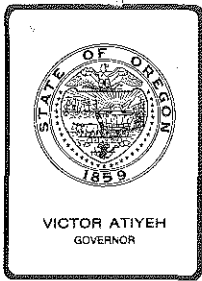
## DEQ/EQC Contested Case Log

| Pet/Resp Name                                            | Hrng Rqst | Hrng Rfrl | DEQ Atty | Hrng Date | Resp Code | Case Type & No.                                               | Case Status                                                                                                                                               |
|----------------------------------------------------------|-----------|-----------|----------|-----------|-----------|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| POWELL-Ronald                                            | 11/77     | 11/77     | RLH      | 01/23/80  | Prtye     | \$10,000-Fla-Den<br>12-AQ-MWR-77-241                          | <u>EQC-approved-stipulated<br/>settlement-of-\$6,500-<br/>Case-closed.</u>                                                                                |
| WAH CHANG                                                | 04/78     | 04/78     | RLH      |           | Prtye     | 16-P-WQ-WVR-78-2849-J<br>NPDES Permit<br>Modification         | Current permit in<br>force. Hearing<br>deferred.                                                                                                          |
| WAH CHANG                                                | 04/78     | 04/78     | RLH      |           | Prtye     | 08-P-WQ-WVR-78-2012-J<br>NPDES Permit<br>Modification         | Current permit in<br>force. Hearing<br>deferred.                                                                                                          |
| M/V TOYOTA MARU<br>No. 10                                | 12/10/79  | 12/12/79  | RLH      |           | Hrgs      | 17-WQ-NWR-79-127<br>Oil Spill Civil Penalty<br>of \$5,000     | Ruling due on requests<br>for partial summary<br>judgment.                                                                                                |
| HAYWORTH, John W.<br>dba/HAYWORTH FARMS<br>INC.          | 12/02/80  | 12/08/80  | LMS      | 04/28/81  | Resp      | 33-AQ-WVR-80-187<br>Field burning civil<br>penalty of \$4,660 | <u>Department's brief due<br/>3/19/83.</u>                                                                                                                |
| PULLEN, Arthur W.<br>dba/Foley Lakes<br>Mobile Home Park | 07/15/81  | 07/15/81  | RLH      |           | Prtye     | 16-WQ-CR-81-60                                                | Dept. does not wish to<br>actively pursue further<br>enforcement action pend-<br>ing expected progress in<br>establishing a community<br>sewage facility. |
| FRANK, Victor                                            | 09/23/81  | 09/23/81  | LMS      | 06/08/82  | Hrgs      | 19-AQ-FB-81-05<br>FB civil penalty<br>of \$1,000              | Decision due.                                                                                                                                             |
| GATES, Clifford                                          | 10/06/81  |           | LMS      | 05/03/83  | Hrgs      | 21-SS-SWR-81-90                                               | <u>Hearing scheduled.</u>                                                                                                                                 |
| SPERLING, Wendell<br>dba/Sperling Farms                  | 11/25/81  | 11/25/81  | LMS      | 03/17/83  | Prtye     | 23-AQ-FB-81-15<br>FB Civil Penalty<br>of \$3,000              | <u>Hearing begun 3/3/83;<br/>continued to 3/17/83.</u>                                                                                                    |
| NOFZIGER, Leo                                            | 12/15/81  | 01/06/82  | LMS      | 06/29/82  | Hrgs      | 26-AQ-FB-81-18<br>FB Civil Penalty<br>of \$1,500.             | Decision due.                                                                                                                                             |
| OLD-MILLS-MARINA                                         |           | 03/04/82  | LMS      | 01/06/83  | Prtye     | 27-AQOB-NWR-82-01<br>Open-Burning-Civil<br>Penalty            | <u>No-appeal-filed---Case<br/>closed.</u>                                                                                                                 |
| PULLEN, Arthur                                           | 03/16/82  |           | RLH      |           | Prtye     | 28-WQ-CR-82-16                                                | See companion case above.                                                                                                                                 |
| BOWERS EXCAVATING<br>& FENCING, INC.                     | 05/20/82  |           | LMS      |           | Hrgs      | 30-SW-CR-82-34                                                | To be scheduled.                                                                                                                                          |
| ADAMS, Gailen                                            |           |           | VAK      | 08/25/82  | Resp      | 31-SS-NWR-82-51                                               | To be reviewed by EQC<br>at April, '83 meeting.                                                                                                           |
| OLINGER, Bill<br>INC.                                    | 09/10/82  | 09/13/82  | RLH      |           | Prtye     | 33-WQ-NWR-82-73                                               | Discovery.                                                                                                                                                |
| TOEDTEMEIER,<br>Norman                                   | 09/10/82  | 09/13/82  | LMS      |           | Hrgs      | 34-AQOB-WVR-82-65                                             | To be scheduled.                                                                                                                                          |
| SYLER, Richard E.                                        | 09/20/82  | 09/28/82  | VAK      |           | Hrgs      | 35-AQOB-WVR-82-76<br>OB civil penalty<br>of \$100.            | To be scheduled.                                                                                                                                          |
| LOGSDON, Howard                                          | 09/23/82  | 09/28/82  | LMS      |           | Hrgs      | 36-AQ-FB-82-72<br>AQ-civil-penalty<br>of-\$2,000.             | <u>Respondant-obtained<br/>permit---Penalty-miti-<br/>gated-to-\$1000.-Case<br/>closed.</u>                                                               |
| FRIENDS-OF-THE<br>BARTH/OREGON                           | 09/14/82  | 09/21/82  |          | 10/15/82  |           | 37-NWR-82<br>Petition-to-Amend<br>OAR-340-14-025(5)           | <u>No-appeal-filed---Case<br/>closed---Permit-appeal<br/>process-subject-of-staff<br/>review</u>                                                          |
| FIREBALL<br>CONSTRUCTION CORP.<br>& Glenn Dorsey         | 09/27/82  |           |          |           | Resp      | 38-SS-SWR-82-85                                               | Preliminary Issues                                                                                                                                        |
| MOORE, Dale                                              | 12/06/82  | 12/08/82  |          | 01/14/82  |           | 43<br>40-SS-NWR-82<br>Appeal of variance<br>denial            | To be before EQC at<br>April '83 meeting.                                                                                                                 |

February 1983

DEQ/EQC Contested Case Log

| Pet/Resp<br>Name                                     | Hrng<br>Rqst | Hrng<br>Rfrl | DEQ<br>Atty | Hrng<br>Date | Resp<br>Code | Case<br>Type & No.                                        | Case<br>Status                                                       |
|------------------------------------------------------|--------------|--------------|-------------|--------------|--------------|-----------------------------------------------------------|----------------------------------------------------------------------|
| TIPPET, James                                        | 12/02/82     | 12/06/82     | LMS         |              | <u>Hrgs</u>  | 39-AQ-FB-82-AG1<br>Ag. Burning civil<br>penalty of \$50   | <u>To be scheduled.</u>                                              |
| GIANELLA, Vermont                                    | 12/17/82     |              |             |              | <u>Hrgs</u>  | 41-AQ-FB-82-08                                            | <u>To be scheduled.</u>                                              |
| ROPP, Jess-E.<br>dba/Ropp-Seed-&<br>Manufacturing-Gr | 12/20/82     | 12/28/82     | VAK         |              |              | 42-AQ-FB-82-04                                            | <u>Penalty-mitigated-to<br/>\$900.--Case-closed.</u>                 |
| SCHLEGEL,<br>George L.                               | 12/30/82     | 01/03/83     | VAK         |              | <u>Hrgs</u>  | 43-AQ-FB-82-05                                            | <u>To be scheduled.</u>                                              |
| FAXON, Jay<br>dba/Faxon Farms                        | 01/03/83     |              |             |              |              | 44-AQ-FB-82-07<br>FB Civil Penalty<br>of \$1,000          | Preliminary Issues                                                   |
| MARCA, Gerald                                        | 01/06/83     |              |             |              |              | 45-SS-SWR-82-101<br>46-SS-SWR-82-114                      | Preliminary Issues                                                   |
| ALTHAUSER,<br>Glenn L.                               | 01/28/83     |              | LMS         |              |              | 47-SW-NWR-82-111<br>Solid Waste Civil<br>Penalty of \$350 | Preliminary Issues                                                   |
| Oregon<br>Environmental<br>Council                   | 02/01/83     |              |             |              |              | 48-Declaratory<br>Ruling                                  | EQC to decide at its<br>4/8/83 meeting whether<br>to issue a ruling. |
| City of Estacada                                     | 02/16/83     |              | RLH         |              |              | 49-WQ-NWR-83-08                                           | <u>Preliminary Issues</u>                                            |
| Hayworth Farms,<br>Inc., and<br>John W. Hayworth     |              |              |             |              |              | 50-AQ-FB-82-09                                            | <u>Preliminary Issues</u>                                            |



## Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

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

### MEMORANDUM

TO: Environmental Quality Commission

FROM: Director

SUBJECT: Agenda Item No. C, April 8, 1983, EQC Meeting

### TAX CREDIT APPLICATIONS

### Director's Recommendation

It is recommended the Commission take the following actions.

1. Approve tax relief applications:

| Appl.<br>No. | Applicant                  | Facility                                                  |
|--------------|----------------------------|-----------------------------------------------------------|
| T-1565       | #1 Boardman Station        | Coal burning steam electric generator                     |
| T-1580       | North Santiam Veneer, Inc. | Multiclone collector                                      |
| T-1581       | Robert L. Coats            | Baghouse                                                  |
| T-1586       | Teledyne Wah Chang Albany  | Roto-Clone air filter                                     |
| T-1587       | Teledyne Wah Chang Albany  | Particulate scrubber system                               |
| T-1590       | Teledyne Wah Chang Albany  | Modification of sand chlorination<br>area scrubber system |
| T-1592       | Teledyne Wah Chang Albany  | Support equipment for primary<br>caustic scrubber         |
| T-1593       | Teledyne Wah Chang Albany  | Electrostatic precipitator                                |
| T-1598       | The Boeing Company         | Lagoon, pumphouse and laboratory                          |
| T-1601       | The Boeing Company         | Chemical storage building                                 |
| T-1604       | Trojan Nuclear Project     | Recirculating cooling water system                        |

2. Revoke Pollution Control Facility Certificates 1093 and 1100 issued to Kenneth L. Robertson and reissue them to West Hills Enterprises, Inc. (see review report).

*Bill*

William H. Young

CASplettstaszer  
229-6484  
3/17/83  
Attachments



Contains  
Recycled  
Materials

Agenda Item C  
April 8, 1983, EQC Meeting  
Page 2

PROPOSED APRIL 1983 TOTALS

|                       |              |
|-----------------------|--------------|
| Air Quality           | \$ 3,246,022 |
| Water Quality         | 11,396,409   |
| Solid/Hazardous Waste | -0-          |
| Noise                 | -0-          |
|                       | <hr/>        |
|                       | \$14,642,431 |

CALENDAR YEAR 1983 TOTALS

|                       |              |
|-----------------------|--------------|
| Air Quality           | \$ 1,596,794 |
| Water Quality         | 11,601,269   |
| Solid/Hazardous Waste | 1,329,526    |
| Noise                 | -0-          |
|                       | <hr/>        |
|                       | \$14,527,589 |

State of Oregon  
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Number One Boardman Station

consisting of:

|                                   |     |
|-----------------------------------|-----|
| Portland General Electric Company | 80% |
| 121 S.W. Salmon Street            |     |
| Portland, OR 97204                |     |

|                     |     |
|---------------------|-----|
| Idaho Power Company | 10% |
| 1220 Idaho Street   |     |
| P.O. Box 70         |     |
| Boise, ID 83707     |     |

|                                      |     |
|--------------------------------------|-----|
| Pacific Northwest Generating Company | 10% |
| Suite 330                            |     |
| 8383 N.E. Sandy Boulevard            |     |
| Portland, OR 97220                   |     |

The applicants own and operate a coal-burning steam electric generator at Boardman, Oregon.

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

2. Description of Claimed Facility

The facility described in this application consists of the 356 foot upper section of a 656 foot high chimney.

Request for Preliminary Certification for Tax Credit was made on November 23, 1976, and approved on July 6, 1979.

Construction was initiated on the claimed facility on March 23, 1978, completed on December 6, 1979, and the facility was placed into operation on August 30, 1980.

Facility Cost: \$4,478,397.00 (Accountant's Certification was provided, of which \$2,079,997.00 is eligible.)

### 3. Evaluation of Application

The claimed facility consists of the 356 foot upper section of a 656 foot high, 22 ft. dia. chimney. The chimney was constructed of a reinforced concrete outer shell and a 22 ft. dia. steel inner liner. The claimed facility was required by the Department to insure adequate dispersion as determined by a modeling study.

The facility has been inspected by Department personnel and has been found to prevent plume downwash resulting in proper dispersion. The boiler is operating in compliance with regulations and permit conditions.

The claimed facility cost of \$4,478,397.00 is the total cost of the 656 ft. high chimney. The cost of 300 ft. high chimney which normally would be required would cost \$2,398,400.00. The eligible facility cost is the difference of \$2,079,997 which represents the additional cost to extend the stack from 300 ft. high to 656 ft. high. The annual operating expenses before taxes, exclusive of depreciation, are as follows:

|             |                 |
|-------------|-----------------|
| Utilities   | \$1,605.00      |
| Maintenance | 2,755.00        |
| Insurance   | <u>5,370.00</u> |
| Total       | \$24,070.00     |

There is no return on the investment in the chimney; therefore, 80% or more of the eligible facility cost is allocable to pollution control.

The application was received on September 22, 1982, additional information was received on January 27, 1983, and the application was considered complete on January 27, 1983.

### 4. Summation

- a. Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.
- b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).
- c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing air pollution.
- d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 468, and the rules adopted under that chapter.
- e. The portion of the facility cost that is properly allocable to pollution control is 80% or more.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$2,079,997.00 with 80% or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1565.

WJF:a  
(503) 229-5364  
March 15, 1982  
AA3104

State of Oregon  
Department of Environmental Quality

**TAX RELIEF APPLICATION REVIEW REPORT**

---

1. Applicant

North Santiam Veneer, Inc.  
P.O. Box 377  
Lyons, OR 97360

The applicant owns and operates a green veneer peeling mill near Idanha, Oregon.

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

2. Description of Claimed Facility

The facility described in this application is a Steelcraft-Vyncke 90 unit multiclone collector on a 12,000 lb/hr Steelcraft boiler.

Request for Preliminary Certification for Tax Credit was made on June 18, 1981, and approved on July 28, 1981.

Construction was initiated on the claimed facility on September 2, 1981, completed on June 11, 1982, and the facility was placed into operation on June 11, 1982.

Facility Cost: \$65,100 (Accountant's Certification was provided).

3. Evaluation of Application

North Santiam Veneer, Inc., operates a green veneer peeling plant 1/2 mile east of Idanha, Oregon. The veneer blocks for veneer are conditioned in hot water vats.

The water for veneer block conditioning is heated by two wood waste boilers. The second of two boilers was installed at a total cost of \$414,478, including the multiclone for which this report is concerned.

Based on the source test on the identical boiler and multiclone, the system is considered to be in compliance with the particulate grain loading limit of 0.1 gr/dscf at a design operating load of 12,000 lbs/hr steam. Visual observation of the boiler exhaust on May 26, 1982 indicated the boiler operates well within allowable opacity limits.

The accountant certified cost of the multiclone and associated installation was \$65,100. Annual operating expenses are estimated to

be \$12,030. A substantial purpose of the multiclone is for pollution control. There is no economic benefits from operation of the multiclone.

There is reinjection of collected, unburned particulate matter from the multiclone back to the firebox, however, the value of this material as fuel is offset by system operation and maintenance costs.

Eighty percent or more of the multiclone is allocable to pollution control.

The application was received on and considered complete on December 22, 1982.

4. Summation

- a. Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.
- b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).
- c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing air pollution.
- d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 468, and the rules adopted under that chapter.
- e. The portion of the facility cost that is properly allocable to pollution control is \$65,100.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$65,100 with 80% or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1580

L.Kostow:a  
(503) 229-5186  
March 15, 1983  
AA3109

State of Oregon  
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Robert L. Coats  
69285 Skyline Ranch Road  
Bend, OR 97701

The applicant owns and operates a portable 6,000 pound Cedar Rapids asphaltic concrete paving plant generally in Eastern Oregon.

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

2. Description of Claimed Facility

The facility described in this application consists of a W.A.G. baghouse.

Request for Preliminary Certification for Tax Credit is unclear, however, the Department was aware of the proposed installation as evidenced by Attachment 1. Preliminary Certification was approved on October 5, 1979.

Construction was initiated on the claimed facility in July 1979, completed in July 1979, and the facility was placed into operation in July 1979.

Facility Cost: \$150,845 (Accountant's Certification was provided).

3. Evaluation of Application

The claimed facility, which was required by the Department, consists of a W.A.G., Inc., Model 560 baghouse. This facility was required to reduce opacity below 20% and to insure compliance with grain loading requirements.

The facility has been inspected by Department personnel and has been found to be operating in compliance with Department regulations and permit conditions. Source test results indicate an average emission rate of 0.031 gr/scf and a mass emission rate of 7.37 lbs/hr which also demonstrate compliance.

The fines collected in the baghouse are generally recycled with some portion disposed of on-site. The economic value of the recycled fines is negligible in relation to the operating cost of \$17,400 (before taxes, exclusive of depreciation). A breakdown of this operating cost is as follows:

|             |   |              |
|-------------|---|--------------|
| Labor       | - | \$9,600      |
| Utilities   | - | 1,800        |
| Maintenance | - | <u>6,000</u> |
| Total       |   | \$17,400     |

Therefore, there is no return on the investment in the facility and 80% or more of the cost of the facility is allocable to pollution control.

The application was received on December 20, 1982, and the application was considered complete on December 20, 1982.

4. Summation

- a. Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.
- b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).
- c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing air pollution.
- d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 468, and the rules adopted under that chapter.
- e. The portion of the facility cost that is properly allocable to pollution control is 80% or more.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$150,845 with 80% or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1581.

WJF:a  
(503) 229-5749  
March 15, 1983  
AA3107



ATTACHMENT I

ATTACHMENT 1  
Tax Credit Appl. No. T-1588

## STATE OF OREGON

## INTEROFFICE MEMO

Air Quality

6092

DEPT.

TELEPHONE

TO: File thru ~~Ray Potts~~ *R P.*

DATE: August 23, 1979

FROM: J.A. Broad *JAS**file*SUBJECT: R.L. Coats  
File No. 37-0207  
NC # 1473

This memo will acknowledge that the Department was fully aware of R.L. Coat's plans to purchase a baghouse for the above referenced plant prior to 8-10-79 and start of construction.

Mr. Coat's is moving the existing baghouse on this plant to his other portable plant (37-0026). This was necessary because 37-0026 was unable to operate in compliance using the scrubber system Mr. Coat's had fabricated. Note, the existing baghouse was originally designed for and used on 37-0026, and 37-0026 has previously demonstrated compliance using the baghouse.

Mr. Coat's felt it would be better to have the new baghouse specifically designed for and used on his new plant (37-0207); thus, insuring that both plants have custom designed control systems and insuring that both plants will be capable of operating in continuous compliance.

JAB:nlb

State of Oregon  
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Teledyne Industries, Inc.  
Teledyne Wah Chang Albany  
P.O. Box 460  
Albany, OR 97321

The applicant owns and operates a zirconium, hafnium, tantalum, titanium and niobium production plant at 1600 Old Salem Road, Albany, Oregon.

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

2. Description of Claimed Facility

The facility described in this application includes one Roto-Clone (size 20) air filter unit and related duct work, structural and electrical components.

Request for Preliminary Certification for Tax Credit was made on November 6, 1979, and approved on November 20, 1979.

Construction was initiated on the claimed facility on December 15, 1979, completed on September 15, 1980, and the facility was placed into operation on September 15, 1980.

Facility Cost: \$43,657 (Accountant's Certification was provided).

3. Evaluation of Application

The claimed facility, which removes particulate matter (primarily lead) from air exhausted from the applicant's Extrusion Department, operates in compliance with Department rules.

All material collected is shipped to a hazardous waste disposal site. Since economic benefits are not associated with the claimed facility, 80% or more of the facility cost is allocable to pollution control.

The application was received on January 3, 1983, and the application was considered complete on January 3, 1983.

4. Summation

- a. Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.
- b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).
- c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing air pollution.
- d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 468, and the rules adopted under that chapter.
- e. The portion of the facility cost that is properly allocable to pollution control is 80% or more.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$43,657 with 80% or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1586.

FAS:a  
(503) 229-6414  
March 15, 1983  
AA3111

State of Oregon  
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Teledyne Industries, Inc.  
Teledyne Wah Chang Albany  
P.O. Box 460  
Albany, OR 97321

The applicant owns and operates a zirconium, hafnium, tantalum, titanium and niobium production plant at 1600 Old Salem Road, Albany, Oregon.

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

2. Description of Claimed Facility

The facility described in this application is an Air Pollution Systems (APS) particulate scrubber system consisting of an ionizer, venturi scrubber, two pressure blowers and associated foundation, structural, piping, electrical and control components.

Request for Preliminary Certification for Tax Credit was made on January 5, 1979, and approved on February 28, 1979.

Construction was initiated on the claimed facility in March 1979, completed on October 14, 1981, and the facility was placed into operation on October 14, 1981.

Facility Cost: \$182,018 (Accountant's Certification was provided).

3. Evaluation of Application

The claimed facility was installed to achieve compliance with opacity limits as set forth in the applicant's Air Contaminant Discharge Permit regarding emissions from the Magnesium Recovery process. Inspections by DEQ staff indicate that the facility operates in compliance. Since all collected matter is eventually discarded, no economic benefits are incurred by the applicant. Therefore, 80% or more of the facility cost is allocable to pollution control.

The application was received on January 3, 1983, and the application was considered complete on January 3, 1983.

4. Summation

- a. Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.
- b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).
- c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing air pollution.
- d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 468, and the rules adopted under that chapter.
- e. The portion of the facility cost that is properly allocable to pollution control is 80% or more.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$182,018 with 80% or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1587.

FAS:a  
(503) 229-6414  
March 15, 1983  
AA3110

State of Oregon  
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Teledyne Industries, Inc.  
Teledyne Wah Chang Albany  
P.O. Box 460  
Albany, OR 97321

The applicant owns and operates a zirconium, hafnium, tantalum, titanium and niobium production plant at 1600 Old Salem Road, Albany, Oregon.

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

2. Description of Claimed Facility

The facility described in this application is a modification of the sand chlorination area ventilation emission control scrubber system consisting of a new scrubber midsection, demister, packing, hooding, duct work and associated piping, valve, motor and control components.

Request for Preliminary Certification for Tax Credit was made on July 18, 1978, and approved on August 9, 1978.

Construction was initiated on the claimed facility in August 1978, completed on September 15, 1980, and the facility was placed into operation on September 15, 1980.

Facility Cost: \$229,720 (Accountant's Certification was provided).

3. Evaluation of Application

The claimed facility was installed to further reduce emissions of fugitive particulates and chlorine/chloride gases from the sand chlorination process as required by the applicant's Air Contaminant Discharge Permit. Emission test data indicates that such emissions have been reduced by more than 80%. Inspections by DEQ staff also indicate that the claimed facility is operating in compliance.

Since all matter collected is eventually discarded, no economic benefits are incurred by the applicant. Therefore, 80% or more of the facility cost is allocable to pollution control.

The application was received on January 3, 1983, and the application was considered complete on January 3, 1983.

4. Summation

- a. Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.
- b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).
- c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing air pollution.
- d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 468, and the rules adopted under that chapter.
- e. The portion of the facility cost that is properly allocable to pollution control is 80% or more.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$229,720 with 80% or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1590.

FAS:a  
(503) 229-6414  
March 15, 1983  
AA3108

State of Oregon  
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Teledyne Industries, Inc.  
Teledyne Wah Chang Albany  
P.O. Box 460  
Albany, OR 97321

The applicant owns and operates a zirconium, hafnium, tantalum, titanium and niobium production plant at 1600 Old Salem Road, Albany, Oregon.

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

2. Description of Claimed Facility

The facility described in this application includes support equipment for the  $ZrO_2$  calciner primary caustic scrubber consisting of foundation blower (fan), pumps, level monitor, duct work, liquid caustic tank and pH control components.

Request for Preliminary Certification for Tax Credit was made on December 3, 1977, and approved on April 3, 1978.

Construction was initiated on the claimed facility in September 1978, completed on September 18, 1980, and the facility was placed into operation on September 18, 1980.

Facility Cost: \$61,375 (Accountant's Certification was provided).

3. Evaluation of Application

The components of this claimed facility are essential elements of the packed scrubber system which removes  $SO_2$  from the  $ZrO_2$  calciner exhaust. The total system, which operates at about 99% removal efficiency, was necessary to, and does comply with the applicant's Air Contaminant Discharge Permit.

Although the sodium sulfite solution produced by the total system is used in the applicant's water pollution control system, the solution value is less than the  $SO_2$  scrubber system operating costs. Since there are no positive economic benefits to the applicant, 80% or more of the claimed facility is allocable to pollution control.

The application was received on January 3, 1983, additional information was received on January 10, 1983, and the application was considered complete on January 10, 1983.

4. Summation

- a. Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.
- b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).
- c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing air pollution.
- d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 468, and the rules adopted under that chapter.
- e. The portion of the facility cost that is properly allocable to pollution control is 80% or more.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$61,375 with 80% or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1592.

FAS:a  
(503) 229-6414  
March 15, 1983  
AA3112

State of Oregon  
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Teledyne Industries, Inc.  
Teledyne Wah Chang Albany  
P.O. Box 460  
Albany, OR 97321

The applicant owns and operates a zirconium, hafnium, tantalum, titanium and niobium production plant at 1600 Old Salem Road, Albany, Oregon.

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

2. Description of Claimed Facility

The facility described in this application is a two-stage Fluid-Plate TM Wet Electrostatic Precipitator and associated foundation/structural, duct work, piping and electrical instrumentation/control components.

Request for Preliminary Certification for Tax Credit was made on March 8, 1982, and approved on March 23, 1982.

Construction was initiated on the claimed facility in May 17, 1982, completed on November 1, 1982, and the facility was placed into operation on November 1, 1982.

Facility Cost: \$433,310 (Accountant's Certification was provided).

3. Evaluation of Application

The claimed facility was installed to comply with particulate emission limits (grain loading and opacity) for the  $ZrO_2$  calciners as set forth in the applicant's Air Contaminant Discharge Permit. Results of source tests and DEQ inspections indicate that the facility is operating properly and in compliance.

Since all collected matter is eventually discarded, no economic benefits are incurred by the applicant. Therefore, 80% or more of the facility cost is allocable to pollution control.

The application was received on January 3, 1983, additional information was received on January 10, 1983, and the application was considered complete on January 10, 1983.

4. Summation

- a. Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.
- b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).
- c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing air pollution.
- d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 468, and the rules adopted under that chapter.
- e. The portion of the facility cost that is properly allocable to pollution control is 80% or more.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$433,310 with 80% or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1593.

FAS:a  
(503) 229-6414  
March 15, 1983  
AA3114

State of Oregon  
Department of Environmental Quality

**TAX RELIEF APPLICATION REVIEW REPORT**

---

1. Applicant

The Boeing Company  
Boeing of Portland, Fabrication Division  
P. O. Box 20487  
Portland, OR 97201

The applicant owns and operates a facility which machines and surface conditions aircraft parts at Gresham.

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

2. Description of Claimed Facility

The facility described in this application is a lagoon, pumphouse, and laboratory. The lagoon has a surge capacity of 300,000 gallons and has a double liner consisting of two sheets of Hypalon separated by six inches of sand. Lysimeters are located between and under the liners to detect any leakage. The pumphouse consists of a 20 x 40 ft. building which houses tanks, pumps, mixers and flow meters. The laboratory, located in a separate building, consists of wastewater analytical and testing apparatus. This equipment includes a Perkin Elmer atomic absorption spectrophotometer, an Allen-Bradley programmable controller and chlorine analyzer.

Request for Preliminary Certification for Tax Credit was made March 7, 1980, and approved March 26, 1980. Construction was initiated on the claimed facility June 16, 1980, completed October 23, 1981, and the facility was placed into operation November 4, 1981.

Facility Cost: \$1,002,536 (Accountant's Certification was provided).

3. Evaluation of Application

The applicant previously built a heavy metals removal system at the Gresham plant (they are applying for tax credit for this project under a separate application). The lagoon, pumphouse, and laboratory complement the existing treatment facility. The lagoon is used to blend acidic and alkaline rinse water from the plating lines prior to the treatment system. It is also used for the return of treated effluent if it is not acceptable for disposal. The final effluent is disposed of in the City of Gresham's sewerage system. The pumphouse contains four pumps which transfer concentrated waste between the lagoon and the waste treatment plant, or from the lagoon to a tank truck or drums for disposal. The

pumphouse also contains three, 3,000 gallon tanks for storage of concentrated wastes. These are used for concentrated acidic and alkaline wastes in the event a shop tank needs to be dumped.

The laboratory is used to control the entire treatment facility. The programmable controller monitors and controls influent wastes and each stage of the treatment operation. The laboratory is also used to check the quality of the final effluent. The overall facility has easily complied with the requirements of the City of Gresham. There is no return on investment from this facility.

4. Summation

- a. Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.
- b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).
- c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing water pollution.
- d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that chapter.
- e. The portion of the facility cost that is properly allocable to pollution control is 80 percent or more.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$1,002,536 with 80 percent or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1598.

Charles K. Ashbaker:g  
(503) 229-5325  
March 2, 1983

WG2126

State of Oregon  
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

The Boeing Company  
Boeing of Portland, Fabricating Division  
P.O. Box 20487  
Portland, OR 97201

The applicant owns and operates a facility which machines and surface conditions aircraft parts at Gresham.

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

2. Description of Claimed Facility

The facility described in this application is a chemical storage building. The 21 x 67 foot building has concrete block walls with a metal roof. The building is divided into four separate rooms which have sloped concrete floors. Each floor drains to a separate dry sump.

Request for Preliminary Certification for Tax Credit was made May 27, 1980, and approved May 28, 1980. Construction was initiated on the claimed facility August 6, 1980, completed May 29, 1981, and the facility was placed into operation August 10, 1981.

Facility Cost: \$38,119.11 (Accountant's Certification was provided).

The Accountant's Certified Facility Cost was \$127,063.70. However, the applicant specified that only 30 percent of this cost is allocable to pollutant control.

3. Evaluation of Application

The claimed facility is used to store chemicals used in the waste water treatment process and chemicals used in the production lines. The applicant has claimed that, based on the proportion of building floor space used to store waste treatment chemicals, 30 percent of the facility is allocable to pollutant control. The applicant was informed upon their request for preliminary certification that only those portions of the building used to store waste treatment chemicals would be eligible for pollution control tax relief. There is no return on investment from this facility.

4. Summation

- a. Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.
- b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).
- c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing water pollution.
- d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that chapter.
- e. The portion of the facility cost that is properly allocable to pollution control is 80 percent or more.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$38,119.11 with 80 percent or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1601.

Charles K. Ashbaker:l  
(503) 229-5325  
March 10, 1983  
WL2370

State of Oregon  
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Trojan Nuclear Project  
121 S.W. Salmon Street  
Portland, OR 97204

The applicant owns and operates a nuclear fueled generating unit to produce up to 1,130,000 KW of electricity at Prescott.

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

2. Description of Claimed Facility

The facility described in this application is a recirculating cooling water system consisting of a 499 foot high natural draft cooling tower and a circulating water system.

Notice of Intent to Construct and Preliminary Certification for Tax Credit not required.

Construction was initiated on the claimed facility March 1971, completed May 1973, and the facility was placed into operation December 1975.

Facility Cost: \$10,355,754 (Accountant's Certification was provided).

The Accountant's Certification showed a facility cost of \$15,158,854. However, the applicant indicated that a portion of the project would have been needed for a once-through cooling water system. This portion consists of pumps, piping, valves, and instrumentation at an estimated cost of \$4,803,100.

Since this cost would have been necessary, absent any pollution control requirements, it should be subtracted from the Accountant's Certified Facility Cost ( $\$15,158,854 - \$4,803,100 = \$10,355,754$ ).

3. Evaluation of Application

The applicant was required by the Department to provide offstream cooling for the cooling water prior to discharging to the Columbia River. Although cooling ponds may have provided adequate cooling, ground fog during periods of the year would have been a problem. Hot water from the steam condensers is pumped through the cooling tower where heat is released to the atmosphere through evaporation and conduction. Cooled water from the tower is recycled through the system up to ten times. A portion of the cooled water is discharged to the Columbia River and is well in compliance with the requirements of the NPDES permit. There has been no return on investment from this facility.

4. Summation

- a. Facility was not required to have prior approval to construct or preliminary certification.
- b. Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1)(a).
- c. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing water pollution.
- d. The facility is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that chapter.
- e. The portion of the facility cost that is properly allocable to pollution control is 80 percent or more.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost \$10,355,754 with 80 percent or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1604.

Charles K. Ashbaker:1  
(503) 229-5325  
February 10, 1983  
WL2294

State of Oregon  
Department of Environmental Quality

REISSUANCE OF POLLUTION CONTROL FACILITY CERTIFICATE

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1. Certificates Issued to:

Kenneth L. Robertson  
1134 Lancaster Drive, NE  
Salem, OR 97301

The Certificates were issued for solid waste pollution control facilities.

2. Summation

On June 20, 1980, the Environmental Quality Commission issued Pollution Control Facility Certificates No. 1093 and 1100 to Kenneth L. Robertson for waste paper balers located in Salem and Corvallis.

By letter of February 24, 1983 (attached), Mr. Robertson requested that Certificates 1093 and 1100 be revoked and reissued to West Hills Enterprises, Inc.

3. Director's Recommendation

It is recommended that Pollution Control Facility Certificates 1093 and 1100 be revoked and reissued to West Hills Enterprises, Inc. The Certificates to be valid only for the time remaining from the date of first issuance.

CASplettstaszer  
229-6484  
3/17/83  
Attachments

*K Leasing  
R*

1095 25th S.E. - Suite 201 - Salem, Oregon 97302

February 24, 1983

Carol Splettstaszer  
Department of Environmental Equality  
P.O. Box 1760  
Portland, Oregon 97207

Dear Carol,

I would like to request a name change on two Pollution Control Facility Certificates. Their numbers are 1093 and 1100 and both were issued on June 20, 1980.

I would like these certificates to be issued to West Hills Enterprises, Inc., 1095 25th St. SE, Suite 201, Salem, OR 97301.

Thank You,

*Kenneth L. Robertson*

Kenneth L. Robertson

KLR/bbs  
Encl.

Management Services Div.  
Dept. of Environmental Quality

RECEIVED  
MAR 1 1983

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 1093

Date of Issue 6/20/80

Application No. T-1196

## POLLUTION CONTROL FACILITY CERTIFICATE

|                                                                                                                                                                                                                                                           |                                                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Issued To:<br><br>Kenneth L. Robertson<br>1134 Lancaster Drive, NE<br>Salem, Oregon 97301                                                                                                                                                                 | Location of Pollution Control Facility:<br><br>Clarke Distributing Company<br>1660 Industrial Drive, NE<br>Salem, Oregon |
| As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner                                                                                                                                                                             |                                                                                                                          |
| Description of Pollution Control Facility:<br><br>A Kilkom Model Kl-9 waste paper baler, serial #879122                                                                                                                                                   |                                                                                                                          |
| Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input type="checkbox"/> Water <input checked="" type="checkbox"/> Solid Waste <input type="checkbox"/> Hazardous Waste <input type="checkbox"/> Used Oil |                                                                                                                          |
| Date Pollution Control Facility was completed: <u>9/1/79</u> Placed into operation: <u>9/1/79</u>                                                                                                                                                         |                                                                                                                          |
| Actual Cost of Pollution Control Facility: \$ <u>7,700.00</u>                                                                                                                                                                                             |                                                                                                                          |
| Percent of actual cost properly allocable to pollution control:<br><br>100%                                                                                                                                                                               |                                                                                                                          |

Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of ORS 468.175 and subsection (1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder.

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

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

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

Signed

Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on  
the 20th day of June, 19 80

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 1100

Date of Issue 6/20/80

Application No. T-1229

## POLLUTION CONTROL FACILITY CERTIFICATE

|                                                                                                                                                                                                                                                           |                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Issued To:<br><br>Kenneth L. Robertson<br>1134 Lancaster Drive, NE<br>Salem, Oregon 97301                                                                                                                                                                 | Location of Pollution Control Facility:<br><br>Walt's Market<br>1149 NW Van Buren<br>Corvallis, Oregon |
| As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner                                                                                                                                                                             |                                                                                                        |
| Description of Pollution Control Facility:<br><br>A Kilkom Model KV-36 waste paper baler, serial #1179201                                                                                                                                                 |                                                                                                        |
| Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input type="checkbox"/> Water <input checked="" type="checkbox"/> Solid Waste <input type="checkbox"/> Hazardous Waste <input type="checkbox"/> Used Oil |                                                                                                        |
| Date Pollution Control Facility was completed: December 1, 1979 Placed into operation: December 1, 1979                                                                                                                                                   |                                                                                                        |
| Actual Cost of Pollution Control Facility: \$ 5,836.00                                                                                                                                                                                                    |                                                                                                        |
| Percent of actual cost properly allocable to pollution control:<br><br>100%                                                                                                                                                                               |                                                                                                        |

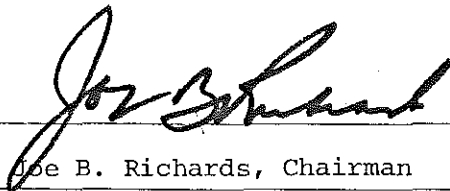
Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of ORS 468.175 and subsection (1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder.

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

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

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

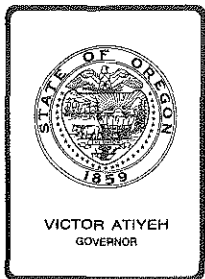
Signed



Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on

the 20th day of June, 19 80



## *Environmental Quality Commission*

Mailing Address: BOX 1760, PORTLAND, OR 97207

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

### MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. D, April 8, 1983, EQC Meeting

Request for Authorization to Conduct a Public Hearing  
on the Modification of Rules for Hazardous Waste Storage  
or Treatment by Generators, OAR 340-63-215(8) and  
340-63-405(1)(a).

### Background

Due to a high potential for human health and environmental damage, hazardous waste requires special management controls. This need has been recognized since 1971 when Oregon initially adopted hazardous waste legislation so that today we have a comprehensive hazardous waste management program that controls hazardous waste from the time of generation through transportation, storage, treatment, and disposal.

Concurrently, the U.S. Environmental Protection Agency, under Subtitle C of the Resource Conservation and Recovery Act (1976), has developed a national program for the management of hazardous waste. The Act places hazardous waste management in the federal province but includes provisions for EPA to authorize a state program to operate in lieu of the federal program.

The two-step authorization process consists of a period of Interim Authorization during which a state program is to be "substantially" equivalent to the federal program; and Final Authorization for which full equivalence is required. The purpose of Interim Authorization is to give a state time to bring its program into compliance with federal standards. The DEQ is currently preparing major revisions to its rules with that objective in mind.

However, due to a delay in the adoption of some portions of the federal rules, EPA separated the Interim Authorization process into two phases. The DEQ obtained Phase 1 on July 16, 1981 and, as a consequence, is solely responsible for managing those portions of the hazardous waste program dealing with generators, transporters, and existing management facilities.

The DEQ submitted draft applications for Phase 2 Interim Authorization (standards for licensing storage, treatment and disposal facilities) to EPA in March and August, 1982. A number of deficiencies were identified which precluded authorization at that time. Through extensive negotiations, however, all the deficiencies but two are solvable without rule changes.

The remaining deficiencies involve OAR 340-63-215(8) and 340-63-405(1)(a), which allow generators to store hazardous waste on-site for up to 180 days without specific approval from the DEQ and to treat wastes subject only to general performance standards. The EPA requires generators to obtain a

license if they store for longer than 90 days (under certain conditions, this may be extended for an additional 30 days) or treat more than 2,200 pounds a month of hazardous waste on-site. Unless these rules are modified EPA has stated that they cannot grant DEQ Phase 2 Interim Authorization. It is therefore proposed that the subject rules be modified to comply with EPA requirements.

The legal basis for this action is ORS 459.445(2) and 459.505.

#### Alternatives and Evaluation

The alternatives are either to modify or not modify the rules.

Modifying the rules will enable DEQ to obtain Phase 2 Interim Authorization. This would make generators that store and treat hazardous waste subject only to DEQ rules and possibly a DEQ license.

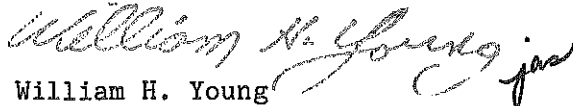
Conversely, if DEQ does not obtain Phase 2 Interim Authorization, the federal program will also be operable and generators that store for in excess of 90 days or treat would have to obtain a federal permit in addition to any requirements that DEQ may impose.

#### Summation

- (1) The DEQ currently operates a comprehensive management program that controls hazardous waste from the time of generation through transportation, storage, treatment and disposal.
- (2) The DEQ is in the process of seeking authorization from EPA to manage hazardous waste in Oregon in lieu of the federal program. However, the state program is deficient in that it allows a generator to store hazardous waste without a license for 180 rather than 90 days and to treat wastes on-site without a license.
- (3) The proposed modifications of OAR 340-63-215(8) and 340-63-405(1)(a) will remedy these deficiencies and allow DEQ to seek Phase 2 Interim Authorization.

#### Director's Recommendation

Based upon the summation, it is recommended that the Commission authorize a public hearing to take testimony on the proposed modifications of OAR 340-63-215(8) and 340-63-405(1)(a).

  
William H. Young

- Attachments
1. Statement of Need for Rules
  2. Statement of Land Use Consistency
  3. Draft Public Notice of Rules Adoption
  4. Proposed Modifications of OAR 340-63-215(8) and 340-63-405(1)(a)

Richard Reiter:bc  
229-6434  
March 8, 1983  
ZB1777

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

IN THE MATTER OF MODIFYING

)

)

)

STATUTORY AUTHORITY:

ORS 459.445(2) allows generators to store hazardous waste without a license for a period to be set by rule. ORS 459.505 requires generators that treat or store hazardous waste to obtain a license unless exempted by the Commission.

NEED FOR THE RULES:

The current rules allow generators to store hazardous waste without approval for up to 180 days. The Department seeks to lower this period to 90 days and to license storage beyond 90 days in order to demonstrate that its hazardous waste management program is in compliance with federal standards. The Department's program also allows generators to treat hazardous waste on-site subject only to general performance standards. The proposal to license generator treatment facilities that treat more than 2,000 pounds per month (2 pounds if a waste is classified toxic) will also demonstrate further compliance with federal standards.

PRINCIPAL DOCUMENTS RELIED UPON:

Existing federal hazardous waste management rules, 40 CFR Part 262.

FISCAL IMPACT:

Modification of these rules will have no fiscal impact on any person since the rules upon which they are based have been in effect at the federal level since November 19, 1980.



*Oregon Department of Environmental Quality*

## **A CHANCE TO COMMENT ON...**

### **The Modification of Rules for Hazardous Waste Storage**

Date Issued: April 15, 1983  
Hearing Date: May 2, 1983  
Comments Due: May 2, 1983

**WHO IS  
AFFECTED:**

No one will be adversely affected since the rules upon which these proposals are based have been in effect at the federal level since November 19, 1980. Indeed, to the extent that their adoption assists DEQ in obtaining Interim Authorization, hazardous waste generators will benefit since they will be subject only to State regulation, whereas, without such authorization, they would be subject to both state and federal regulations.

**WHAT IS  
PROPOSED:**

The DEQ proposes to modify OAR 340-63-215(8) and 340-63-405(1)(a) to decrease the time during which a generator can store hazardous waste without approval from 180 to 90 days or treat hazardous waste on-site without a license. Storage beyond 90 days or treatment would now require a license subject only to certain small quantity exemptions. This is in compliance with existing federal law and is a step in fulfilling the requirement of making the State hazardous waste management program consistent with the federal program. Such action is necessary if the Department is to eventually assume sole responsibility for managing hazardous waste in Oregon.

**WHAT ARE THE  
HIGHLIGHTS:**

- o A generator may store his own hazardous waste on the site of generation without approval for up to 90 days. A license will be required for storage beyond 90 days.
- o The Department may grant a 30-day extension prior to enforcing the licensing requirement due to unforeseen, temporary and uncontrollable circumstances.
- o A license will be required for a generator to treat his own hazardous waste.
- o Both the treatment and storage facility licenses have small-quantity exclusions.

**HOW TO  
COMMENT:**

Copies of the proposed rules can be obtained from:

Fred Bromfeld  
Hazardous Waste Operations  
Department of Environmental Quality  
PO Box 1760  
Portland, Oregon 97207  
Telephone: 229-6210

**FOR FURTHER INFORMATION:**

Contact the person or division identified in the public notice by calling 229-5696 in the Portland area. To avoid long distance charges from other parts of the state, call 1-800-452-7813, and ask for the Department of Environmental Quality.



P.O. Box 1760  
Portland, OR 97207

8/10/82



Written comments should be sent to the same address by May 2, 1983. Verbal comments can be given during the public hearing scheduled as follows:

9:00 a.m.  
May 2, 1983  
Room 1400  
DEQ Offices  
522 SW 5th Avenue  
Portland, Oregon 97204

**WHAT IS THE  
NEXT STEP:**

After the public hearing, the Environmental Quality Commission may adopt a rule identical to that proposed, modify the rule, or decline to act. The Commission's deliberations should come on May 20, 1983, as part of the agenda of a regularly scheduled Commission meeting.

ZC835.A

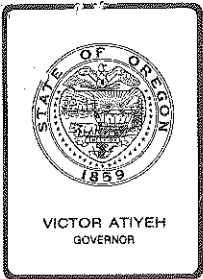
ATTACHMENT IV  
Agenda Item No. D  
April 8, 1983 EQC Meeting

- (1) It is proposed to modify OAR 340-63-215(8) as follows:

340-63-215(8) A generator shall not store hazardous waste for longer than [6 months] 90 days without [specific approval] obtaining a collection site license from the Department. [Such approval will be based upon a determination that a practicable means of transportation, treatment or disposal is not available, or that there is a good potential for reuse or recycle within a reasonable time frame.] The Department may grant a 30-day extension due to unforeseen, temporary and uncontrollable circumstances.

- (2) It is proposed to modify OAR 340-63-405(1)(a) as follows:

340-63-405(1)(a) Generators who store hazardous waste as permitted by rule 340-63-215(8) or who store or treat less than 2 lb/mon. of any one or combination of wastes classified toxic or less than 2,000 lb/mon. of any one or combination of other [their own] hazardous wastes on their own plant site need comply only with rule 340-63-420.



## *Environmental Quality Commission*

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### MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. E, April 8, 1983, EQC Meeting

Proposed Adoption of Amendments to Noise Control Rules:  
OAR 340-35-015, 35-025, 35-030, 35-035, 35-040 and 35-045  
and Procedure Manuals: 1, 2, 21 and 35.

### Background

Oregon Revised Statutes Chapter 467 directs the Environmental Quality Commission to "investigate and after appropriate public hearings, establish maximum permissible levels of noise emissions for each category established, as well as the method of measurement of the levels of noise emission." To date, the Commission has approved rules for five categories of noise emission sources and associated procedure manuals. As these rules and manuals have not been amended for housekeeping purposes for several years, it is desirable to incorporate minor modifications in order to enhance their effectiveness, eliminate misinterpretations, and streamline their implementation. Proposed amendments to these rules and procedure manuals were drafted by staff for consideration at public hearings.

The Commission authorized a public hearing on the proposed rule and procedure amendments at its December 3, 1982 meeting. The hearing was held on January 12, 1983 in Portland and was continued on February 12, 1983 in Medford. The Commission has legal authority to adopt and amend noise control rules and procedures pursuant to ORS Chapter 467. A statement of need for rulemaking is attached.

### Alternatives and Evaluation

As most of the proposed amendments are not controversial, many otherwise interested parties declined to submit formal comments. Thus these items are assumed to be acceptable and will not be evaluated to the same extent as those proposed amendments or issues for which testimony was submitted. The following sections will evaluate each rule and procedure manual that contained proposed amendments. Each definition section (35-015) amendment will be discussed under the rule to which the specific definition amendment applies.

A. Sale of New Motor Vehicles OAR 340-35-025

The significant proposal for amending the rules for the sale of new motor vehicles is to incorporate the federal EPA motorcycle regulations into the Oregon rules. The EPA rules became effective for all motorcycles manufactured after December 31, 1982 and are preemptive of any non-identical state or local standards.

1. Incorporation of Federal Motorcycle Regulations

Comments for the motorcycle manufacturers were submitted by the Motorcycle Industry Council (MIC). Its testimony is attached as Exhibit B of the Hearing Officer report Attachment C. MIC asked that clarification of the EPA label be added to subsection (1)(e) by adding the phrase "or marked" after "labeled" to including other labeling methods that are accepted by EPA, such as stamping or embossing. This recommendation was found acceptable to staff. MIC also recommended clarification of Table 1 by adding the phrase "built after December 31, 1982" to motorcycle effective dates subject to the federal standards. This request was acceptable to staff and was added to the final proposed amendments.

2. Exemption for Inboard/Outboard Motorboats

No comments were received on the proposal to exempt motorboats with an inboard/outboard power package designed to exhaust beneath the surface of the water. Amendments to Definition (25) would accomplish this exemption and thus reduce the unnecessary burden of this rule on manufacturers of this compliant product.

B. In-Use Motor Vehicles OAR 340-35-030

Several amendments under this rule were proposed to enhance the capability of police agencies to implement these noise limits. The standards for motor vehicles operating on public roads (Table 3) were modified to eliminate the need to establish the model year of a moving vehicle and to add a constant speed standard that will identify vehicles with defective equipment under an otherwise quiet operating mode. The standards for off-road vehicles in Table 4, were modified to reestablish limits for these vehicles under moving conditions as well as the stationary test. Again, this need was expressed by enforcement officers. A proposed amendment to the standards for motor vehicle auxiliary equipment would establish a nighttime-only ambient limit to protect sleep at nearby noise sensitive properties. Additional amendments would add provisions to enforce the federal labeling and non-tampering rules for motorcycles.

1. Equipment versus Operational Standard

The Motorcycle Industry Council (MIC) provided comments on the proposed amendments for the rules for in-use motor vehicles. In sub-

sections (1)(a)(A) and (1)(b)(A), MIC recommended adding language that would clarify the difference between equipment standards (stationary test limits in Tables 2 and 4) and operational standards (moving vehicle limits of Tables 3 and 4). This suggested language has been added.

The Automotive Exhaust Systems Manufacturers Council (AESMC) (Exhibit C) and the Specialty Equipment Market Association (SEMA) provided testimony that was critical of an operational (moving) standard that could be exceeded by a vehicle that otherwise met a reasonable equipment standard. They recommend the deletion of proposed amendments to Table 3 that would add standards for vehicles under any grade, load, acceleration or deceleration, and amend the speed designation breakpoint from 35 to 45 MPH. Staff disagrees with the Exhaust Systems Council and SEMA's recommendations to revise the proposed operational limits. First, it may be seen that the proposed amendments do not significantly change the limits for automobile and light trucks in Table 3. Second, the proposed amendments are consistent with recommendations developed by the National Association of Noise Control Official's (NANCO) Motor Vehicle Noise Task Force. In fact, the AESMC participated in the development of the NANCO guidelines. The additional language recommended by MIC in subsection (1)(a)(A) should eliminate the AESMC concern regarding equipment standards versus operational standards by clarifying that the limits of Table 3 are based on the manner of operation and not necessarily defective equipment.

## 2. Off-Road Vehicles

The MIC disagreed with Department recommendations on the moving limits for off-highway motorcycles proposed in Table 4. MIC suggests these limits be aligned with the new relaxed federal emission levels established for post-1982 off-road motorcycles. However, staff believes pre-1983 models sold under Oregon law, should continue to meet limits based on the original emissions. In addition, previous decisions by the Commission have resulted in off-road vehicle limits equivalent to limits established for public roads. Thus the proposed operational (moving) limits in Table 4 are consistent with the limits of Table 3 for motorcycles operated on public roads.

## 3. Auxiliary Equipment Ambient Standard

The Department has proposed the addition of a nighttime ambient noise limit to protect sleep activities at homes near operating motor vehicle auxiliary equipment such as truck refrigeration units. The proposal would retain the emission limits for auxiliary equipment in Table 6 and expand this table to include equipment operated by either the vehicle's primary engine or any secondary engine. In addition, subsection (1)(e) (B) would establish a nighttime ambient limit of 50 dBA at the nearest noise sensitive property to control auxiliary equipment operating for more than 30 minutes between 10 p.m. and 7 a.m. The ambient limit

proposal is opposed by West Coast Grocery Company of Salem (Exhibit D). This company operates a wholesale grocery distribution center bounded by a freeway, the railroad, a main arterial and a residential street. The main truck loading dock, with 32 shipping and receiving doors, is located adjacent to the residential street. Large refrigeration trucks use this dock on a 24-hour per day basis, seven days per week. Complaints have been registered to DEQ's Salem office regarding this noise source; however, the present rule does not provide relief. Noise levels at the homes due to refrigeration truck units is approximately 65 dBA, thus resulting in a serious impact to these residents. The recently approved City of Salem noise ordinance established a daytime limit of 55 dBA and a nighttime limit of 50 dBA for such operations. However, West Coast Grocery is located within the city limits and the impacted residents are outside the City, thus no relief may be sought under the Salem ordinance (See Exhibit D).

Staff does not believe the acceptability of the proposed auxiliary equipment ambient limit should be based solely upon the concerns of West Coast Grocery. It may well be difficult for this facility to strictly comply, due to the magnitude of their problem, however, variance procedures provide satisfactory flexibility for most difficult sources. The impacts of auxiliary equipment operations are a common complaint that most often can be solved through reasonable methods. Therefore, staff has not altered its initial recommendation on this amendment proposal.

#### 4. Federal Labeling Provisions

MIC also recommended adding the phrase "mark" to subsection (1)(f) in describing the federal motorcycle label thus including stamping and embossing. This recommendation is acceptable to staff. MIC suggested adding the term "specific code" in subsection (1)(f)(C) to duplicate terminology used in the federal rule and to reduce the possibility of confusion. Staff also found this recommendation acceptable and incorporated the modification.

#### C. Industry and Commerce OAR 340-35-035

Proposed amendments to the rules for industrial and commercial noise sources would accomplish two needs. First, they would eliminate no longer applicable standards for modified noise sources and thus eliminate misinterpretations of this section. Second, the amendments would revise the impulse standards to add a specific criteria for blasting that would streamline the implementation of this rule.

No testimony was received on these proposed amendments. Previous discussions with industry involved with quarry blasting indicated no objections to the proposed amendments for this activity.

D. Motor Sports Vehicles and Facilities OAR 340-35-040

The noise control rules for motor racing have been in effect since January 1982. With the assistance of a citizen Advisory Committee, the implementation of the noise control measures has generally been acceptable. The Advisory Committee has recommended several amendments to improve this rule. It was proposed to increase the size of the Advisory Committee from eleven to thirteen members by adding an attorney and an acoustical engineer, thus adding two non-racing experts to this committee. The current rule requires specific muffler types and lengths for all categories of racing and sets an emission limit for all but drag racing vehicles. A proposal to eliminate muffler length specifications for all race categories and add an emission limit for drag race cars was considered. It was also proposed to allow authorized non-muffled events, that threaten the nighttime curfew because of unexpected delays, to continue the event the next day. The committee recommended amendments to establish a curfew of 10:00 p.m. for jet cars and other non-complying exhibition as a further control on these un-muffled vehicles. It was also proposed to establish practice times for un-muffled race vehicles to allow the testing of these non-complying vehicles on non-race days. The rules presently provide for the authorization of exceptions from the muffler and other rule requirements for "special events" that anticipate an unusually large number of out-of-state competitors. It was recommended any event that has "a special significance to the community" would also be eligible for an exception. A request from the Jackson County Parks Department asked that the Advisory Committee recommend a rule amendment that could exempt the Jackson County drag strip from the muffler requirements. The committee recommended against this request; however, all individuals testifying at the Medford public hearing spoke to this issue.

1. Advisory Committee Composition

The proposal to expand the Motor Sports Advisory Committee (Definition 27) to include an attorney and an acoustical engineer has continued support from the existing Committee. An objection was registered by the Oregon Drag Racers Association of Medford (Exhibit G) for this proposal as they contend that legal and engineering assistance should be the responsibility of DEQ and any additional public members may offset the purpose of this committee. Staff continues to support the proposal to add these two additional committee members.

2. Muffler Specifications

The proposal to delete muffler length specifications for drag race vehicles (Definition 66) and add a drag race vehicle emission limit of 105 dBA in subsection (2)(a) was opposed by a number of groups and individuals. The owner/operator of Woodburn Dragstrip (Exhibit E) noted that the present rule is working well and changing the specifications at this time would cause confusion to the racers and open up

new problems for the track management. Further consideration of this issue by the Motor Sports Advisory Committee has resulted in a reversal of their original recommendation and they now agree this portion of the rule should remain unchanged for drag racing vehicles. However, the Committee continues its support of the proposal to eliminate muffler length specifications for non-drag race vehicles and rely upon noise emission standards to verify the effectiveness of the muffler system. Staff supports this position and has modified the proposed amendments.

### 3. Continued Events and Jet Cars

The proposal to continue events the following day, if the nighttime curfew is threatened, was generally found acceptable. The proposed curfew for jet cars and other non-complying exhibition vehicles was generally found acceptable to track operators, except some believed the curfew should be specifically related to jet cars as it is not clear which other "exhibition vehicles" the rule might cover. Staff concurs with this comment and has deleted the "other exhibition vehicles" clause from the proposal.

### 4. Non-Muffled Practice Sessions

The proposal to limit practice sessions of non-muffled race vehicles to between noon and 3:00 p.m. in subsection (11)(d) received mixed comments. Some believed this restriction did not provide adequate time for an individual that may rent a facility to primarily determine optimum vehicle adjustments, and thus spend the majority of the time making these mechanical adjustments, and only operate the vehicle for a total of several minutes during the day. The Advisory Committee also reevaluated this proposal and decided that the proposed amendment was justified as it provided policy guidance by encouraging non-muffled practice between noon and 3:00 p.m., but further provides flexibility to schedule longer non-muffled practice times through the proposed amendment in subsection (12)(h) that allows approval of other schedules on a case-by-case basis. Staff supports this position.

### 5. Special Events, Exceptions

The motor sports rules also provide the flexibility to exempt events that are expected to attract a large number of out-of-state competitors that may not reasonably be expected to comply with Oregon requirements. These "special event" (Definition 57) exceptions are considered and recommended for approval or disapproval on a case-by-case basis by the Advisory Committee and the Department. The present criteria to evaluate any event is a "substantial or significant number of out-of-state" competitors. It was proposed to delete "significant" and add "any event that has a special significance to the community". This proposal met mixed reactions with several noting that the deletion of "significant" would require more than 50% to be eligible. Therefore, staff recommends that the proposed amendment only add the additional flexibility of the "special significance to the community" clause and

not delete the word "significant" to the number of competitors criteria.

#### 6. Stock Exhaust System Definition

The Automotive Exhaust Systems Manufacturers Council (AESMC) raised concerns over Definition (60) that is used to define a stock exhaust system for the purpose of the motor sports rules. The AESMC incorrectly assumed this definition is applied to vehicles operated on the public roads and thus could restrict the sale of mufflers that cause some increased noise emissions over the factory system. Such is not the case as this definition is only used within the motor sports rules.

#### 7. Race Muffler Definition

The Specialty Equipment Market Association suggested that Definition (66), identifying acceptable racing mufflers, should not endorse any muffler brand and therefore references to the "Hughes" muffler should be amended to the "Hughes type" muffler. Staff agrees with this recommendation and has modified the proposal.

#### 8. Muffler Exemption Request - Jackson County Sports Park

The Jackson County Sports Park, a County owned and operated recreational facility, has been the site of controversy since the approval of these noise control rules. This park includes a drag racing track that incorporates an earthen berm that shields portions of the track from receptors located west and north-west of the facility. During the 1982 racing season, the track operator initially claimed they were not aware of the mandatory muffler rule and were not prepared to immediately implement this requirement. However, no movement toward compliance was attempted. The operator then requested a muffler exception for all events, based on the large number of out-of-state competitors with an additional request to exempt the drag strip from the muffler requirement due to the effectiveness of the earthen berm. The Motor Sports Advisory Committee evaluated the muffler exemption request and recommended against its approval. All testimony presented at the Medford public hearing was toward the motor sports rules and major written testimony is included in Exhibits F through K.

The Advisory Committee continues to object to totally exempting a facility from the muffler requirement because of (a) the need for statewide uniformity, (b) mufflers are a reasonable control method for competitors, and (c) virtually all racing facilities produce objectional noise impacts to nearby property owners notwithstanding any extra noise reducing factors such as distance, walls or berms.

The position of officials of the Jackson County Parks Department (Exhibits F and H) is that the noise berm is an effective noise control measure that provides at least as much noise attenuation as a muffler

and therefore mufflers are not needed and should not be required. The economic impact of mandatory mufflers has also been raised as an important factor. It is claimed that mandatory mufflers would discourage California racers from competing at the Jackson County track. (See summary of Dan Nuss testimony item 15 of Exhibit A). In addition, some believe the Oregon racers will go to California tracks if mufflers are required at Jackson County. Naturally, this contention may be disputed by examining the impact of mufflers on the Portland dragstrip located adjacent to Vancouver, Washington and within a reasonable distance to another quality dragstrip located between Tacoma and Seattle.

A number of residents have expressed concern about excessive noise from dragstrip operations at the Jackson County Sports Park. Initial drag racing at the Park began with relatively small events held during daytime hours. In mid-1982, lights were installed at the strip and a nighttime event caused enough noise to generate at least two independent complainants. Testimony at the hearing from residents and property owners (see items 32 through 37 of Exhibit A, and Exhibits J and K) indicated that the nighttime events were most objectionable. Most believed that the muffler rule was reasonable for both local and out-of-state racers and the track should consider the rights of adjacent property owners over the reluctance of drag racers to install mufflers.

Staff does not believe this issue is best addressed under the rulemaking procedure. The current rule requires a "best control" approach toward reducing individual vehicle noise emissions. Each motor sports facility has peculiar problems due to its location in relationship to adjacent residences and various acoustical factors that influence ambient noise levels in the neighborhoods. Much of the issue at the Jackson County Sport Park is based on the claimed economic impact on Jackson County due to the mandatory muffler rule. However, if the Sports Park is exempted from mufflers, it is likely that economic impacts may be claimed by other Oregon tracks that see their racers traveling to the Jackson County track to avoid muffler requirements. Staff, therefore, has recommended this issue be brought to the Commission as a variance request pursuant to ORS 467.060 and OAR 340-35-100 which provide the flexibility to rule on a single noise source for economic as well as other justifications. Jackson County is preparing a variance request for the Sports Park that will be brought to the EQC on May 20, 1983 for consideration.

E. Airports OAR 340-35-045

Proposed amendments to the airport rules would clarify requirements that would apply to any airport that receives an "air carrier airport" designation. Another proposal would clarify the requirements for the submittal of field verification data as the rule is presently subject to misinterpretation.

The above minor clarifying modifications of the airport rules received no comments. A change that would enhance this rule would require noise impacts to be described prior to receiving local land use approval of any new airport (subsection (3)(C)). It was proposed that the results of this analysis be submitted to the local planning agency and the Department of Land Conservation and Development. The Oregon Aeronautics Division (Exhibit L) has objected to sending such information to DLCD as it would only cause confusion. Staff has contacted DLCD and now agrees with the Aeronautics Division and has modified the proposed amendment.

F. Noise Procedure Manuals 1, 2, 21 and 35

Most of the amendments to the procedure manuals only add clarification to existing procedures and no testimony was received on these proposed amendments. The Motorcycle Industry Council (Exhibit B) suggested the federal motorcycle test procedure be added to the motor vehicle test procedure manual (21). Staff does not believe the reproduction of this lengthy procedure would be helpful. The federal procedure is adequately referenced in the manual and it is very unlikely that anyone, other than a motorcycle manufacturer, would have any use for this very complicated procedure. Naturally, all manufacturers must meet the federal standards under federal test procedures and Oregon is only aligning its standards with the federal standards.

Summation

Drawing from the background and evaluation presented in this report, the following facts and conclusions are offered:

- 1) The proposed amendments to the noise control rules and procedure manuals would enhance their effectiveness, eliminate misinterpretations, and streamline the implementation of these rules.
- 2) Amendments to the rules for the sale of new motor vehicles (OAR 340-35-025) incorporate the new federal EPA motorcycle standards into the Oregon rules. The motorcycle industry recommended modifications to the proposed amendments that were found acceptable and thus incorporated.
- 3) The amendments to the in-use motor vehicle rules (OAR 340-35-030) contains three major changes. First, provisions are added to allow enforcement of EPA motorcycle labeling rules. With minor amendments, these additions were found acceptable to the motorcycle industry.

The second provision refines the in-use standards in Table 3 (road vehicle moving operational standards). Concerns raised (primarily by muffler manufacturers) about the amendments to Table 3 were unjustified as these standards are used to detect unacceptable vehicle operations and not defective equipment. The equipment standards for road vehicles, found in Table 2, were acceptable to all. Again in Table 4,

the critical comments were toward the moving, operational standards while the equipment (stationary) standard was found acceptable. Thus, these criticisms were also unjustified, as they would not place an unreasonable burden on equipment manufacturers.

The third provision corrects the deficiency in the motor vehicle auxiliary equipment standard by adding a nighttime ambient limit of 50 dBA for any activities exceeding 30 minutes. This standard is consistent with the rules for industry and will help resolve some excessive noise problems that previously could not be addressed. Objections by West Coast Grocery Company of Salem should not be the basis for the acceptability of this amendment. Their situation should be addressed within reasonable controls and then the option of a variance request is available if strict compliance is deemed not within reason for this specific case.

4. The amendments to the rules for industry and commerce (OAR 340-35-035) include some clarification of Table 7 and eliminate provisions for modified noise sources which became obsolete after 1977. Amended impulse standards for blasting will streamline the staff's effort to resolve blasting noise impacts without any additional burden on this industry.
5. Amendments that will refine the motor sports rules (OAR 340-35-040) were supported by the Department's Motor Sport Advisory Committee. Generally, these amendments are supported by track operators and competitors.

The request from Jackson County Parks Department to exempt their Sports Park from the muffler requirements at drag racing events does not appear to be best resolved within this rulemaking process. Their request will be placed in the form of a request for a variance pursuant to OAR 340-35-100.

6. The minor amendments, as modified in response to testimony for the Oregon Aeronautics Division, should enhance the effectiveness of the rule dealing with noise impacts from new airports (OAR 340-35-045).
7. Amendments to the procedure manuals (1, 2, 21 and 35) will clarify procedures and eliminate some unnecessary requirements when measuring noise emissions.

#### Director's Recommendation

Based on the Summation, it is recommended that the Commission adopt Attachment B as a permanent rule. Attachment B includes:

- a) Proposed Amended Definitions, OAR 340-35-015.
- b) Proposed Amended Noise Control Regulations for the Sale of New Motor Vehicles, OAR 340-35-025.

- c) Proposed Amended Noise Control Regulations for In-Use Motor Vehicles, OAR 340-35-030.
- d) Proposed Amended Noise Control Regulations for Industry and Commerce, OAR 340-35-035.
- e) Proposed Amended Noise Control Regulations for Motor Sports Vehicles and Facilities, OAR 340-35-040.
- f) Proposed Amended Noise Control Regulations for Airports, OAR 340-35-040.
- g) Proposed Amended Sound Measurement Procedure Manual, NPC-1.
- h) Proposed Amended Requirements for Sound Measuring Equipment and Personnel, NPC-2.
- i) Proposed Amended Motor Vehicle Sound Measurement Procedures Manual, NPC-21.
- j) Proposed Amended Motor Race Vehicles and Facility Sound Measurement and Procedure Manual, NPC-35.

*Bill*

William H. Young

Attachments: Attachment A - Statement of Need for Rulemaking  
Attachment B - Proposed Amendments  
Attachment C - Hearing Officer's Report

John Hector:a  
229-5909  
March 8, 1983  
NA3085

## **STATEMENT OF NEED AND FISCAL IMPACT FOR RULEMAKING**

Pursuant to ORS 183.335(2), this statement provides information on the intended action to amend a rule.

### **Legal Authority**

This proposal may be adopted under authority of ORS 467.030.

### **Need for the Rule**

Excessive emissions or noise cause impacts detrimental to the health, safety or welfare of Oregon's citizens.

### **Principal Documents Relied Upon**

- a. Existing noise control regulations, OAR 340-35-015, 35-025, 35-030, 35-035, 35-040, and 35-045.
- b. Existing noise control procedure manuals NPC-1, 2, 21, and 35.

The above documents may be reviewed at the Department's offices at 522 S.W. Fifth Avenue, Portland, Oregon.

### **Fiscal and Economic Impact**

As these proposals are minor amendments to existing rules, it is not expected that more than minimal beneficial or minimal adverse impacts may result in any of these amendments being adopted.

No significant fiscal or economic impact to small business is expected as the result of any of these proposed amendments being adopted. Generally, these proposals would eliminate misinterpretations and streamline the administrative effort imposed on small business and others due to these rules.

John Hector:a  
229-5989  
NA2750

PROPOSED AMENDMENTS

April 1983

DEPARTMENT OF ENVIRONMENTAL QUALITY

CHAPTER 340, OREGON ADMINISTRATIVE RULES

DIVISION 35

NOISE CONTROL REGULATIONS

General

Added material is underlined and deleted material is [bracketed].

**Policy**

340-35-005 In the interest of public health and welfare, and in accordance with ORS 467.010, it is declared to be the public policy of the State of Oregon:

(1) To provide a coordinated state-wide program of noise control to protect the health, safety, and welfare of Oregon citizens from the hazards and deterioration of the quality of life imposed by excessive noise emissions;

(2) To facilitate cooperation among units of state and local governments in establishing and supporting noise control programs consistent with the State program and to encourage the enforcement of viable local noise control regulations by the appropriate local jurisdiction;

(3) To develop a program for the control of excessive noise sources which shall be undertaken in a progressive manner, and each of its objectives shall be accomplished by cooperation among all parties concerned.

**Exceptions**

340-35-010 (1) Upon written request from the owner or controller of a noise source, the Department may authorize exceptions as specifically listed in these rules.

(2) In establishing exceptions, the Department shall consider the protection of health, safety, and welfare of Oregon citizens as well as the feasibility and cost of noise abatement; the past, present, and future patterns of land use; the relative timing of land use changes and other legal constraints. For those exceptions which it authorizes, the Department shall specify the times during which the noise rules can be exceeded and the quantity and quality of the noise generated, and when appropriate shall specify the increments of progress of the noise source toward meeting the noise rules.

**Definitions**

340-35-015 As used in this division:

(1) "Air Carrier Airport" means any airport that serves air carriers holding Certificates of Public Convenience and Necessity issued by the Civil Aeronautic Board.

(2) "Airport Master Plan" means any long-term development plan for the airport established by the airport proprietor.

(3) "Airport Noise Abatement Program" means a Commission-approved program designed to achieve noise compatibility between an airport and its environs.

(4) "Airport Proprietor" means the person who holds title to an airport.

(5) "Ambient Noise" means the all-encompassing noise associated with a given environment, being usually a composite of sounds from any sources near and far.

(6) "Annual Average Day-Night Airport Noise Level" means the average, on an energy basis, of the daily Day-Night Airport Noise Level [of] over a 12-month period.

(7) "Any one hour" means any period of 60 consecutive minutes during the 24-hour day.

(8) "Closed Course Motorcycle Racing Vehicle" means any motorcycle racing vehicle that is operated in competition or practice session on a closed course motor sports facility, i.e. where public access is restricted and admission is generally charged.

(9) "Commission" means the Environmental Quality Commission.

(10) "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.

(11) "Day-Night Airport Noise Level (Ldn)" means the Equivalent Noise Level produced by airport/aircraft operations during a 24-hour time period, with a 10 decibel penalty applied to the level measured during the nighttime hours of 10 pm to 7 am.

(12) "Department" means the Department of Environmental Quality.

(13) "Director" means the Director of the Department.

(14) "Drag Racing Vehicle" means any racing vehicle used to compete in any acceleration competition initiated from a standing start and continued over a straight line course.

(15) "Emergency Equipment" means noise emitting devices required to avoid or reduce severity of accidents. Such equipment includes, but is not limited to, safety valves and other unregulated pressure relief devices.

(16) "Equivalent Noise Level (Leq)" means the equivalent steady state sound level in A-weighted decibels for a stated period of time which contains the same acoustic energy as the actual time-varying sound level for the same period of time.

(17) "Existing Industrial or Commercial Noise Source" means any Industrial or Commercial Noise Source for which installation or construction was commenced prior to January 1, 1975.

(18) "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.

(19) "Four Wheel Drive Racing Vehicle" means any four-wheeled racing vehicle with at least one wheel on the front and rear axle driven by the engine or any racing vehicle participating in an event with predominantly four wheel drive racing vehicles.

(20) "Go-Kart Racing Vehicle" means a light-weight four-wheeled racing vehicle of the type commonly known as a go-kart.

(21) "Impulse Sound" means either a single pressure peak or single burst (multiple pressure peaks) for a duration of less than one second as measured on a peak unweighted sound pressure measuring instrument or "C" weighted, slow response instrument and specified by dB and dBC respectively.

(22) "In-Use Motor Vehicle" means any Motor Vehicle which is not a New Motor Vehicle.

(23) "Industrial or Commercial Noise Source" means that source of noise which generates Industrial or Commercial Noise Levels.

(24) "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.

(25) "Motorboat" as used in OAR 340-35-025 means a watercraft propelled by an internal combustion engine but does not include a boat powered by an outboard motor or an inboard/outboard power package designed to exhaust beneath the surface of the water.

(26) "Motorcycle" means any Motor Vehicle, except Farm Tractors, designed to travel on not more than three wheels which are in contact with the ground.

(27) "Motor Sports Advisory Committee" means a committee appointed by the Director, from among the nominees, for the purpose of technical advice on racing activities and to recommend Exceptions to these rules as specified in OAR 340-35-040(12). This Committee shall consist of:

(a) One permanent public member nominated by a noise impacted group or association; and

(b) One representative of each of the racing vehicle types identified in OAR 340-35-040(2) as nominated by the respective sanctioning bodies; and

(c) The program manager of the Department's noise pollution control section who shall also serve as the departmental staff liaison to this body[.]; and

(d) An attorney; and

(e) An acoustical engineer.

(28) "Motor Sports Facility" means any facility, track or course upon which racing events are conducted.

(29) "Motor Sports Facility Noise Impact Boundaries" means the daily 55 dBA day-night (Ldn) noise contours around the motor sports facility representing events that may occur on the day of maximum projected use.

(30) "Motor Sports Facility Owner" means the owner or operator of a motor sports facility or an agent or designee of the owner or operator. When a Racing Event is held on public land, the event organizer (i.e., promoter) shall be considered the motor sports facility owner for the purposes of these rules.

(31) "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 watercraft.

(32) "New Airport" means any airport for which installation, construction, or expansion of a runway commenced after January 1, 1980.

(33) "New Industrial or Commerical 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.

(34) "New Motor Sports Facility" is any permanent motor sports facility for which construction or installation was commenced after [the effective date of these rules] January 1, 1982. Any recreational park or similar facility which initiates sanctioned racing after [the effective date] this date [of these rules] shall be considered a new motor sports facility.

(35) "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.

(36) "Noise Impact Boundary" means a contour around the airport, any point on which is equal to the airport noise criterion.

(37) "Noise Level" means weighted Sound Pressure Level measured by use of a metering characteristic with an "A" frequency weighting network and reported as dBA.

(38) "Noise Sensitive Property" means real property normally used for sleeping, or normally used as schools, churches, hospitals or public libraries. Property used in industrial or agricultural activities is not Noise Sensitive Property unless it meets the above criteria in more than an incidental manner.

(39) "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).

(40) "Off-Road Recreational Vehicle" means any Motor Vehicle, including watercraft, 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.

(41) "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).

(42) "Open Course Motorcycle Racing Vehicle" means any motorcycle racing vehicle that is operated in competition on an open course motor sports facility, i.e. where public access is not generally restricted. This definition is intended to include the several types of motorcycles such as "enduro" and "cross country" that are used in events held in trail or other off-road environments.

(43) "Oval Course Racing Vehicle" means any racing vehicle, not a motorcycle and not a sports car, which is operated upon a closed, oval-type motor sports facility.

(44) "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.

(45) "Practice Sessions" means any period of time during which racing vehicles are operated at a motor sports facility, other than during racing events. Driver training sessions or similar activities which are not held in anticipation of a subsequent racing event, and which include only vehicles with a stock exhaust system, shall not be considered practice sessions.

(46) "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.

(47) "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] generating infrequent noise emissions shall not be considered as industrial or commercial operations for the purposes of this definition.

(48) "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.

(49) "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.

(50) "Quiet Area" means any land or facility 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 shall submit areas suggested by the public as Quiet Areas, to the Commission, with the Department's recommendation.

(51) "Racing Event" means any time, speed or distance competition using motor vehicles conducted under a permit issued by the governmental authority having jurisdiction, or under the auspices of a recognized sanctioning body. This definition includes, but is not limited to, events on the surface of land and water. Any motor sports event not meeting this definition shall be subject to the ambient noise limits of OAR 340-35-030(1)(d).

(52) "Racing Vehicle" means any Motor Vehicle that is designed to be used exclusively in Racing Events or any New Motor Vehicle that has not been certified by its manufacturer as meeting the applicable noise limits of OAR 340-35-025 or any vehicle participating in or practicing for a Racing Event.

(53) "Recreational Park" means a facility open to the public for the operation of off-road recreational vehicles.

(54) "Road Vehicle" means any Motor Vehicle registered for use on Public Roads, including any attached trailing vehicles.

(55) "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.

(56) "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 micropascals (20 micronewtons per square meter).

(57) "Special Motor Racing Event" means any racing event in which a substantial or significant number of out-of-state racing vehicles are competing or any event which has a special significance to the community and which has been recommended as a special motor racing event by the motor sports advisory committee and approved by the Department.

(58) "Sports Car Racing Vehicle" means any racing vehicle which meets the requirements and specifications of the competition rules of any sports car organization.

(59) "Statistical Noise Level" means the Noise Level which is equalled or 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 percent of the time, or for six minutes.

(60) "Stock Exhaust System" means an original equipment manufacturer exhaust system or a replacement for original equipment for a street legal vehicle whose noise emissions do not exceed those of the original equipment.

(61) "Temporary Autocross or Solo Course" means any area upon which a paved course motor sports facility is temporarily established. Typically such courses are placed on parking lots, or other large paved areas, for periods of one or two days.

(62) "Top Fuel-Burning Drag Racing Vehicle" means a drag racing vehicle that operates using principally alcohol (more than 50 percent) or utilizes nitromethane as a component of its operating fuel and commonly known as top fuel and funny cars.

(63) "Trackside" means a sound measuring point of 50 feet from the racing vehicle and specified in Motor Race Vehicle and Facility Sound Measurement and Procedure Manual, NPC-35.

(64) "Warning Device" means any device which signals an unsafe or potentially dangerous situation.

(65) "Watercraft Racing Vehicle" means any racing vehicle which is operated upon or immediately above the surface of water.

(66) "Well Maintained Muffler" means a device or combination of devices which effectively decreases the sound energy of internal combustion engine exhaust without a muffler by a minimum of 5 dBA at trackside. A well maintained muffler shall be free of defects or modifications that reduce its sound reduction capabilities. Each outlet of a multiple exhaust system shall comply with the requirements of this subsection, notwithstanding the total engine displacement versus muffler length requirements. Such a muffler shall be a:

(a) Reverse gas flow device incorporating a multitube and baffle design; or a

(b) Perforated straight core device, fully surrounded from beginning to end with a sound absorbing medium, not installed on a rotary engine, and:

(A) at least 20 inches in inner core length when installed on any drag race engine exceeding 1600 cc (96.7 cubic inches) displacement; or

(B) at least 12 inches in inner core length when installed on any non-motorcycle drag race engine equal to or less than 1600 cc (96.7 cubic inches) displacement; or

(C) at least 6 inches in inner core length and installed at the outlet end of any four-cycle motorcycle drag race engine; or

(D) at least 8 inches in inner core length when installed on any two-cycle motorcycle drag race engine; or an

(c) Annular swirl flow (auger-type) device of:

(A) at least 16 inches in swirl chamber length when installed on any drag race engine exceeding 1600 cc (96.7 cubic inches) displacement; or

- (B) at least 10 inches in swirl chamber length when installed on any drag race engine equal to or less than 1600 cc (96.7 cubic inches) displacement; or a
- (d) Stacked 360° diffuser disc device; or a
- (e) Turbocharger; or a
- (f) Go-Kart muffler as defined by the International Karting Federation as specified in Motor Race Vehicle and Facility Sound Measurement and Procedure Manual, NPCS-35; or an
- (g) Original equipment manufacturer motorcycle muffler when installed on a motorcycle model such muffler was designated for by the manufacturer; or
- (h) [Outboard] Boat motor whose exhaust exits beneath the water surface during operation; or a
- (i) Formula Vee four-into-one header/collector when installed on a Formula Vee sports car racing vehicle; or a
- (j) Hughes-type Racing muffler; or
- (k) Any other device demonstrated effective and approved by the motor sports advisory committee and the Department.

#### Noise Control Regulations for the Sale of New Motor Vehicles

340-35-025 (1) Standards and Regulations:

(a) No person shall sell or offer for sale any new motor vehicle designated in this section which produces a propulsion noise exceeding the noise limits specified in Table 1, except as otherwise provided in these rules.

(b) Subsequent to the adoption of a Federal Environmental Protection Agency procedure to determine sound levels of passenger cars and light trucks, or a nationally accepted procedure for these vehicles not similar to those specified and approved under subsection (2)(a), the Department shall conduct an evaluation under such new procedure.

(c) After an appropriate evaluation of noise emission data measured under the procedure specified under subsection (1)(b), the Department shall make recommendations to the Commission on the adequacy of the procedure and the necessity of amendments to this rule for incorporation of the procedure and associated standards.

(d) [Notwithstanding the provisions of the subsections (1)(b) and (1)(c) the Department shall present a progress and status report on passenger car and light truck noise emission controls to the Commission no later than July 1, 1982.] Repealed

(e) No person shall sell or offer to sell any new motorcycle, new motorcycle exhaust system or new motorcycle exhaust system component manufactured after January 1, 1983 unless the motorcycle, exhaust system, or exhaust component is properly labeled or marked in accordance with Federal noise regulations specified in Part 205 Subpart E of Title 40 of the Code of Federal Regulations.

(2) Measurement:

(a) Sound measurements shall conform to test procedures adopted by the Commission in Motor Vehicle Sound Measurement Procedures Manual (NPCS-21), or to standard methods approved in writing by the Department. These measurements will generally

be carried out by the motor vehicle manufacturer on a sample of either prototype or production vehicles. A certification program shall be devised by the manufacturer and submitted to the Department for approval within 60 days after the adoption of this rule.

(b) Nothing in this section shall preclude the Department from conducting separate or additional noise level tests and measurements on new motor vehicles being offered for sale. Therefore, when requested by the Department, a new motor vehicle dealer or manufacturer shall cooperate in reasonable noise testing of a specific class of motor vehicle being offered for sale.

(3) Manufacturer's Certification:

(a) Prior to the sale or offer for sale of any new motor vehicle designated in Table 1, the manufacturer or a designated representative shall certify in writing to the Department that vehicles listed in Table 1 made by that manufacturer and offered for sale in the State of Oregon meet applicable noise limits. Such certification will include a statement by the manufacturer that:

(A) The manufacturer has tested sample or prototype vehicles.

(B) That such samples or prototypes met applicable noise limits when tested in accordance with the procedures specified.

(C) That vehicles offered for sale in Oregon are substantially identical in construction to such samples or prototypes.

(b) Nothing in this section shall preclude the Department from obtaining specific noise measurement data gathered by the manufacturer on prototype or production vehicles for a class of vehicles for which the Department has reasonable grounds to believe is not in conformity with the applicable noise limits.

(4) Exceptions. Upon prior written request from the manufacturer or designated representative, the Department may authorize an exception to this noise rule for a class of motor vehicles, if it can be demonstrated to the Department that for that specific class a vehicle manufacturer has not had adequate lead-time or does not have the technical capability to either bring the motor vehicle noise into compliance or to conduct new motor vehicle noise tests.

(5) Exemptions:

(a) All racing vehicles, except racing motorcycles, and racing motorboats, shall be exempt from the requirements of this section provided that such vehicles are operated only at facilities used for sanctioned racing events.

(b) Racing motorcycles and racing motorboats shall be exempt from the requirements of this section provided that racing motorcycles are operated only at facilities used for sanctioned racing events, racing motorboats are operated only at areas designated by the State Marine Board for testing or at an approved racing event, and the following conditions are complied with:

(A) Prior to the sale of a racing motorcycle or racing motorboat, the prospective purchaser shall file a notarized affidavit with the Department, on a Departmentally approved form, stating that it is the intention of such prospective purchaser to operate the vehicle only at facilities used for sanctioned racing events; and

(B) No racing vehicle shall be displayed for sale in the State of Oregon without notice prominently affixed thereto:

(i) That such vehicle will be exempt from the requirements of this section only upon demonstration to the Department that the vehicle will be operated only at facilities used for sanctioned racing events; and

(ii) That a notarized affidavit will be required of the prospective purchaser stating that it is the intention of such prospective purchaser to operate the vehicle only at facilities used for sanctioned racing events; and

(C) No racing vehicle shall be locally advertised in the State of Oregon as being for sale without notice included:

(i) which is substantially similar to that required in (B)(i) and (B)(ii) above, and

(ii) Which is unambiguous as to which vehicle such notice applies.

#### **Noise Control Regulations for In-Use Motor Vehicles**

**340-35-030 (1) Standards and Regulations:**

(a) Road Vehicles

(A) No person shall operate any road vehicle which exceeds the noise level limits specified in Table 2 or in such a manner to exceed the noise level limits specified in Table 3, except as otherwise provided in these rules.

(B) No person shall operate a road vehicle with any of the following defects:

(i) No muffler

(ii) Leaks in the exhaust system

(iii) Pinched outlet pipe

(C) Non-conforming "classic" and other "special interest" vehicles may be granted an exception to this rule, pursuant to Rule 340-35-010, for the purpose of maintaining authentic equipment.

(b) Off-Road Recreational Vehicles.

(A) No person shall operate any off-road recreational vehicle which exceeds the stationary noise level limits specified in Table 4 or in such a manner as to exceed the moving vehicle noise level limits specified in Table 4.

(B) No person shall operate an off-road recreational vehicle with any of the following defects:

(i) No muffler

(ii) Leaks in the exhaust system

(iii) Pinched outlet pipe

(c) Trucks Engaged in Interstate Commerce. Motor vehicles with a GVWR or GCWR in excess of 10,000 pounds which are engaged in interstate commerce by trucking and are regulated by Part 202 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1978, 86.

Stat. 1248, Pub. L. 92-574, shall be:

(A) Free from defects which adversely affect sound reduction;

(B) Equipped with a muffler or other noise dissipative device;

(C) Not equipped with any "cut-out" devices, "by-pass" devices, or any other similar devices; and

(D) Not equipped with any tire which as originally manufactured or newly retreaded having a tread pattern composed primarily of cavities in the tread, excluding sipes and local chunking, not vented by grooves to the tire shoulder or vented circumferentially to each other around the tire.

(d) Ambient Noise Limits.

(A) No person shall cause, allow, permit, or fail to control the operation of motor vehicles, including motorcycles, on property which he owns or controls, nor shall any person operate any such motor vehicle if the operation thereof increases the ambient noise level such that the appropriate noise level specified in Table 5 is exceeded as measured from either of the following points, if located within 1000 feet (305 meters) of the motor vehicle:

(i) Noise sensitive property, or

(ii) [The boundary of] A quiet area.

(B) Exempt from the requirements of this subsection shall be:

(i) Motor vehicles operating in racing events;

(ii) Motor vehicles initially entering or leaving property which is more than 1000 feet (305 meters) from the nearest noise sensitive property or [boundary of a] quiet area;

(iii) Motor vehicles operating on public roads; and

(iv) Motor vehicles operating off-road for non-recreational purposes.

(e) Auxiliary Equipment Noise Limits.

(A) No person shall operate any road vehicle auxiliary equipment [powered by the road vehicle's primary power source] which exceeds the noise limits specified in Table 6, except as otherwise provided in these rules.

(B) [As of June 1974, the Department does not have sufficient information to determine the maximum noise levels for road vehicle auxiliary equipment powered by a secondary source. Research on this noise source will be carried out with the goal of setting noise level limits by January 1, 1975.]

No person shall cause, allow, permit, or fail to control the operation of any road vehicle auxiliary equipment that exceeds 50 dBA for more than 30 minutes between 10 p.m. and 7 a.m. at any appropriate noise sensitive property measurement point as specified in OAR 340-35-035 (3)(b).

(f) Motorcycles manufactured after December 31, 1982 to Federal Noise Regulations (40 CFR Part 205):

(A) No person shall remove or render inoperative, or cause to be removed or rendered inoperative, other than for the purposes of maintenance, repair, or replacement of any device or element of design incorporated in the motorcycle for the purpose of noise control.

(B) No person shall remove or deface any noise label or mark required by Federal law which is affixed to any motorcycle or motorcycle part for purposes of identifying the motorcycle or motorcycle part as a federally regulated product.

(C) No person shall operate any road or off-road motorcycle manufactured to federal noise law that does not bear a label or mark on the exhaust system that matches the model specific code of the motorcycle on which the system is installed.

(D) No person shall operate, nor shall any person cause, allow, permit or fail to control the operation of any competition motorcycle identified for "competition use only" by the noise label or mark required by federal law on any property other than a motor sports facility in a practice session or a racing event.

(E) No person shall operate, nor shall any person cause, allow, permit or fail to control the operation of any motorcycle fitted with an exhaust system or exhaust system component identified for "competition motorcycles only" by the noise label or mark required by federal law on any property other than a motor sports facility in a practice session or a racing event.

(2) Measurement. Sound measurement shall conform to test procedures adopted by the Commission in Sound Measurement Procedures Manual (NPCS-1) and Motor Vehicle Sound Measurement Procedures Manual (NPCS-21) or to standard methods approved in writing by the Department.

(3) Exemptions:

(a) Motor Vehicles registered as antique or historical motor vehicles licensed in accordance with ORS 481.205(4) are exempt from these regulations.

(b) Motor vehicle warning devices are exempt from these regulations.

(c) Vehicles equipped with at least two snowtread tires are exempt from the noise limits of Table 3.

(d) Motor vehicles described in subsection (1)(c), which are demonstrated by the operator to be in compliance with the noise levels in Table 3, for operation greater than 35 mph, are exempt from these regulations.

(e) Auxiliary equipment operated on construction sites or in the maintenance of capital equipment or to avoid or reduce the severity of accidents or operated on a farm for agricultural purposes or operated on forest land as defined in Subsection (1) of ORS 526.324 for activities related to the growing or harvesting of forest tree species are exempt from these regulations.

(4) Equivalency:

(a) The in-use motor vehicle standards specified in Table 2 and Table 3 have been determined by the Department to be substantially equivalent to the 25 foot stationary test standards set forth in 1977

Oregon Laws Chapter 273 (ORS 483.449).

(b) Tests shall be conducted according to the procedures in Motor Vehicle Sound Measurement Procedures Manual (NPCS-21) or to standard methods approved in writing by the Department.

#### Noise Control Regulations for Industry and Commerce

340-35-035 (1) 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 an appropriate measurement point, specified in subsection (3)(b) of this section, exceed the levels specified in Table 7, except as otherwise provided in these rules.

(b) New Noise Sources.

(A) New Sources Located on Previously Used Sites. 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 an appropriate measurement point, specified in subsection (3)(b) of this section, exceed the levels specified in Table 8, except as otherwise provided in these rules.

(B) New Sources Located on Previously Unused Site.

(i) 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 that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels  $L_{10}$  or  $L_{50}$ , by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule.

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source, including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsection (5)(b), (5)(c), (5)(d), (5)(e), (5)(f), (5)(j), and (5)(k) [and (5)(1)] of this rule, 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 8, the modified industrial or commercial noise source shall not exceed the noise levels in Table 8, 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 8, but does not exceed the noise levels in Table 7, then the modification shall not cause an increase in the existing statistical noise levels, except as otherwise provided in these rules.] Repealed

(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 the operation of that noise source if the statistical noise levels generated by that source exceed the levels specified in Table 9 as measured within the Quiet Area and not less than 400 feet (122 meters) from the noise source.

(e) Impulse Sound. Notwithstanding the noise rules in Tables 7 through 9, no person owning or controlling an industrial or commercial noise source shall cause or permit the operation of that noise source if an impulsive sound is emitted in air by that source which exceeds the [peak] sound pressure levels specified below, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule: [100 dB during the hours 7 am to 10 pm and 80 dB between the hours of 10 pm and 7 am.]

(A) Blasting. 98 dBC, slow response, between the hours of 7 am and 10 pm and 93 dBC, slow response, between the hours of 10 pm and 7 am.

(B) All Other Impulse Sounds. 100 db, peak response, between the hours of 7 am and 10 pm and 80 dB, peak response, between the hours of 10 pm and 7 am.

(f) Octave Bands and Audible Discrete Tones. When the Director has reasonable cause to believe that the requirements of subsections (1)(a), (1)(b), [(1)(c)] or (1)(d) of this rule 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 that noise source if such operation generates a median octave band sound pressure level which, as measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceeds applicable levels specified in Table 10.

(B) One-third Octave Bands. No person owning or controlling an industrial or commercial noise source shall cause or permit the operation of that noise source if such operation generates a median one-third octave band sound pressure level which, as measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, and in a one-third octave band at a preferred frequency, exceeds the arithmetic average of the median sound pressure levels of the two adjacent one-third octave bands 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 below the allowable sound pressure levels specified in Table 10 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 measurement procedures shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1) or to such other procedures as are approved in writing by the Department.

(b) Unless otherwise specified the appropriate measurement point shall be that point on the noise sensitive property, 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) 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 those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-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 (1) of this rule 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 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 preemptive 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 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 construction or maintenance of capital equipment.

(i) Sounds created by lawn care maintenance and snow removal equipment.

(j) Sounds generated by the operation of aircraft and subject to preemptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not preemptively regulated by the federal government or controlled under OAR 340-35-045.

(k) Sounds created by the operation of road vehicle auxiliary equipment complying with the noise rules for such equipment as specified in OAR 340-35-030(1)(e).

- (l) Sounds created by agricultural activities.
- (m) Sounds created by activities related to the growing or harvesting of forest tree species on forest land as defined in subsection (1) of ORS 526.324.
- (6) Exceptions: Upon written request from the owner or controller of an industrial or commercial noise source, the Department may authorize exceptions to section 340-35-035(1), pursuant to rule 340-35-010, 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]
  - (e) Noise sensitive property located on land zoned exclusively for industrial or commercial use.

**Noise Control Regulations for Motor Sports Vehicles and Facilities**  
**340-35-040**

(1) Statement of Purpose. (a) The Commission finds that the periodic noise pollution caused by Oregon motor sports activities threatens the environment of citizens residing in the vicinity of motor sports facilities. To mitigate motor sports noise impacts, a coordinated statewide program is desirable to ensure that effective noise abatement programs are developed and implemented where needed. This abatement program includes measures to limit the creation of new noise impacts and the reduction of existing noise impacts to the extent necessary and practicable.

(b) Since the Commission also recognizes the need of Oregon's citizens to participate in recreational activities of their choice, these rules balance those citizen needs which may conflict when motor sports facilities are in operation. Therefore, a policy of continuing participation in standards development through the active cooperation of interested parties is adopted. The choice of these parties is to limit the noise emission levels of racing and recreational vehicles, to designate equipment requirements, and to establish appropriate hours of operation. It is anticipated that safety factors, limited technology, special circumstances, and special events may require exceptions to these rules in some instances; therefore, a mechanism to accommodate this necessity is included in this rule.

(c) This rule is designed to encourage the motor sports facility owner, the vehicle operator, and government to cooperate to limit and diminish noise and its impacts. These ends can be accomplished by encouraging compatible land uses and controlling and reducing the racing vehicle noise impacts on communities in the vicinity of motor sports facilities to acceptable levels.

(d) This rule is enforceable by the Department and civil penalties ranging from a minimum of \$25 to a maximum of \$500 may be assessed for each violation. The motor sports facility owner, the racing vehicle owner and the racing vehicle driver are held responsible for compliance with provisions of this rule. A schedule of civil penalties for noise control may be found under OAR 340-12-052.

(2) Standards:

(a) Drag Racing Vehicle. No motor sports facility owner and no person owning or controlling a drag racing vehicle shall cause or permit its operation at any motor sports facility unless the vehicle is equipped with a properly installed and well maintained muffler.

(b) Oval Course Racing Vehicle. No motor sports facility owner and no person owning or controlling an oval course racing vehicle shall cause or permit its operation at any motor sports facility unless the vehicle is equipped with a properly installed and well maintained muffler and noise emissions from its operation do not exceed 105 dBA at trackside.

(c) Sports Car Racing Vehicle. No motor sports facility owner and no person owning or controlling a sports car racing vehicle shall cause or permit its operation at any motor sports facility unless the vehicle is equipped with a properly installed and well maintained muffler and noise emissions from its operation do not exceed 105 dBA at trackside.

(d) Closed Course Motorcycle Racing Vehicle. No motor sports facility owner and no person owning or controlling a closed course motorcycle racing vehicle shall cause or permit its operation at any motor sports facility unless the vehicle is equipped with a properly installed and well maintained muffler and noise emissions from its operation do not exceed 105 dBA at trackside or 105 dBA at 20 inches (.5 meter) from the exhaust outlet during the stationary measurement procedure.

(e) Open Course Motorcycle Racing Vehicle. No motor sports facility owner and no person owning or controlling an open course motorcycle racing vehicle shall cause or permit its operation at any motor sports facility unless the vehicle is equipped with a properly installed and well maintained muffler and noise emissions do not exceed 105 dBA at 20 inches (.5 meter) from the exhaust outlet during the stationary measurement procedure.

(f) Four Wheel Drive Racing Vehicles. No motor sports facility owner and no person owning or controlling a four wheel drive racing vehicle shall cause or permit its operation at any motor sports facility unless the vehicle is equipped with a properly installed and well maintained muffler and noise emissions from its operation do not exceed 105 dBA at trackside.

(g) Watercraft Racing Vehicle. No motor sports facility owner and no person owning or controlling a watercraft racing vehicle shall cause or permit its operation at any motor sports

facility unless the vehicle is equipped with a properly installed and well maintained muffler and noise emissions from its operation do not exceed 105 dBA at trackside.

(h) Autocross or Solo Racing Vehicle. No motor sports facility owner and no person owning or controlling an autocross or solo racing vehicle shall cause or permit its operation on any temporary autocross or solo course unless the vehicle is equipped with a properly installed and well maintained muffler and noise emissions from its operation do not exceed 90 dBA at trackside. Autocross and solo events conducted on a permanent motor sports facility, such as a sports car or go kart course, shall comply with the requirements for sports car racing vehicles specified in subsection (2)(c) of this section.

(i) Go Kart Racing Vehicle. No motor sports facility owner and no person owning or controlling a go kart racing vehicle shall cause or permit its operation at any motor sports facility unless the vehicle is equipped with a properly installed and well maintained muffler and noise emissions from its operation do not exceed 105 dBA at trackside.

(3) New Motor Sports Facilities. Prior to the construction or operation of any permanent new motor sports facility, the facility owner shall submit for Department approval the projected motor sports facility noise impact boundaries. The data and analysis used to determine the boundary shall also be submitted to the Department for evaluation. Upon approval of the boundaries, this information shall be submitted to the appropriate local planning unit and the Department of Land Conservation and Development for their review and appropriate action.

(4) Practice Sessions. Notwithstanding section (2) of this rule, all racing vehicles in order to operate in practice sessions, shall comply with a noise mitigation plan which shall have been submitted to and approved by the motor sports advisory committee and the Director. Such plans may be developed and submitted prior to each racing season. An approved plan may be varied with prior written approval of the Department.

(5) Recreational Park. When a motor sports facility is used as a recreational park for the operation of off-road recreational vehicles, the ambient noise limits of OAR 340-35-030(1)(d) shall apply.

(6) Operations:

(a) General. No motor sports facility owner and no person owning or controlling a racing vehicle shall permit its use or operation at any time other than the following:

(A) Sunday through Thursday during the hours 8 a.m. to 10 p.m. local time; and

(B) Friday through Saturday, state and national holidays and the day preceding, not to exceed three consecutive days, during the hours 8 a.m. to 11 p.m. local time.

(b) Overruns. Each motor sports facility may overrun the specified curfew times, including the time specified in subsection (11)(c) of this rule, not to exceed 30 minutes, no more than six (6) days per year due to conditions beyond the control of the owner.

Each overrun shall be documented to the Department within 10 days of the occurrence.

(c) Special Events. Any approved special motor racing event may also be authorized to exceed this curfew pursuant to subsection (12)(a) of this rule.

(d) Continued Special Events. Any approved special event that cannot be completed within established curfew times due to circumstances beyond the control of the owner, such as but not limited to oil spills and accidents, may be continued the following day under the same conditions provided in the special event exception. The Department shall be notified within 10 days of any continued special event.

(7) Measurement and Procedures. All instruments, procedures and personnel involved in performing sound level measurements shall conform to the requirements specified in Motor Race Vehicle and Facility Sound Measurement and Procedure Manual, NPC-35, or to standard methods approved in writing by the Department.

(8) Monitoring and Reporting:

(a) It shall be the responsibility of the motor sports facility owner to measure and record the required noise level data as specified under [section] Subsections (2) (b)-(i) of this rule and the Motor Race Vehicle and Facility Sound Measurement and Procedure Manual, NPC-35. The owner shall either keep such recorded noise data available for a period of at least one calendar year or submit such data to the Department for storage. Upon request the owner shall make such recorded noise data available to the Department.

(b) When requested by the Department, any motor sports facility owner shall provide the following:

(A) Free access to the facility

(B) Free observation of noise level monitoring

(C) Cooperation and assistance in obtaining the reasonable operation of any Racing Vehicle using the facility as needed to ascertain its noise emission level.

(9) Vehicle Standards. No motor sports facility owner and no person owning or controlling a racing vehicle shall cause or permit a racing event or practice session unless the vehicle is equipped and operated in accordance with these rules.

(10) Vehicle Testing. Nothing in this section shall preclude the motor sports facility owner from testing or barring the participation of any racing vehicle for non-compliance with these rules.

(11) Exemptions:

(a) Any motor sports facility whose racing surface is located more than 2 miles from the nearest noise sensitive property shall be exempt from this rule.

(b) Any top fuel-burning drag racing vehicle shall be exempt from the requirements of subsection (2)(a) of this section. No later than January 31, 1985 the Department shall report to the

Commission on progress toward muffler technology development for this vehicle class and propose any necessary recommendations to amend this exemption.

(c) Operation of non-complying jet powered dragsters between the hours of 11 am and 10 pm.

(d) Operation of non-muffled racing vehicles at practice sessions between 12:00 noon and 3:00 p.m. as part of an approved plan as required pursuant to Section (4) of this rule.

(12) Exceptions. The Department shall consider the majority and minority recommendations of the motor sports advisory committee prior to the approval or denial of any exception to these rules. Exceptions may be authorized by the Department for the following pursuant to OAR 340-35-010:

(a) Special motor racing events.

(b) Race vehicle or class of vehicles whose design or mode of operation makes operation with a muffler inherently unsafe or technically unfeasible.

(c) Motor sports facilities previously established in areas of new development of noise sensitive property.

(d) Noise sensitive property owned or controlled by a motor sports facility owner.

(e) Noise sensitive property located on land zoned exclusively for industrial or commercial use.

(f) Any motor sports facility owner or race sanctioning body that proposes a racing vehicle noise control program that accomplishes the intended results of the standards of section (2), the measurement and procedures of section (7), the monitoring and the reporting of section (8), of this rule.

(g) Any motor sports facility demonstrating that noise sensitive properties do not fall within the motor sports facility noise impact boundaries may be exempt from the curfew limits of section (6) and the monitoring and reporting requirements of section (8) of this rule.

(h) Any practice session for non-muffled racing vehicles that does not meet the exemption requirements specified in Subsection (11) (d) of this rule.

(13) Motor Sports Advisory Committee Actions. The committee shall serve at the call of the chairman who shall be elected by the members in accordance with the rules adopted by the committee for its official action.

(14) Effective Date. These rules shall be effective January 1, 1982.

#### **Noise Control Regulations for Airports**

340-35-045 (1) Statement of Purpose. (a) The Commission finds that noise pollution caused by Oregon airports threatens the public health and welfare of citizens residing in the vicinity of airports. To mitigate airport noise impacts a coordinated statewide program is desirable to ensure that effective Airport Noise Abatement Programs are developed and

implemented where needed. An abatement program includes measures to prevent the creation of new noise impacts or the expansion of existing noise impacts to the extent necessary and practicable. Each abatement program will primarily focus on airport operational measures to prevent increased, and to lessen existing, noise levels. The program will also analyze the effects of airport noise emission regulations and land use controls.

(b) The principal goal of an airport proprietor who may be required to develop an Airport Noise Abatement program under this rule should be to reduce noise impacts caused by aircraft operations, and to address in an appropriate manner the conflicts which occur within the higher noise contours.

(c) The Airport Noise Criterion is established to define a perimeter for study and for noise sensitive use planning purposes. It is recognized that some or many means of addressing aircraft/airport noise at the Airport Noise Criterion Level may be beyond the control of the airport proprietor. It is therefore necessary that abatement programs be developed, whenever possible, with the cooperation of federal, state and local governments to ensure that all potential noise abatement measures are fully evaluated.

(d) This rule is designed to encourage the airport proprietor, aircraft operator, and government at all levels to cooperate to prevent and diminish noise and its impacts. These ends may be accomplished by encouraging compatible land uses and controlling and reducing the airport/aircraft noise impacts on communities in the vicinity of airports to acceptable levels.

(2) Airport Noise Criterion. The criterion for airport noise is an Annual Average Day-Night Airport Noise Level of 55 dBA. The Airport Noise Criterion is not designed to be a standard for imposing liability or any other legal obligation except as specifically designated within this Section.

(3) Airport Noise Impact Boundary:

(a) [Existing] Air Carrier Airports. Within twelve months of designation [the adoption of this rule], the proprietor of any [existing] Air Carrier Airport shall submit for Department approval, the existing airport Noise Impact Boundary. The data and analysis used to determine the boundary [and the field verification] shall also be submitted to the Department for evaluation.

(b) Existing Non-Air Carrier Airports. After an unsuccessful effort to resolve a noise problem pursuant to subsection (5), the Director may require the proprietor of any existing non-air carrier airport to submit for Department approval, all information reasonably necessary for the calculation of the existing airport Noise Impact Boundary. This information is specified in the Department's Airport Noise Control Procedure Manual (NPCS-37), as approved by the Commission. The proprietor shall submit the required information within twelve months of receipt of the Director's written notification.

(c) New Airports. Prior to the construction or operation and any required local government land-use approval of any New Airport, the proprietor shall submit for Department approval the projected airport Noise Impact Boundary for the first full calendar year of operation. The data and analysis used to determine the boundary shall also be submitted to the Department for evaluation. The Department shall notify the appropriate local planning unit of the results of their evaluation.

(d) Airport Master Planning. Any airport proprietor who obtains funding to develop an Airport Master Plan shall submit for Department approval an existing noise impact boundary and projected noise impact boundaries at five, ten, and twenty years into the future. The data and analysis used to determine the boundaries [and the field verification] shall also be submitted to the Department for evaluation.

(e) Impact Boundary Approval. Within 60 days of the receipt of a completed airport noise impact boundary, the Department shall either consider the boundary approved or provide written notification to the airport proprietor of deficiencies in the analysis.

(4) Airport Noise Abatement Program and Methodology:

(a) Abatement Program. The proprietor of an existing or new airport whose airport Noise Impact Boundary includes Noise Sensitive Property, or may include Noise Sensitive Property, shall submit a proposed Airport Noise Abatement Program for Commission approval within 12 months of notification, in writing, by the Director. The Director shall give such notification when the Commission has reasonable cause to believe that an abatement program is necessary to protect the health, safety or welfare of the public following a public informational hearing on the question of such necessity. Reasonable cause shall be based upon a determination that: 1) Present or planned airport operations cause or may cause noise impacts that interfere with noise sensitive use activities such as communication and sleep to the extent that the public health, safety or welfare is threatened; 2) These noise impacts will occur on property presently used for noise sensitive purposes, or where noise sensitive use is permitted by zone or comprehensive plan; and 3) It appears likely that a feasible noise abatement program may be developed.

(b) Program Elements. An Airport Noise Abatement Program shall consist of all of the following elements, but if it is determined by the Department that any element will not aid the development of the program, it may be excluded.

(A) Maps of the airport and its environs, and supplemental information, providing:

(i) Projected airport noise contours from the Noise Impact Boundary to the airport property line in 5 dBA increments under current year of operations and at periods of five, ten, and twenty years into the future with proposed operational noise

control measures designated in subsection (4)(b)(B);

(ii) All existing Noise Sensitive Property within the airport Noise Impact Boundary;

(iii) Present zoning and comprehensive land use plan permitted uses and related policies;

(iv) Physical layout of the airport including the size and location of the runways, taxiways, maintenance and parking areas;

(v) Location of present and proposed future flight tracks;

(vi) Number of aircraft flight operations used in the calculation of the airport noise levels. This information shall be characterized by flight track, aircraft type, flight operation, number of daytime and nighttime operations, and takeoff weight of commercial jet transports.

(B) An airport operational plan designed to reduce airport noise impacts at Noise Sensitive Property to the Airport Noise Criterion to the greatest extent practicable. The plan shall include an evaluation of the appropriateness and effectiveness of the following noise abatement operations by estimating potential reductions in the airport Noise Impact Boundary and numbers of Noise Sensitive Properties impacted within the boundary, incorporating such options to the fullest extent practicable into any proposed Airport Noise Abatement Program:

(i) Takeoff and landing noise abatement procedures such as thrust reduction or maximum climb on takeoff;

(ii) Preferential and priority runway use systems;

(iii) Modification in approach and departure flight tracks;

(iv) Rotational runway use systems;

(v) Higher glide slope angles and glide slope intercept altitudes on approach;

(vi) Displaced runway thresholds;

(vii) Limitations on the operation of a particular type or class of aircraft, based upon aircraft noise emission characteristics;

(viii) Limitations on operations at certain hours of the day;

(ix) Limitations of the number of operations per day or year;

(x) Establishment of landing fees based on aircraft noise emission characteristics or time of day;

(xi) Rescheduling of operations by aircraft type or time of day;

(xii) Shifting operations to neighboring airports;

(xiii) Location of engine run-up areas;

(xiv) Times when engine run-up for maintenance can be done;

(xv) Acquisition of noise suppressing equipment and construction of physical barriers for the purpose of reducing aircraft noise impact;

(xvi) Development of new runways or extended runways that would shift noise away from populated areas or reduce the noise impact within the Airport Noise Impact Boundary.

(C) A proposed land use and development control plan, and evidence of good faith efforts by the proprietor to obtain its

approval, to protect the area within the airport Noise Impact Boundary from encroachment by non-compatible noise sensitive uses and to resolve conflicts with existing unprotected noise sensitive uses within the boundary. The Plan is not intended to be a community-wide comprehensive plan; it should be airport-specific, and should be of a scope appropriate to the size of the airport facility and the nature of the land uses in the immediate area. Affected local governments shall have an opportunity to participate in the development of the plan, and any written comments offered by an affected local government shall be made available to the Commission. The Department shall review the comprehensive land use plan of the affected local governments to ensure that reasonable policies have been adopted recognizing the local government's responsibility to support the proprietor's efforts to protect the public from excessive airport noise. The plan may include, but not be limited to, the following actions within the specified noise impact zones:

- (i) Changes in land use through non-noise sensitive zoning and revision of comprehensive plans, within the Noise Impact Boundary (55 dBA);
  - (ii) Influencing land use through the programming of public improvement projects within the Noise Impact Boundary (55 dBA);
  - (iii) Purchase assurance programs within the 65 dBA boundary;
  - (iv) Voluntary relocation programs within the 65 dBA boundary;
  - (v) Soundproofing programs within the 65 dBA boundary, or within the Noise Impact Boundary (55 dBA) if the governmental entity with land use planning responsibility desires, and will play a major role in implementation.
  - (vi) Purchase of land for airport use within the 65 dBA boundary;
  - (vii) Purchase of land for airport related uses within the 65 dBA boundary;
  - (viii) Purchase of land for non-noise sensitive public use within the Noise Impact Boundary (55 dBA);
  - (ix) Purchase of land for resale for airport noise compatible purposes within the 65 dBA boundary;
  - (x) Noise impact disclosure to purchaser within the Noise Impact Boundary (55 dBA);
  - (xi) Modifications to Uniform State Building Code for areas of airport noise impact within the Noise Impact Boundary (55 dBA).
- (c) Federal Aviation Administration Concurrence. The proprietor shall use good faith efforts to obtain concurrence or approval for any portions of the proposed Airport Noise Abatement Program for which the airport proprietor believes that Federal Aviation Administration concurrence or approval is required. Documentation of each such effort and a written statement from FAA containing its response shall be made available to the Commission.
- (d) Commission Approval. Not later than twelve months

after notification by the Director pursuant to subsection (4)(a), the proprietor shall submit a proposed Airport Noise Abatement Program to the Commission for approval. Upon approval, the abatement program shall have the force and effect of an order of the Commission. The Commission may direct the Department to undertake such monitoring or compliance assurance work as the Commission deems necessary to ensure compliance with the terms of its order. The Commission shall base its approval or disapproval of a proposed Noise Abatement Program upon:

- (A) The completeness of the information provided;
- (B) The comprehensiveness and reasonableness of the proprietor's evaluation of the operational plan elements listed under subsection (4)(b)(B);
- (C) The presence of an implementation scheme for the operational plan elements, to the extent feasible;
- (D) The comprehensiveness and reasonableness of the proprietor's evaluation of land use and development plan elements listed under subsection (4)(b)(C);
- (E) Evidence of good faith efforts to adopt the land use and development plan, or obtain its adoption by the responsible governmental body, to the extent feasible;
- (F) The nature and magnitude of existing and potential noise impacts;
- (G) Testimony of interested and affected persons; and
- (H) Any other relevant factors.

(e) Program Renewal. No later than six (6) months prior to the end of a five year period following the Commission's approval, each current airport Noise Abatement Program shall be reviewed and revised by the proprietor, as necessary, and submitted to the Commission for consideration for renewal.

(f) Program/Revisions. If the Director determines that circumstances warrant a program revision prior to the scheduled five (5) year review, the Airport Proprietor shall submit to the Commission a revised program within twelve (12) months of written notification by the Director. The Director shall make such determination based upon an expansion of airport capacity, increase in use, change in the types or mix of various aircraft utilizing the airport, or changes in land use and development in the impact areas that were unforeseen in earlier abatement plans. Any program revision is subject to all requirements of this rule.

(5) Consultation. The Director shall consult with the airport proprietor, members of the public, the Oregon Departments of Transportation, Land Conservation and Development and any affected local government in an effort to resolve informally a noise problem prior to issuing a notification under subsection (3)(b), (4)(a), and (4)(f) of this section.

(6) Noise Sensitive Use Deviations. The airport noise criterion is designed to provide adequate protection of noise sensitive uses based on out-of-doors airport noise levels. Certain noise sensitive use classes may be acceptable within

the airport Noise Impact Boundary if all measures necessary to protect interior activities are taken.

(7) Airport Noise Monitoring. The Department may request certification of the airport noise impact boundary by actual noise monitoring, where it is deemed necessary to approve the boundary pursuant to subsection (3)(e).

(8) Exceptions. Upon written request from the Airport Proprietor, the Department may authorize exceptions to this section, pursuant to rule 340-35-010, for:

(a) Unusual or infrequent events;

(b) Noise sensitive property owned or controlled by the airport;

(c) Noise sensitive property located on land zoned exclusively for industrial or commercial use.

### **Variances**

**340-35-100** (1) Conditions for Granting. The Commission may grant specific variances from the particular requirements of any rule, regulation, or order to such specific persons or class of persons or such specific noise source upon such conditions as it may deem necessary to protect the public health and welfare, if it finds that strict compliance with such rule, regulation, or order is inappropriate because of conditions beyond the control of the persons granted such variance or because of special circumstances which would render strict compliance unreasonable or impractical due to special physical conditions or cause, or because strict compliance would result in substantial curtailment of closing down of a business, plant, or operation, or because no other alternative facility or method of handling is yet available. Such variances may be limited in time.

(2) Procedure for Requesting. Any person requesting a variance shall make his request in writing to the Department for consideration by the Commission and shall state in a concise manner the facts to show cause why such variance should be granted.

(3) Revocation or Modification. A variance granted may be revoked or modified by the Commission after a public hearing held upon not less than 20 days notice. Such notice shall be served upon the holder of the variance by certified mail and all persons who have filed with the Commission a written request for such notification.

TABLE 1

(340-035-025)

## New Motor Vehicle Standards

Moving Test at 50 Feet (15.2 Meters)

| Vehicle Type                                                               | Effective For                                    | Maximum Noise Level, dBA |
|----------------------------------------------------------------------------|--------------------------------------------------|--------------------------|
| Motorcycles                                                                | 1975 Model                                       | 86                       |
|                                                                            | 1976 Model                                       | 83                       |
|                                                                            | 1977-1982 Models                                 | 81                       |
|                                                                            | [1983-1987 Models]                               | [78]                     |
|                                                                            | [Models after 1987]                              | [75]                     |
|                                                                            | <u>1983-1985 Street Models</u>                   |                          |
|                                                                            | <u>built after December 31, 1982</u>             | 83                       |
|                                                                            | <u>Street Models after 1985</u>                  | 80                       |
|                                                                            | <u>Moped Models built after</u>                  |                          |
|                                                                            | <u>December 31, 1982</u>                         | 70                       |
|                                                                            | <u>Off-Road Models with engine</u>               |                          |
|                                                                            | <u>displacements of 170 cc and</u>               |                          |
|                                                                            | <u>lower:</u>                                    |                          |
|                                                                            | <u>1983-1985 Models built</u>                    |                          |
| Snowmobiles as defined<br>in ORS 481.048                                   | <u>after December 31, 1982</u>                   | 83                       |
|                                                                            | <u>Models after 1985</u>                         | 80                       |
|                                                                            | <u>Off-Road Models with engine</u>               |                          |
|                                                                            | <u>displacement greater than</u>                 |                          |
|                                                                            | <u>170 cc:</u>                                   |                          |
|                                                                            | <u>1983-1985 Models built</u>                    |                          |
|                                                                            | <u>after December 31, 1982</u>                   | 86                       |
|                                                                            | <u>Models after 1985</u>                         | 82                       |
|                                                                            |                                                  |                          |
|                                                                            |                                                  |                          |
| Trucks and school buses<br>in excess of 10,000<br>pounds (4536 kg)<br>GVWR | 1975 Model                                       | 82                       |
|                                                                            | Models after 1975                                | 78                       |
|                                                                            | 1975 Model                                       | 86                       |
|                                                                            | 1976-1981 Models or Models<br>manufactured after |                          |
|                                                                            | January 1, 1978 and before                       |                          |
|                                                                            | January 1, 1986                                  | 83                       |
| Automobiles, Light<br>Trucks, and All Other<br>Road Vehicles               | Models manufactured after                        |                          |
|                                                                            | January 1, 1986 and before                       |                          |
|                                                                            | (Reserved)                                       | 80                       |
|                                                                            | Models manufactured after                        |                          |
| Buses except school<br>buses, as defined<br>under ORS 481.030              | (Reserved)                                       | (Reserved)               |
|                                                                            | 1975 Model                                       | 83                       |
|                                                                            | Models after 1975                                | 80                       |
| Motorboats                                                                 | 1975 Model                                       | 86                       |
|                                                                            | 1976-1978 Models                                 | 83                       |
|                                                                            | Models after 1978                                | 80                       |
|                                                                            | Models offered for<br>sale after June 30, 1980   | 82                       |

TABLE 2  
(340-35-030)  
In-Use Road Vehicle Standards  
Stationary Test

| Vehicle Type                                                                         | Model Year      | Maximum Noise Level, dBA | Minimum Distance from Vehicle to Measurement Point |
|--------------------------------------------------------------------------------------|-----------------|--------------------------|----------------------------------------------------|
| All vehicles described in ORS 481.205(2)(a)                                          | Before 1976     | 94                       | 25 feet (7.6 meters)                               |
|                                                                                      | 1976 and After  | 91                       | 25 feet (7.6 meters)                               |
| All other trucks in excess of 8,000 pounds (3629 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                                                                          | 1975 and Before | 102                      | 20 inches (1/2 meter)                              |
|                                                                                      | 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 and After  | 91                       | 25 feet (7.6 meters)                               |

TABLE 3

(340-35-030)

## In-Use Road Vehicle Standards

Moving Test at 50 Feet (15.2 meters) or Greater [at Vehicle Speed]

| [Vehicle Type]                                                                                                                                                                                                                                                        | [Model Year]  | [Maximum Noise Level, dBA]      |                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------------------|--------------------------------------|
|                                                                                                                                                                                                                                                                       |               | [35 mph<br>(56 kph)<br>or less] | [Greater than<br>35 mph<br>(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 Interstate Commerce)] | [All]         | 86                              | 90]                                  |
| [All Other Trucks in excess of 10,000 pounds (4536kg) 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]                                  |

| <u>Operating Conditions</u>                                                                                     | <u>Maximum Noise Level, dBA</u>                              |                                             |                    |
|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------|--------------------|
|                                                                                                                 | <u>Trucks and Buses<br/>exceeding 10,000<br/>pounds GVWR</u> | <u>Automobiles<br/>and light<br/>trucks</u> | <u>Motorcycles</u> |
| <u>Posted 45 mph or less<br/>under any grade, load,<br/>acceleration or<br/>deceleration.</u>                   | <u>86</u>                                                    | <u>72</u>                                   | <u>78</u>          |
| <u>Posted greater than 45<br/>mph under any grade,<br/>load, acceleration or<br/>deceleration.</u>              | <u>90</u>                                                    | <u>78</u>                                   | <u>82</u>          |
| <u>Moving at 35 mph or less<br/>on level roadway under<br/>constant speed more than<br/>200 feet from stop.</u> | <u>84</u>                                                    | <u>70</u>                                   | <u>74</u>          |

TABLE 4  
(340-35-030)  
Off-Road Recreational Vehicle Standards  
Allowable Noise Limits

| Vehicle Type | Model Year                    | Maximum Noise Level (dBA) and<br>Distance from Vehicle to<br>Measurement Point |                                            |
|--------------|-------------------------------|--------------------------------------------------------------------------------|--------------------------------------------|
|              |                               | Stationary Test<br>20 Inches<br>(1/2 Meter)                                    | Moving Test<br>at 50 Feet<br>(15.2 Meters) |
| Motorcycles  | 1975 and Before               | 102                                                                            | <u>85</u>                                  |
|              | After 1975                    | 99                                                                             | <u>82</u>                                  |
| Snowmobiles  | 1971 and Before               |                                                                                | 86                                         |
|              | 1972-1975                     |                                                                                | 84                                         |
|              | [1976-1978] <u>After 1975</u> |                                                                                | 80                                         |
|              | [After 1978]                  |                                                                                | [77]                                       |
| Boats        |                               |                                                                                |                                            |
|              | Underwater exhaust            | All                                                                            | 84                                         |
|              | Atmosphere exhaust            | All                                                                            | 100                                        |
| All Others   |                               |                                                                                |                                            |
|              | Front engine                  | All                                                                            | <u>78</u>                                  |
|              | Mid and rear<br>engines       | All                                                                            | <u>78</u>                                  |

TABLE 5  
(340-35-030)

Ambient Standards for Vehicles Operated  
Near Noise Sensitive Property

Allowable Noise Limits

| Time             | Maximum Noise Level, dBA |
|------------------|--------------------------|
| 7 a.m. - 10 p.m. | 60                       |
| 10 p.m. - 7 a.m. | 55                       |

TABLE 6  
(340-35-030)

Motor Vehicle Auxiliary Equipment [Driven by Primary Engine] Noise  
Standards

Stationary Test at 50 Feet (15.2 Meters) or Greater

| Model Year  | Maximum Noise Level, dBA |
|-------------|--------------------------|
| Before 1976 | 88                       |
| 1976 - 1978 | 85                       |
| After 1978  | 82                       |

TABLE 7  
(340-35-035)

Existing Industrial and Commercial Noise Source Standards

Allowable Statistical Noise Levels in Any One Hour

| [Pre-1978]                |                           | [Post-1977]              |                          |
|---------------------------|---------------------------|--------------------------|--------------------------|
| [7 a.m.-10 p.m.]          | 10 p.m.-7 a.m.]           | 7 a.m.-10 p.m.           | 10 p.m.-7 a.m.           |
| [L <sub>50</sub> - 60 dBA | L <sub>50</sub> - 55 dBA] | L <sub>50</sub> - 55 dBA | L <sub>50</sub> - 50 dBA |
| [L <sub>10</sub> - 65 dBA | L <sub>10</sub> - 60 dBA] | L <sub>10</sub> - 60 dBA | L <sub>10</sub> - 55 dBA |
| [L <sub>1</sub> - 80 dBA  | L <sub>1</sub> - 65 dBA]  | L <sub>1</sub> - 75 dBA  | L <sub>1</sub> - 60 dBA  |

TABLE 8

(340-35-035)

New Industrial and Commercial Noise Source Standards  
Allowable Statistical Noise Levels in Any One Hour

| 7 a.m. - 10 p.m.         | 10 p.m. - 7 a.m.         |
|--------------------------|--------------------------|
| L <sub>50</sub> - 55 dBA | L <sub>50</sub> - 50 dBA |
| L <sub>10</sub> - 60 dBA | L <sub>10</sub> - 55 dBA |
| L <sub>1</sub> - 75 dBA  | L <sub>1</sub> - 60 dBA  |

TABLE 9

(340-35-035)

Industrial and Commercial Noise Source Standards for Quiet Areas  
Allowable Statistical Noise Levels in Any One Hour

| 7 a.m. - 10 p.m.         | 10 p.m. - 7 a.m.         |
|--------------------------|--------------------------|
| L <sub>50</sub> - 50 dBA | L <sub>50</sub> - 45 dBA |
| L <sub>10</sub> - 55 dBA | L <sub>10</sub> - 50 dBA |
| L <sub>1</sub> - 60 dBA  | L <sub>1</sub> - 55 dBA  |

TABLE 10

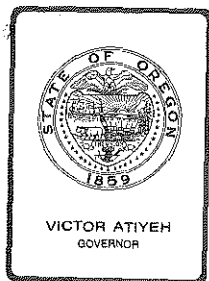
(340-35-035)

Median Octave Band Standards for  
Industrial and Commercial Noise Sources

## Allowable Octave Band Sound Pressure Levels

| Octave Band Center<br>Frequency, Hz | 7 a.m. - 10 p.m. | 10 p.m. - 7 a.m. |
|-------------------------------------|------------------|------------------|
| 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               |

Appendices "g," "h," "i," and "j" of  
Attachment "B" are too bulky for reproducing.  
They are available for review at the DEQ offices,  
522 S. W. Fifth Avenue, Portland, Oregon.



Attachment C  
Agenda Item E  
April 8, 1983  
EQC Meeting

## *Environmental Quality Commission*

Mailing Address: BOX 1760, PORTLAND, OR 97207

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

### MEMORANDUM

To: Environmental Quality Commission Date: April 8, 1983

From: Hearing Officer

Subject: Hearings Regarding General Modifications to Noise Control Regulations and Procedure Manuals

### Background

Department staff recognized a need to recommend general modifications to existing noise control rules and procedure manuals to eliminate misinterpretations, enhance their effectiveness and streamline the implementation of these rules. Pursuant to Commission authorization, a public hearing was scheduled and held at 10:00 a.m. on January 12, 1983 in Portland. As interest was expressed to hold a hearing in Southern Oregon, the hearing was continued at 7:00 p.m. on February 2, 1983 in Medford. Oral and written testimony was received at the hearing as well as mailed comments received at the Department offices.

The following review is ordered according to subject matter in the Summary (Exhibit A). The following written testimony is attached as exhibits for additional review as several persons requested their written testimony be delivered to the Commission. Exhibits are:

|           |                                                                    |
|-----------|--------------------------------------------------------------------|
| Exhibit A | Testimony Summary                                                  |
| Exhibit B | Motorcycle Industry Council                                        |
| Exhibit C | Automotive Exhaust Systems Manufacturers Council                   |
| Exhibit D | West Coast Grocery Company - William Paulus                        |
| Exhibit E | Woodburn Dragstrip - Jim Livingston                                |
| Exhibit F | Jackson County Parks - Jay Robinson, Planner                       |
| Exhibit G | Oregon Drag Racers Association - John Hughes                       |
| Exhibit H | Jackson County Sports Park - Carl Weisinger, Manager               |
| Exhibit I | Mr. & Mrs. Glen A. Cummings - Jackson County residents             |
| Exhibit J | Mr. & Mrs. James Cochran - Jackson County residents                |
| Exhibit K | Mr. & Mrs. Mahan and Mr. & Mrs. Edwards - Jackson County residents |
| Exhibit L | Oregon Aeronautics Division - Paul Burket, Administrator           |

Environmental Quality Commission  
April 8, 1983  
Page 2

Recommendation

Your Hearing Officer makes no recommendation in this matter

Respectfully submitted,



John Hector

JH:a  
NA3087

Testimony SummaryMotor Vehicle Rules and Procedures (OAR 340-35-025 & 030 and NPC-211. Eric Anderson - Motorcycle Industry Council, Inc.

MIC's technical committee provided written comments that were intended to help align Oregon rules with federal EPA standards. Several minor language changes were recommended that insure correct interpretation of the EPA rules. Clarification of the difference between an equipment standard, (e.g., defective or modified muffler), and an operator standard (e.g., excessive acceleration) was requested in the in-use rules. MIC suggested changes to the off-road vehicle standards that would increase emission limits for older models to be consistent with EPA standards for newly manufactured off-road models. The Committee also recommended including the EPA new product test procedure into the procedure manual, NPC-21. (Testimony is attached as Exhibit B.)

2. Ralph Van Demark - Automotive Exhaust Systems Manufacturers Council

AESMC's first concern was with definition number 60 that defines a "stock exhaust system" that they believe is too limited to include replacement exhaust systems. They also expressed concern with an operational standard (Table 3) that could be exceeded by vehicles meeting a reasonable equipment standard such as the 20 inch stationary procedure (Table 2). (Testimony is attached as Exhibit C.)

3. P.C. Wright - Thrush, Incorporated; Ontario, Canada

This muffler manufacturer believes that any vehicle complying with the stationary equipment standards (Table 2) should not be held to an operational standard that could restrict the methods of operating the vehicle.

4. Robert Burch - Specialty Equipment Market Association

SEMA represents 1600 specialty automotive manufacturers, distributors and retailers. SEMA recommends that any vehicles complying with the stationary test (Table 2) should be deemed to be compliant with the operational standards in Table 3. SEMA also recommends that the auto standards in Table 3 be increased by 2 to 4 dBA to be consistent with several other states and that the posted speed limit break-point of 45 MPH be reset to 35 MPH. SEMA concurs with Thrush, Incorporated that the stationary test (Table 2) should have preference over Table 3, the moving operational standards.

5. Portland Noise Review Board - City of Portland

The Board supports the added standard for motor vehicle auxiliary equipment, although the proposed standard is not as rigorous as

preferred. They also support the addition of operational standards for motorcycles as added leverage to deal with this problem.

6. William Paulus - Representing West Coast Grocery Co., Salem

They oppose the control of noise from motor vehicle auxiliary equipment as West Coast Grocery is impacting residences at 63 to 65 dBA from truck refrigeration units while loading and unloading at their Salem facility. West Coast claims that strict compliance would impede operations or cause the expenditure of hundreds of thousands of dollars. (Testimony is attached as Exhibit D.)

7. Thomas Robinson - Freightliner Corp.

Suggested that the revised Table 3 may be more restrictive for trucks as they may be traveling at 45 MPH rather than 35 MPH and higher levels of tire noise would be expected. He also questioned the ability of enforcement personnel to determine whether a vehicle was traveling at a "constant" speed under Table 3. He suggested the courts may have a difficult problem with initial cases under this procedure.

Motor Sports Rules (OAR 340-35-040)

8. Richard Kyrk - Canby

Opposes limits of non-muffled practice times proposed between noon and 3:00 p.m. He needs 10:00 a.m. to 4:00 p.m. to evaluate his race car during a practice day.

9. Jim Livingston - Woodburn Dragstrip

Opposes the elimination of muffler length specification for drag races as it would provide a loop hole for racers to bend the rules. Supports the curfew on jet cars at 10:00 p.m. Recommends practice day schedules from 10:00 a.m. to 4:00 p.m. rather than noon to 3:00 p.m. (Testimony is attached as Exhibit E.)

10. Nick Harmon - Portland

Operates a jet car and supports the proposed 10:00 p.m. curfew as acceptable.

11. Don Zahnow - Medford

Suggests that motor racing noise be controlled at the county level rather than DEQ. Notes that the Jackson County Sports Park (JCSP) is in an ideal location and the earthen berm protects homes from excessive noise, thus mufflers are not necessary and should not be required.

12. Lee Mills - Chairman, Jackson County Parks Committee

Believes that JCSP should be exempt from muffler requirements due to

the effectiveness of the berm. The Sports Park should serve as a model for other racing facilities and should be exempt to serve as an incentive to other facilities to build berms or walls. The berm is a good control measure as no muffler checks or noise emission testing is required.

13. Bob Spoons - Medford

Believes the earthen berm is an effective muffler and thus race cars should not be required to install mufflers.

14. Jay Robinson - Jackson County Parks Department

Was the designer of the Sports Park and included the berm to control excessive noise. Recommends a permanent exemption from muffler requirements for the Sports Park. (Testimony is attached as Exhibit F.)

15. Don Nuss - Humboldt Del Norte Timing Assn. - Crescent City, CA

Represents approximately 70 members of their association that often come to JCSP to drag race. They are strongly opposed to mufflers as their California track does not require mufflers. The berm at JCSP is an effective muffler. They "as a body will not attend any races if the muffler rule goes into effect", thus a substantial economic impact to the community.

16. Roalie Lindvig - Medford

Should not need mufflers at JCSP due to the berm. Opposes the non-muffled practice day schedule between noon and 3:00 p.m. as too restrictive.

17. Jerry Richardson - White City

Lives on Antelope Road near the JCSP and the drag strip noise does not offend him. He suggests the County is adequately resolving any problems and DEQ should concentrate efforts on noise problems in Portland, Salem, Eugene or Bend.

18. John Hughes - President, Oregon Drag Racers Association

Supports the request for an exemption from the muffler requirements at the JCSP because of the effectiveness of the berm. Opposes amending definition 57 for special events as he believes it would require a majority of out-of-state vehicles to meet the criteria. Also opposes amending the muffler definition (66) to eliminate muffler lengths as the length is easy to check as opposed to measuring noise emissions. They are also opposed to the establishment of a 10:00 p.m. curfew on jet cars and daytime curfews on non-muffled practice sessions. The Association also included testimony from a consulting engineer that concluded the noise berm provides useful attenuation of drag racing noise of 10 to 14 dBA. (Testimony is attached as Exhibit G.)

19. Neil Ledward - Director, Jackson County Parks Department

Noted that JCSP was designed to protect the community from noise and that DEQ should use them as an example as a well designed facility. Supports the request to exempt JCSP from mufflers but other tracks without a noise berm should be required to use mufflers.

20. Carl Weisinger - Manager, Jackson County Sports Park

Believes that any noise problems at JCSP are associated with jet cars and he will restrict their operations to within 10:00 p.m. He supports the muffler exemption request as the noise berm meets the intent of the rule. Recommended a rule amendment that would allow the Department to exempt any facility from the muffler requirement if a wall, berm or barrier accomplishes the intent of vehicle mufflers. They are concerned with an economic disadvantage because California tracks may attract Oregon racers and California racers may refuse to race in Oregon with mufflers. The race track operates infrequently, thus some noise should be tolerated. They request a rule amendment that would exempt JCSP drag races from any muffler requirements. (Testimony is attached as Exhibit H.)

21. Anna & Steve Bagley - White City

Lives one mile from JCSP and noise is not a problem.

22. Ken & LaVena Hess - White City

Lives within one-half mile of JCSP and are not bothered by the noise.

23. Petition of 19 Signatures - Central Point

All live within two-and-one-half miles of JCSP and are not disturbed by the race noise.

24. Mr. & Mrs. Frank Hardin - White City

Live in White City and the drag strip noise does not bother them and they prefer not to have muffled race cars.

25. Dewey Bagley - Rogue River

The noise berm is more effective than an automotive muffler. The track draws racers from other states without muffler requirements. This advantage would be lost with mandatory mufflers.

26. Larry Hall Family

Supports the berm as a muffler; and the noise is adequately controlled.

27. Tom & Brenda Herp - Jackson County

Oppose mandatory mufflers at JCSP and suggest the track should be exempt as the berm adequately controls noise emissions.

28. James Davis - Rogue River

The JCSP should be exempt from the muffler rule as the berm is adequately controlling noise.

29. Alan De Boer - Oregon Drag Race Assoc., - V.P.

Opposed to muffler requirement at JCSP as the berm effectively reduces noise.

30. Denise May - Medford

Opposed to mufflers because noise is a part of racing and they need a place to hear cars without mufflers.

31. Mr. & Mrs. Glen Cummings - White City

Live near JCSP and the noise does not bother their family. They get more noise from neighbor's chainsaw and motorcycle. (Testimony is attached as Exhibit I.)

32. Mr. & Mrs. James Cochran - Medford

Owners of 400 acres adjoining the east boundary of JCSP and 5 acres on Antelope Road in White City. Their property is directly affected by noise produced at the Sports Park and the quality of enjoyment and value has been adversely affected. The noise berm provides a sounding board to reflect additional noise on their property thus another berm should be constructed. Mufflers are a small inconvenience for racers and the rights of adjacent property owners involuntarily subjected to noise should take precedence over weekenders living elsewhere in the County, State, or even out-of-state. (Testimony is attached as Exhibit J.)

33. Vonita Mahan - White City

Has complained about noise from the Sports Park and believes the jet cars should be prohibited. Noted that the Sports Park should comply with the statewide law and install mufflers as all other racing facilities.

34. Jimmy Edwards - White City

Stated that the noise berm is adequate for daytime racing but not at night. They are not the closest home to the Sports Park but are still impacted. He sees no reason why anyone should be exempted from the State muffling requirements.

35. Edith White - White City

Complained that the jet car shakes every window in the house. She noted that the Sports Park was developed for daytime racing only, however, now lights were installed and a race ran until 2:00 a.m. last year. Supports the State muffler requirements.

36. David Hirschert - White City

He is a land owner and has lived at the same location in White City prior to the construction of the Sports Park. His home is not fully protected by the noise berm and claims the noise is reflected toward his home by the berm. He supports the noise control rules and believes standards should be uniform and all Oregon race tracks should comply with Oregon rules. He does not know whether California racers would boycott the Sports Park if mufflers were required, however, he believes there are enough Oregon racers to use the track. Also noted that the track will get louder as more events are added and larger, top-fuel, racers begin to appear. The noise has adversely impacted his home by awakening his children and has caused emotional stress to him and his wife.

37. Mahan/Edwards (letter) - White City

This additional testimony noted that the noise berm is open toward the northeast and thus does not protect all residences. They disagreed that mufflers were a safety hazard as claimed by some because they are safely installed by many others. They suggest a compromise that would limit racing to the daytime only if the track is exempted from the muffler requirement. They also suggest a ban on jet cars. (Testimony is attached as Exhibit K.)

Airport Rules (OAR 340-35-045)

38. Paul Burket, Administrator, Aeronautics Division, ODOT

Suggests that the proposed amendment to send airport impact boundary approvals to the Department of Land Conservation and Development would cause confusion as they are primarily interested in comprehensive plan conflicts. (Testimony is attached as Exhibit L.)



MOTORCYCLE INDUSTRY COUNCIL, INC.

*Executive Office*

February 14, 1983

Mr. John Hector  
Oregon Department of Environmental Quality  
522 S.W. 5th Avenue  
Portland, Oregon 97204

Dear Mr. Hector:

The Motorcycle Industry Council's Technical Committee greatly appreciates the extended comment period that was granted. This allowed the Committee to meet and jointly discuss Oregon's proposed amendments to its Noise Control Regulations.

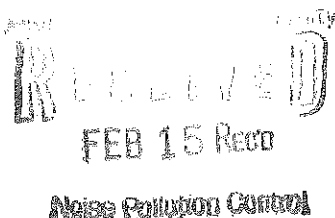
The enclosed changes, we believe, will, within the original intention of the DEQ, more accurately align Oregon's Noise Control Regulations with the Environmental Protection Agency's motorcycle and motorcycle exhaust system noise regulation presently in effect. After each of the listed changes, you will find a brief explanation.

Please feel free to contact us if there are any questions you may have.

Sincerely yours,

Eric Anderson  
Technical Analyst

EA/cak  
Enclosure



MIC TECHNICAL COMMITTEE  
SUGGESTED ALTERATIONS TO  
OREGON'S NOISE CONTROL REGULATION AMENDMENTS

February 11, 1983

ALTERATION #1                      Page 28

Table 1 (340-035-025) New Motor Vehicle Standards Moving Test  
at 50 Feet (15.2 Meters)

Motorcycles

**REPLACE** Line #6 "1983-1985 Street Models" **with** "1983-1985  
Street Models built after December 31, 1982"

The EPA Motorcycle Noise Regulation states that motorcycles manufactured after December 31, 1982 shall comply. Some of the 1983 models were built before this date. These models were manufactured in compliance with applicable state regulations and are not covered by the federal regulation. The Technical Committee feels the Oregon schedule for compliance should exactly parallel the EPA schedule as suggested above.

ALTERATION #2                      Page 10

(340-35-030) Noise Control Regulations for In-Use Motor Vehicles

(a)(A)

**REPLACE** "No person shall operate any road vehicle which exceeds the noise level limits specified in Table 2 or 3, except as otherwise provided in these rules." **with**

"No person shall operate any road vehicle which exceeds the noise level limits specified in Table 2 or in such a manner to exceed the noise level limits specified in Table 3, except as otherwise provided in these rules."

The underlined addition to 340-35-030, Noise Control Regulations for In-Use Motor Vehicles assures that the responsibility of quiet operation lies with the operator. The vehicle being operated will already be in compliance (if unmodified) with the New Motor Vehicle Standards set in 340-035-025.

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FEB 15 Recd

Noise Pollution Control

(340-35-030) Noise Control Regulations for In-Use Motor Vehicles  
(b)(A)

**REPLACE** "No person shall operate any off-road recreational vehicle which exceeds the noise level limits specified in Table 4." **with**

"No person shall operate any off-road recreational vehicle which exceeds the stationary noise level limits specified in Table 4 or in such a manner as to exceed the moving vehicle noise level limits specified in Table 4."

This alteration has the same reasoning as ALTERATION #2.

Table 4 (340-035-025) Off-Road Recreational Vehicle Standards; Allowable Noise Limits

**REPLACE**

|                 | Stationary Test<br>20 inches<br>(1/2 meter) | Moving Test<br>at 50 feet<br>(15.2 meters) |
|-----------------|---------------------------------------------|--------------------------------------------|
| Motorcycles     |                                             |                                            |
| 1975 and Before | 102                                         | <u>85</u>                                  |
| After 1975      | 99                                          | <u>82</u>                                  |

**with**

|             | Stationary Test<br>20 inches<br>(1/2 meter) | Moving Test<br>at 50 feet<br>(15.2 meters) |
|-------------|---------------------------------------------|--------------------------------------------|
| Motorcycles |                                             |                                            |
| Before 1976 | 102                                         | 88                                         |
| 1976-1985   | 102                                         | <u>86</u>                                  |
| After 1985  | 99                                          | <u>82</u>                                  |

Since the State of Oregon is adding moving test limits for off-highway motorcycles to supplement its stationary test limits, the moving test limits should be consistent with applicable new vehicle acceleration test limits. The suggested MIC moving test limits are consistent with applicable new vehicle test limits.

(340-35-025) Noise Control Regulations for the Sale of New Motor Vehicles

**ADD** the words "or marked" as underlined below.

- (e) No person shall sell or offer to sell any new motorcycle, new motorcycle exhaust system or new motorcycle exhaust system component manufactured after January 1, 1983 unless the

motorcycle, exhaust system, or exhaust component is properly labeled or marked in accordance with Federal noise regulations specified in Part 205 Subpart E of Title 40 of the Code of Federal Regulations.

EPA has issued interpretations on labeling requirements set forth in Part 205 Subpart D and E that permit a variation of labeling devices or mark (i.e., stamping, embossing etc.) to portray noise emission information. The Technical Committee suggests that the words "or marked" (or "or mark") be added to prevent confusion on the part of enforcement officers looking for "labels" as such.

ALTERATION #6

Page 12

(304-35-030) Noise Control Regulations for In-Use Motor Vehicles

- 6a. **ADD** the words "or mark" as underlined below.
- (B) No person shall remove or deface any noise label or mark required by Federal Law which is affixed to any motorcycle or motorcycle part for purposes of identifying the motorcycle or motorcycle part as a federally regulated product.
- 6b. **ADD** the words "or mark" and "specific code" as underlined below.
- (C) No person shall operate any road or off-road motorcycle manufactured to federal noise law that does not bear a label or mark on the exhaust system that matches the model specific code of the motorcycle on which the system is installed.
- 6c. **ADD** the words "or mark" as underlined below.
- (D) No person shall operate, nor shall any person cause, allow, permit or fail to control the operation of any competition motorcycle identified for "competition use only" by the noise label or mark required by federal law on any property other than a motorsports facility in a practice session or a racing event.

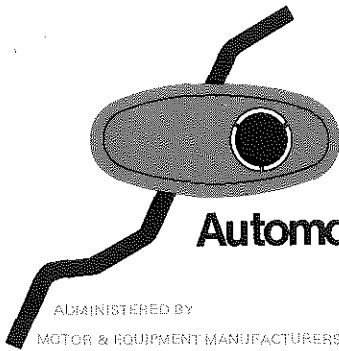
The three above alterations 6a, 6b and 6c have the same reasoning as ALTERATION #5. Addition of the words "specific code" in 6b duplicates terminology used in the Federal Regulation and reduces possibility of confusion.

ALTERATION #7

**ADD** the Federal Test Procedures (FTP) specified in 40 CFR Part 205, Appendices I and I-2 for Subparts D and E to Oregon's NPCS-21 Motor Vehicle Sound Measurement Procedures Manual.

Since off-road and on-road motorcycles and mopeds will be produced in compliance with Federal sound level limits when tested using Federal Test Procedures, it is recommended Oregon include the same

procedures in its enforcement manual. This establishes a consistency between sound level limit, measured sound level and the corresponding test procedure.



## Automotive Exhaust Systems Manufacturers Council

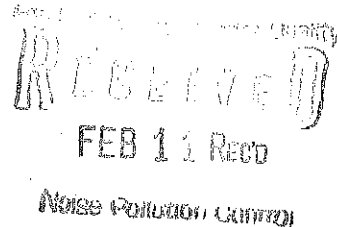
222 CEDAR LANE, TEANECK, NEW JERSEY 07666/PHONE 201-836-9500

ADMINISTERED BY

MOTOR & EQUIPMENT MANUFACTURERS ASSOCIATION

February 7, 1983  
(Dictated February 1, 1983)

Mr. John Hector  
Department of Environmental Quality  
Noise Control Section  
Box 1760  
522 Southwest 5th Avenue  
Portland, Oregon 97207



Subject: Automotive Exhaust Systems Manufacturers Council  
Testimony on Proposed Amendments to Oregon Noise  
Control Regulations

Dear Mr. Hector:

Because of the relatively short notice of your Public Hearings on January 12, 1983 and February 2, 1983, the Automotive Exhaust Systems Manufacturers Council has been unable to schedule our attendance to present verbal testimony. We have, however, reviewed your proposed general amendments to the Noise Control Regulations, Items 1 through 6, in your Notice of Public Hearing dated December 3, 1982. We did not receive, with the Notice of Public Hearing, the general amendments to the procedure manuals noted in Items 7 through 10. We have made a telephone request to obtain that information but it has not been received as yet. Therefore, we request an adequate time extension for the receipt of written comments dealing with the procedure manuals.

AESMC is an independent trade association of automotive exhaust system manufacturers. It was organized in 1970 to provide a medium for industry consultation and cooperation with respect to federal and state legislation and regulatory developments affecting automotive exhaust system components. The member-manufacturers of AESMC supply exhaust systems both as original equipment to the vehicle manufacturers, and as replacement equipment to the automotive aftermarket. Aftermarket sales are made through all channels of distribution, including warehouse distributors, wholesalers, jobbers, chain stores, service stations, repair garages, and vehicle dealers. AESMC members produce approximately 90% of the exhaust systems for passenger cars and light duty trucks.

AESMC's first concern is with the definition of "Stock Exhaust System", #(60) on page 7. This definition states that a "Stock Exhaust System" is an original equipment manufacturer exhaust system or a replacement for original equipment for a street legal vehicle whose noise emissions do not exceed those of the original equipment. This definition apparently equates an original equipment manufacturer exhaust system and a replacement exhaust system. This equalization is based on the statement . . . a replacement for original equipment . . . whose noise emissions do not exceed those

Mr. John Hector  
Department of Environmental Quality  
Noise Control Section  
Portland, Oregon

February 7, 1983  
Page Two

of the original equipment. Thus, AESMC feels that many replacement exhaust systems are considered to be of the original equipment type, but may not necessarily exactly match the noise control parameters of the original equipment system. First of all, as you may be well aware, there is no single original equipment noise emissions level, even for a particular make or model vehicle. The variables of vehicle equipment - engine, transmission, axle ratio, tires, etc., all affect total vehicle noise. Even for two makes and models built as nearly identical as possible, there exists total noise level variations due to manufacturing tolerances and, quite often, alternate sources of supply. Also, the practical necessity of consolidation on the part of the replacement exhaust system manufacturer causes slight dBA level variations in the use of a replacement muffler on various car makes and models. There are documented cases where replacement exhaust systems are somewhat lower in their noise emissions level than the original equipment manufacturer exhaust system. Thus, we feel that a replacement exhaust system should not be equated to an original equipment exhaust system on the basis of not exceeding noise emissions levels. Rather, such equating should be based on not exceeding statutory levels, and we would suggest that the statutory level basis for this equating should be the 95 dBA, 20" test which is a meaningful measurement of exhaust system performance.

AESMC also wishes to express a serious concern with Table 3 of the Proposed Amendments which is referred to in Section 340-35-030, Noise Control Regulations for In-Use Motor Vehicles. The amended version of Table 3 establishes not only a higher speed brake (45 mph versus 35 mph), but adds the words, "under any grade, load, acceleration or deceleration".

These additional words result in a tremendous burden being placed upon replacement exhaust system manufacturers. Since the vehicle-in-use may be measured at a 50 foot microphone distance, while operating under any grade, load, acceleration or deceleration, this procedure is more severe than the new motor vehicle standards of paragraph 340-035-025. A vehicle-in-use could be measured while operating on a severe grade, under maximum load and in maximum acceleration and be required to meet a dBA level of 72, while a new motor vehicle would be required under less stringent operational conditions to meet a level of 80 dBA. Obviously, many good mufflers and exhaust systems (mufflers subjectively judged quiet and legal by other standards such as a stationary test), would exceed the statutory, in-motion, pass-by limits for in-use vehicles under this severe condition, and, therefore, be illegal in Oregon.

It is recommended, therefore, that the amended language of Table 3 be changed to eliminate the wording, "under any grade, load, acceleration or deceleration".

There are, in fact, as you are aware, several other states which have regulations and statutes containing these very same words. However, in most of those situations, there is also a stationary exhaust system test contained within the statutes, usually of a 95 dBA level at 20" and an approximate 3/4 maximum RPM or a 3,000 RPM. This stationary test is clearly stated and clearly understood by all to be the basis for determining the legal status of a replacement exhaust system. If a vehicle fails the vehicle-in-use levels, the exhaust system is not judged illegal until it has also failed the stationary test.

Mr. John Hector  
Department of Environmental Quality  
Noise Control Section  
Portland, Oregon

February 7, 1983  
Page Three

We recommend that the Oregon statutes be changed to recognize this fact . . . the vehicles-in-use levels are measuring total exhaust system noise and the stationary test levels are measuring primarily exhaust system noise. Our concern is based on the fact that a vehicle cited for exceeding the in-use vehicle levels will be also judged to have an illegal exhaust system. Thus, a replacement exhaust system manufacturer, in order to maintain the legality of his product in Oregon, would have to design for a performance level equal to the statutory dBA levels in Table 3 and under the most severe operating conditions possible . . . this is an unrealistic burden.

Thus, we request that the language, "under any grade, load, acceleration or deceleration", be deleted and/or it clearly be stated and understood that the legality of replacement exhaust systems will be based on the stationary test contained in Table 2.

AESMC strongly supports the basic principle that "excessive noise obviously affects the public health and welfare," and we firmly endorse the control of "excessive noise" by regulatory agencies. The business of AESMC member manufacturers has been, for many years, devoted to the control of automotive exhaust noise and these companies have developed, over the past quarter century, a unique expertise in the control of automotive noise. AESMC feels that any automotive noise standard and test procedure adopted by state legislation or regulatory agencies must be reasonable and great care must be used in developing reasonable standards because of the multifaceted, interacting and subjective variables constituting and affecting excessive noise. These facts, when viewed in terms of the complex manufacturing and physical distribution functions of the automotive replacement equipment market, have caused AESMC and its representatives to provide its expertise to Federal agencies such as the Department of Transportation and the Environmental Protection Agency Office of Noise Abatement and Control, and state agencies such as the California Highway Patrol, the Florida Department of Environmental Regulations, the Maryland Motor Vehicle Administration's Department of Transportation, and State Police, the Minnesota Pollution Control Agency, and the Illinois Pollution Control Agency, the consulting firms of McDonnell Douglas and Bolt, Beranek and Newman, and numerous other interested groups.

Very truly yours,



Ralph W. Van Demark  
Executive Director

RWV/dj

Exhibit D

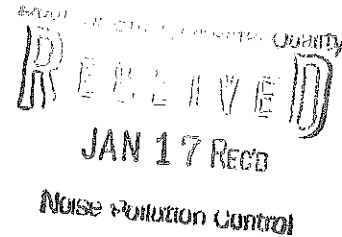
PAULUS & CALLAGHAN  
LAWYERS  
100 McNARY SQUARE  
750 FRONT STREET N. E.  
SALEM, OREGON 97301

JOHN DANIEL CALLAGHAN  
WILLIAM G. PAULUS  
MICHAEL LEE McDONOUGH  
RONALD J. KNOX  
FRED H. PAULUS, OF COUNSEL

TELEPHONE (503) 581-1551

January 15, 1983

Mr. John Hector  
Environmental Quality Commission  
P. O. Box 1760  
Portland, OR 97207



Re: Noise Control Regulations

Dear Mr. Hector:

Pursuant to your request at the public hearing held January 12, 1983, concerning the above subject and West Coast Grocery Company's objections thereto, I enclose a copy of a report from the City of Salem Community Development Department concerning its noise ordinance and the impact thereof on my client.

It is my understanding that a second public hearing will be held in Medford on February 15. Prior to that date, West Coast will submit to you a written report on this subject.

Very truly yours,

PAULUS & CALLAGHAN

  
William G. Paulus

WGP:geh

Enclosure

cc: Mr. Dick Huntley

TO: MAYOR AND CITY COUNCIL  
THRU: *R. Hanley*  
RALPH HANLEY  
CITY MANAGER  
FROM: *R. Briscoe*  
ROBERT BRISCOE, DIRECTOR  
COMMUNITY DEVELOPMENT

Exhibit D

COPY FOR YOUR  
INFORMATION

SUBJECT: SECOND READING -- NOISE ORDINANCE  
IMPACT OF NOISE ORDINANCE ON WEST COAST GROCERY

ISSUE

Review impact of the proposed noise ordinance on West Coast Grocery Company.

BACKGROUND

At the December 13 Council meeting, Bill Paulus, legal counsel for West Coast Grocery Company, informed Council that the proposed noise ordinance would have a detrimental effect upon West Coast Grocery.

FACTS AND FINDINGS

## A. Effect of Proposed Ordinance

1. Section 93.180 (c)(7) prohibits use of auxiliary equipment on a motor vehicle for more than 30 minutes if the sound level exceeds 55 dBA in the day and 50 dBA at night when measured at or within noise sensitive property.
2. The proposed ordinance only applies to a noise disturbance which disturbs persons within the limits of the City (93.010(a)). All residential units adjacent to West Coast Grocery are outside the City limits. Therefore even if West Coast Grocery exceeds the standards set in 93.180(c)(7) they would not be in violation of the ordinance.

## B. DEQ Proposed Rule

1. The Oregon Department of Environmental Quality is however proposing an administrative rule which states: "No person shall cause, allow, permit, or fail to control the operation of any road vehicle auxiliary equipment that exceeds 50 dBA for more than 30 minutes between 10:00 p.m. and 7:00 a.m. at any appropriate noise sensitive property measurement point as specified in OAR 340-35-035 (3)(b)."
2. A public hearing before the Environmental Quality Commission is scheduled for January 12, 1983.
3. If the proposed rule or modification thereof is adopted, West Coast Grocery will have to comply or apply for a variance from the EQC.

### C. Potential Future Problem

1. If the adjacent residential area is annexed to the City, West Coast Grocery would have to comply with the City ordinance or apply for a variance. Any variance granted by EQC would be honored by the City.

2. On December 16, at 12:06 p.m., staff measured the sound level at 220 37th Avenue and it was found to be 63-65 dBA. The sound was being emitted by a refrigeration unit on a trailer in the process of being loaded. At 12:10 p.m. the sound level was measured at 3690 State Street. The refrigeration units could not be heard.
3. Staff met with Dick Huntley of West Coast Grocery and discussed their noise problem. They are concerned that eventually the adjacent residences will be annexed and then 93.180 (c)(7) would be applicable.
4. The attached site plan shows location of the 32 shipping and receiving doors on the east side of the building as they relate to the houses on 37th Avenue. The 5 shipping and receiving doors on the north side of the building lead directly to the refrigerated storage space. West Coast Grocery's volume of shipping frozen and perishable food items is larger than can be accommodated by the north refrigerated loading area and so the east loading docks are also used for these food items. The noise is generated by the refrigeration units which sometimes operate for up to two hours while loading and unloading. The trailers are precooled in the north parking lot and then transferred to the loading docks to minimize noise impact to the adjacent homes.
5. If the adjacent residential units were annexed, West Coast Grocery can apply for a variance from the code. As a condition of the variance, the City could work with West Coast Grocery to research alternatives to minimize both the noise impact upon these residences and financial impact upon West Coast Grocery. Alternatives could include building sound barriers, modifying operations, decreasing the number of refrigeration units operating (each additional operating unit increases the received dBA by 3dBA). The impact upon West Coast Grocery and the residences would need to be analyzed. West Coast Grocery advises that any of the above mentioned alternatives would be financially and operationally burdensome.

### D. Summary

1. The proposed noise ordinances will not immediately affect West Coast Grocery.
2. DEQ may adopt a proposed rule similar to the Salem proposal that will effect them.
3. If adjacent residential property is annexed, West Coast Grocery will have to comply with the code or apply for a variance.

### RECOMMENDATION

Information

  
Denise Kleim, Administrative Assistant III

PAULUS & CALLAGHAN  
LAWYERS  
100 McNARY SQUARE  
750 FRONT STREET N. E.  
SALEM, OREGON 97301

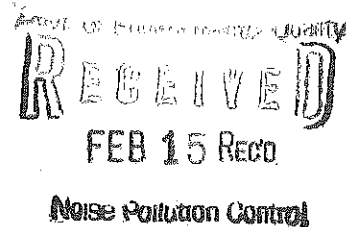
JOHN DANIEL CALLAGHAN  
WILLIAM G. PAULUS  
MICHAEL LEE McDONOUGH  
RONALD J. KNOX  
FRED H. PAULUS, OF COUNSEL

TELEPHONE (503) 581-1551

February 14, 1983

Hand Delivered

Mr. John Hector  
Environmental Quality Commission  
522 Southwest 5th Avenue  
(Yeon Building)  
Portland, OR 97207



Re: Noise Control Regulations

Dear Mr. Hector:

Your records will indicate that I appeared on behalf of West Coast Grocery Co. at a public hearing concerning the above regulations on January 12, 1983, and I indicated that I would follow-up with a written report to you on this subject prior to February 15. West Coast is principally concerned with an amendment to the OAR 340-35-030(1)(e)(B) which reads:

"No person shall cause, allow, permit, or fail to control the operation of any road vehicle auxiliary equipment that exceeds 50 dBA for more than 30 minutes between 10 p.m. and 7 a.m. at any appropriate noise sensitive property measurement point as specified in OAR 340-35-035(3)(b)."

The Salem division of the company is one of the state's major wholesale grocery concerns with annual gross sales in excess of \$300,000,000 and a payroll of 331 employees.

The business supplies a full line of grocery products, including frozen and perishable food items, to markets throughout Oregon, Eastern Washington, and Idaho. The Salem plant is distribution center with a large number of trucks arriving for unloading and loading on a 24-hour basis, seven days a week.

The property is located within the city limits in an industrial zone bounded on the west by Interstate I-5, the north by a Southern Pacific spur, and on the south by State Street which is a main arterial. Immediately west of the premises and outside the city limits are four residential properties.

Mr. John Hector  
Environmental Quality Commission  
February 14, 1983  
Page Two  
-----

This multi-million dollar facility was developed and occupied by West Coast in 1969, and the distribution volume has substantially increased over the years.

Truck trailers are parked along the shipping and receiving doors and as many as 30 trailers may be sited on the premises for that purpose. The attached site plan indicates the location of 32 shipping and receiving doors on the east side of the building as they relate to the residences on 37th Avenue. The five shipping and receiving doors on the north side of the building lead directly to the refrigerated storage space. West Coast's volume of shipping frozen and perishable food items is larger than can be accommodated by the north refrigerated loading area and, consequently, the east docks are also used for these food items.

The noise is generated by the refrigeration units which must continue operation while loading and unloading, sometimes for up to two hours. The trailers are precooled in the north parking lot and then transferred to the loading docks to minimize noise impact to the adjacent residences.

It appears that strict enforcement of the proposed regulation would not only impede West Coast's substantial operation, but could either fatally impair its ability to function or cause it to expend hundreds of thousands of dollars in sound-muffling barriers which, in all probability, would still not bring noise levels to acceptable limits.

For the above reasons, we respectfully request that the Commission take no action on these proposed regulations until staff has an opportunity to investigate this critical matter.

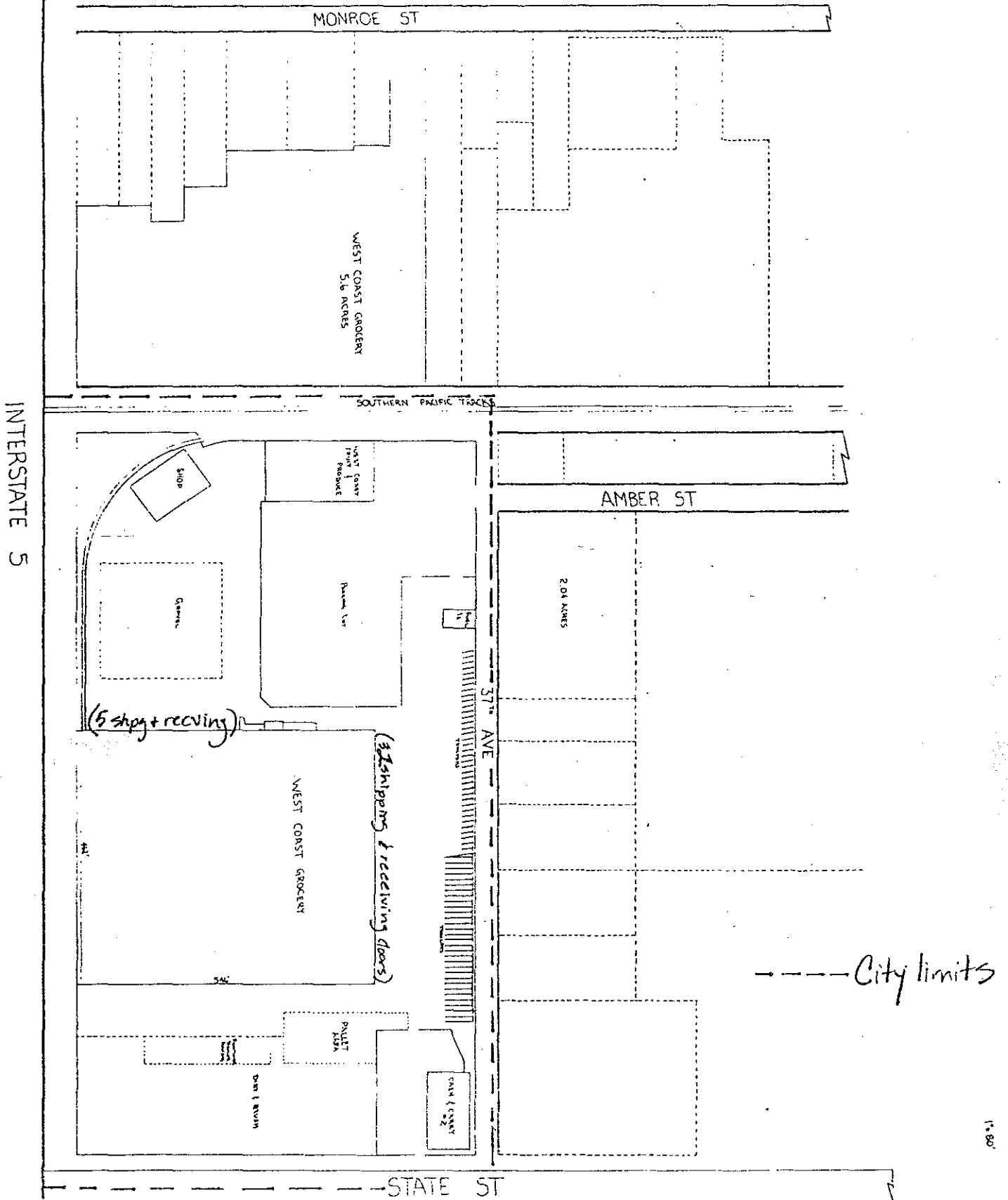
Very truly yours,

PAULUS & CALLAGHAN

  
William G. Paulus

WGP:geh

cc: Mr. Dick Huntley, West Coast Grocery Co.



# Woodburn Dragstrip

7730 STATE HWY. 214 N.E., WOODBURN, OREGON 97071 PHONE: (503) 982-4461

January 7, 1983

Department of Environmental Quality  
Box 1760  
Portland, OR 97207  
Attn: John Hector

Dear John,

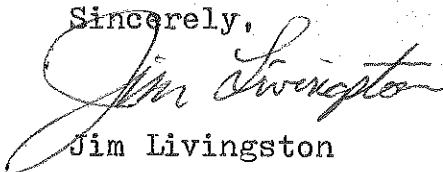
In reviewing the proposed rules, I feel we all have made progress on the issue, but I am concerned about the section on Muffler Specifications. I can see a loop hole for racers to try and bend the rules so that pressure would be put on race track management. Testing cars with a meter, which as we all agree, at drag race tracks is next to impossible.

Leave the muffler specifications as they are. We now have the racers working together to help govern the rules with the guidance of our tech personnel. We are now working toward a consistent rule of length that racers understand. To change, would only confuse and open up problems for track management. At Woodburn Dragstrip, if a muffler is of correct length and appears too loud, I simply tell them to fix or park and back this up with the meter that I have in the timing tower.

The section on Jet Cars from 11 am to 10 pm is fine.

Under practice sessions, I would propose to do the same as we did in 1982, 10 am to 4 pm. Any less time would not in any way be workable. Drag race cars do not run steady for 5 hours, but they make a short, approx 10-15 sec run, and then make adjustments while their motor is being cooled down. The racers may change a rear end, transmission or even a complete engine, which does take a considerable amount of time. The 10 to 4 length of time is absolute must for a practice session.

Sincerely,

  
Jim Livingston

DEPT. OF ENVIRONMENTAL QUALITY  
**RECEIVED**

JAN 10 Recd

NOISE POLLUTION CONTROL



# JACKSON COUNTY

## *Parks and Recreation Department*

80 East Stewart Avenue, Medford, Oregon 97501 (503) 776-7001

February 2, 1983

Hearings Officer  
DEQ Public Hearing  
Medford City Hall  
Medford OR 97501

Dear Sir:

The Jackson County Sports Park is a multi-use park which has been designated as a "noise park" from its very inception.

Input for the design of the park came from the Sports Park Association (which included members from 17 different clubs and organizations), the Jackson County Parks and Recreation Advisory Board, and citizens at large through public input at Advisory Board meetings.

The Sports Park Master Plan was approved by the Jackson County Board of Commissioners, the Parks and Recreation Advisory Board, the Federal Bureau of Outdoor Recreation and the Oregon State Parks Division, the State Clearinghouse, and the Rogue Valley Council of Governments.

The deed to the Sports Park land was presented to the Jackson County Board of Commissioners in August, 1971, by Mrs. Nixon as part of President Nixon's "Legacy of Parks" plan and conditioned on construction of the elements contained in the Sports Park Master Plan.

Funding for the construction of the drag strip came from the Federal Economic Development Administration, the Federal Bureau of Outdoor Recreation (Land and Water Conservation Funds), the State of Oregon (State Grant-in-Aid Funds), Jackson County, and donations from many citizens. The EDA funds were originally allocated to the City of Medford which allowed them to be reallocated to Jackson County for construction of the drag strip.

The Sports Park site was chosen as a place where the major noise producing recreational activities could be enjoyed without annoying anyone. One of the major factors involved in the selection of this site was the low density of housing in the immediate area. Early in the design of the drag strip, contact was made with the DEQ noise section to determine the effectiveness of an earthen noise control berm around the facility. The present 20' high by 1300' long sound suppression berm located at the drag strip was designed and built with DEQ input to mitigate noise created by the drag race cars. The drag strip berm contains 45,000 cubic yards of earth.

February 2, 1983

Barriers, including earthen berms, are commonly used to attenuate roadside noise. The "Noise Barrier Design Handbook" prepared for the Federal Highway Administration was also used as a source of barrier attenuation design data.

The Jackson County Sports Park Drag Strip sound suppression berm was designed and built specifically as a noise attenuation barrier. It has been proven effective by noise surveys taken by the DEQ and evaluated by a registered acoustical engineer.

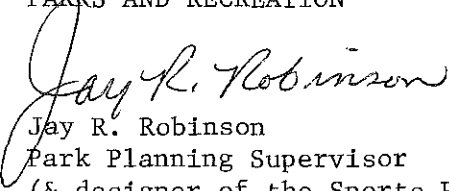
It is very obvious that 45,000 cubic yards of earth around the drag strip protects noise sensitive properties far more than a 20-inch muffler installed on selected classes of race cars while other classes are exempt from the muffler requirement.

Therefore, I recommend that a permanent exemption from the muffler requirement be granted for the Jackson County Sports Park.

Please submit this letter to the Environmental Quality Commission in its entirety.

Sincerely,

PARKS AND RECREATION

  
Jay R. Robinson  
Park Planning Supervisor  
(& designer of the Sports Park)

JRR/bc



# Oregon Drag Racers Association

P.O. Box 435  
Medford, Oregon 97501  
773-DRAG



February 2, 1983

John Hector, Program Manager  
Noise Pollution Control  
522 S.W. 5th Avenue  
Portland, Oregon 97207

FROM: Board of Directors and DEQ/Muffler Committee

SUBJECT: Public hearing on rule amendments to 340-35-040

The following is our comments on the changes. We hope they will be forwarded in their entirety to the E.Q.C.

## Definition (57)

There is no reason to change this definition. MSAC has control over special event exemptions. Trying to put a majority of out of state vehicles the reason for the exemption is very unrealistic. None of the drag races in Oregon have a majority of out of state entries. As for "Special significance to the community" we have no idea what that means. Between the MSAC and the DEQ, they should be able to justify a special event and approve it without changing the definition in such a way that out of state cars would tend to stay home more than they do already or by becoming completely vague.

## Definition (66) & Subsection (2) (a)

As we understand it the problem with (66) is the ability to determine if a perforated core muffler is well maintained enough to reduce sound by 5 dba or more and does length have anything to do with its reduction.

If length is dropped and the 105 limit installed, why should all types of mufflers be subject to 105 dba with only one type having problems in maintenance and application.

As explained in the 12-10-82 DEQ memo, all drag race vehicles would be under 105 at trackside, but no one has to check the the car, and the facility owner is still responsible that "no vehicle operates in excess of the 105 dba limit".

Checking a muffler with a tape measure is very simple to perform and if a muffler does not seem to reduce sound it must not be large enough or is not "well maintained". If there is a problem at the track over a muffler, remove it and check that car, don't make someone responsible for checking all the cars.

Also in (66) approving formula Vee 4-into-1 headers does not say a car that is under 105 does not have to install mufflers, but that is what you are doing. That is not fair to all racers and if it does pass, do V-W engines with 4 into 1 headers in drag cars have to have mufflers?

Committee members

Legal and engineering should be the responsibility of the DEQ. More public members on the MSAC may offset the purpose of the committee and input from these two added members may not be strictly legal or engineering.

Subsection (11) Exemptions (c)

All cars including jets have curfew rules already. Limiting them to 10:00 p.m. would cancel out one of the reasons promoters have such cars. Sometimes at bigger races exhibition vehicles are used to fill between the last rounds of the event while the race cars are preparing for the final race. Besides nothing is gained by the 10:00 p.m. limit when other exempt cars are able to run until 11:00 p.m. anyhow, some of which are as loud or louder than jets. Limiting early morning use of these cars until 11:00 a.m. is considered not to be a burden. If approved, this change should only be for jet powered cars, not all exhibition vehicles.

Subsection (11) (d)

With some types of racing scheduled practice sessions are possible, but in drag racing many pro and semi-pro or sportsman car owners are on very tight time schedules, unable to wait for a scheduled date to do testing of new products or theories. Because drag racing tuning and testing sessions are limited to only a very few cars by most insurance companies runs are very few per hour. Normally between test runs maintenance or parts changes and cool down takes a certain amount of time. Between 20 to 45 minutes are need for this work, longer if repairs are needed. As you can see 3 hours is not enough for a test session or "practice sessions". Because of the few number of runs and the time needed, drag racing sessions should not be limited other than possibly shortened curfew 10:00 a.m. to 10:00 p.m. and limiting the number of cars the same as the insurance companys with only single runs allowed. Perhaps limiting the number of unmuffled normally aspirated cars that are allowed to make test runs would be more acceptable. These sessions with limited number of cars should be able to run at a muffled event also.

Subsection (12)

We assume the change should read "Subsection (11) (d)" not (11) (e) because we could not find (e). If we are wrong please explain.

Subsection (6) (d) & (66) (j)

We support this addition.

As for the Sports Park muffler issue, we support Jackson County's request for the exemption on the grounds of the berms sound reducing qualities and their support from the Sports Parks neighbors.

Sincerely,



John Hughes  
President OORA  
12 W. Jackson  
Medford, Oregon 97501  
772-4323

# *Marquess & Associates, Inc.* . . . CONSULTING ENGINEERS

TELEPHONE: (503) 772-7115

P.O. BOX 490  
1120 EAST JACKSON STREET  
MEDFORD, OREGON 97501

December 20, 1982

Mr. John Hughes, Oregon Drag Racers Association  
c/o Medford Cylinder Head  
12 W. Jackson  
Medford, Oregon 97501

Re: JACKSON COUNTY SPORTS PARK DRAG RACING NOISE MONITORING REVIEW

Dear Mr. Hughes:

Pursuant to your request of December 13, 1982, we have reviewed (1) the Jackson County Sports Park Noise Survey Data, and (2) the Oregon Department of Environmental Quality (DEQ) Noise Control Regulations with proposed amendments, dated December, 1982. Our job was to determine if the DEQ Noise Survey showed that the existing soil berm at the sports park was mitigating drag racing noise - toward compliance with the regulations.

## MATERIAL REVIEWED

1. A copy of the Jackson County Sports Park Noise Survey Data (copy of each of the seven sheets is attached) was received from you, John, and identified as DEQ data/summary sheets from sound level measurements made at or near the sports park drag racing facility on April 24, 1982. These sheets document sound levels at two residential receptor locations, two sites on the berm and behind the starting lanes. Attenuation of noise by the berm was calculated from the data.

2. Chapter 340 of the Oregon Administrative Rules, Division 35, Noise Control Regulations, were reviewed with the recently received "Proposed Amendments". Most of the changes appear to be housekeeping types which will very likely be adopted by the Environmental Quality Commission in early 1983. Some of the proposed changes do affect 340-35-040, Noise Control Regulations for Motor Sports Vehicles and Facilities, so the proposed amendments were considered in the review.

## FINDINGS

1. The data on Sheet 3 of the DEQ survey are utilized to find the attenuation of the berm. Path attenuation due to distance is 18 dBA for Site No. 1, and 22 dBA for Site No. 2. These attenuations for distance are low, in my opinion, and affect the calculation to determine attenuation due to the berm.

2. Using the event at 1431 hours (see Sheet 4 of the DEQ survey), a distance attenuation of 33 dBA<sup>1</sup> and an average neighborhood level of 66 dBA, the berm is worth 14 dBA of sound level attenuation.

December 20, 1982

3. The data on Sheet 1 of the DEQ survey gives measured, statistical sound levels. When compared to the requirements of Table 8 (340-35-035), Industrial and Commercial Noise Source Standards, we have the following:

SOUND LEVEL COMPARISONS, dBA

| Neighborhood<br>Measurement Site | Max. Measured, 1 Hour |     |     | DEQ Allowable Level, 1-Hour, for New Indust./<br>Commercial Sources |     |     |    |       |     |
|----------------------------------|-----------------------|-----|-----|---------------------------------------------------------------------|-----|-----|----|-------|-----|
|                                  | L1                    | L10 | L50 | L1                                                                  | Day |     | L1 | Night |     |
|                                  |                       |     |     |                                                                     | L10 | L50 |    | L10   | L50 |
| Site 1                           | 69                    | 54  | 45  | 75                                                                  | 60  | 55  | 60 | 55    | 50  |
| Site 2                           | 64                    | 56  | 50  |                                                                     |     |     |    |       |     |

It can be seen that the maximum measured, statistical sound levels during a drag racing activity complied with the daytime levels required for new industrial/commercial sources.

4. The Site 1 levels indicated on the survey Sheet 1, were high during the 1300 hour. However, there is no correlatable Site 1B data to explain why that period yielded increased levels.

5. It was noted that the standard, part (a) of 340-35-040 is in for a proposed change - an addition to the muffler requirement that would limit "trackside" emissions to 105 dBA. A review of DEQ survey Sheets 5-7 indicates that many of the drag race vehicles may be able to comply with that part of the standard. Measurements at 50 feet could substantiate or deny this theory for you. However, if the berm's attenuation is considered, virtually all the vehicles raced on April 24th could meet the noise emission requirement without mufflers.

6. Barriers are commonly used to attenuate roadside noise. An attenuation approximation curve<sup>2</sup> indicates berm attenuation to be in the range of 10 to 14 dB, for the case in question. Note that the berm was installed by Jackson County with noise attenuation as one of the prime motivating factors.

CONCLUSION

1. The soil berm appears to be capable of providing a useful attenuation (10-14dB) of drag racing vehicle noise, according to the survey of April 24, 1982.

DISCUSSION

1. From the survey data and the DEQ rules, it is the opinion of the undersigned that drag race sound levels may be very close to compliance, or mitigated so as to comply with the intent of the rules. It would seem that a noise mitigation plan could be formulated to embody that concept.

Mr. John Hughes, Oregon Drag Racers Association  
page 2

December 20, 1982

Please contact us if we may be of further assistance.



Sincerely,

MARQUESS & ASSOCIATES, INC.

*R. L. Gantenbein, Jr.*  
R. L. Gantenbein, Jr., P. E.

RLG:ds

Encl. - Survey (7 sheets)

- 1 Second Edition, Sound, Noise & Vibration Control, Lyle F. Yerges, Van Nostrand Reinhold Co., San Francisco, 1978, p. 92
- 2 Second Edition, Handbook of Noise Control, Edited by Cyril M. Harris, Ph.D., McGraw-Hill Book Co., San Francisco, 1979, p. 3-5.



# JACKSON COUNTY

Exhibit H

## *Parks and Recreation Department*

80 East Stewart Avenue, Medford, Oregon 97501 (503) 776-7001

February 2, 1983

Mr. John Hector  
Department of Environmental Quality  
Noise Control Section  
522 S.W. 5th Avenue  
Portland OR 97207

Dear Mr. Hector:

A memorandum dated December 10, 1982, was received from the Motor Sports Advisory Committee regarding a review of first year DEQ Noise Controls for motor racing and proposed rule amendments. It is, indeed, discouraging to see that after several trips to Portland for MSAC meetings and the presentation of many documents supporting our request for exemption from the muffler requirements, the proposed rule amendments do not include the language that will allow the Jackson County Sports Park to conduct all drag racing events without the burden of requiring mufflers attached to race cars. The possible exception is of course OAR 340-35-015 Subsection (66) (k) which allows any device demonstrated effective, approved by the MSAC and the Department to then be considered a "well maintained muffler."

Attached you will find many documents that support our request for exemption from muffler requirements. Some of these documents are somewhat dated and you have seen them before. Fortunately, the recent MSAC memorandum welcomes comment on this issue. The memorandum includes a listing of four primary reasons that our request has previously been denied. Comments in the form of a response to each of these items are as follows:

1. MSAC - "The muffler rules is a reasonable method to control drag race noise and should not place an undue burden on any competitor as all other tracks are complying with this statewide requirement."

Response - If any burden on competitors can be relieved by a method that accomplishes the intent of these rules, it is infinitely better or at the very least equal. However, burden and whether or not other tracks are complying is not the issue.

2. MSAC - "The noise berm does not fully protect all residents from noise impacts."

Response - This "reason" does not accurately reflect the conclusions of an engineering analysis (see attached), a DEQ environmental analyst (see attached), the City of Portland Noise Control Officer (see attached), a registered professional engineer (see attached), and others. In reality the geographical location of the drag strip was selected so as to take advantage of natural barriers and the sound reducing element of distance. The man-made earthen sound suppression berm was added in the proper location to complete the desired amount of protection to nearby residents.

3. MSAC - "The community does not agree the track noise is acceptable."

Response - There has been one formal complaint since drag racing began at the Jackson County Sports Park in 1979. The complaint has been addressed and Sports Park policy instituted to solve the problem. Elected County Commissioners of Jackson County support our request for muffler exemption and so do Oregon State Senators Lenn L. Hannon and Debbs Potts. In addition, State Representatives Eldon Johnson, Kip Lombard, Rebecca DeBoer and George Trahern, plus Jackson County Parks Director, Neil Ledward, and Park Planning Supervisor, Jay Robinson. As well, over 100 residents living near the Sports Park have signed a petition supporting our request for exemption from the muffler requirements. They signed this petition due to the fact that their health, safety and welfare have continually been considered. These neighbors are the very ones that the rules were made to protect and they have agreed that further controls such as the DEQ muffler requirements are not needed.

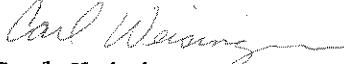
4. MSAC - "The number and economic impact of California competitors at the track would not justify non-muffled events."

Response - This comment doesn't address the main issue. But for the record, our tech cards substantiate that over 18½ percent of competitors that have competed at the Sports Park drag races live outside of Oregon. This is a significant number of racers that will probably not compete at our races that would require mufflers. Additionally, it is anticipated that enforced muffler requirements will make traveling of Oregon racers to nearby California tracks an attractive alternative. The result will be a further loss of revenue. I suggest that the MSAC would consider an 18½ percent reduction in their personal incomes to be justification enough to consider adjustments.

Again, on behalf of the Jackson County Sports Park, its spectators, participants and management, I request that the Noise Control Section of the Department of Environmental Quality prepare and endorse to the Environmental Quality Commission the changes needed to make available a muffler exemption for all Sports Park drag races. Furthermore, we request that the DEQ request and endorse an indefinite exemption until such time as a permanent exemption be made available through the rule-making process.

Sincerely,

PARKS AND RECREATION

  
Carl Weisinger  
Sports Park Manager



NATIONAL HOT ROD ASSOCIATION

2194 W. FOOTHILL BLVD. • SUITE D • UPLAND, CA 91786 • (714) 946-6771

January 28, 1983

Department of Environmental Quality  
522 Southwest 5th Ave  
Portland, OR 97207

To Whom It May Concern;

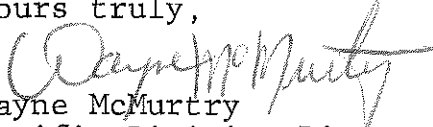
Two Drag Racing facilities in Oregon operate under the Sanction of the National Hot Rod Association. With the close association and communication between the track operators and ourselves, I have become aware of the on going review and contemplated changes to your present guidelines.

The purpose of this correspondence is in reference to the Jackson County facility located in Medford, OR. Their efforts to maximize the outstanding facility that has been provided by the Public Sector for the use and enjoyment of their residents is laudable. The layout and construction resulting from the foresight of utilization of earth berming for sound control obviously works well. I have been in attendance at two major events at this facility and was very cognizant of the matter in which the facility has performed as originally designed.

As a sanctioning organization, we are continually working with new facilities in the design phase as well as existing installations across the United States as they each strive to fit harmoniously within the local environment. From such a position we can certainly attest that the facilities that utilize Physical Structures for the control of sounds generated by facility usage are far preferable to any effort at restricting the myriad of vehicles utilizing these same facilities. For a couple of examples, I would point to a new facility in the Los Angeles basin, presently under design and review phases, which is utilizing earth berming and other structures for sound control. A long existing facility in New England that operates daily in close proximity to Metropolitan areas has just recently completed an extensive sound wall to enhance their contribution to the Quality of Life within the area.

It is apparent that superior control of sound levels can best be achieved by proper facility design. Where such design and construction procedures have been followed, further efforts at individual vehicle modifications do not contribute to the result.

Yours truly,

  
Wayne McMurtry  
Pacific Division Director

WM/rm

CHAMPIONSHIP DRAG RACING

MR. JOHN HECTOR  
DEQ  
522 S.W. 5TH AVENUE  
PORTLAND, OREGON 97204

FEBRUARY 4TH, 1983

DEAR MR. HECTOR,

AN ARTICLE APPEARING IN THE MEDFORD MAIL TRIBUNE SAID THAT YOU RECEIVED TESTIMONY FROM A RESIDENT THAT LIVES AT 4830 ANTELOPE ROAD IN WHITE CITY, NEAR THE JACKSON COUNTY SPORTS PARK. WE LIVE AT 4860, RIGHT NEXT DOOR AND CONSIDER OUR FAMILY TO BE JUST ABOUT AS AVERAGE AS CAN BE. WE DO NOT ATTEND DRAG RACES HERE OR ANYWHERE ELSE FOR THAT MATTER. WE ASSUME THAT THE TESTIMONY YOU RECEIVED WILL BE GIVEN TO THE ENVIRONMENTAL QUALITY COMMISSION SO THAT A DECISION ON THIS MUFFLER ISSUE CAN BE MADE. PLEASE SEE THAT THEY ALSO GET THIS LETTER.

THE SOUND FROM THE DRAG RACES AT THE JACKSON COUNTY SPORTS PARK DOES NOT BOTHER OUR FAMILY AND WE DON'T SEE HOW IT COULD BOTHER ANYONE ELSE. WE GET MORE NOISE IMPACT FROM 4830 ANTELOPE ROAD DUE TO THE OPERATION OF CHAINSAWS AND MOTORCYCLE THAN WHAT WE GET FROM THE SPORTS PARK.

THANK YOU,

*Glen A. Cummings* Mrs. Glen A. Cummings  
MR. AND MRS. GLEN A. CUMMINGS

COPY SENT TO JACKSON COUNTY PARKS, DEQ DIRECTOR, SENATOR LENN HANNON

Division of Environmental Quality  
**RECEIVED**  
FEB 11 1983  
Noise Pollution Control

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
FEB 03 1983  
SOUTHWEST REGION OFFICE

Mr. & Mrs. James Cochran  
1354 Grand Avenue  
Medford, Oregon 97501  
February 2, 1983

The Oregon State Department  
of Environmental Quality  
201 West Main  
Medford, Oregon 97501

FEB - 3 Recd

Noise Pollution Control

Dear Sir:

We own 400 acres of land adjoining the East boundary of The Jackson County Sports Park. We also own a 5 acre parcel of land next to 4800 Antelope Road. As property owners contiguous with the Sports Park, we are directly affected by noise from any events taking place at the Park. The quality of enjoyment and value has been adversely affected by noisy activities at the Sports Park, and any means of reducing that noise is greatly appreciated and encouraged by us. We were particularly encouraged when we read that mufflers would be required on all drag racers.

In reading the February 2 issue of the Medford Mail Tribune, I saw where a public hearing was to be held to possibly exempt the use of mufflers at the Jackson County Sports Park. I am surprised as an adjacent property owner, that I was not notified of this hearing because, due to a previous engagement we were unable to attend.

In reading the article in the Mail Tribune, it is my understanding that those in charge of the Sports Park feel that; because they built a \$48,000 berm, and that according to them that is a more effective way of reducing noise than mufflers; that they should be exempt from muffler use.

We do not live on the property at the present time, but would propose to build, or sell to someone who will in the future. However, we have gone out to our property numerous times while drag races were in progress, and the noise was extremely loud, particularly at the start

of the race! If anything, the berm seems to act as a sounding board, bouncing the noise off and throwing it Eastward directly toward our property! We feel the berm does nothing to protect us from the noise, and that mufflers are a definite necessity. Or, possibly if berms are a more effective way of controlling noise, those who wish to create the noise should build another \$48,000 berm on the East side of the drag strip.

In considering a possible exemption of mufflers at the Jackson County Sports Park, we would implore you to give a great deal of weight to the feelings and rights of adjacent property owners like ourselves who are involuntarily subjected to noise created by week-enders living elsewhere in the County or State, and many even out of State. We do not feel that the muffler requirement is in the least unreasonable. It is a small inconvenience for the racers. We feel that if every racer or fan lived or owned property next to the drag track, they would agree that this small inconvenience would be a small price to pay for a quieter more healthful environment.

We implore you to maintain the muffler regulation at the Jackson County Sports Park.

Sincerely,



Mr. & Mrs. James Cochran

February 8, 1983

Tipp & Vonita Mahan  
Jimmy & Vonnie Edwards  
4479 Ave 'A'  
White City, Or. 97503

D.E.Q  
522 S.W. 5th. Ave  
Portland, Or. 97207

ATTN: John Hector

Dear Sir:

Concerning the muffler exemption request of the Jackson County Sports Park and the hearing of February 2, 1983, we disagree with several statements made at the hearing but thought it best to address them in writing rather than drag the meeting out.

We appreciate the planning and expence of the sound berm, however, the berm may not be complete so as to protect all the residents. It is open to the northeast and it may only serve to reflect sound to the east end of Antelope Road.

Some points made at the hearing were:

The President of the Statewide Drag Racing Assoc. testified that 'significant' meant 50% or better. This was repeated by Carl Weisinger who said 18% of racers were out of state and that was 'significant'. It was never clear just how many people from out of state compete!

The California speaker said his people would not race here if required to install temporary mufflers, contending that the mufflers might fall off and create a hazard. If this group lacks the ability to remove mufflers and put them back on as millions of street rodders and bikers do every year, (they remove their mufflers to drag and reinstall them for street), we feel they haven't the ability to build a safe car and should not be allowed on the strip.



FEB 11 Recd

Noise Pollution Control

Carl Weisinger admitted to only receiving one complaint, we know personally that there were more. He also confessed that he had not replied to the one received from Dave Hirschert.

Mr. Weisinger also testified that no one knew that the night races were not muffled. We are very aware of the night racing and also of other times when cars are testing or tuning.

Mr. Weisinger is very persuasive but not too accurate! Our home is quite close to the park and we are finding the night racing very difficult to deal with. We have expressed our objection to the jet cars with the 'burner boom'. We find them intolerable. We contend that racers are going to race, no matter what the requirements and find their argument ridiculous.

We also contend that the hours from 6 p.m. into the night are not vital to the sport of racing. Most noise is tolerable in the daytime, but this kind of noise is irritating during evening hours when it is essential for working people to be assured the peaceful relaxation of their home.

No sport should be allowed at the distress of others. If the muffle exemption must be granted by the D.E.Q., we urge a compromise. 'Day racing only, no jet cars allowed!'

We invite you to use our property as a point for noise measuring, especially on what would normally be a quiet, peaceful evening, were it not for the races.

Sincerely,

Lipp M. W. W. W.  
Constance E. W. W.  
Jimmy D. Edwards  
Vernice Edwards

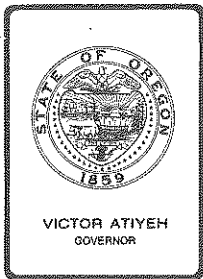


Exhibit L

## *State of Oregon Aeronautics Division*

3040 25th STREET S.E., SALEM, OREGON 97310 PHONE 378-4880

January 10, 1983

William H. Young, Director  
Department of Environmental Quality  
522 SW 5th  
Portland, OR 97204

### Noise Control Rules

The Oregon Aeronautics Division has reviewed the proposed amendments to OAR 340-35-045 and offers no objections except for certain elements of the approval information proposed in (3)(c) New Airports.

While we have no objections to a copy of the decision of the Department of Environmental Quality on a new airport's impact boundary being submitted to the appropriate local planning unit, we do not believe that it is appropriate to send approvals of the impact boundary to the Department of Land Conservation and Development (DLCD). We think sending such approvals without that agency having the complete information on the airport involved would only cause confusion. Further, it is our belief that the DLCD is interested only in conflicts with comprehensive plans or with the Land Conservation and Development Commission statewide goals.

Therefore, we strongly recommend that the last sentence of paragraph (3)(c) of the proposed amendment be changed to read as follows:

"The Department shall notify the appropriate local planning unit of the results of their evaluation."

If you have any questions concerning this material, please contact us at 378-4880.

Sincerely,

*Paul E. Burket*  
PAUL E. BURKET  
Aeronautics Administrator

PEB:REC:c1

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
JAN 11 1983

OFFICE OF THE DIRECTOR



SOUND  
MEASUREMENT  
PROCEDURES  
MANUAL

PROPOSED AMENDMENTS

April 1983

Proposed additions are underlined.

Proposed deletions are [bracketed].

Index of Proposed Amendments  
Procedure Manual NPCS - 1

| <u>Page No.</u> | <u>Paragraph</u> | <u>Description</u>                                             |
|-----------------|------------------|----------------------------------------------------------------|
| 1               | 1.1.1            | Deletion of incorrect material                                 |
|                 | 1.1.2            | Deletion of incorrect material                                 |
|                 | 1.1.3            | Deletion of incorrect material                                 |
|                 | 1.2              | Clarification added                                            |
| 2               | 2.1              | Grammatical correction                                         |
|                 | 2.2              | Deletion of incorrect material and addition of needed material |
| 3               | 2.7              | Addition of new blasting measurement material                  |
| 5               | 4.1              | Clarification                                                  |
| 7               | 4.5.2b           | Reduction of restriction for monitoring during rain            |
|                 | 4.5.3a           | Clarification of comments                                      |
| 8               | 4.5.3b           | Clarification of comments                                      |
| 9               | 4.5.6            | Reduction of recommended criteria for ambient monitoring       |
| 10              | 4.5.10           | Addition of blasting procedures                                |
| 11              | Fig.4-3          | Deletion of unnecessary material                               |
| 15              | Fig.4-5          | Deletion of unnecessary material                               |
| 19              | Fig.4-7          | Deletion of unnecessary material                               |
| 21-23           | 4.6.1            | Clarification of comments                                      |
| 24              | Fig.4-9          | Deletion of unnecessary material                               |

# 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>4-30-74</u>       | <u>JH</u> 13 Oct 74         |
| 2.              | <u>8-16-74</u>       | <u>JH</u> 11.5.6 H 314      |
| 3.              | <u>11-25-74</u>      | <u>NJ</u> NPCS - 10-1, 10-3 |
| 4.              | <u>8-27-76</u>       | <u>JH</u> EQC Amendment 1   |
| 5.              | _____                | _____                       |
| 6.              | _____                | _____                       |
| 7.              | _____                | _____                       |
| 8.              | _____                | _____                       |
| 9.              | _____                | _____                       |
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| 16.             | _____                | _____                       |
| 17.             | _____                | _____                       |
| 18.             | _____                | _____                       |
| 19.             | _____                | _____                       |

## FOREWORD

The Sound Measurement Procedures Manual has been prepared to specify the equipment to be used and the procedures to be followed when measuring environmental noise. 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 environmental noise.

The scope of this manual includes industrial noise, commercial noise, noise from races and racetracks, noise from public roads and ambient noise measurements. Individual motor vehicle noise measurements are covered in a separate manual.

The objective of the manual is to establish procedures to implement the provisions 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 environmental noise. [The program shall include industrial and commercial noise measurements and noise from races, racetracks, and public roads.]

1.1.2 The Noise Pollution Control Section [and Enforcement Division, through the Regional Offices,] shall be responsible for the conformity of environmental noise measurement.

1.1.3 This manual contains procedures for the Noise Pollution Control Section, [Enforcement Division,] and all other persons taking environmental noise measurements. Guidance is provided in the "Comments".

#### 1.2 Authority

Statutory and administrative law governing authority to the guidance and direction contained in the following sources:

- a. Oregon Revised Statutes, Chapter 467, Sections 467.010, 467.020, 467.030, 467.040, 467.050, 467.990.
- b. Oregon Administrative Rules, Chapter 340, Division 35, 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.

## CHAPTER 2

### INSTRUMENTATION

#### 2.1 Sound Level Meters

The specifications for sound level meters (SLM) [is] are defined in manual Noise Pollution Control Section (NPCS-2) Requirements for Sound Measuring Instruments and Personnel. The minimum meter required is a Type II as defined by American National Standard Institute Number S1.4-1971.

#### 2.2 Accessories

The minimum accessories shall be [a random incidence microphone] a windscreen and an acoustically coupled calibrator.

Comment: Additional accessories that have been found to be valuable in gathering data are tabulated below:

- (1) Noise data forms
- (2) Clipboard
- (3) Tripod
- (4) Wind meter
- (5) Sling psychrometer
- (6) Screwdriver
- (7) Spare batteries
- (8) Watch with sweep second hand or digital equivalent

#### 2.3 Tape Recorders and Level Recorders

Recording systems shall conform to NPCS-2.

Comment: The recording system should be able to duplicate the measurements as taken in the field. For tape recorders, a table of frequency response tolerances is given in SAE standards. Graphic level recorder systems standards are also described in the manual.

#### 2.4 Octave Band Filter Sets

The octave band filter sets shall be those defined in NPCS-2.

Comment: These sets may either be integral to a sound level meter or they may be a separate piece of equipment.

## 2.5 Special Study Instruments

Comment: In some instances, special types of equipment may be found to be useful in studying a noise problem. The Department has several specialized noise instruments to be used in study situations. These instruments include a random noise generator, a loud speaker system, and a one-third octave band filter set.

## 2.6 One-Third Octave Band Filter Sets

The one-third octave band filter sets shall be those defined in NPCS-2.

Comment: These sets may be integral to a sound level meter or they may be a separate piece of equipment. Sets shall contain the preferred one-third octave band filters.

## 2.7 Impulse Meters

Impulse meters shall be those defined in NPCS-2.

Comment: These meters are integral to some Type I precision sound level meters set for a peak unweighted response. Blasting impulse noise is measured on a standard Type I or Type II meter set to the "C" weighting scale and the "SLOW" dumping response.

CHAPTER 3  
INSTRUMENT CALIBRATION

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.

3.2 Battery Check

Batteries in both the meter and the calibrator shall be checked before calibration.

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.

3.4 Annual Calibration

Within a year prior to use, each sound level meter, including octave band filter and calibrator, 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 may be attached to each instrument set to determine when the calibration was performed.

## CHAPTER 4

### ENVIRONMENTAL NOISE MEASUREMENT

#### 4.1 Application

This chapter applies to ambient measurements, noise emissions from industrial facilities, and commercial facilities, [racetracks, and public roads,] and to ambient noise limits from motor vehicles. Individual motor vehicle noise measurements airports and racetracks are covered in [a] separate manuals.

- 4.1.2 Persons selected to measure environmental noise shall meet the requirements of NPCS-2 Requirements for Sound Measuring Instruments and Personnel.

#### 4.2 Site Selection

- 4.2.1 The measurement location shall be at any point, no more than 25 feet from the noise sensitive building where the noise level is generally greatest, as illustrated in Figure 4-1.

If the noise sensitive building is closer than 25 feet from the property line, the measurement location shall be at any point on the property line, providing it is no more than 25 feet from the building, or at any other point within the noise sensitive property no more than 25 feet from the noise sensitive building, wherever the noise level is generally greatest, as illustrated in Figure 4-2. For any measurement, sound reflective surfaces shall not be closer than 10 feet from the measurement point.

Comment: Sound reflective surfaces do not include trees, shrubs, hedges or other vegetation.

Comment: Measurements for noise sensitive property on which the noise sensitive building lies within 10 feet of the noise sensitive property line may require sound level projection techniques described in 4.8 of the manual.

#### 4.3 Equipment Set-Up

- 4.3.1 The sound level meter or microphone, either hand held or placed on a tripod, shall be 4 feet or more above the ground or floor surface.

- 4.3.2 Comment: A microphone extension cable may be used in areas where accessibility is difficult. Example: Changes in ground elevation, reflective surfaces, height or source or receiver.

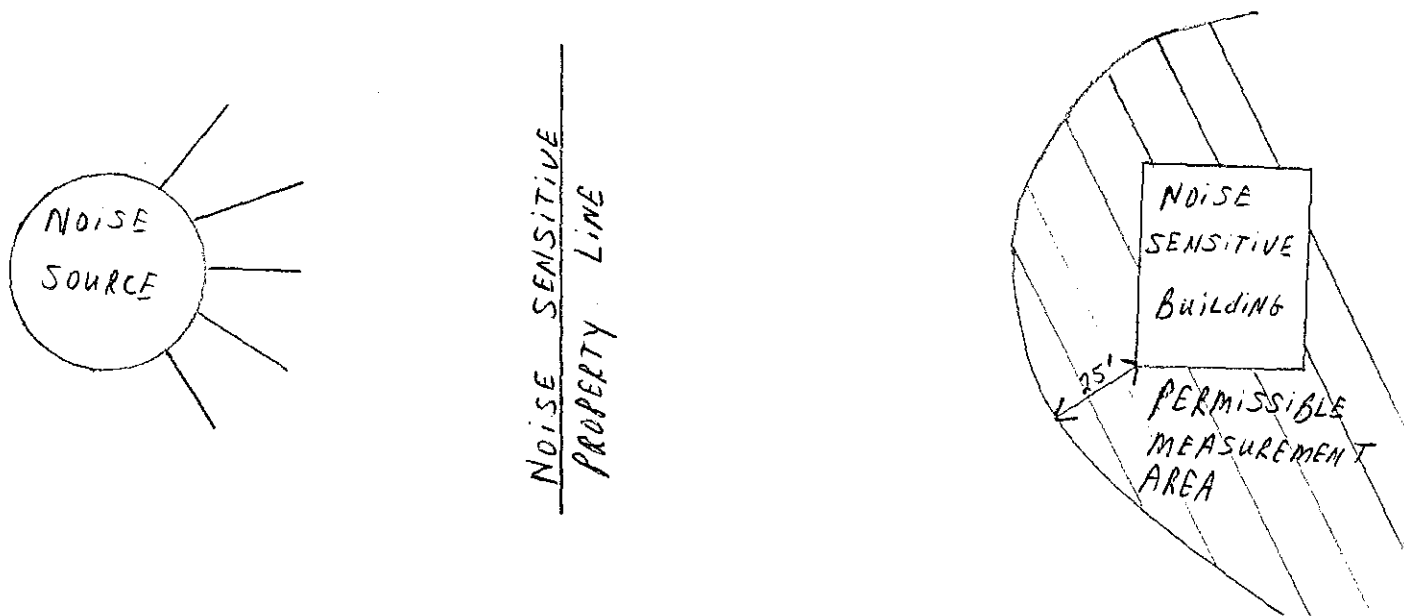


Figure 4-1 Measurement Point 25 Feet From Building

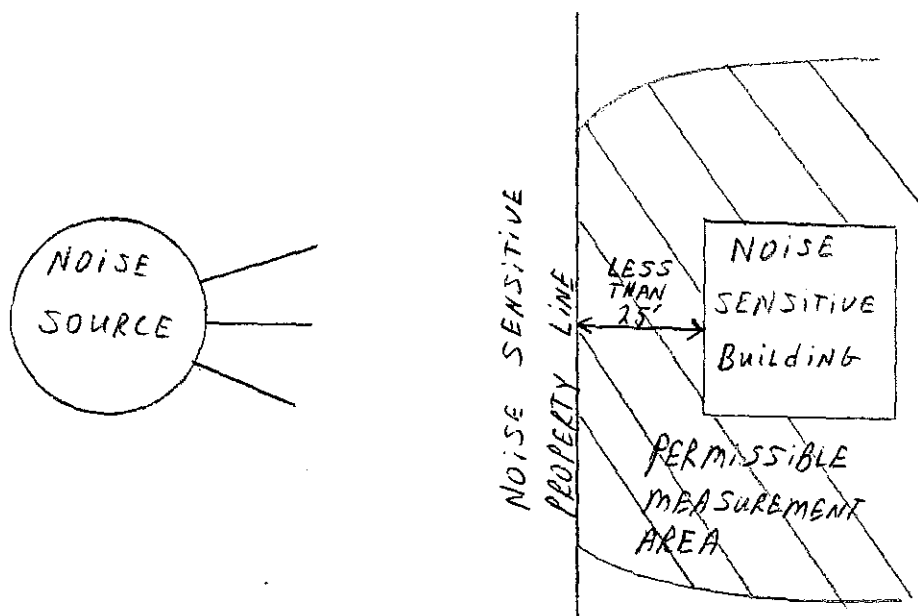


Figure 4-2 Measurement Point on Property Line

- 4.4 Instrument Calibration and Battery Check
- 4.4.1 Refer to Chapter 3 of NPCS-1 for instructions.
- 4.5 Noise Level Measurements
- 4.5.1 Comment: That information and data submitted to the Department should be recorded on Forms NPCS-4 and NPCS-5 as shown in Figure 4-3 and Figure 4-5, or on forms approved in writing by the Department.
- 4.5.2 Weather Conditions
- a. The wind speed and direction shall be determined before measurements are taken and recorded on a form. Measurements shall not be taken when the wind speed exceeds 10 mph. The sound level meter windscreen shall always be installed on the microphone while taking measurements.
- b. The relative humidity [shall] may be determined for the time measurements are taken. Measurements shall not be taken when precipitation [is falling.] affects results.
- Comment: Measurements may be taken when the ground is wet if the readings are not influenced by motor vehicle tire noise on wet pavement.
- c. Comment: The barometric pressure has an effect on the calibration level of most calibrators. This effect is usually small but can introduce some error under very low atmospheric pressure conditions or at high elevations. Typically no correction is needed at elevations below 2,000 feet. Above 2,000 feet elevation, the manufacturers correction factor must be applied to the instrument during calibration.
- 4.5.3 Determination of Meter Speed
- a. Comment: The "FAST" meter speed is used for sounds of an essentially continuous nature. This speed is such that the indication instrument attains its final reading in approximately 0.2 seconds[, and is unsuitable for measuring shorter pulses]. In general, the "FAST" meter is used [for steady or, varying sound levels] where meter fluctuations do not exceed 3 dB, or where the meter is required to follow fast changes in level such as an automobile or aircraft pass-by measurements.

- b. Comment: The "SLOW" meter speed is used for sounds where the noise level fluctuates by + or - 3 dB and meter variations make the instrument display unreadable. The slower action of the meter provides an averaging effect that is helpful in measuring sounds of [essentially continuous character but varying in amplitude. For] a rapidly varying nature or of low frequencies. However, for a noise pulse of 0.5 second duration, such a meter will typically read 2 to 6 dB low. It is not satisfactory for measuring intermittent sounds. [The "SLOW" meter will give a more accurate result than the "FAST" meter when the signal is of sufficient duration to allow the meter pointer time to settle, or, for a time varying signal, if the level does not change too quickly versus time.]

#### 4.5.4 "A" Weighting Scale Measurements

Comment: Maximum noise level measurements with the "A" network weighting scale are taken with the sound level meter switched to the "A" network per the manufacturer's instructions. The meter must be properly positioned with respect to the noise source per the manufacturer's instructions. Information and data taken during the measurements should be recorded on Form NPC-4 or equivalent as shown in Figure 4-3.

#### 4.5.5 Statistical Noise

Comment: The statistical noise level is that noise level exceeded a stated percentage of the time. An  $L_{10} = 65$  dBA means that in any consecutive 60 minute period of the day 65 dBA is equalled or exceeded only 10% of the time, or for a total of 6 minutes. Several procedures are in use by the Department to determine statistical noise levels and other methods may be approved in writing from the Department. Three acceptable procedures to determine the statistical noise level are presented in Section 6 of this Chapter. Information and data taken during the measurements should be recorded on Form NPC-10-1 or equivalent as shown in Figure 4-9. Statistical calculations can be carried out on Forms NPC-10-2 and NPC-10-3 and should be summarized in "L" terminology on Form NPC-4. An example of a completed Form NPC-4 is presented in Figure 4.4.

#### 4.5.6 Ambient Noise Determination

Comment: The ambient noise level is a composite of sounds from many sources near and afar. As the ambient noise level will be compared to the noise level with the source included in any consecutive 60 minute period, it is important that data is obtained in time periods of interest during the day and also both the week and the weekend to obtain data which are representative. It is also important to note that the data must be taken without emphasis on either noise peaks or unusual quiet.

Measurements should not be taken in weather conditions which may create a bias in the data. Wet streets or snow accumulations could bias the data unless these conditions are typical for the community.

Measurements should be made at least at [five or more] several appropriate locations within the sampling area under consideration. Measurements should be made randomly in the sense that each location and each sampling time has the same chance of being sampled and that the selection of any one factor in no way influences the choice of another. Measurements should be made on at least three separate days.

The ambient statistical noise levels obtained or predicted with the noise source in question operating, should include all noises generated by that source. This may include such sources as increased motor vehicle traffic noise, safety warning device noise, and other sounds that may be exempted from the rules due to other considerations.

Procedures to determine the  $L_{10}$  and  $L_{50}$ , statistical noise levels are presented in Section 6 of this Chapter. Information and data taken during the measurements should be recorded on Form NPC-4 or equivalent as shown in Figure 4-4.

#### 4.5.7 Octave Band Noise Measurement

Octave band noise measurements shall be made on an octave band frequency analyzer per document NPC-2, Requirements for Sound Measuring Instruments and Personnel.

Comment: Octave band sound pressure levels may be measured in the same manner as the "A" weighting scale measurements, except that the octave band filters

shall be used in place of the "A" weighting network. Information and data taken during the measurements should be recorded on Form NPC-5 or equivalent as shown in Figure 4.5. An example of a completed form NPC-5 is presented in Fig. 4-6.

#### 4.5.8 Tape Recording

Comment: Tape recording of the noise [with] and a calibration signal is optional. The tape recorder system must conform to the specifications defined in document NPC-2 Requirements for Sound Measuring Instruments and Personnel.

#### 4.5.9 One-Third Octave Band Noise Measurement

One-third octave band noise measurements shall be made on a one-third octave band frequency analyzer per document NPC-2, Requirements for Sound Measuring Instruments and Personnel.

Comment: One-third octave band sound pressure levels may be measured in the same manner as the "A" weighting scale measurements, except that the one-third octave band filter shall be used in place of the "A" weighting network. Information and data taken during the measurements should be recorded on form NPC-29 or equivalent as shown in Figure 4-7. An example is shown in Figure 4-8.

#### 4.5.10 Impulse Measurements

Impulse measurements shall be made on meters per document NPC-2, Requirements for Sound Measuring Instruments and Personnel. Impulse sound pressure levels are to be taken with the meter set to the linear unweighted scale with the peak detector circuit engaged[.] for unweighted (dB) impulse measurements. For "C" weighted (dBC) impulse measurements the meter is set to the "C" weighting scale and the meter speed is set to the "SLOW" damping response.

Comment: Information and data should be recorded on Form NPC-4 or equivalent as shown in Figure 4-3. An example of a completed form is presented in Figure 4-4.

# DEPARTMENT OF ENVIRONMENTAL QUALITY

SOUND PRESSURE LEVEL DATA SHEETS

File \_\_\_\_\_

County \_\_\_\_\_

SOURCE \_\_\_\_\_

BY \_\_\_\_\_

DATE \_\_\_\_\_

SHEET \_\_\_\_\_ / \_\_\_\_\_

COMPLAINANT: \_\_\_\_\_

COMPLAINT DATE: \_\_\_\_\_

| Time | Bat. Ck. | Calibra-<br>tion dB | °F dry<br>bulb | °F wet<br>bulb | %RH | Press.<br>mm Hg | Wind<br>mph | Wind<br>Direct |
|------|----------|---------------------|----------------|----------------|-----|-----------------|-------------|----------------|
|      |          |                     |                |                |     |                 |             |                |
|      |          |                     |                |                |     |                 |             |                |
|      |          |                     |                |                |     |                 |             |                |

| INSTRUMENTATION        |      |        |
|------------------------|------|--------|
| EQPT                   | TYPE | SERIAL |
| SLM                    |      |        |
| MIC                    |      |        |
| FLTR                   |      |        |
| CAL                    |      |        |
|                        |      |        |
| Windscreen ON OFF      |      |        |
| [ R. I. C.    ON OFF ] |      |        |

| Measurement<br>Position | Meter<br>Fast/Slow | A<br>Scale | C<br>Scale | Linear<br>Scale | L <sub>1</sub> | L <sub>10</sub> | L <sub>50</sub> | Peak<br>Impulse |
|-------------------------|--------------------|------------|------------|-----------------|----------------|-----------------|-----------------|-----------------|
|                         |                    |            |            |                 |                |                 |                 |                 |
|                         |                    |            |            |                 |                |                 |                 |                 |
|                         |                    |            |            |                 |                |                 |                 |                 |
|                         |                    |            |            |                 |                |                 |                 |                 |
|                         |                    |            |            |                 |                |                 |                 |                 |

Comments \_\_\_\_\_

Figure 4-3 Form NPCS-4

INSTRUMENT SET-UP  
CHECK-OFF LIST

- ☐ Site Selection
- ☐ SLM Position
- ☐ Battery Check
- ☐ Calibration Adjustment
- ☐ Wind Below 10 MPH
- ☐ Humidity Below 95%
- ☐ Windscreen

1. Days of Operation

- A. Mon. - Fri.
- B. Mon. - Sat.
- C. Mon. - Sun.

2. Time of Operation

- A. 8 a.m. - 5 p.m.
- B. \_ a.m. - \_ p.m.

3. Number of Shifts

- A. One
- B. Two
- C. Three

4. Distance from Receiver to  
source \_\_\_\_\_ feet.

5. Visibility to Source

- A. Direct \_\_\_\_\_
- B. Hill or Berm \_\_\_\_\_
- C. Trees \_\_\_\_\_
- D. Other \_\_\_\_\_

6. Zoning

- A. Residence \_\_\_\_\_
- B. Plant or Facility \_\_\_\_\_

7. Who came first?

- A. Residence...Date \_\_\_\_\_
- B. Plant or Facility \_\_\_\_\_

8. Petition Submitted

- A. Yes... Number \_\_\_\_\_
- B. No

SKETCH OF MEASUREMENT SITE AND SOURCE

Figure 4-3 Reverse Side Form NPCS-4

# DEPARTMENT OF ENVIRONMENTAL QUALITY

## SOUND PRESSURE LEVEL DATA SHEETS

File NP-ACME W.P. <sup>I+C</sup>

County MULTNOMAH

SOURCE ACME WOOD PRODUCTS, INC.  
1581 S.W. 76<sup>TH</sup> Av. (PH 264-5365)  
PORTLAND, OR 97225

BY GTW

DATE 9-16-81

SHEET 1/4

COMPLAINANT MR + MRS. A. J. JONES (PH 251-3768)  
1576 S.W. 76<sup>TH</sup>, PORTLAND

COMPLAINT DATE 9-15-81

| Time     | Bat. Ck. | Cal. dB | °F dry bulb | °F wet bulb | % RH | Press. mm Hg | Wind mph | Wind Direct |
|----------|----------|---------|-------------|-------------|------|--------------|----------|-------------|
| 1410 PDT | ✓        | 114.0   | 72°         | CLEAR DRY   |      |              | 0-5      | NW          |
| 1440 PDT | ✓        | 114.0   | "           | "           |      |              | 2-6      | NW          |
| 1515 PDT | ✓        | 114.0   | 75°         | "           |      |              | 0-4      | NW          |

| INSTRUMENTATION |          |        |
|-----------------|----------|--------|
| EQT             | TYPE     | SERIAL |
| SLM             | GR 1565  | 12345  |
| MIC             | 1"       | —      |
| FLTR            |          |        |
| CAL             | GR 1987  | 1790   |
| IMP SLM         | B+K 2218 | 98765  |
| Windscreen      |          | ON OFF |
| [R. I. G.]      |          | ON OFF |

| Measurement Position                           | Meter Fast/Slow | A Scale | C Scale | Linear Scale | L <sub>1</sub> | L <sub>10</sub> | L <sub>50</sub> | [Peak] Impulse |
|------------------------------------------------|-----------------|---------|---------|--------------|----------------|-----------------|-----------------|----------------|
| 1420 TO 1438 SITE 1 1576 S.W. 76 <sup>TH</sup> | F               |         |         |              | 72             | 66              | 63              |                |
| 1445 SITE 1                                    |                 |         |         |              |                |                 |                 | 106 dBPK       |
|                                                |                 |         |         |              |                |                 |                 |                |
|                                                |                 |         |         |              |                |                 |                 |                |
|                                                |                 |         |         |              |                |                 |                 |                |

Comments PRIMARY NOISE SOURCES: ROSSERHEAD  
DEBARKER, CUTOFF SAW, CHIPPER. IMPULSE  
NOISE FROM HAMMERING ON A WOOD CHIP BIN.  
AMBIENT WITHOUT MILL IS APPROXIMATELY 48 dBA.

Figure 4-4 Example Form NPCS-4

INSTRUMENT SET-UP  
CHECK-OFF LIST

- ☒ Site Selection
- ☒ SLM Position
- ☒ Battery Check
- ☒ Calibration Adjustment
- ☒ Wind Below 10 MPH
- ☒ Humidity Below 95%
- ☒ Windscreen

1. Days of Operation

A. Mon. - Fri.

B. Mon. - Sat.

C. Mon. - Sun.

2. Time of Operation

A. 8 a.m. - 5 p.m.

B. 7 a.m. - 11 p.m.

3. Number of Shifts

A. One

B. Two

C. Three

4. Distance from Receiver to

source ~100 feet.

5. Visibility to Source

A. Direct ☒

B. Hill or Berm

C. Trees

D. Other

6. Zoning

A. Residence

B. Plant or Facility

7. Who came first?

A. Residence...Date

B. Plant or Facility

8. Petition Submitted

A. Yes... Number

B. No

SKETCH OF MEASUREMENT SITE AND SOURCE

LOG DECK

AREA OF DIESEL  
LOG LOADER ACTIVITY

S.W. TRANQUILITY CT.

JONES N.S.P.  
1576 S.W. 76<sup>TH</sup>

SITE 1

25'

S.W. 76<sup>TH</sup> AV.

OFFICE

DEBARKER  
AREA

SAW

CYCLONE

S.W. SAWDUST ST.

Figure 4-4 Reverse Side Example Form NPC-4

# DEPARTMENT OF ENVIRONMENTAL QUALITY

## SOUND PRESSURE LEVEL DATA SHEETS

File \_\_\_\_\_

County \_\_\_\_\_

SOURCE \_\_\_\_\_

BY \_\_\_\_\_

DATE \_\_\_\_\_

SHEET \_\_\_\_\_ / \_\_\_\_\_

COMPLAINANT: \_\_\_\_\_

COMPLAINT DATE: \_\_\_\_\_

| Time | Bat Ck. | Calibration dB | °F dry bulb | °F wet bulb | %RH | Press. mm Hg | Wind mph | Wind Direct |
|------|---------|----------------|-------------|-------------|-----|--------------|----------|-------------|
|      |         |                |             |             |     |              |          |             |
|      |         |                |             |             |     |              |          |             |
|      |         |                |             |             |     |              |          |             |

| INSTRUMENTATION        |      |        |
|------------------------|------|--------|
| EQPT                   | TYPE | SERIAL |
| SLM                    |      |        |
| MIC                    |      |        |
| FLTR                   |      |        |
| CAL                    |      |        |
| Windscreen ON OFF      |      |        |
| [ R. I. C.    ON OFF ] |      |        |

| Position | METER Fast/Slow | A SCALE | Lin. Scale | 31.5 HZ | 63 HZ | 125 HZ | 250 HZ | 500 HZ | 1000 HZ | 2000 HZ | 4000 HZ | 8000 HZ |
|----------|-----------------|---------|------------|---------|-------|--------|--------|--------|---------|---------|---------|---------|
|          |                 |         |            |         |       |        |        |        |         |         |         |         |
|          |                 |         |            |         |       |        |        |        |         |         |         |         |
|          |                 |         |            |         |       |        |        |        |         |         |         |         |
|          |                 |         |            |         |       |        |        |        |         |         |         |         |
|          |                 |         |            |         |       |        |        |        |         |         |         |         |

Comments \_\_\_\_\_

INSTRUMENT SET-UP  
CHECK-OFF LIST

- ☐ Site Selection
- ☐ SLM Position
- ☐ Battery Check
- ☐ Calibration Adjustment
- ☐ Wind Below 10 MPH
- ☐ Humidity Below 95%
- ☐ Windscreen

1. Days of Operation

- A. Mon. - Fri.
- B. Mon. - Sat.
- C. Mon. - Sun.

2. Time of Operation

- A. 8 a.m. - 5 p.m.
- B. \_ a.m. - \_ p.m.

3. Number of Shifts

- A. One
- B. Two
- C. Three

4. Distance from Receiver to  
source \_\_\_\_\_ feet

5. Visibility to Source

- A. Direct \_\_\_\_\_
- B. Hill or Berm \_\_\_\_\_
- C. Trees \_\_\_\_\_
- D. Other \_\_\_\_\_

6. Zoning

- A. Residence \_\_\_\_\_
- B. Plant or Facility \_\_\_\_\_

7. Who came first?

- A. Residence...Date \_\_\_\_\_
- B. Plant or Facility...Date \_\_\_\_\_

8. Petition Submitted

- A. Yes....Number \_\_\_\_\_
- B. No

SKETCH OF MEASUREMENT SITE AND SOURCE

# DEPARTMENT OF ENVIRONMENTAL QUALITY

## SOUND PRESSURE LEVEL DATA SHEETS

File \_\_\_\_\_

County \_\_\_\_\_

SOURCE \_\_\_\_\_

BY \_\_\_\_\_

DATE \_\_\_\_\_

SHEET \_\_\_\_\_ / \_\_\_\_\_

COMPLAINANT: \_\_\_\_\_

COMPLAINT DATE: \_\_\_\_\_

| Time | Bat<br>Ck. | Calibra-<br>tion dB | °F dry<br>bulb | °F wet<br>bulb | %RH | Press.<br>mm Hg | Wind<br>mph | Wind<br>Direct |
|------|------------|---------------------|----------------|----------------|-----|-----------------|-------------|----------------|
|      |            |                     |                |                |     |                 |             |                |
|      |            |                     |                |                |     |                 |             |                |
|      |            |                     |                |                |     |                 |             |                |

| INSTRUMENTATION   |      |        |
|-------------------|------|--------|
| EQPT              | TYPE | SERIAL |
| SLM               |      |        |
| MIC               |      |        |
| FLTR              |      |        |
| CAL               |      |        |
|                   |      |        |
| Windscreen ON OFF |      |        |
| R. I. C. ON OFF   |      |        |

| Position | METER<br>Fast/<br>Slow | A<br>SCALE | Lin.<br>Scale | 31.5<br>HZ | 63<br>HZ | 125<br>HZ | 250<br>HZ | 500<br>HZ | 1000<br>HZ | 2000<br>HZ | 4000<br>HZ | 8000<br>HZ |
|----------|------------------------|------------|---------------|------------|----------|-----------|-----------|-----------|------------|------------|------------|------------|
|          |                        |            |               |            |          |           |           |           |            |            |            |            |
|          |                        |            |               |            |          |           |           |           |            |            |            |            |
|          |                        |            |               |            |          |           |           |           |            |            |            |            |
|          |                        |            |               |            |          |           |           |           |            |            |            |            |
|          |                        |            |               |            |          |           |           |           |            |            |            |            |

Comments \_\_\_\_\_

# DEPARTMENT OF ENVIRONMENTAL QUALITY

SOUND PRESSURE LEVEL DATA SHEETS

File Industry

County Lane

SOURCE Sam's Sawmill  
1200 East Road  
Eugene

BY WVR - GCS

DATE 4/27/74

SHEET 1 / 1

COMPLAINANT Mr. Ed. Jones  
100 North St., Eugene  
 COMPLAINT DATE April 19, 1974

| Time    | Bat. Ck. | Cal. dB | °F dry bulb | °F wet bulb | % RH | Press. mm Hg | Wind mph | Wind Direct |
|---------|----------|---------|-------------|-------------|------|--------------|----------|-------------|
| 3:40 pm | OK       | 114     | 67          | 51          | 29   | —            | 4        | W           |
| 4:07 pm | OK       | 114.0   |             |             |      |              |          |             |
|         |          |         |             |             |      |              |          |             |

| INSTRUMENTATION   |            |           |
|-------------------|------------|-----------|
| EQT               | TYPE       | SERIAL    |
| SLM               | G.R. 1933  | DEQ 1891  |
| MIC               | G.R.       | G.R. 921  |
| FLTR              | G.R.       | DEQ 1891  |
| CAL               | G.R. 1542A | G.R. 9651 |
| Windscreen ON OFF |            |           |
| [R. I. C. ON OFF] |            |           |

| Position | Fast/Slow | A Scale | Lin. Scale | 31.5 Hz | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz |
|----------|-----------|---------|------------|---------|-------|--------|--------|--------|---------|---------|---------|---------|
| 1        | S         | 47      | 63         | 55      | 55    | 54     | 54     | 50     | 44      | 38      | 30      | 22      |
|          |           |         |            |         |       |        |        |        |         |         |         |         |
|          |           |         |            |         |       |        |        |        |         |         |         |         |
|          |           |         |            |         |       |        |        |        |         |         |         |         |
|          |           |         |            |         |       |        |        |        |         |         |         |         |

Comments Measurements taken during "blower"  
operation. Readings taken from  
3:51 through 4:02 pm.

INSTRUMENT SET-UP  
CHECK-OFF LIST

- ☒ Site Selection
- ☒ SLM Position
- ☒ Battery Check
- ☒ Calibration Adjustment
- ☒ Wind Below 10 MPH
- ☒ Humidity Below 95%
- ☒ Windscreen

1. Days of Operation

- A. Mon. - Fri.
- ☒ B. Mon. - Sat.
- C. Mon. - Sun.

2. Time of Operation

- A. 8 a.m. - 5 p.m.
- ☒ B. 6 a.m. - 11 p.m.

3. Number of Shifts

- A. One
- ☒ B. Two
- C. Three

4. Distance from Receiver to  
source ~300 feet.

5. Visibility to Source

- A. Direct ☒
- B. Hill or Berm \_\_\_\_\_
- C. Trees \_\_\_\_\_
- D. Other \_\_\_\_\_

6. Zoning

- A. Residence ☒
- B. Plant or Facility \_\_\_\_\_

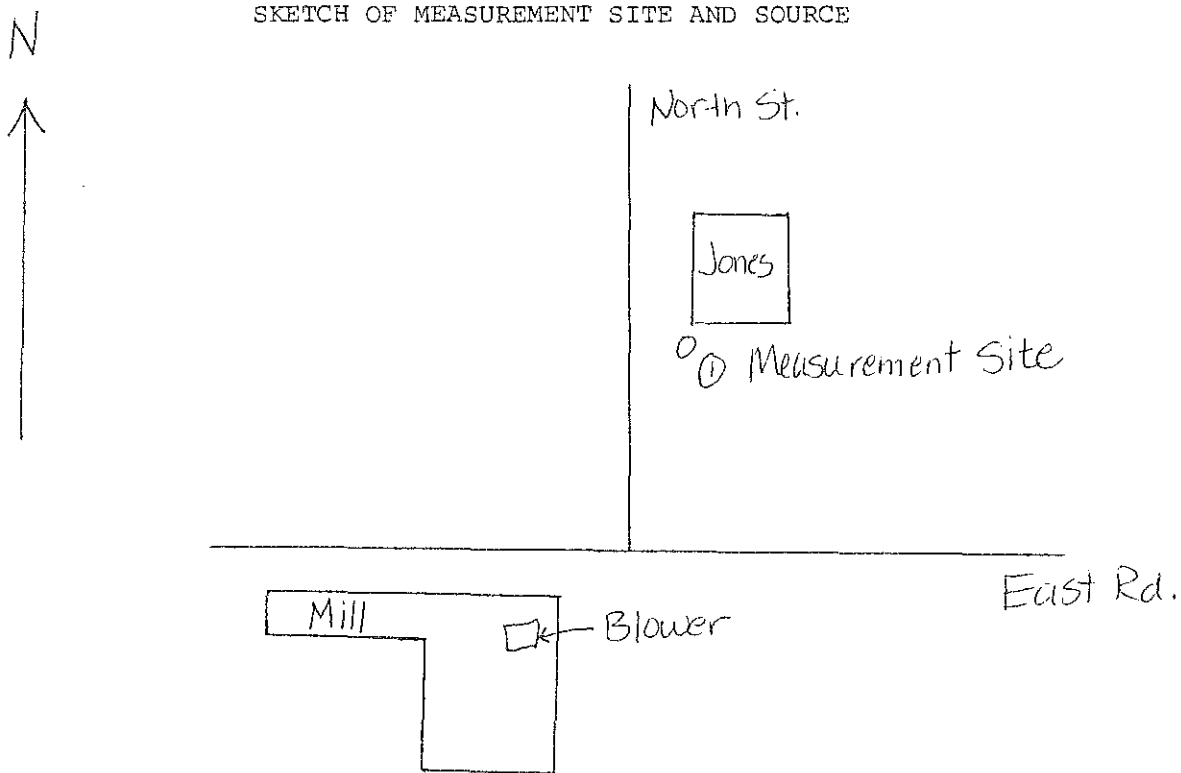
7. Who came first?

- ☒ A. Residence...Date 1952
- B. Plant or Facility \_\_\_\_\_

8. Petition Submitted

- A. Yes... Number \_\_\_\_\_
- ☒ B. No

SKETCH OF MEASUREMENT SITE AND SOURCE



Example Form NPC5-5  
Figure 4-6  
REVERSE SIDE OF FORM

# DEPARTMENT OF ENVIRONMENTAL QUALITY

## 1/3 OCTAVE BAND DATA SHEET

File \_\_\_\_\_

County \_\_\_\_\_

SOURCE \_\_\_\_\_

BY \_\_\_\_\_

DATE \_\_\_\_\_

SHEET \_\_\_\_\_

COMPLAINANT \_\_\_\_\_

COMPLAINT DATE \_\_\_\_\_

| Time | Bat.<br>Ck. | Cal.<br>dB | °F dry<br>bulb | °F wet<br>bulb | %<br>RH | Press.<br>mm Hg | Wind<br>mph | Wind<br>Direct |
|------|-------------|------------|----------------|----------------|---------|-----------------|-------------|----------------|
|      |             |            |                |                |         |                 |             |                |
|      |             |            |                |                |         |                 |             |                |
|      |             |            |                |                |         |                 |             |                |

| INSTRUMENTATION     |      |        |
|---------------------|------|--------|
| EQT                 | TYPE | SERIAL |
| SLM                 |      |        |
| MIC                 |      |        |
| FLTR                |      |        |
| CAL                 |      |        |
| Windscreen ON OFF   |      |        |
| [ R. I. C. ON OFF ] |      |        |

### PREFERRED CENTER FREQUENCIES FOR 1/3 OCTAVE BANDS

| Position | Lin.<br>Scale | 20<br>Hz | 25<br>Hz | 30<br>Hz | 40<br>Hz | 50<br>Hz | 63<br>Hz | 80<br>Hz | 100<br>Hz | 125<br>Hz | 160<br>Hz | 200<br>Hz | 250<br>Hz | 315<br>Hz | 400<br>Hz |
|----------|---------------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|          |               |          |          |          |          |          |          |          |           |           |           |           |           |           |           |
|          |               |          |          |          |          |          |          |          |           |           |           |           |           |           |           |
|          |               |          |          |          |          |          |          |          |           |           |           |           |           |           |           |
| Position | 500           | 630      | 800      | 1000     | 1250     | 1600     | 2000     | 2500     | 3150      | 4000      | 5000      | 6300      | 8000      | 10,000    | 12,500    |
|          |               |          |          |          |          |          |          |          |           |           |           |           |           |           |           |
|          |               |          |          |          |          |          |          |          |           |           |           |           |           |           |           |
|          |               |          |          |          |          |          |          |          |           |           |           |           |           |           |           |

Comments \_\_\_\_\_

# DEPARTMENT OF ENVIRONMENTAL QUALITY

1/3 OCTAVE BAND DATA SHEET

I+C

File NP-ABC LUMBER

County Coos

SOURCE ABC LUMBER Co.

BY B. HAMMON

1000 "F" ST.

DATE 9-18-81

Coos Bay, OR

SHEET \_\_\_\_\_

COMPLAINANT MR. JOE SMITH

1245 "D" ST., Coos Bay

COMPLAINT DATE 9-16-81

| Time    | Bat. Ck. | Cal. dB | °F dry bulb | °F wet bulb   | % RH | Press. mm Hg | Wind mph | Wind Direct |
|---------|----------|---------|-------------|---------------|------|--------------|----------|-------------|
| 2:00 PM | ✓        | 124.0   | 66°         | PARTLY CLOUDY |      |              | 4-6      | SW          |
| 3:10 PM | ✓        | 124.0   | 69°         | "             |      |              | 2-4      | "           |
|         |          |         |             |               |      |              |          |             |

| INSTRUMENTATION                                                                |          |         |
|--------------------------------------------------------------------------------|----------|---------|
| EQT                                                                            | TYPE     | SERIAL  |
| SLM                                                                            | B+K 2209 | 396 472 |
| MIC                                                                            | B+K 4145 | 311 347 |
| FLTR                                                                           | B+K 1618 | 923 111 |
| CAL                                                                            | B+K 4220 | 376 062 |
| MAG TAPE                                                                       | B+K 7003 | 704 619 |
| Windscreen <input checked="" type="checkbox"/> ON <input type="checkbox"/> OFF |          |         |
| [R. I. C. <input checked="" type="checkbox"/> ON <input type="checkbox"/> OFF] |          |         |

## PREFERRED CENTER FREQUENCIES FOR 1/3 OCTAVE BANDS

| Position | Lin. Scale | 20 Hz | 25 Hz | 30 Hz | 40 Hz | 50 Hz | 63 Hz | 80 Hz | 100 Hz | 125 Hz | 160 Hz | 200 Hz | 250 Hz | 315 Hz | 400 Hz |
|----------|------------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| 1        | 70         | 58    | 60    | 59    | 58    | 59    | 60    | 59    | 59     | 58     | 57     | 56     | 54     | 52     | 51     |
|          |            |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
|          |            |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
| Position | 500        | 630   | 800   | 1000  | 1250  | 1600  | 2000  | 2500  | 3150   | 4000   | 5000   | 6300   | 8000   | 10,000 | 12,500 |
| 1        | 50         | 48    | 46    | 45    | 53    | 43    | 41    | 40    | 40     | 37     | 38     | 36     | 37     | 32     | 28     |
|          |            |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
|          |            |       |       |       |       |       |       |       |        |        |        |        |        |        |        |

Comments SAMPLE TAKEN 2:13 TO 2:35 PM PDT. PRIMARY  
IS A LARGE SAW. PRODUCES WHINE IN 1250 HZ.  
BAND.

#### 4.6 Statistical Noise Level Calculations

##### 4.6.1 Hand Sample Method (Comment)

- a. For this method use forms NPCS-10-1, NPCS-10-2, and NPCS-10-3 as shown in Figures 4-9 through 4-11 or equivalent.
- b. Perform a short noise survey to determine the approximate range of sound levels produced by the noise source being investigated. Enter the approximate high and low noise levels as well as the central tendency on form NPCS-10-1. Use the minimum and maximum sound levels and the table at the back-bottom of form NPCS-10-1 to estimate the minimum number of good sound samples needed to be taken from the source in question. For example, in Figure 4-12 the noise varied from a high of approximately 67 dBA to a low of 61 dBA. This is a 6 dBA variation. The table on NPCS-10-1 indicates that a minimum of 132 good readings needs to be taken.

The table on NPCS-10-1 is designed to give an acceptable statistical confidence in the L<sub>10</sub> and L<sub>50</sub> noise level. For determining the L<sub>1</sub> noise level with confidence or for more complex noise sources, more noise samples than indicated in the table may be necessary.

- [b.] c. Record the noise levels in dBA on Form NPCS-10-1 at five second intervals [for ten minutes], at ten second intervals [for twenty minutes], or at fifteen second intervals [for thirty minutes]. An example of such a measurement is presented in Figure 4-12. Note any unusual activity from the noise source in question. Also indicate all external or extraneous noise sources which may contaminate the noise reading. Examples include sounds from passing vehicle traffic and aircraft. The sound readings associated with these external sources will not be included in the statistical noise level calculations. If external sounds contaminate the measurements for a significant amount of time, it may be necessary to conduct the survey during a period of the day in which these other sources are absent or quieter.
- [c.] d. Using Form NPCS-10-2 [record the maximum, minimum and intermediate] tally the recorded noise levels in 1 dBA increments as the example shows in Figure 4-13. Record on NPCS-2 only those sound levels which are legitimately associated with the source in question, ignoring all other contaminating sound levels.

In the "Number of Readings" column, sum the total readings at each dBA level. Using the "Number Greater Than" column, calculate the number of readings taken that are greater than each particular level. For example, in Figure 4-13 there are no readings greater than 74 dBA, hence the "Number Greater Than " is zero. There is one reading taken at a level greater than 73 dBA, and three (1 plus 2) readings greater than 72 dBA.

The percent greater than (% Greater Than) column contains the statistical percent for each dBA level. The percent is calculated by dividing the numbers in the "Number Greater Than" column by the total number of readings times 100. For example, the percent of 73 dBA is calculated as  $(1/194) \times 100 = 0.5\%$ , and the percent at 72 dBA is  $(3/194) \times 100 = 1.5\%$ .

- [d.] e. Using Form NPCS-10-3, the dBA levels versus the "percent greater than" numbers are plotted. An example of this is shown in Figure 4-14.

From the resulting graph, the statistical noise level at any required percentage may be found. For example, the  $L_{50}$  and  $L_{10}$  are found to be 63 dBA and 66 dBA, respectively. Note that a normalized or randomly varying noise source will result in a straight line when plotted on form NPCS-10-3.

- f. The results from the statistical survey are then summarized on form NPCS-4 (see Figure 4-4). On the back of NPCS-4 a sketch of the measurement site should be drawn.

- g. A typical noise survey will require approximately 20 minutes of measuring to record the required number of samples at a 5-second sample interval. However, the noise standards for industrial and commercial noise sources (OAR 340-35-035) are specified for a one-hour (60 minute) period. Therefore, the noise investigator must ensure that the noise survey represents sounds that are typical of a full 60-minute operation of the noise source. If the source significantly changes its operation for the remainder of the hour, it is recommended that a full 60 minutes of samples are measured and recorded for the statistical analysis.

- h. The documentation of the  $L_1$  statistical noise level is often better accomplished by the "time above" method. For noise sources that operate for a short period of time at a constant sound level, an accurate determination of the  $L_1$  noise level can be determined by measuring the total amount of time the noise source operates in a one-hour period. If

the source operates for a period of 36 seconds or greater within the hour (but less than 6 minutes), then the L<sub>1</sub> is equal to the measured noise level. If the source operates for 6 minutes or more during the hour, then the measured level is the L<sub>10</sub> statistical noise level.

#### 4.6.2 Noise Exposure Counter or Monitor Method

Comment: Statistical noise levels may be obtained through the use of several commercially designed devices that sample and classify the data. [The Bruel & Kjaer Model 166 Environmental Noise Classifier is a self-contained instrument that can be used to obtain the statistical distribution of noise. The data obtained from this instrument may be recorded on Forms NPCS-10 and calculated in the same manner as described in Section 6.1 of this Chapter. Other equivalent systems may be used with the approval of the Department.]

#### 4.6.3 Programmable Calculator Method

Comment: The noise staff of the Department has developed a program to calculate statistical noise levels on a Wang 600 series programmable calculator. This method will digitally make the necessary calculations after the analog noise data has been converted to digital data. As this method is specialized to the Department's facilities, it will not be presented here. A complete explanation of the method and program listing is on file at the Department in Manual NPCS-22, Analysis of Ambient Noise with the Wang 600 Series Programmable Calculator.

# DEPARTMENT OF ENVIRONMENTAL QUALITY

## STATISTICAL NOISE SURVEY

SOURCE: \_\_\_\_\_ DATE: \_\_\_\_\_

BY: \_\_\_\_\_

MEASUREMENT SITE: \_\_\_\_\_ COUNTY: \_\_\_\_\_

SHEET: 1

| Time                                                                             | Stat. | Calibra-<br>tion dB | F<br>dry bulb | F<br>wet bulb | %RH | Press.<br>mm Hg. | Wind<br>MPH | Wind<br>direct. | INSTRUMENTATION    |      |        |
|----------------------------------------------------------------------------------|-------|---------------------|---------------|---------------|-----|------------------|-------------|-----------------|--------------------|------|--------|
|                                                                                  |       |                     |               |               |     |                  |             |                 | EQU                | TYPE | SERIAL |
|                                                                                  |       |                     |               |               |     |                  |             |                 |                    |      |        |
|                                                                                  |       |                     |               |               |     |                  |             |                 |                    |      |        |
|                                                                                  |       |                     |               |               |     |                  |             |                 |                    |      |        |
| ~ Range of Noise:      Hi      Low      Central Tend.      dBA      dBA      dBA |       |                     |               |               |     |                  |             |                 |                    |      |        |
| Start      Sample<br>Time:      Interval:      5      10      15      seconds    |       |                     |               |               |     |                  |             |                 |                    |      |        |
|                                                                                  |       |                     |               |               |     |                  |             |                 | WINDSCREEN: ON OFF |      |        |
|                                                                                  |       |                     |               |               |     |                  |             |                 | R. I. C.: ON OFF   |      |        |

### DATA POINTS

### SOUND PRESSURE LEVEL dBA

|           |  |  |  |  |  |  |
|-----------|--|--|--|--|--|--|
| 1 - 6     |  |  |  |  |  |  |
| 7 - 12    |  |  |  |  |  |  |
| 13 - 18   |  |  |  |  |  |  |
| 19 - 24   |  |  |  |  |  |  |
| 25 - 30   |  |  |  |  |  |  |
| 31 - 36   |  |  |  |  |  |  |
| 37 - 42   |  |  |  |  |  |  |
| 43 - 48   |  |  |  |  |  |  |
| 47 - 54   |  |  |  |  |  |  |
| 55 - 60   |  |  |  |  |  |  |
| 61 - 66   |  |  |  |  |  |  |
| 67 - 72   |  |  |  |  |  |  |
| 73 - 78   |  |  |  |  |  |  |
| 79 - 84   |  |  |  |  |  |  |
| 85 - 90   |  |  |  |  |  |  |
| 91 - 96   |  |  |  |  |  |  |
| 97 - 102  |  |  |  |  |  |  |
| 103 - 108 |  |  |  |  |  |  |
| 109 - 114 |  |  |  |  |  |  |
| 115 - 120 |  |  |  |  |  |  |
| 121 - 126 |  |  |  |  |  |  |
| 127 - 132 |  |  |  |  |  |  |

Figure 4-9  
Form NPCS-10-1

Note: See back for the minimum number of samples.

Indicate all missing data points and give an explanation.

**NPCS-10-1**

|           |  |  |  |  |  |  |
|-----------|--|--|--|--|--|--|
| 133 - 138 |  |  |  |  |  |  |
| 139 - 144 |  |  |  |  |  |  |
| 145 - 150 |  |  |  |  |  |  |
| 151 - 156 |  |  |  |  |  |  |
| 157 - 162 |  |  |  |  |  |  |
| 163 - 168 |  |  |  |  |  |  |
| 169 - 174 |  |  |  |  |  |  |
| 175 - 180 |  |  |  |  |  |  |
| 181 - 186 |  |  |  |  |  |  |
| 187 - 192 |  |  |  |  |  |  |
| 193 - 198 |  |  |  |  |  |  |
| 199 - 204 |  |  |  |  |  |  |
| 205 - 210 |  |  |  |  |  |  |
| 211 - 216 |  |  |  |  |  |  |
| 217 - 222 |  |  |  |  |  |  |
| 223 - 228 |  |  |  |  |  |  |
| 229 - 234 |  |  |  |  |  |  |
| 235 - 240 |  |  |  |  |  |  |
| 241 - 246 |  |  |  |  |  |  |
| 247 - 252 |  |  |  |  |  |  |
| 253 - 258 |  |  |  |  |  |  |
| 259 - 264 |  |  |  |  |  |  |
| 265 - 270 |  |  |  |  |  |  |
| 271 - 276 |  |  |  |  |  |  |
| 277 - 282 |  |  |  |  |  |  |
| 283 - 288 |  |  |  |  |  |  |
| 289 - 294 |  |  |  |  |  |  |
| 295 - 300 |  |  |  |  |  |  |
| 301 - 306 |  |  |  |  |  |  |
| 307 - 312 |  |  |  |  |  |  |
| 313 - 318 |  |  |  |  |  |  |
| 319 - 324 |  |  |  |  |  |  |
| 325 - 330 |  |  |  |  |  |  |
| 331 - 336 |  |  |  |  |  |  |

Figure 4-9  
Reverse Side Form NPCS-10-1

| Maximum - Minimum Levels (difference in range) |     |     |     |     |     |     |     |     |     |     |     |     |     |
|------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0-8                                            | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  | 17  | 18  | 19  | 20  | 21  |
| 132                                            | 138 | 174 | 210 | 246 | 288 | 336 | 384 | 438 | 498 | 558 | 618 | 684 | 756 |
| Minimum Number "Good" Samples                  |     |     |     |     |     |     |     |     |     |     |     |     |     |

Note: Indicate all missing data points and give an explanation. Additional data points may be needed to document an  $L_1$  violation.



# STATISTICAL NOISE SURVEY

DATE: \_\_\_\_\_

SHEET: \_\_\_\_\_

MEASUREMENT

BY: \_\_\_\_\_ SOURCE: \_\_\_\_\_

SITE: \_\_\_\_\_

$L_T$  \_\_\_\_\_ dBA  
 $L_{10}$  \_\_\_\_\_ dBA  
 $L_{50}$  \_\_\_\_\_ dBA

Figure 4-11  
 Form NPCS-10-3

0.01 0.05 0.1 0.2 0.5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.8 99.9 99.99  
 % OF TIME SOUND LEVEL IS EXCEEDED

Note: A normalized distribution will produce a straight line on this graph

NPCS-10-3

100

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SOUND LEVELS (dBA)

-27-

# DEPARTMENT OF ENVIRONMENTAL QUALITY

## STATISTICAL NOISE SURVEY

SOURCE: ACME WOOD PRODUCTS INC. DATE: 9-16-81  
1581 S.W. 76<sup>TH</sup> (DEBARKER, SAW CHIPPER) BY: GTW  
 MEASUREMENT SITE: SITE 1, MR & MRS. JONES' NSP COUNTY: MULT.  
1576 S.W. 76<sup>TH</sup>, PORTLAND SHEET: 2 / 4

| Time                                                                                                                                 | Calibration | F dry bulb | F wet bulb | %RH | Press. mm Hg. | Wind MPH | Wind direct. | INSTRUMENTATION                                                                 |         |        |
|--------------------------------------------------------------------------------------------------------------------------------------|-------------|------------|------------|-----|---------------|----------|--------------|---------------------------------------------------------------------------------|---------|--------|
|                                                                                                                                      |             |            |            |     |               |          |              | EQU                                                                             | TYPE    | SERIAL |
| 1410                                                                                                                                 | ✓ 114.0     |            |            |     |               | 0-5      | NW           | SLM                                                                             | GR 1565 | 12345  |
| 1515                                                                                                                                 | ✓ 114.0     |            |            |     |               | 2-6      | NW           | MIC                                                                             | 1"      |        |
| ~ Range of Noise: <u>67</u> dBA <u>61</u> dBA <u>63</u> dBA<br>Start Time: <u>1420 PDT</u> Sample Interval: <u>(5)</u> 10 15 seconds |             |            |            |     |               |          |              | CAL                                                                             | GR 1987 | 1790   |
|                                                                                                                                      |             |            |            |     |               |          |              | WINDSCREEN: <input checked="" type="checkbox"/> ON <input type="checkbox"/> OFF |         |        |
|                                                                                                                                      |             |            |            |     |               |          |              | R. I. C.: <input type="checkbox"/> ON <input type="checkbox"/> OFF              |         |        |

| DATA POINTS |           | SOUND PRESSURE LEVEL dBA |      |      |      |       |
|-------------|-----------|--------------------------|------|------|------|-------|
| 1 - 6       | 65        | 63                       | 62   | 61   | 64   | 65    |
| 7 - 12      | 63        | 61                       | 65   | CAR  | CAR  | 64    |
| 13 - 18     | 63        | 62                       | 70   | 65   | 63   | 62    |
| 19 - 24     | 70        | 62                       | DOG  | 64   | 63   | 61    |
| 25 - 30     | 62        | 63                       | 63   | 61   | 67   | 67    |
| 31 - 36     | TRUCK → T | T                        | T    | 64   | 66   | 65    |
| 37 - 42     | 62        | 63                       | 64   | 63   | 62   | 64    |
| 43 - 48     | 63        | 63                       | 64   | 63   | 73 R | 62    |
| 47 - 54     | 63        | 63                       | 65   | 62   | 64   | 63    |
| 55 - 60     | 61        | 64                       | 65   | 63   | 63   | 65    |
| 61 - 66     | 65        | 66                       | 64   | 61   | 62   | 66    |
| 67 - 72     | 60        | 61                       | 63   | 63   | 64   | 70    |
| 73 - 78     | 72        | 61                       | 73 R | 74 R | 64   | 64    |
| 79 - 84     | 63        | 62                       | 60   | 65   | 62   | 64    |
| 85 - 90     | 61        | 62                       | 67   | 63   | JET  | JET → |
| 91 - 96     | JET       | JET                      | 65   | 64   | 64   | 64    |
| 97 - 102    | 70 R      | 63                       | 64   | 63   | 62   | 65    |
| 103 - 108   | 66        | 65                       | 66   | 62   | 64   | 63    |
| 109 - 114   | 64        | 64                       | 62   | 63   | 65   | 64    |
| 115 - 120   | 64        | 67                       | 63   | 64   | DOG  | DOG   |
| 121 - 126   | 65        | 66                       | 67   | 64   | 66   | 69    |
| 127 - 132   | 69        | CAR                      | CAR  | 63   | 66   | 64    |

Note: See back for the minimum number of samples.  
 Indicate all missing data points and give an explanation.

NPCS-10-1

|           |                         |     |    |         |    |    |
|-----------|-------------------------|-----|----|---------|----|----|
| 133 - 138 | 63                      | 66  | 65 | 64      | 63 | 66 |
| 139 - 144 | 62                      | 63  | 65 | 64      | 63 | 64 |
| 145 - 150 | 64                      | 64  | 65 | 66      | 62 | 64 |
| 151 - 156 | 66                      | 63  | 68 | 63      | 63 | 63 |
| 157 - 162 | 62                      | 63  | 64 | 63      | 63 | 62 |
| 163 - 168 | 63                      | 65  | 64 | 62      | 63 | 68 |
| 169 - 174 | ← COMPLAINANT TALKING → |     |    |         | 64 | 61 |
| 175 - 180 | 63                      | 63  | 63 | 64      | 63 | 65 |
| 181 - 186 | 64                      | 61  | 61 | BIRDS → | B  | 63 |
| 187 - 192 | 64                      | 63  | 64 | 62      | 65 | 64 |
| 193 - 198 | 62                      | 64  | 63 | 62      | 64 | 62 |
| 199 - 204 | CAR                     | CAR | 63 | 64      | 60 | 63 |
| 205 - 210 | 64                      | 62  | 62 | TRUCK → | T  | T  |
| 211 - 216 | T                       | T   | T  | 63      | 64 | 64 |
| 217 - 222 | 69                      | 63  | 65 | 63      | 65 | 63 |
| 223 - 228 |                         |     |    |         |    |    |
| 229 - 234 |                         |     |    |         |    |    |
| 235 - 240 |                         |     |    |         |    |    |
| 241 - 246 |                         |     |    |         |    |    |
| 247 - 252 |                         |     |    |         |    |    |
| 253 - 258 |                         |     |    |         |    |    |
| 259 - 264 |                         |     |    |         |    |    |
| 265 - 270 |                         |     |    |         |    |    |
| 271 - 276 |                         |     |    |         |    |    |
| 277 - 282 |                         |     |    |         |    |    |
| 283 - 288 |                         |     |    |         |    |    |
| 289 - 294 |                         |     |    |         |    |    |
| 295 - 300 |                         |     |    |         |    |    |
| 301 - 306 |                         |     |    |         |    |    |
| 307 - 312 |                         |     |    |         |    |    |
| 313 - 318 |                         |     |    |         |    |    |
| 319 - 324 |                         |     |    |         |    |    |
| 325 - 330 |                         |     |    |         |    |    |
| 331 - 336 |                         |     |    |         |    |    |

Figure 4-12  
Example of Form NPCS-10-1  
Reverse Side

| Maximum - Minimum Levels (difference in range) |     |     |     |     |     |     |     |     |     |     |     |     |     |
|------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0-8                                            | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  | 17  | 18  | 19  | 20  | 21  |
| 132                                            | 138 | 174 | 210 | 246 | 288 | 336 | 384 | 438 | 498 | 558 | 618 | 684 | 756 |
| Minimum Number "Good" Samples                  |     |     |     |     |     |     |     |     |     |     |     |     |     |

Note: Indicate all missing data points and give an explanation. Additional data points may be needed to document an  $L_1$  violation.

NPCS-10-1

DEPARTMENT OF ENVIRONMENTAL QUALITY  
STATISTICAL COMPUTATION SHEET

Date: 9-16-81 Source: ACME WOOD PRODUCTS INC. Sheet 3 / 4  
1420 PDT

| Level<br>dBA | 10 | 20 | 30 | 40 | No.<br>Readings | No.<br>Greater<br>Than | %<br>Greater<br>Than |
|--------------|----|----|----|----|-----------------|------------------------|----------------------|
| 76           |    |    |    |    |                 |                        |                      |
| 75           |    |    |    |    | 0               |                        |                      |
| 74           |    |    |    |    | 1               | 0                      | 0                    |
| 73           |    |    |    |    | 2               | 1                      | 0.5                  |
| 72           |    |    |    |    | 1               | 3                      | 1.5                  |
| 71           |    |    |    |    | 0               | 4                      | 2.1                  |
| 70           |    |    |    |    | 4               | 4                      | 2.1                  |
| 69           |    |    |    |    | 3               | 8                      | 4.1                  |
| 68           |    |    |    |    | 2               | 11                     | 5.7                  |
| 67           |    |    |    |    | 5               | 13                     | 6.7                  |
| 66           |    |    |    |    | 12              | 18                     | 9.3                  |
| 65           |    |    |    |    | 23              | 30                     | 15.5                 |
| 64           |    |    |    |    | 46              | 53                     | 27.3                 |
| 63           |    |    |    |    | 53              | 99                     | 51.0                 |
| 62           |    |    |    |    | 27              | 152                    | 78.4                 |
| 61           |    |    |    |    | 12              | 179                    | 92.3                 |
| 60           |    |    |    |    | 3               | 191                    | 98.5                 |
| 59           |    |    |    |    |                 | 194                    | 100                  |
| 58           |    |    |    |    |                 |                        |                      |

Figure 4-13  
Example of Form NPCS-10-2

DATE: 9-16-81

## STATISTICAL NOISE SURVEY

SHEET: 4 / 4

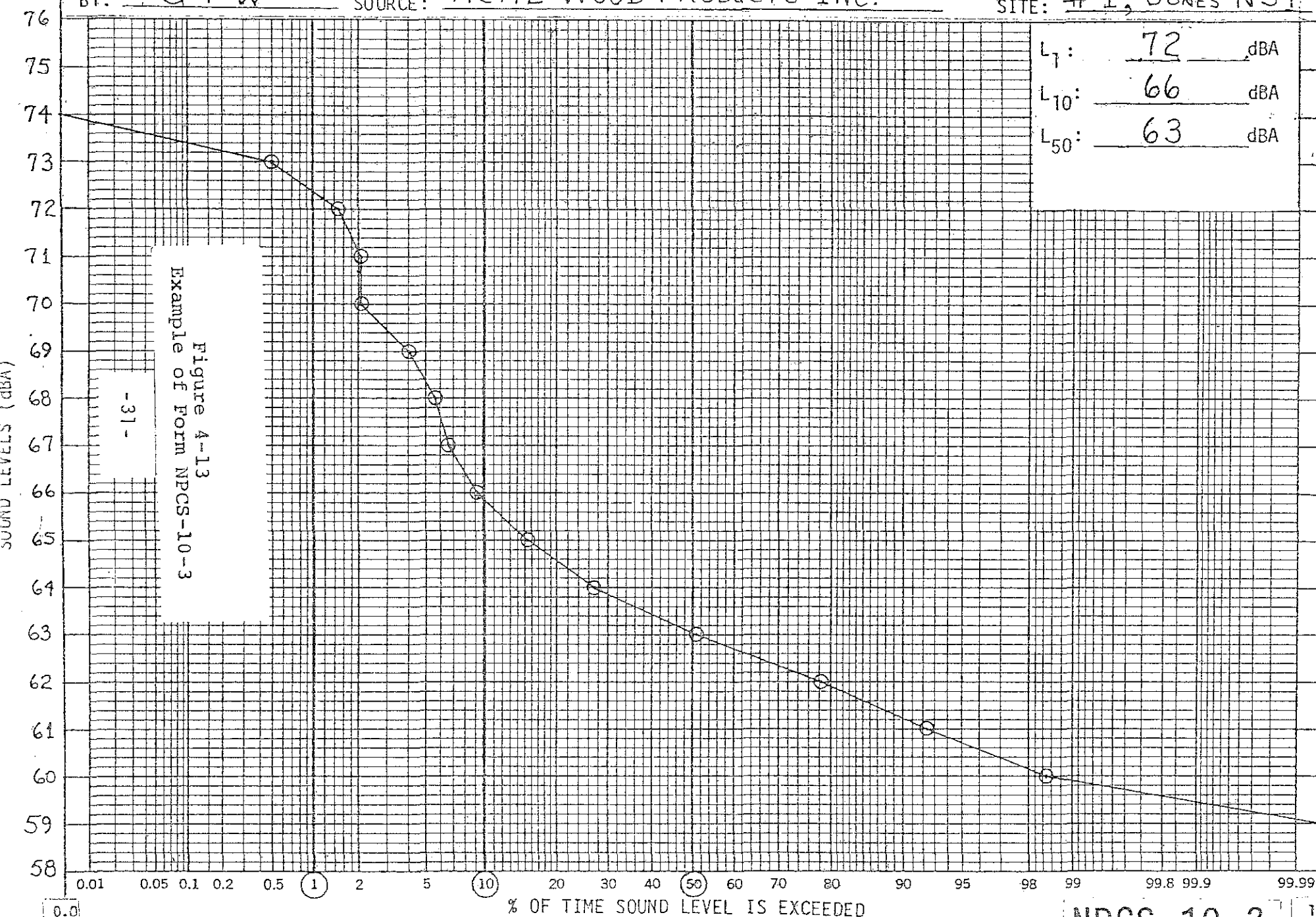
BY: GTW

SOURCE: ACME WOOD PRODUCTS INC.

MEASUREMENT

SITE: #1, JONES NSP

$L_1$ : 72 dBA  
 $L_{10}$ : 66 dBA  
 $L_{50}$ : 63 dBA



Note: A normalized distribution will produce a straight line on this graph.

NPCS-10-3

100

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#### 4.8.1 Point Source

Comment: The sound pressure level at a point  $r$  feet from a point source can be calculated from a sound pressure level measurement at a point  $r_0$  feet from the point source using the following equation:

$$SPL = SPL_0 - 20 \log (r/r_0)$$

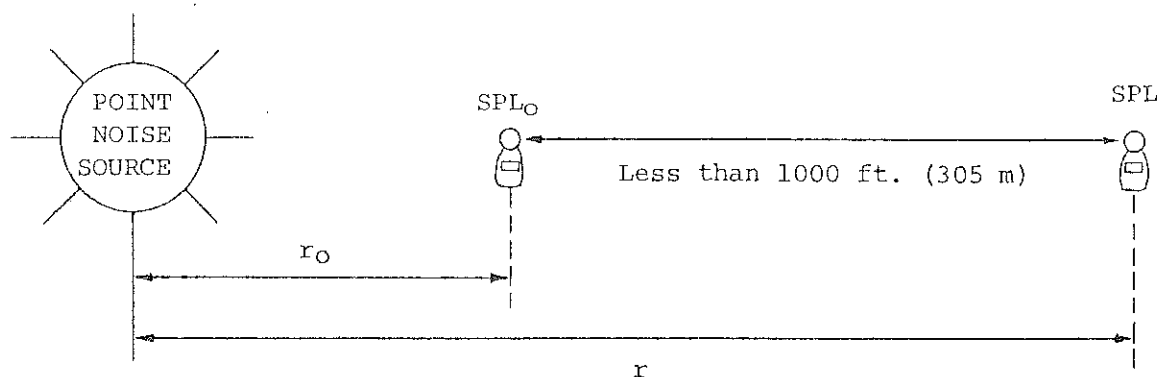
where:

$SPL$  = sound pressure level at  $r$  feet from the source.

$SPL_0$  = sound pressure level at  $r_0$  feet from the source. Note that  $r_0$  is a reference distance and that the distance  $r$  is always greater than  $r_0$ . The point  $r_0$  must be in the far field of the source.

Figure 4-15 illustrates a point source, such as an industrial site, and the distance at which the measurement  $SPL_0$  is taken and the distance where the required level,  $SPL$  is needed.

This projection technique is applicable only if the distance between  $r$  and  $r_0$  is less than 1000 feet. This projection technique should be used only when it is not practical to make a sound pressure level reading at  $r$ .



SOUND LEVEL ADJUSTMENT WITH DISTANCE

FIGURE 4-15

#### 4.8.2 Line Source

Comment: The sound pressure level at a point  $r$  feet from a line source can be calculated from a sound pressure level measurement at a point  $r_0$  feet from the line source using the following equation:

$$SPL = SPL_0 - 10 \log (r/r_0)$$

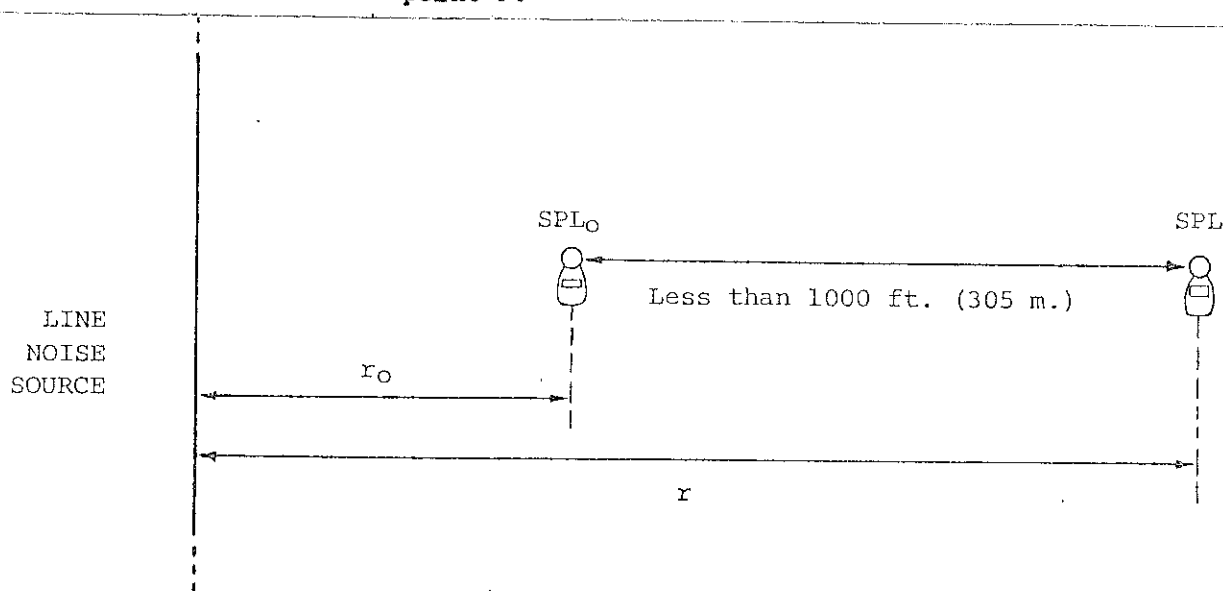
where:

$SPL$  = sound pressure level at  $r$  feet from the source.

$SPL_0$  = sound pressure level at  $r_0$  feet from the source. Note that  $r_0$  is a reference distance and that the distance  $r$  is always greater than  $r_0$ . The point  $r_0$  must be in the far field of the source.

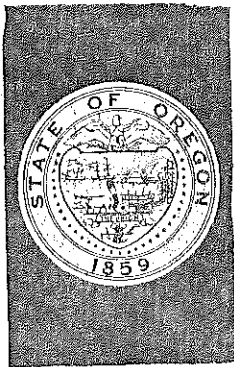
Figure 4-16 illustrates a line source, such as a highway with closely spaced moving vehicles, and the distance at which the measurement,  $SPL_0$ , is taken and the distance where the required level  $SPL$  is needed.

This projection technique is applicable only if the distance between  $r$  and  $r_0$  is less than 1000 feet. This projection technique should be used only when it is not practical to make a sound pressure level reading at point  $r$ .



LINE NOISE SOURCE DISTANCE ADJUSTMENT

FIGURE 4-16



REQUIREMENTS  
FOR  
SOUND  
MEASURING  
INSTRUMENTS  
AND  
PERSONNEL

PROPOSED AMENDMENTS

April 1983

Proposed additions are underlined.

Proposed deletions are [bracketed].

DEPARTMENT OF ENVIRONMENTAL QUALITY  
REQUIREMENTS FOR SOUND MEASURING INSTRUMENTS AND PERSONNEL

NPCS-2

I. INSTRUMENTS

PURPOSE: To ensure maximum practical accuracy in any particular instrument, and to minimize the difference in corresponding readings with various makes and models of instruments.

A. SPECIFICATIONS FOR SOUND LEVEL METERS

SCOPE: All sound level meters shall conform to American National Standards Institute Standard Number S1.4-1971 [A Type II specification is the minimum requirement for sound level meters] for either:

- (1) A Type 1 sound level meter.
- (2) A Type 2 sound level meter.
- (3) A Type S sound level meter which has:
  - a) An A-weighting frequency response.
  - b) The appropriate fast or slow dynamic characteristics of its indicator; and.
  - c) A relative response level tolerance consistent with those of either a Type 1 or Type 2 sound level meter as specified in ANSI S1.4-1971.
- (4) A sound level meter conforming with (1), (2) or (3) above of ANSI S1.4-1971 except that the definition for "indicating instrument" shall also include digital indicators that provide decibel readings in increments no greater than one (1) decibel over the range of interest.

The minimum accessory requirements are [a random incidence microphone,] a windscreen, and an acoustically coupled calibrator.

B. SPECIFICATIONS FOR OCTAVE AND THIRD-OCTAVE BAND FILTER SETS

SCOPE: All octave and third-octave band filter sets shall conform to American National Standards Institute Standard Number S1.11-1966. Type O Class II is the minimum requirement for octave and third-octave band filter sets.

C. SPECIFICATIONS FOR TAPE RECORDERS OR GRAPHIC LEVEL RECORDERS

SCOPE: Magnetic tape recorder systems and graphic level recorder systems shall conform to Society of Automotive Engineers Recommended Practice J184, qualifying a sound data acquisition system.

D. SPECIFICATIONS FOR IMPULSE MEASURING EQUIPMENT

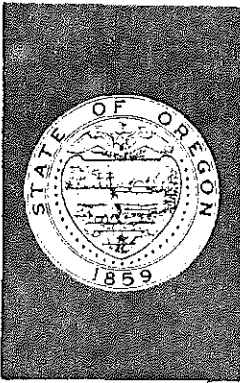
SCOPE: Impulse sound measurement instruments shall conform to American National Standards Institute Standard Number S1.4-1971. A Type 1 specification is the minimum requirement for sound level meters with a peak detector circuit[.] used for unweighted (dB) peak impulse measurements. A Type 2 specification is the minimum requirement for sound level meters used for blast impulse noise measurements. Instruments used for blast impulse noise measurements shall be equipped with a "C" weighting network (dBC) and a "slow" detector response circuit.

II. PERSONNEL

PURPOSE: To ensure the quality of measurements.

A. PERSONNEL QUALIFICATIONS

SCOPE: Personnel conducting sound measurements shall have been trained and experienced in the current techniques and principles of sound measurement and in the selection and operation of sound measuring instrumentation appropriate to the measurements being taken.



MOTOR VEHICLE  
SOUND  
MEASUREMENT  
PROCEDURES  
MANUAL

PROPOSED AMENDMENTS

April 1983

Proposed additions are underlined.

Proposed deletions are [bracketed].

Index of Proposed Amendments  
Procedure Manual NPCS - 21

| <u>Page No.</u> | <u>Paragraph</u> | <u>Description</u>                                                                   |
|-----------------|------------------|--------------------------------------------------------------------------------------|
| 2               | 2.1              | Clarification added                                                                  |
| 4               | 2.3.2            | Reduction of restrictions for monitoring during rain                                 |
| 8               | 3.1              | Clarification added                                                                  |
| 16              | 3.2.9f           | Add criteria to define "level road" grades                                           |
| 17              | 3.3.5            | Reduction of restrictions for monitoring during rain                                 |
| 18              | 3.5.2            | Added procedures for patrol car mounted microphones                                  |
| 21              | 4.1              | Added reference to alternate procedures as approved pursuant to OAR 340-35-025(2)(a) |
| 28              | 4.5.4.c.6        | Added reference to EPA procedure                                                     |
| 31              | 4.5.6(7)         | Added reference to EPA procedure                                                     |
| 33              | 4.5.7(4)         | Amended deceleration procedure to conform to newly accepted procedures               |
| 36              | 5.3.2            | Reduction of restrictions for monitoring during rain                                 |
| 41              | 6.1              | Clarification added                                                                  |
|                 | 6.2.1            | Grammatical correction                                                               |
| 42              | 6.3.4            | Amendments to procedures for monitoring during rain                                  |

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>                   | EQC Amendments                          |
| 3.             | <u>5/27/77</u>              | <u>JH</u>                   | EQC Amendments                          |
| 4.             | <u>9/16/77</u>              | <u>DO</u>                   | pg. 42, corrected<br>typographic error  |
| 5.             | <u>1/10/78</u>              | <u>DO</u>                   | pg. 12, corrected<br>typographic error. |
| 6.             | <u>5/21/80</u>              | <u>JH</u>                   | EQC Motorboat<br>Amendements            |
| 7.             | <u>                    </u> | <u>                    </u> |                                         |
| 8.             | <u>                    </u> | <u>                    </u> |                                         |
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| 15.            | <u>                    </u> | <u>                    </u> |                                         |
| 16.            | <u>                    </u> | <u>                    </u> |                                         |
| 17.            | <u>                    </u> | <u>                    </u> |                                         |
| 18.            | <u>                    </u> | <u>                    </u> |                                         |

## 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, Division 35, Department of Environmental Quality.

#### 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  
FOR TRUCKS AND BUSES

- 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).

These procedures, the 25-foot stationary test, are used to conduct emission tests on trucks and buses rated in excess of 8,000 pounds. The standards for these vehicles are found in Table 2 of OAR 340-35-030.

- 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.

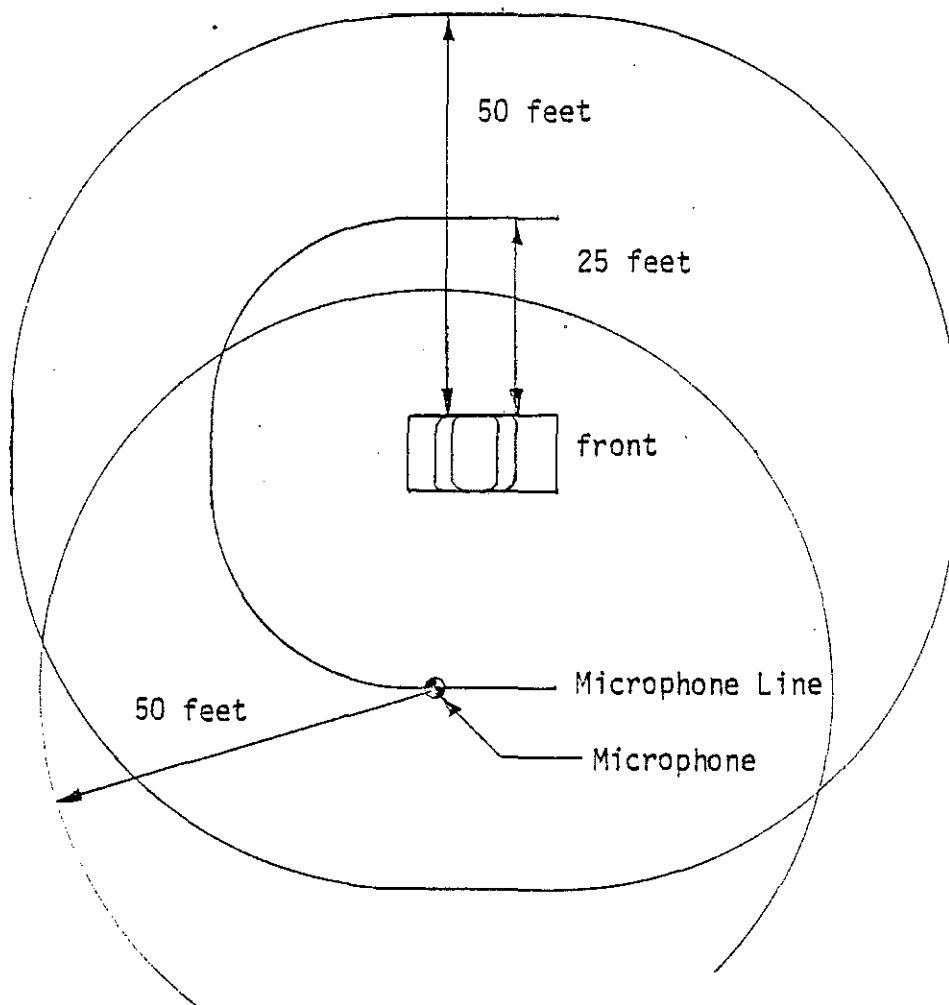


Fig. 2.1 Stationary Measurement Site

- 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  $\pm$  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.

### 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 falling precipitation affects results [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<br>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                                                                                                                                                                                     |              | CHECK POSITION AND SIZE OF OUTLET                                                                                                               |                         |                                                                                                                                                                                   | RESONATORS                                                                                                                                                                                                                                                                                  |  | MUFFLER TYPE           | TIRE SIZE        | GEAR RATIOS                                      |
| <input type="checkbox"/> Single <input type="checkbox"/> L. Side <input type="checkbox"/> Rear<br><input type="checkbox"/> Dual <input type="checkbox"/> R. Side <input type="checkbox"/> Vertical |              | <input type="checkbox"/> Straight <input type="checkbox"/> 45° to rear<br><input type="checkbox"/> 45° to side <input type="checkbox"/> ___ dia |                         |                                                                                                                                                                                   | <input type="checkbox"/> Single<br><input type="checkbox"/> Dual                                                                                                                                                                                                                            |  |                        | ___ x ___<br>___ | Diff. ___:___<br>Spkt. ___:___<br>(No. of Teeth) |
| RECORDER MODEL AND DEQ NO.                                                                                                                                                                         |              |                                                                                                                                                 | METER MODEL AND DEQ NO. |                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                             |  | CALIBRATOR AND DEQ NO. |                  |                                                  |
| TEST DRIVER                                                                                                                                                                                        |              | TEST ENGINEER                                                                                                                                   |                         | METER CHECK<br><input type="checkbox"/> BAT. <input type="checkbox"/> WINDSCREEN <input type="checkbox"/> "A" SCALE <input type="checkbox"/> FAST <input type="checkbox"/> CALIB. |                                                                                                                                                                                                                                                                                             |  |                        |                  |                                                  |
| OPERATING<br>CONDITIONS                                                                                                                                                                            | Time         | READINGS                                                                                                                                        |                         | MAX.<br>RPM                                                                                                                                                                       | TEST CONDITIONS                                                                                                                                                                                                                                                                             |  |                        |                  |                                                  |
|                                                                                                                                                                                                    |              | dBA                                                                                                                                             | LOCATION<br>NUMBER      |                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                             |  |                        |                  |                                                  |
|                                                                                                                                                                                                    |              |                                                                                                                                                 |                         |                                                                                                                                                                                   | WEATHER CONDITION                                                                                                                                                                                                                                                                           |  | TEMP.                  | %R.H.            | WIND SPEED                                       |
|                                                                                                                                                                                                    |              |                                                                                                                                                 |                         |                                                                                                                                                                                   | Sketch in this space the measurement site peculiarities, and<br>using the proper symbols indicate the direction of wind,<br>vehicle orientation and reading locations.<br><br><br><br><br><br><br><br><br><br>Key: WIND DIRECTION   ---><br>VEHICLE       →<br>MICROPHONE LOCATION NO.   □→ |  |                        |                  |                                                  |
|                                                                                                                                                                                                    |              |                                                                                                                                                 |                         |                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                             |  |                        |                  |                                                  |
|                                                                                                                                                                                                    |              |                                                                                                                                                 |                         |                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                             |  |                        |                  |                                                  |
|                                                                                                                                                                                                    |              |                                                                                                                                                 |                         |                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                             |  |                        |                  |                                                  |
|                                                                                                                                                                                                    |              |                                                                                                                                                 |                         |                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                             |  |                        |                  |                                                  |
|                                                                                                                                                                                                    |              |                                                                                                                                                 |                         |                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                             |  |                        |                  |                                                  |
|                                                                                                                                                                                                    |              |                                                                                                                                                 |                         |                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                             |  |                        |                  |                                                  |
|                                                                                                                                                                                                    |              |                                                                                                                                                 |                         |                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                             |  |                        |                  |                                                  |

INSTRUMENTATION SET UP AT 25 FT FROM EDGE OF VEHICLE

NPCS-24

Figure 2.2  
Stationary Vehicle Noise Test

## CHAPTER 3

### 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.

This procedure is used to test and monitor moving vehicles at distances of 35 to 118 feet (typically 50 feet) from the vehicle path. The standards for road vehicles and off-road recreational vehicles are found in Tables 3 and 4 of OAR 340-35-030.

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 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.

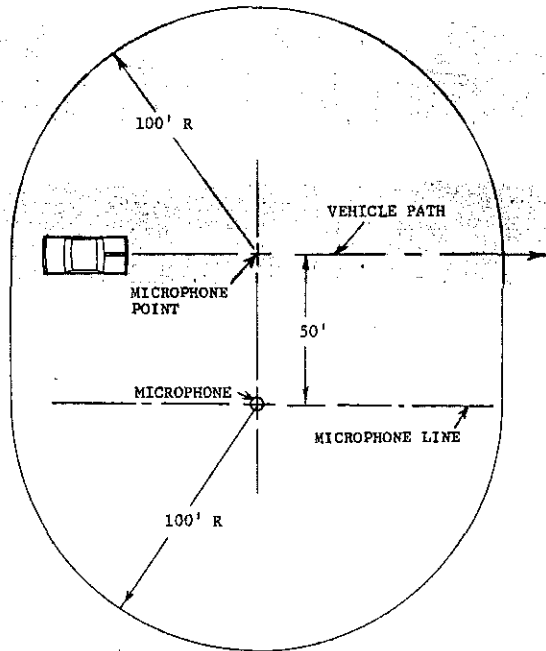


Fig. 3-1. Standard Measuring Site

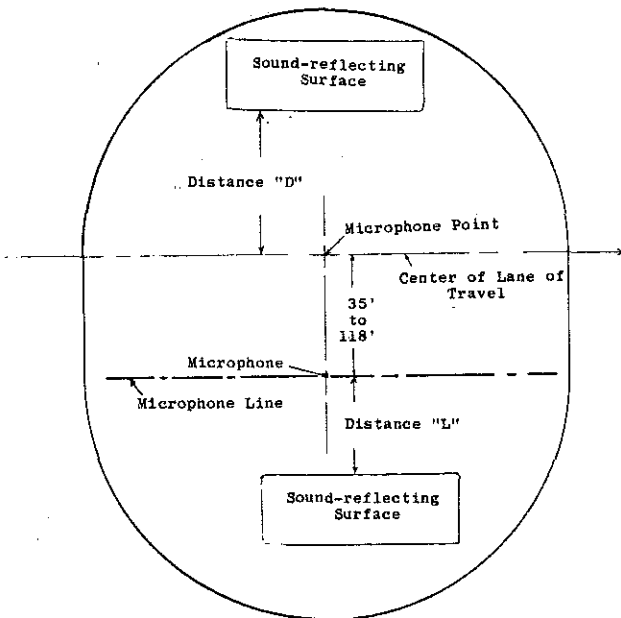


Fig. 3-2. Restricted Measuring Site

| Distance from Microphone<br>to Pathway Centerline | dBA Correction<br>Factor |
|---------------------------------------------------|--------------------------|
|---------------------------------------------------|--------------------------|

|                       |    |
|-----------------------|----|
| 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 |

Example: If the distance between the microphone and the 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 |
| <u>-3</u> | <u>dBA</u> | Correction factor   |
| 87        | dBA        | Corrected reading   |

Fig 3-3 Measuring Distance Correction Factors

- 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 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 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 irregularity begins. A smooth embankment is one with vegetation, concrete, asphalt, dirt or other relatively smooth cover.

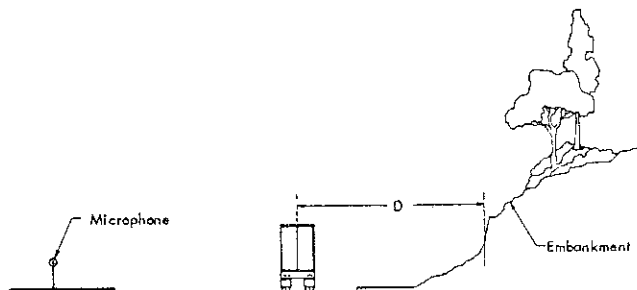


Fig. 3-4. Measurement of Distance to Embankment

- 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).

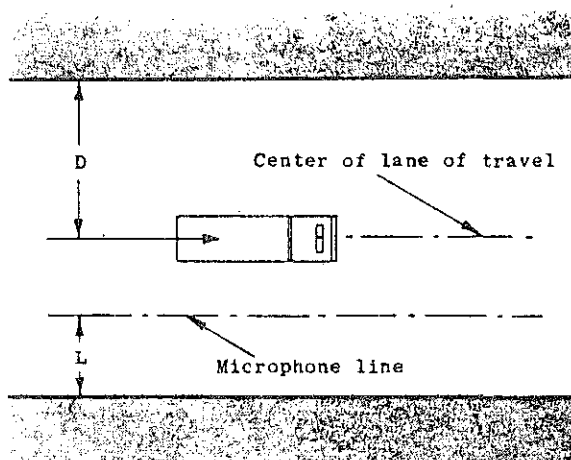
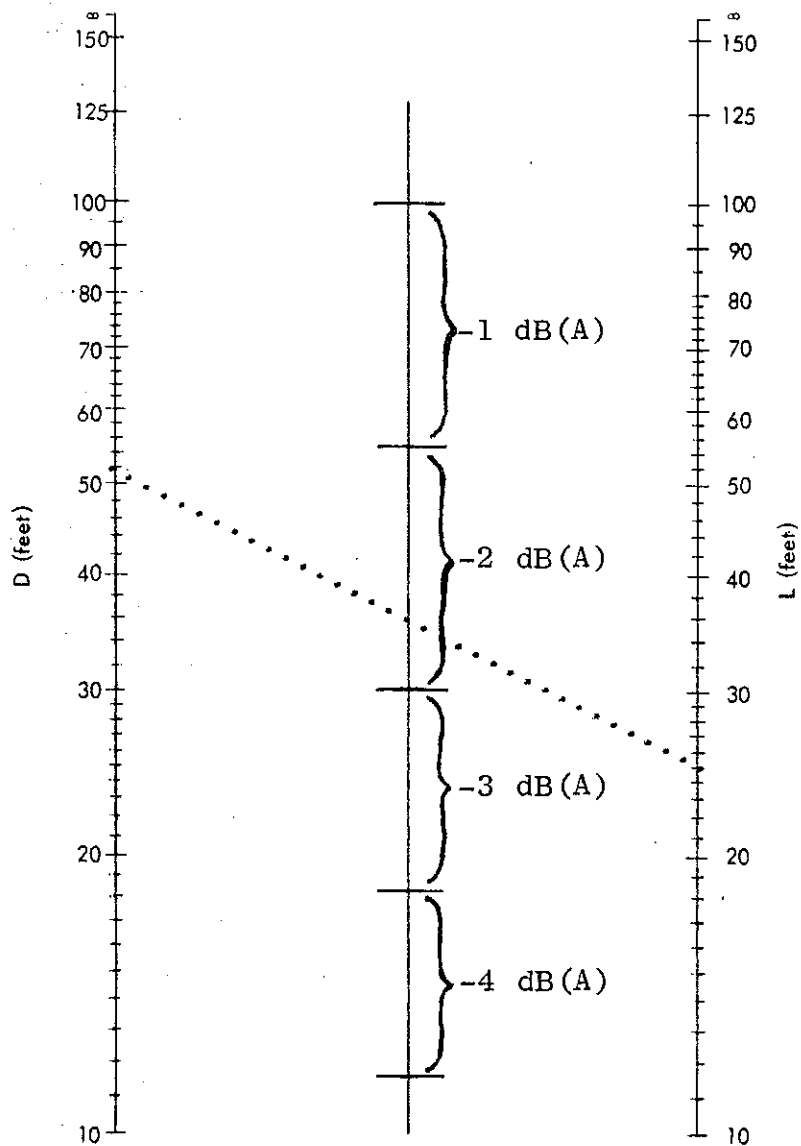


Fig. 3-5 Correction Factor Distances "D" and "L"

- 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.
- 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 3-6 |
| 88 dBA        | Corrected reading          |

Distance from center of vehicle path  
to reflecting surface.



Distance from microphone line  
to reflecting surface.

On centerline read dB(A) correction  
to be subtracted from meter reading.

Fig. 3-6 Nomogram for Reflecting Surfaces

- 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                      |
| -2 dBA | Correction for sound-reflecting surfaces |
| <hr/>  |                                          |
| 88 dBA |                                          |
| +2 dBA | 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. 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  $\pm$  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).

g. Grades. The standards for road vehicles on "level roadways" contained in Table 3 of OAR 340-35-030 may be applied to vehicles traveling on any roadway that does not exceed a grade of plus two (2) percent.

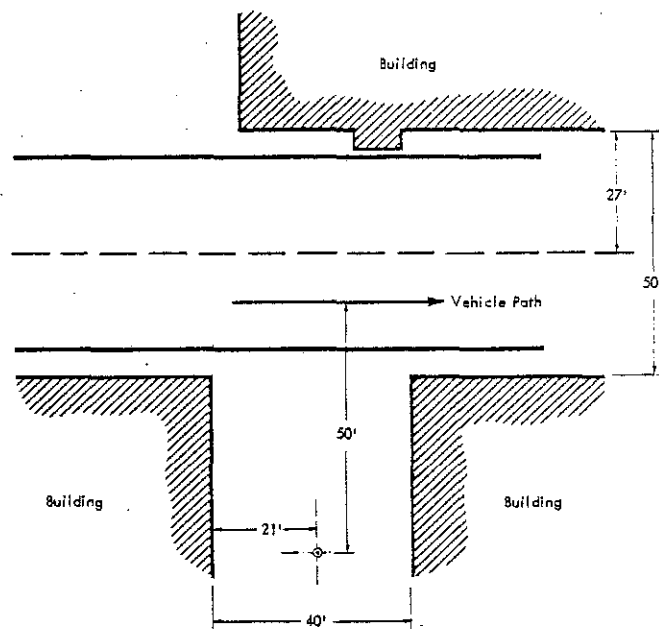


Fig. 3.7. Unacceptable Measuring Site

### 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 falling precipitation affects results [is falling]. 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.

### 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.
- 3.4.2 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.

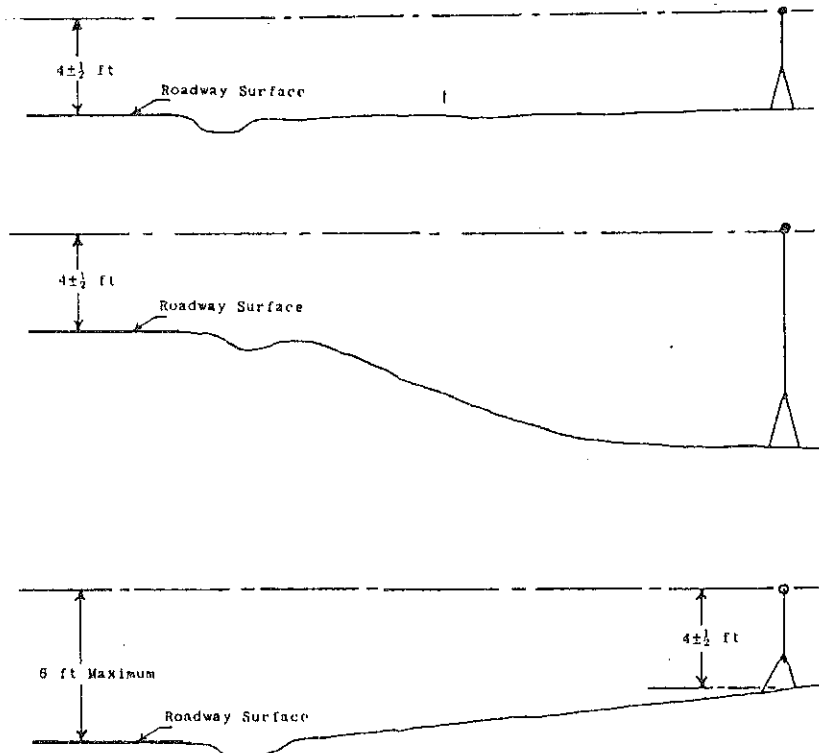


Fig. 3-8. Microphone Height

- 3.4.5 Windscreens. Windscreens made of open cell polyurethane foam furnished by the instrument manufacturer shall be placed over the microphone after calibration.
- 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.
- Turn meter on.
  - Switch meter to "A" weighting scale.
  - Switch meter to "FAST" response.
  - 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.

The meter microphone may also be mounted above a patrol car with an additional correction factor of minus two decibels (-2 dBA) to be added to the measured value. This factor does not preclude the need for the determination of other site correction factors described in section 3.2. The microphone shall be mounted:

- a) Sixteen (16) to twenty-four inches above the plane of the car roof, and
- b) Not fore of the roof-windshield line nor aft of the roof-rear window line.

The patrol vehicle may be orientated either parallel or perpendicular to the traffic flow. However, the microphone shall be located on the side of the patrol car closest to the traffic flow when using a parallel orientation.

- 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 measurements 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, NPCS-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<br>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<br><input type="checkbox"/> Single <input type="checkbox"/> L. Side <input type="checkbox"/> Rear<br><input type="checkbox"/> Dual <input type="checkbox"/> R. Side <input type="checkbox"/> Vertical |  |              |      | CHECK POSITION AND SIZE OF OUTLET<br><input type="checkbox"/> Straight <input type="checkbox"/> 45° to rear<br><input type="checkbox"/> 45° to side <input type="checkbox"/> ___ dia. |                                                                 |                     | RESONATORS<br><input type="checkbox"/> Single<br><input type="checkbox"/> Dual                                                                                                    |                                                                                                                                              | MUFFLER TYPE |                        | TIRE SIZE<br>_____ x _____ |           | GEAR RATIOS                                              |  |
|                                                                                                                                                                                                                      |  |              |      |                                                                                                                                                                                       |                                                                 |                     |                                                                                                                                                                                   |                                                                                                                                              |              |                        |                            |           | Diff. ____ : ____<br>Spkt. ____ : ____<br>(No. of Teeth) |  |
| RECORDER MODEL AND DEQ NO.                                                                                                                                                                                           |  |              |      |                                                                                                                                                                                       | METER MODEL AND DEQ NO.                                         |                     |                                                                                                                                                                                   |                                                                                                                                              |              | CALIBRATOR AND DEQ NO. |                            |           |                                                          |  |
| TEST DRIVER                                                                                                                                                                                                          |  |              |      | TEST ENGINEER                                                                                                                                                                         |                                                                 |                     | METER CHECK<br><input type="checkbox"/> BAT. <input type="checkbox"/> WINDSCREEN <input type="checkbox"/> "A" SCALE <input type="checkbox"/> FAST <input type="checkbox"/> CALIB. |                                                                                                                                              |              |                        |                            |           |                                                          |  |
| OPERATING CONDITIONS                                                                                                                                                                                                 |  | TIME         | dB A | CORRECTIONS                                                                                                                                                                           |                                                                 | Correct<br>dB A     | EST.<br>MPH                                                                                                                                                                       | TEST CONDITIONS                                                                                                                              |              |                        |                            |           |                                                          |  |
|                                                                                                                                                                                                                      |  |              |      | Distance<br>+                                                                                                                                                                         | Reflect<br>-                                                    |                     |                                                                                                                                                                                   | WEATHER CONDITION                                                                                                                            |              | TEMP.                  | %RH                        | WIND VEL. |                                                          |  |
|                                                                                                                                                                                                                      |  |              |      |                                                                                                                                                                                       |                                                                 |                     |                                                                                                                                                                                   | Indicate by proper symbols the direction of the wind, vehicle path, and microphone location.<br><br><div style="text-align: center;"> </div> |              |                        |                            |           |                                                          |  |
|                                                                                                                                                                                                                      |  |              |      |                                                                                                                                                                                       |                                                                 |                     |                                                                                                                                                                                   |                                                                                                                                              |              |                        |                            |           |                                                          |  |
|                                                                                                                                                                                                                      |  |              |      |                                                                                                                                                                                       |                                                                 |                     |                                                                                                                                                                                   |                                                                                                                                              |              |                        |                            |           |                                                          |  |
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|                                                                                                                                                                                                                      |  |              |      |                                                                                                                                                                                       |                                                                 |                     |                                                                                                                                                                                   |                                                                                                                                              |              |                        |                            |           |                                                          |  |
|                                                                                                                                                                                                                      |  |              |      |                                                                                                                                                                                       |                                                                 |                     |                                                                                                                                                                                   |                                                                                                                                              |              |                        |                            |           |                                                          |  |
|                                                                                                                                                                                                                      |  |              |      |                                                                                                                                                                                       |                                                                 |                     |                                                                                                                                                                                   |                                                                                                                                              |              |                        |                            |           |                                                          |  |
|                                                                                                                                                                                                                      |  |              |      |                                                                                                                                                                                       |                                                                 |                     |                                                                                                                                                                                   |                                                                                                                                              |              |                        |                            |           |                                                          |  |
|                                                                                                                                                                                                                      |  |              |      |                                                                                                                                                                                       |                                                                 |                     |                                                                                                                                                                                   |                                                                                                                                              |              |                        |                            |           |                                                          |  |
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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.

OAR 340-35-025 requires all new motor vehicles offered for sale be certified as meeting noise emission limits specified in Table 1. Standards are established for new motorcycles, snowmobiles, automobiles, trucks, buses and motorboats. Emission test procedures for each of these categories are described in this chapter. In lieu of the procedures of this chapter, the following procedures adopted by the Society of Automotive Engineers (SAE) have also been approved:

|                                 |                       |
|---------------------------------|-----------------------|
| <u>Motorcycles</u>              | <u>SAE J331a*</u>     |
| <u>Snowmobiles</u>              | <u>SAE J192a</u>      |
| <u>Autos &amp; Light Trucks</u> | <u>SAE J986NOV 81</u> |
| <u>Trucks and Buses</u>         | <u>SAE J366b**</u>    |
| <u>Motorboats</u>               | <u>SAE J34***</u>     |

\* Motorcycles manufactured after December 31, 1982 shall be tested in accordance with procedures set forth in Part 205 Subpart D of Title 40 of the Code of Federal Regulations.

\*\* Medium and heavy trucks having a GVWR in excess of 10,000 pounds and manufactured after January 1, 1978 shall be tested in accordance with procedures set forth in Part 205 Subpart B of Title 40 of the Code of Federal Regulations.

\*\*\* If SAE J34a procedure is used, the resulting emission levels shall be increased by 4.3 dBA to account for the increased distance from the motorboat to the microphone.

- 4.2 Test Area and Personnel.

- 4.2.1 Test Area. Generally, 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 as shown in Figure 4-1. Detailed test area layouts are provided in Section 4.5 for specific vehicle categories.

- 4.2.2 Surface 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.  
Motorboats shall be tested on a calm water surface.

- 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 three inches of loose snow over a base of at least two inches of compacted snow.

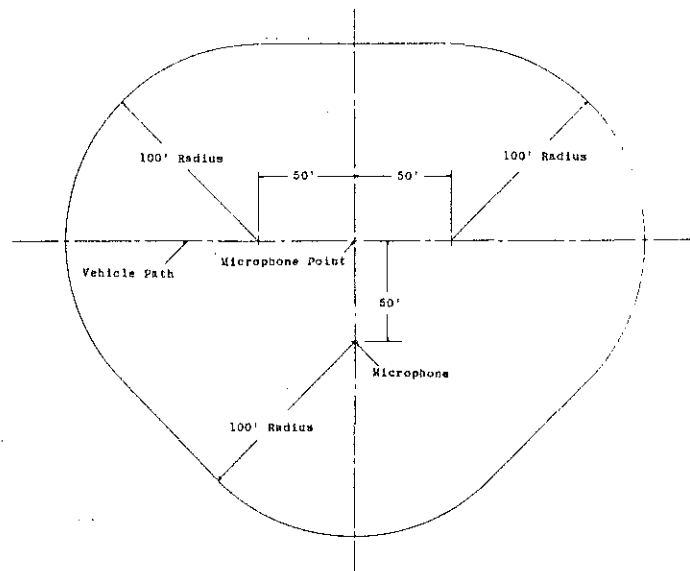


Fig. 4-1. New Vehicle Test Area Layout

- 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  $4 \pm 1/2$  ft. above the plane of the roadway or water surface. Position the tripod so the microphone is at a distance of  $50 \pm 1$  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.

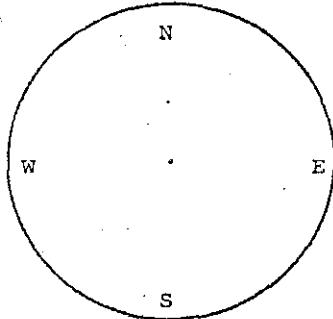
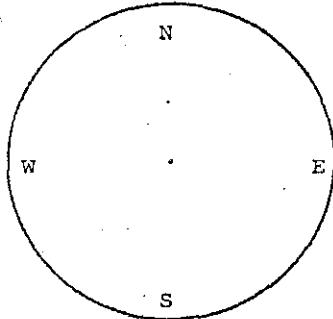
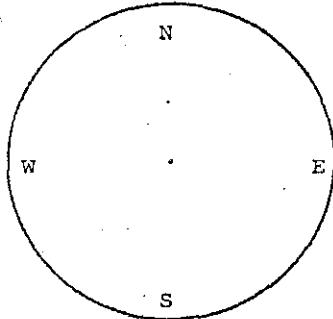
COMMENT: An inspection label will be attached to each instrument set to determine when the calibration was performed.

#### 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.
- 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 ungoverned, 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.

|                                                                                                                                                                                                                      |  |              |     |           |  |                                                                                                                                                                                       |  |                     |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                |  |                        |  |           |  |                                                      |  |                   |  |       |     |           |                                                                                              |  |  |  |  |                                                                                      |  |  |  |  |                                                                          |  |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------|-----|-----------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------|--|------------------------|--|-----------|--|------------------------------------------------------|--|-------------------|--|-------|-----|-----------|----------------------------------------------------------------------------------------------|--|--|--|--|--------------------------------------------------------------------------------------|--|--|--|--|--------------------------------------------------------------------------|--|--|--|--|
| 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<br><input type="checkbox"/> Single <input type="checkbox"/> L. Side <input type="checkbox"/> Rear<br><input type="checkbox"/> Dual <input type="checkbox"/> R. Side <input type="checkbox"/> Vertical |  |              |     |           |  | CHECK POSITION AND SIZE OF OUTLET<br><input type="checkbox"/> Straight <input type="checkbox"/> 45° to rear<br><input type="checkbox"/> 45° to side <input type="checkbox"/> ___ dia. |  |                     |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | RESONATORS<br><input type="checkbox"/> Single<br><input type="checkbox"/> Dual |  | MUFFLER TYPE           |  | TIRE SIZE |  | GEAR RATIOS                                          |  |                   |  |       |     |           |                                                                                              |  |  |  |  |                                                                                      |  |  |  |  |                                                                          |  |  |  |  |
|                                                                                                                                                                                                                      |  |              |     |           |  |                                                                                                                                                                                       |  |                     |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                |  |                        |  |           |  | Diff. ___ : ___<br>Spkt. ___ : ___<br>(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<br><input type="checkbox"/> BAT. <input type="checkbox"/> WINDSCREEN <input type="checkbox"/> "A" SCALE <input type="checkbox"/> FAST <input type="checkbox"/> CALIB.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                |  |                        |  |           |  |                                                      |  |                   |  |       |     |           |                                                                                              |  |  |  |  |                                                                                      |  |  |  |  |                                                                          |  |  |  |  |
| OPERATING CONDITIONS                                                                                                                                                                                                 |  | TIME         |     |           |  | SBA READINGS                                                                                                                                                                          |  | MAXIMUM             |  | <div style="text-align: center;"> <p>TEST CONDITIONS</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2">WEATHER CONDITION</td> <td>TEMP.</td> <td>%RH</td> <td>WIND VEL.</td> </tr> <tr> <td colspan="5">           Indicate by proper symbols the direction of the wind, vehicle path, and microphone location.         </td> </tr> <tr> <td colspan="5" style="text-align: center;">  </td> </tr> <tr> <td colspan="5">           Key:<br/>           Wind Direction ---&gt;<br/>           Vehicle Path --&gt;<br/>           Microphone Location &gt;         </td> </tr> </table> </div> |  |                                                                                |  |                        |  |           |  |                                                      |  | WEATHER CONDITION |  | TEMP. | %RH | WIND VEL. | Indicate by proper symbols the direction of the wind, vehicle path, and microphone location. |  |  |  |  |  |  |  |  |  | Key:<br>Wind Direction ---><br>Vehicle Path --><br>Microphone Location > |  |  |  |  |
| WEATHER CONDITION                                                                                                                                                                                                    |  | TEMP.        | %RH | WIND VEL. |  |                                                                                                                                                                                       |  |                     |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                |  |                        |  |           |  |                                                      |  |                   |  |       |     |           |                                                                                              |  |  |  |  |                                                                                      |  |  |  |  |                                                                          |  |  |  |  |
| Indicate by proper symbols the direction of the wind, vehicle path, and microphone location.                                                                                                                         |  |              |     |           |  |                                                                                                                                                                                       |  |                     |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                |  |                        |  |           |  |                                                      |  |                   |  |       |     |           |                                                                                              |  |  |  |  |                                                                                      |  |  |  |  |                                                                          |  |  |  |  |
|                                                                                                                                  |  |              |     |           |  |                                                                                                                                                                                       |  |                     |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                |  |                        |  |           |  |                                                      |  |                   |  |       |     |           |                                                                                              |  |  |  |  |                                                                                      |  |  |  |  |                                                                          |  |  |  |  |
| Key:<br>Wind Direction ---><br>Vehicle Path --><br>Microphone Location >                                                                                                                                             |  |              |     |           |  |                                                                                                                                                                                       |  |                     |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                |  |                        |  |           |  |                                                      |  |                   |  |       |     |           |                                                                                              |  |  |  |  |                                                                                      |  |  |  |  |                                                                          |  |  |  |  |
|                                                                                                                                                                                                                      |  |              |     |           |  |                                                                                                                                                                                       |  |                     |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                |  |                        |  |           |  |                                                      |  |                   |  |       |     |           |                                                                                              |  |  |  |  |                                                                                      |  |  |  |  |                                                                          |  |  |  |  |
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|                                                                                                                                                                                                                      |  |              |     |           |  |                                                                                                                                                                                       |  |                     |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                |  |                        |  |           |  |                                                      |  |                   |  |       |     |           |                                                                                              |  |  |  |  |                                                                                      |  |  |  |  |                                                                          |  |  |  |  |

INSTRUMENTATION SET UP AT 50 FT. FROM CENTERLINE OF TRAVEL.

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Figure 4-2  
New Vehicle Test  
-25-

#### 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  $\pm 0.5$  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:

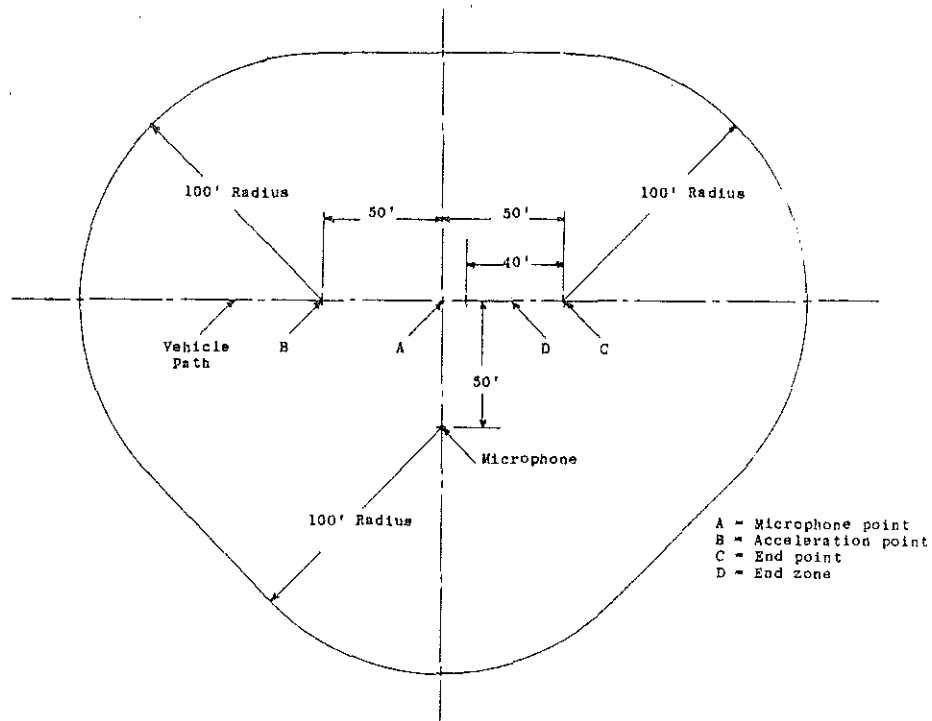
- a. Vehicle Path. The test area shall include a vehicle path of sufficient length for safe acceleration, deceleration, and stopping of the vehicle.
- b. Test Area Layout. The following points and zones shown in Figure 4-3 where only one directional approach is illustrated for purposes of clarity, shall 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-feet distance between the microphone point and the end point.







- (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.



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  $\frac{2}{3}$  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  $\frac{1}{2}$  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.

(7) 1978 and Subsequent Model Trucks. These models shall be tested in accordance with U.S. EPA procedures. See paragraph 4.1 of this Chapter.

4.5.7 Automobiles, Light Trucks, Truck Tractors, Buses, and All Other Vehicles. The test procedure for trucks, truck tractors, and buses with a manufacturer's gross vehicle weight rating of less than 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 4-6, 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.

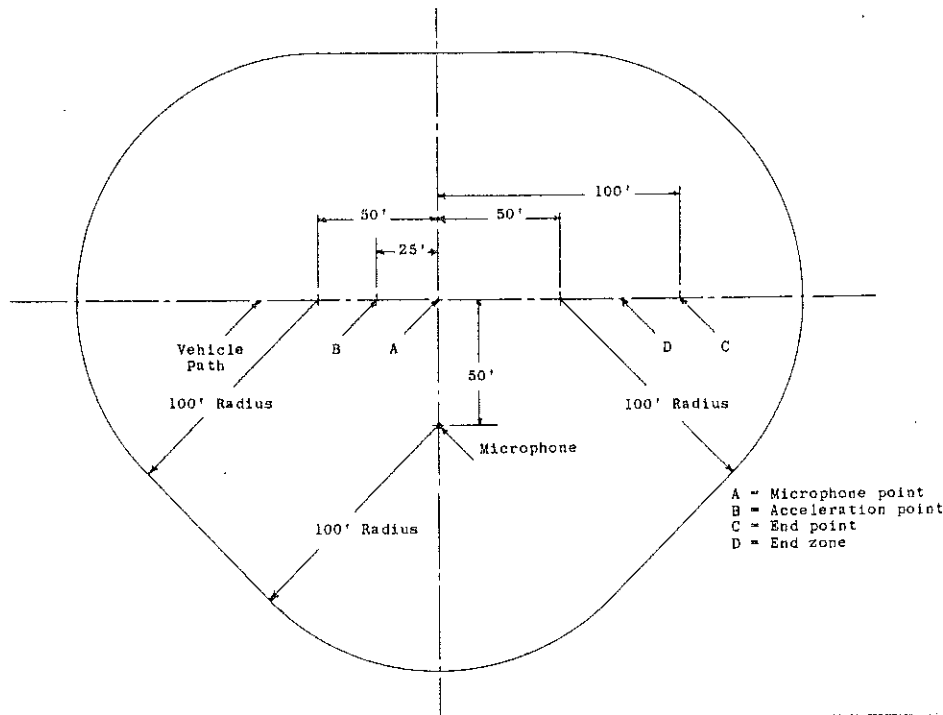


Figure 4-6. Test Area Layout for Passenger Cars

- (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 tests during acceleration] a stabilized engine speed (rpm) the same as the maximum engine speed attained during the acceleration test and in the same gear. This approach speed is rated engine speed, if attained in the acceleration test made, or the average of the terminal engine speed values at the end of the end zone as determined from the acceleration test. When the front of the vehicle [reference point] reached the [microphone] acceleration point, the throttle shall rapidly be closed and the vehicle allowed to decelerate to [less than 1/2 of maximum rpm] one-half the approach speed or until the front of the vehicle reaches the end of the end zone.
- (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.

4.5.8 Motorboats. The test procedure for motorized water craft (motorboats) shall be as follows:

- (1) Test Area Layout. A suitable test site is a calm body of water, large enough to allow full-speed pass-bys. The area around the microphone and boat shall be free of large obstructions, such as buildings, boats, hills, large piers, breakwater, etc., for a minimum distance of 100 ft. (30 m). Three markers (buoys or posts) will be placed in line, 50 ft. (15 m) apart, to mark the course the boat is to follow while being tested.
- (2) Test Procedure. The boat shall pass all three markers on a straight course at wide-open throttle with the engine operating at the midpoint of the manufacturer's recommended full-throttle rpm range. The engine speed tolerance shall be  $\pm 100$  rpm if this falls in the recommended full-throttle

speed range. If a single top speed rpm is recommended, the tolerance shall be +0, -100 rpm.

- (3) Measurements. The microphone shall be placed 50 ft (15 m) from the line determined by the three markers, normal to the line and opposite the center marker. It will also be placed 3 1/2 - 4 1/2 ft (1.1 - 1.4 m) above the water surface, and no closer than 2 ft (0.6 m) from the surface of the dock or platform on which the microphone stands, as near to the end of the dock as possible or overhanging the end of the dock. Measurements shall be taken while the boat is passing no more than three (3) feet (0.9 m) on the far side of all three markers.

## 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  $\pm$  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 falling precipitation affects results [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 windscreen 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 occur (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.

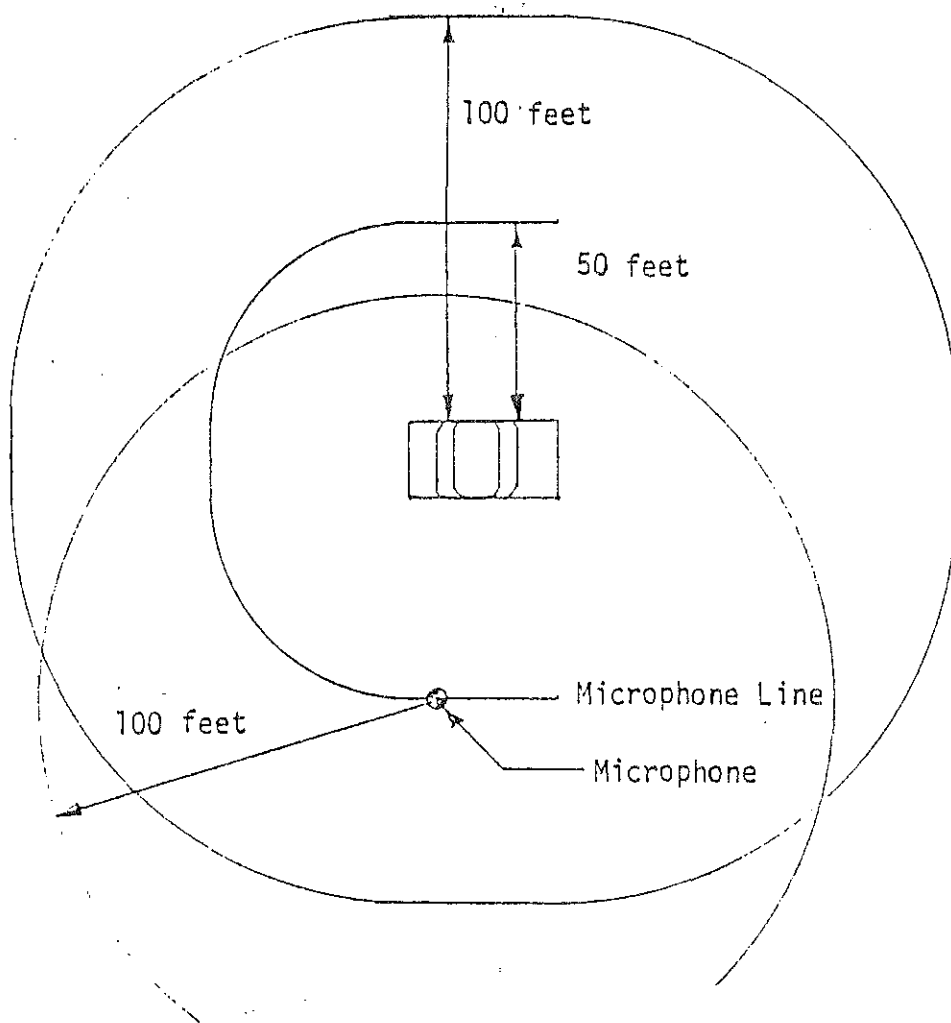


Figure 5-1. Auxiliary Equipment  
Measurement Site

- 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                                                                                                                                                                     |                      |                                                                                                                                                 |                         |                                                                                                                                                                    | DEPARTMENT OF ENVIRONMENTAL QUALITY                                                                                                                              |                        |                     |            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------|------------|
| YEAR                                                                                                                                                                                               | EQUIPMENT MAKE       |                                                                                                                                                 | EQUIPMENT TYPE          |                                                                                                                                                                    | LICENSE NO.                                                                                                                                                      |                        | MODEL               |            |
| REGISTERED OWNER                                                                                                                                                                                   |                      |                                                                                                                                                 | ADDRESS                 |                                                                                                                                                                    |                                                                                                                                                                  |                        |                     |            |
| DRIVER                                                                                                                                                                                             |                      | D.L. NO.                                                                                                                                        |                         | ADDRESS                                                                                                                                                            |                                                                                                                                                                  |                        |                     |            |
| ENGINE TYPE                                                                                                                                                                                        | Primary<br>Secondary | HP                                                                                                                                              | ENGINE DISPLACEMENT     |                                                                                                                                                                    | LOCATION                                                                                                                                                         |                        | EQUIP. MILEAGE/YRS. |            |
| EXHAUST OUTLET                                                                                                                                                                                     |                      | CHECK POSITION AND SIZE OF OUTLET                                                                                                               |                         | RESONATORS                                                                                                                                                         | MUFFLER TYPE                                                                                                                                                     |                        |                     |            |
| <input type="checkbox"/> Single <input type="checkbox"/> L. Side <input type="checkbox"/> Rear<br><input type="checkbox"/> Dual <input type="checkbox"/> R. Side <input type="checkbox"/> Vertical |                      | <input type="checkbox"/> Straight <input type="checkbox"/> 45° to rear<br><input type="checkbox"/> 45° to Side <input type="checkbox"/> ___ dia |                         | <input type="checkbox"/> Single<br><br><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 |
|                                                                                                                                                                                                    |                      |                                                                                                                                                 |                         |                                                                                                                                                                    | Sketch in this space the measurement site peculiarities, and using the proper symbols indicate the direction of wind, vehicle orientation and reading locations. |                        |                     |            |
|                                                                                                                                                                                                    |                      |                                                                                                                                                 |                         |                                                                                                                                                                    |                                                                                                                                                                  |                        |                     |            |
|                                                                                                                                                                                                    |                      |                                                                                                                                                 |                         |                                                                                                                                                                    |                                                                                                                                                                  |                        |                     |            |
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|                                                                                                                                                                                                    |                      |                                                                                                                                                 |                         |                                                                                                                                                                    |                                                                                                                                                                  |                        |                     |            |
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|                                                                                                                                                                                                    |                      |                                                                                                                                                 |                         |                                                                                                                                                                    |                                                                                                                                                                  |                        |                     |            |
|                                                                                                                                                                                                    |                      |                                                                                                                                                 |                         |                                                                                                                                                                    | Key: WIND DIRECTION ---><br>VEHICLE <---><br>MICROPHONE LOCATION NO. >                                                                                           |                        |                     |            |

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.

These procedures are used to conduct emission tests on automobiles, light trucks under 8,000 pounds GVWR, motorcycles and motorboats containing atmosphere terminating exhaust systems. Standards for these vehicles are found in Tables 2 and 4 of OAR 340-35-030.

- 6.2 Initial Inspection.

- 6.2.1 Subjective Evaluation. Before a vehicle is tested according 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 35-030 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 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 and results are not affected.
- 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.
- 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 S1.4-1971.
- 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.
- 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 the manufacturer's 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 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 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  $45 \pm 10$  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  $\pm 100$  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, NPC-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 in<sup>3</sup>)

(ii) 2800 RPM  $\pm$  100 RPM for motorcycles with total cylinder displacement greater than 950 cc (58 in<sup>3</sup>)

c) Trucks and Buses. To be determined.

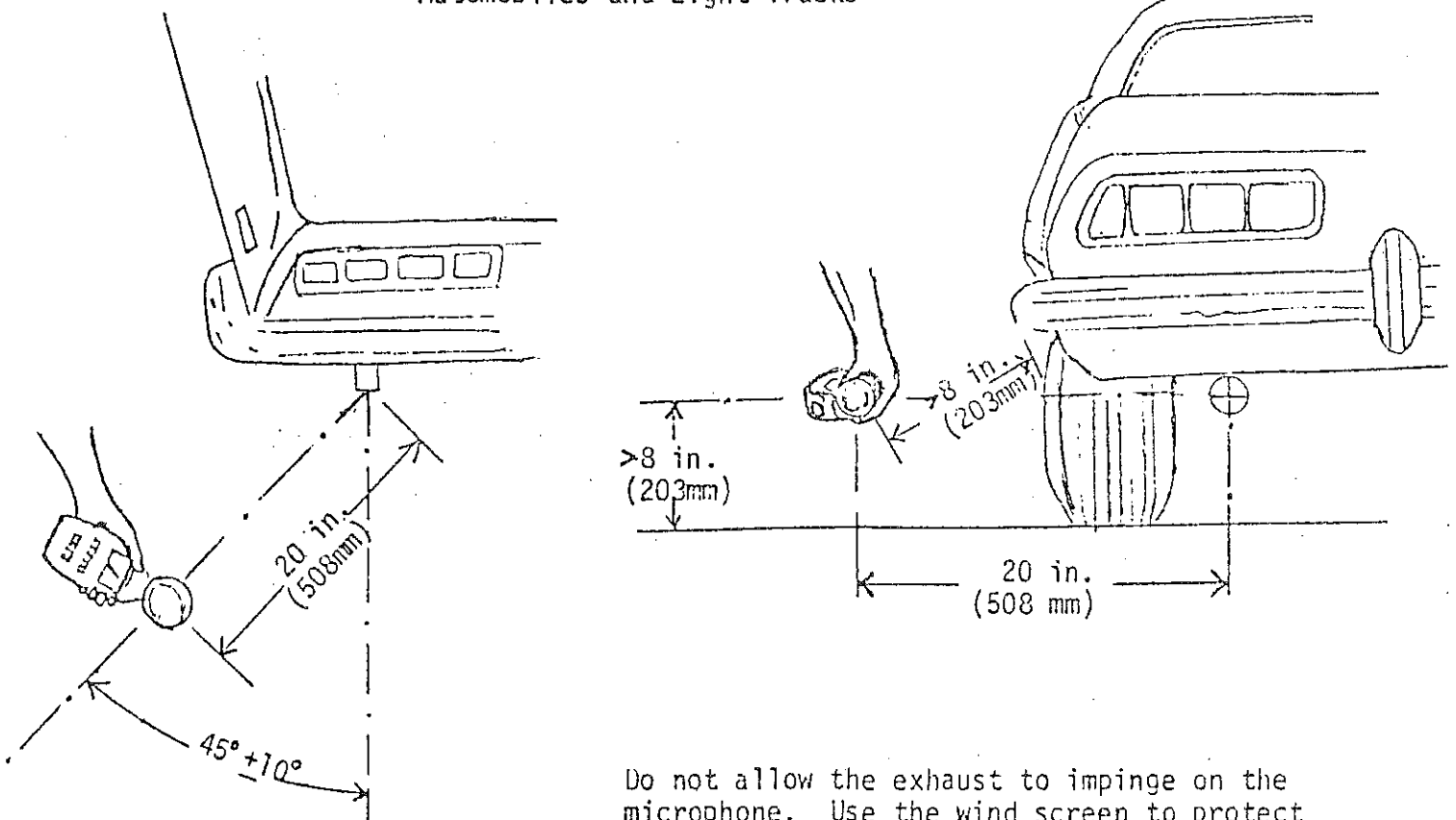
6.5.6 Reported Sound Levels. The reported exhaust system sound level reading shall be the highest reading obtained during the test, exclusive of peaks due to unrelated ambient noise or extraneous impulsive type noise obtained during the acceleration or deceleration portion of the test. When there is 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.

| Sound Level Meter Type | Allowable Exceedance |
|------------------------|----------------------|
| ANSI Type 1            | 1 dBA                |
| ANSI Type 2            | 2 dBA                |

Figure 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.

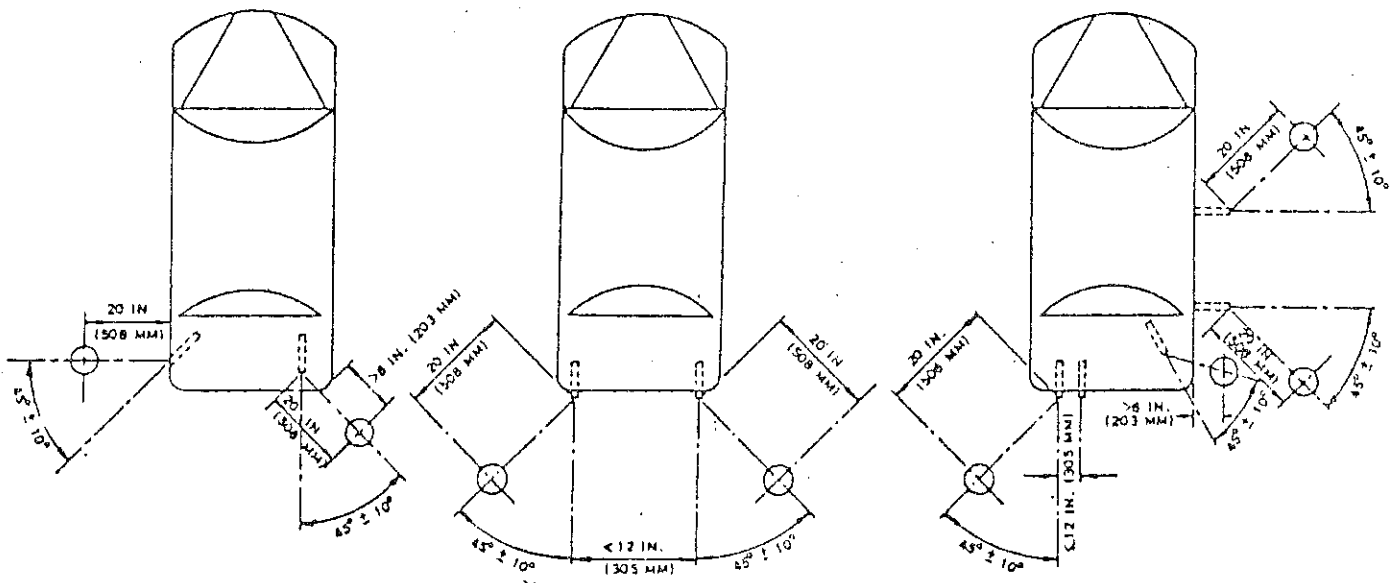
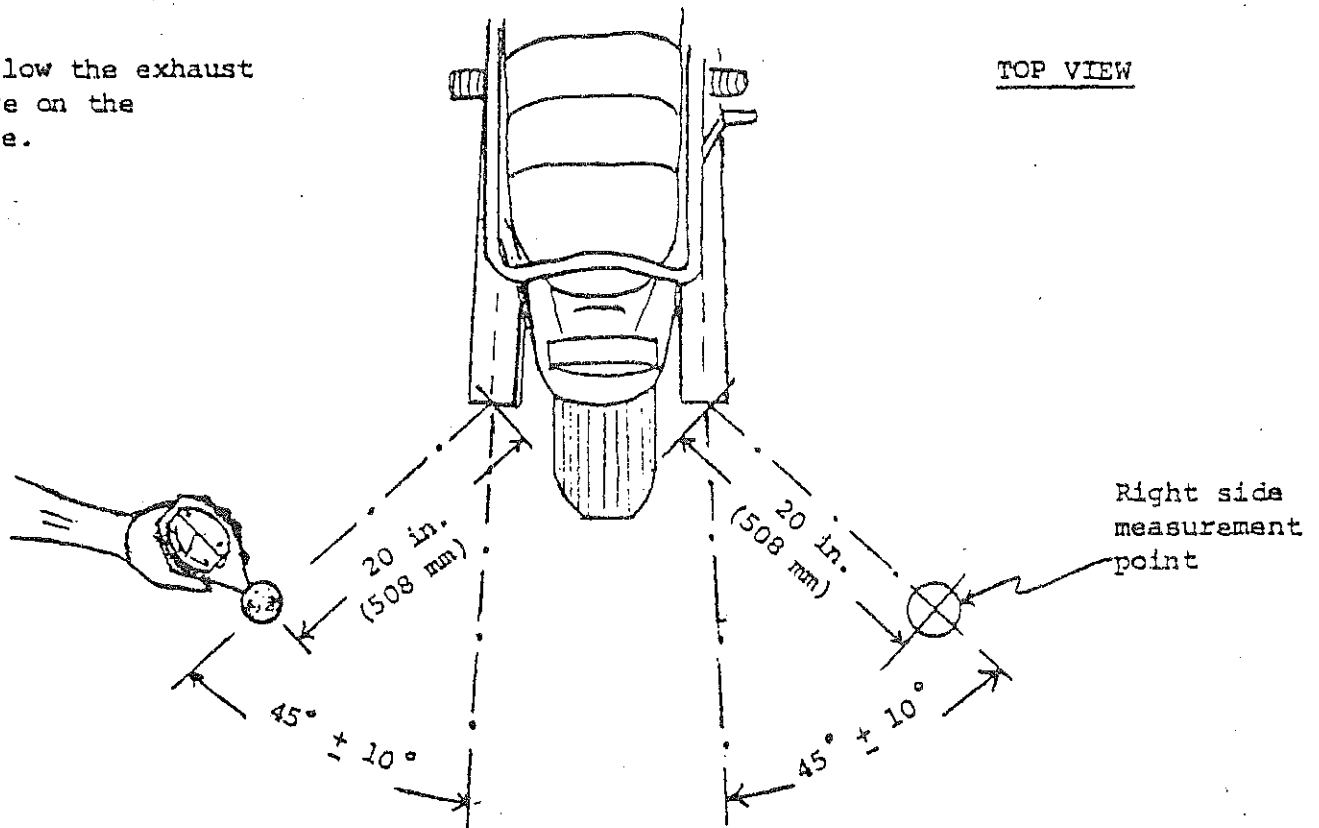


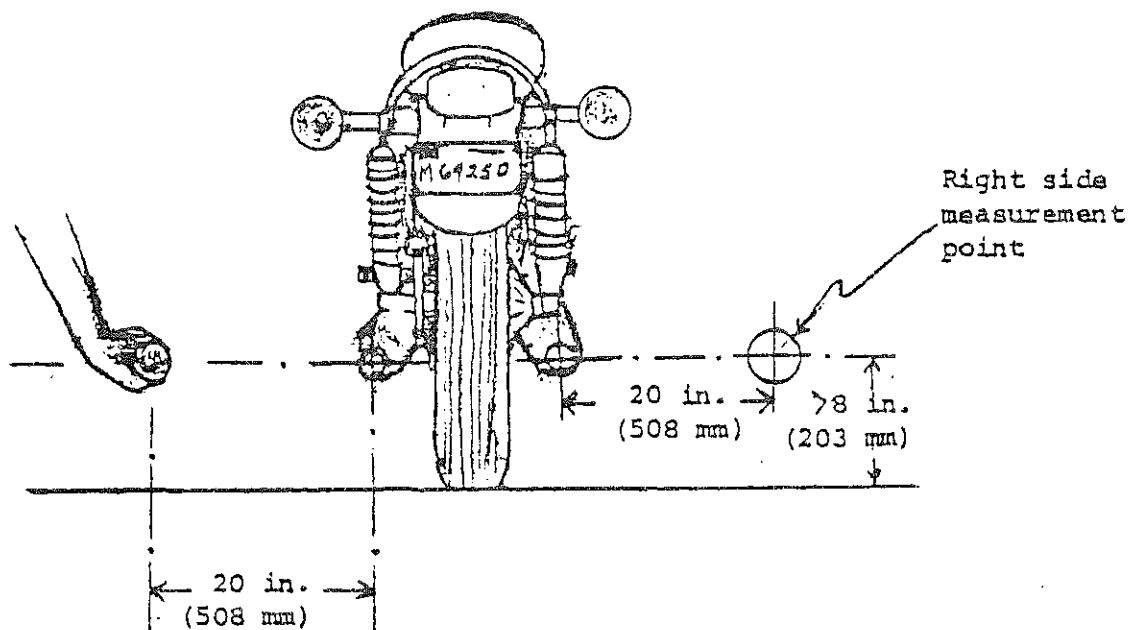
Figure 6.2  
Microphone Placement for  
Motorcycles

o not allow the exhaust  
o impinge on the  
icrophone.



or exhaust outlets on both sides, measure both and report the highest of the two readings.

Rear View





MOTOR RACE  
VEHICLE AND FACILITY  
SOUND MEASUREMENT  
AND  
PROCEDURE MANUAL

ADOPTED NOV. 1980

PROPOSED AMENDMENTS

April 1983

Proposed additions are underlined.

Proposed deletions are [bracketed].

Index of Proposed Amendments  
Procedure Manual NPCS - 35

| <u>Page No.</u> | <u>Paragraph</u> | <u>Description</u>                                           |
|-----------------|------------------|--------------------------------------------------------------|
| 4-5             | 3.4.2            | Deleted muffler length requirements on all but drag vehicles |
| 5               | 3.4.3            | Deleted muffler length requirements on all but drag vehicles |
| 23              | Fig.5-4          | Deleted muffler length for all but drag vehicles             |
| 24              | Fig.5-4          | Deleted muffler length for all but drag vehicles             |

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## CHAPTER 1

### INTRODUCTION

- 1.1 Policy.
- 1.1.1 The Environmental Quality Commission (EQC), through the Department of Environmental Quality (DEQ) shall establish a noise measurement program to implement the laws and regulations applying to Motor Sports Vehicles and Facilities.
- 1.1.2 The person owning or controlling the motor sports facility shall be responsible for compliance with the Oregon Noise Control Regulations for Motor Sports Vehicles and Facilities (OAR 340-35-040).
- 1.1.3 This manual contains procedures to be followed in complying with the Motor Sports Vehicles and Facilities Noise Control Regulations. Guidance is provided in the "Notes" and "Comments".
- 1.2 Authority. The statutory and administrative law governing authority which provide guidance and direction for this manual are contained in:
- a) Oregon Revised Statutes, Chapter 467
  - b) Oregon Administrative Rules for Noise Control
    - i) OAR 340-35-005 Policy
    - ii) OAR 340-35-010 Exceptions
    - iii) OAR 340-35-015 Definitions
    - iv) OAR 340-35-040 Noise Control Regulations for Motor Sports Vehicles and Facilities
    - v) OAR 340-35-100 Variances
- 1.3 Noise Regulations for Motor Sports Vehicles and Facilities. The DEQ Noise Control Regulations for Motor Sports Vehicles and Facilities contain two basic requirements for racing vehicles:
- 1) Vehicles shall be equipped with a "properly installed and well maintained muffling" system; and
  - 2) Vehicles shall not exceed the maximum allowable noise emission limits for that vehicle.
- Facilities located over two miles from the nearest "noise sensitive property" (residences) and/or any Top Fuel Burning Drag race vehicles are exempt from the above requirements due to lack of available control technology.
- 1.4 Penalties. The motor sports facility and racing vehicle owner is subject to penalties set forth by the Environmental Quality Commission in OAR 340-12-052, Noise Control Schedule of Civil Penalties, for violation of the Noise Control Regulations for Motor Sports Vehicles and Facilities. Penalties may be as great as \$500 for each violation.

1.5 General Vehicle Inspection Procedure. As stated in the policy section, the facility owner is required to inspect the race vehicles for compliance with the noise regulations. The following general procedures shall be followed when inspecting race vehicles:

1. Prior to a racing event (normally during the technical inspection of the vehicle), the facility owner shall inspect the muffler system to determine if the vehicle has a "properly installed and well maintained muffling" system (see Chapter 3).
2. If the vehicle has failed to meet the muffler requirements during the above inspection, then the race vehicle does not comply with the regulations and must therefore install a "properly installed and well maintained muffling" system.
3. If the vehicle meets the muffler requirements, then the vehicle (except for a drag race vehicle) shall be sound measured to determine if it meets the maximum allowable noise emission limits.

Vehicles other than motorcycles shall be noise tested while moving around the course (preferably during practice sessions). Open course motorcycles shall be tested while stationary (normally during technical inspection after the muffler inspection). Closed course motorcycles shall be tested while either stationary or moving at the option of the facility owner. (See Chapter 4 and 5).

4. If the vehicle has failed to meet the maximum allowable noise emission limits, then the vehicle does not comply with the regulations and the muffling system must be improved to comply with the emission standards.
5. All vehicles who fail to meet either the muffler requirements or the maximum allowable noise emission limits shall be recorded on Form NPC-35-1.

## CHAPTER 2

### TRAINING

- 2.1 Sound Measurement Equipment. Prior to a race event, the person(s) designated to inspect racing vehicles for compliance with the noise control regulations shall become familiar with the sound measurement equipment (this person will be referred to in this procedure manual as the Noise Control Steward or NCS). The Noise Control Steward shall have read the manufacturer's instruction manual for the sound equipment. The NCS also shall have sufficient hands-on experience to feel comfortable operating the equipment.
- 2.2 Noise Control Racing Rules and Procedure Manual. The Noise Control Steward shall have a good working knowledge of the Department of Environmental Quality Noise Control Standards for Motor Sports Vehicles and Facilities (OAR 340-35-040) and its companion document the Sound Measurement Procedure Manual (NPCS-35).
- 2.3 Race Vehicle and Facility. The Noise Control Steward shall have a good working knowledge of the racing vehicles and facility being monitored. This includes:
  - a) Knowing the driving characteristics of the race vehicles,
  - b) Knowing the layout of the track, and
  - c) Knowing the requirements for approved racing muffler systems.

This information will be useful in locating the proper measurement sites and for inspecting vehicles.

## CHAPTER 3

### MUFFLER SYSTEMS

- 3.1 General. The DEQ regulation requires all types of race vehicles (except Top Fuel Burning Drag vehicles) to be equipped with a "properly installed and well maintained muffling" system. During the vehicle inspection prior to the racing event, the vehicle's muffling system shall be visually inspected by the Noise Control Steward. If the muffling system fails to meet the DEQ muffler requirements, then the vehicle shall not operate at the race facility until the muffling system complies. This chapter describes the procedures for visual inspection of the vehicle's muffling system.
- 3.2 Top Fuel Burning Drag Vehicles. Drag vehicles operating on more than 50% alcohol fuel or on nitromethane are defined as Top Fuel Burning Drag vehicles and are commonly known as Funny cars and Top Fuel cars. Due to the lack of muffler technology needed to quiet this vehicle class, they are not required to have a muffler system under this rule.
- 3.3 "Properly Installed" Mufflers. A properly installed muffling system is:
- a) Correctly installed per manufacturer's instructions,
  - b) Fully functional,
  - c) Has no leaks or holes in the walls of the exhaust tubing and muffler body, and
  - d) Has no defect or modifications to reduce its sound reduction capabilities.
- 3.4 "Well Maintained Muffler" Systems. The DEQ noise regulations specifically state what constitutes a "well maintained muffler" system. If "properly installed" and "well maintained," the following systems meet the requirements of the rule. Note that each and every exhaust outlet must have a muffler located upstream from the outlet.
- 3.4.1 Reverse Flow (Baffle) Mufflers. See Figure 3-1 for examples of reverse flow mufflers. The reverse flow devices incorporate a multitube and baffled design. The exhaust gases do not flow straight through these devices, but take a multipath, back and forth route through the device.
- 3.4.2 Perforated Straight Core with Sound Absorbing Medium. See Figure 3-2 for examples of the perforated straight core with sound absorbing medium mufflers. In order for a straight core device to comply with the requirements, it must meet all the following criteria:
- a) The central core tube shall be perforated,
  - b) The core shall be fully surrounded from beginning to end with an absorbing medium (e.g., fiberglass, steel wool, etc.).
  - c) The muffler shall not be installed on a rotary engine, and
  - d) The muffler shall meet the following length requirements when used on any drag racing vehicle:

- (i) For any engine exceeding 1600 cc (96.7 cu. in.) displacement, the muffler shall be at least 20 inches (50.8 cm) in inner core length; or
- (ii) For any non-motorcycle engine equal to or less than 1600 cc (96.7 cu. in.), the muffler shall be at least 12 inches (30.5 cm) in inner core length; or
- (iii) For any four-cycle motorcycle engine, the muffler shall be at least six inches (15.24 cm) in inner core length; or
- (iv) For any two-cycle motorcycle engine, the muffler shall be at least eight inches (20.32 cm) in inner core length.

Note: The "inner core length" means the length of the main body of the muffler, not including the exhaust tubing leading to and from the main body of the muffler (see Figure 3-2).

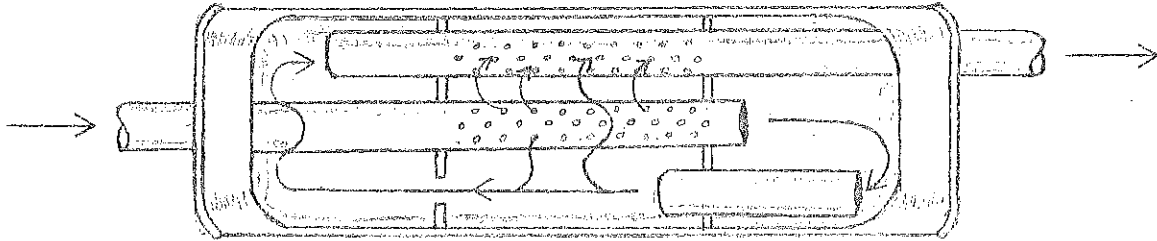
- 3.4.3 Annular Swirl Flow (Auger-Type) Mufflers. See Figure 3.3 for an auger type muffler. The exhaust gases in the annular swirl flow muffler follows a circular path down the length of the muffler. The inner design is like an auger. In order for these devices to comply with the noise requirements, they shall meet the following length requirements when used on any drag race vehicles:
  - a) For any engine exceeding 1600 cc (96.7 cu. in.), the muffler swirl chamber shall be at least 16 inches (40.64 cm) in length; or
  - b) For any engine equal to or less than 1600 cc (96.7 cu. in.), the muffler swirl chamber shall be at least 10 inches (25.4 cm) in length.
- 3.4.4 Stacked 360° Diffuser Disc Mufflers. See Figure 3-4 for an example of a Diffuser Disc muffler. This type of muffler works by causing the exhaust gases to bend 90° and then flow through the stacked 360° diffuser discs.
- 3.4.5 Turbocharger. A turbocharger is an exhaust gas driven supercharger. Turbochargers meet the requirements for a "well maintained muffler" system. However, superchargers mechanically driven by the engine are not defined as a "well maintained muffler" system and thus do not meet DEQ muffler requirements.
- 3.4.6 Go-Kart Mufflers. Go-Karts must be equipped with a muffler as specified by the International Karting Federation. See Figure 3-5 for the specifications on go-kart mufflers.
- 3.4.7 Original Manufacturers Muffler on a Motorcycle. The original muffling equipment installed on a motorcycle and designated for use on the motorcycle by the manufacturer, meets the DEQ muffler requirements. The original motorcycle mufflers are generally of reverse flow, baffle and perforated straight core designs.
- 3.4.8 Underwater Exhausted Outboard Boat Motors. Watercraft with [out-board boat] motors whose exhaust exits beneath the water

surface during operation are defined as a "well maintained" muffler and meet the DEQ muffler requirements.

- 3.4.9 Other Approved Muffling Devices. Any other muffling device demonstrated effective and approved by the Motor Sports Advisory Committee and the Department of Environmental Quality will then be designated a "well maintained muffler" system.
- 3.5 Other Not Approved Devices. Other devices not meeting the criteria outlined in Section 3.1 to 3.4.9 for a "properly installed and well maintained muffling" system are illegal and shall not be used on vehicles operating at any Motor Sports Facility; except where specific exemption, exception and/or variances apply.
- 3.6 Form NPC-35-1. Form NPC-35-1 contains a condensed version of the information outlined in this chapter. Also, the form contains space for a description of the muffling system and whether it passed or failed the "properly installed" and "well maintained muffling" system requirements.

Fig. 3 - 1 Reverse Flow, Baffled Mufflers

Typical Baffled Muffler



Other Baffled Muffler Designs

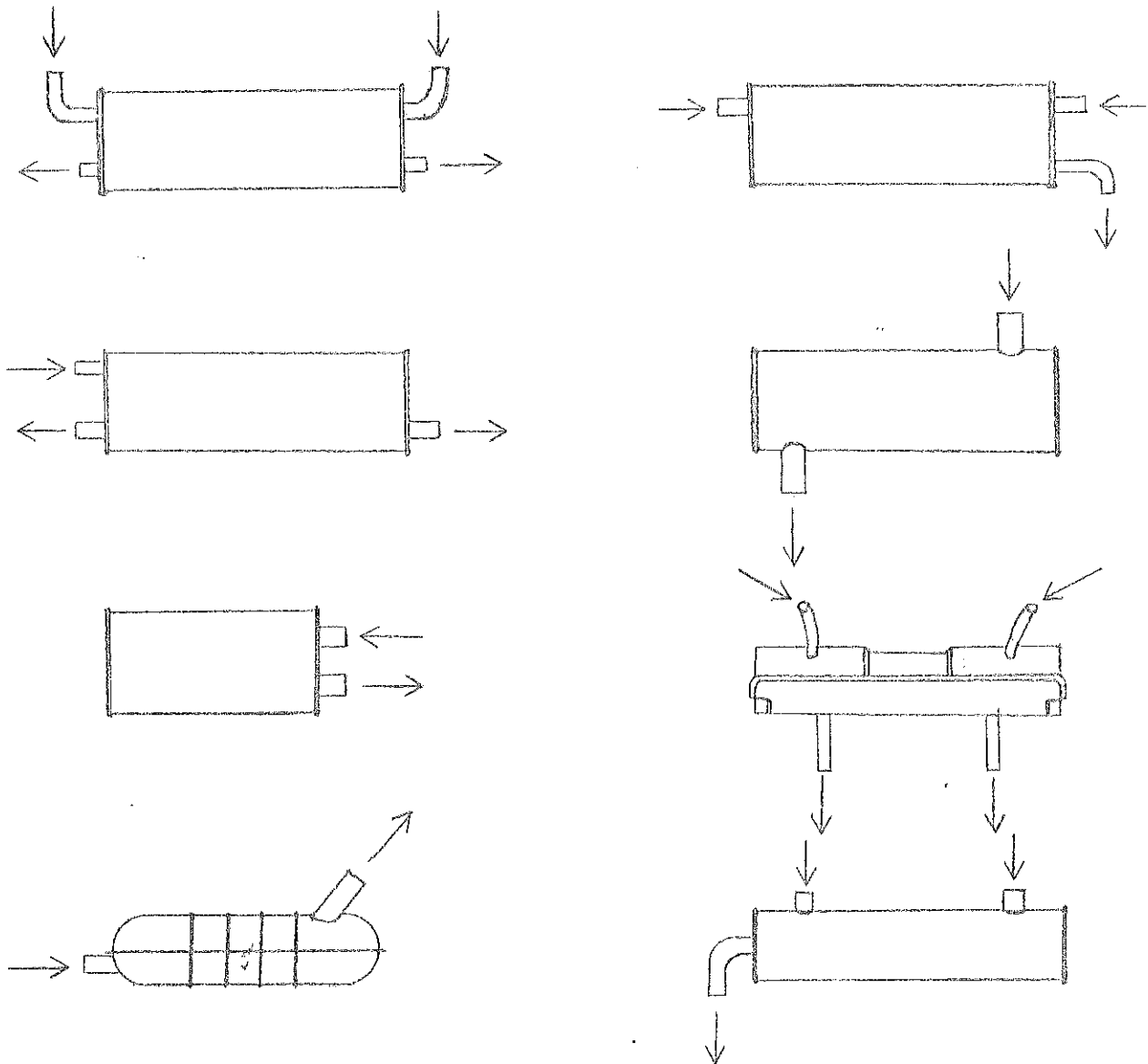
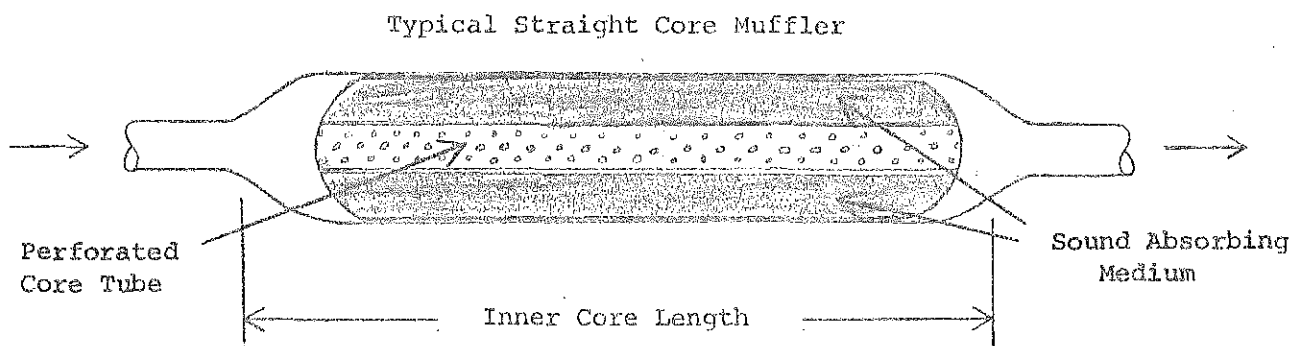


Fig. 3 - 2 Perforated Straight Core Muffler



Another Type of Straight Core Muffler

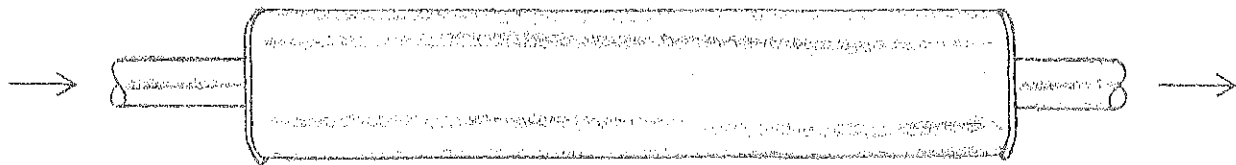


Fig. 3 - 3 Annular Swirl Flow (Auger-Type) Muffler

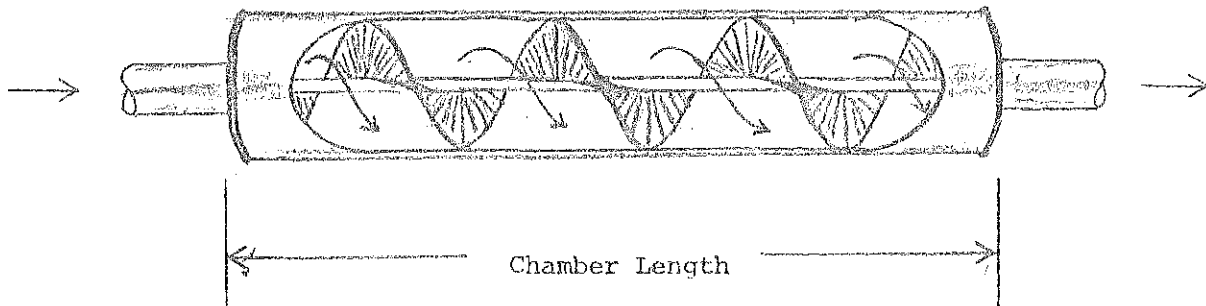


Fig. 3 - 4 Stacked 360° Diffuser Disc Muffler

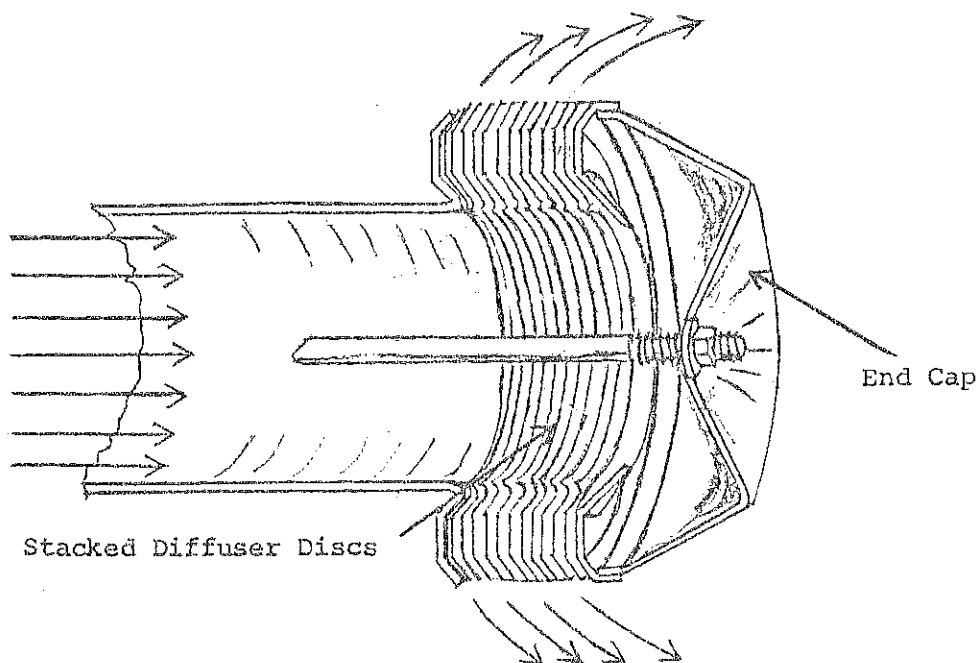
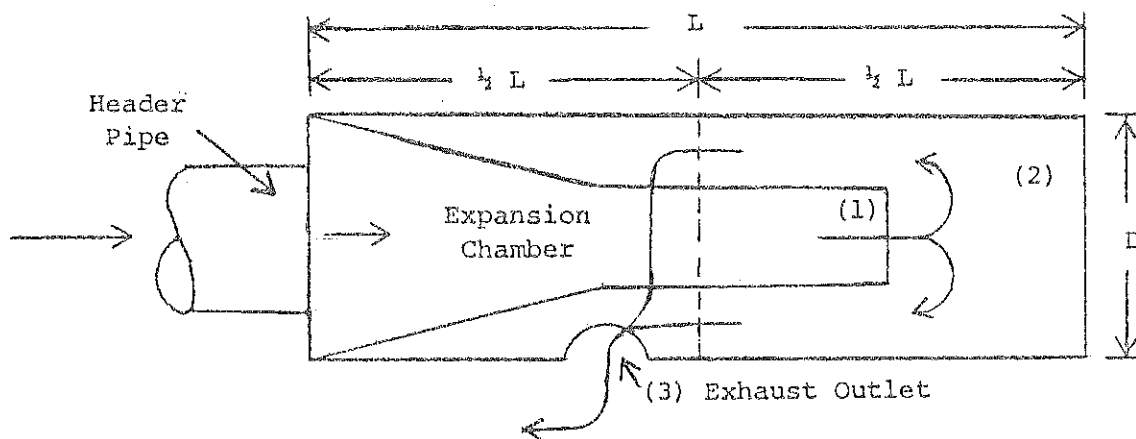


Fig. 3 - 5 Go-Kart Muffler Requirements



All go-kart exhaust systems shall be equipped with a muffler meeting the following specifications:

- a) No minimum or maximum muffler length (L) or diameter (D) is required.
- b) The expansion chamber must outlet (1) into the rear half of the muffler (2), that portion farthest from the header pipe.
- c) The exhaust gas outlet hole to atmosphere (3) may be of any shape, but shall not exceed .7854 sq. inches or the equivalent of a 1-inch diameter circle. Two 1-inch diameter, or smaller, exhaust outlet holes may be used on a single cylinder, 270 cc open class go-kart engine. This applies only to large displacement single cylinder engines in the 270 cc open class. If more than one outlet hole is used on a 270 cc single cylinder engine, no more than two holes may be used, both must be round, and neither hole may exceed 1-inch diameter.
- d) Multiple exhaust gas outlet holes to atmosphere are preferred.
- e) There may be no physical connection between the expansion chamber outlet (1) and the exhaust gas hole to atmosphere (3).
- f) Adjustable pipes are not legal in sprint racing of go-karts.

## CHAPTER 4

### INSTRUMENTATION

- 4.1 General. This chapter describes the requirements for the sound measurement equipment and its use.
- 4.2 Sound Level Meter. All sound level meters used in monitoring compliance with the noise regulations at motor racing facilities shall be equipped with:
- a) An "A" weighting electronic network,
  - b) A meter response similar to ANSI "Fast" and ANSI "Slow".  
(Depending on the type of measurement procedure.)
  - c) A battery voltage indicator, and
  - d) Adequate measuring range to test race vehicles.
- Such sound level meters shall also:
- a) Conform to minimum specifications set forth in American National Standard Institute (ANSI) Standards Number S1.4-1971 for type 2 sound level meters, or
  - b) Shall be an Oregon Department of Environmental Quality approved sound level meter for use in measuring racing vehicles for the purpose of this rule.
- 4.3 Sound Level Meter Calibration.
- 4.3.1 Field Calibration. To assure sound measurement accuracy in the field, DEQ recommends that the measurement equipment include an acoustical calibrator which couples to the microphone. Sound meters should be field calibrated before and after, and every two hours during vehicle monitoring. Consult the sound meter's manufacturer's instruction manual for proper calibration procedures.
- 4.3.2 Annual Calibration. Every year the sound meter and calibrator should receive a laboratory calibration in accordance with manufacturer's specifications. This calibration should be traceable to the National Bureau of Standards.
- 4.4 Accessories. The following accessories are valuable in gathering sound measurements:
- a) A microphone wind screen (see Section 4.5)
  - b) Motor Racing Record Forms (NPCS-35-1)
  - c) Clipboard
  - d) Tripod to hold the sound level meter
  - e) Spare batteries
  - f) Screwdriver for sound meter calibration
  - g) A tape measure
  - h) Ear protectors
  - i) A tachometer for stationary noise testing

- 4.5 Sound Measurement Precautions.
- 4.5.1 Wind. Wind blowing on the microphone can create additional noise in the sound meter. To minimize wind noise, a windscreen on the microphone is recommended whenever measurements are taken. The windscreen should be furnished with the meter by the manufacturer and made of open cell polyurethane foam. This type of windscreen will protect the microphone from wind, dust, accidental shocks, and moisture, while not affecting the sound measurements. Consult the sound meter instruction manual for more details.
- 4.5.2 Precipitation. Water can damage microphone diaphragms. Hence, the microphone should be protected from moisture at all times. The wind screen will protect the microphone during all but the heaviest rain showers.
- 4.5.3 Background Sound Levels. Sounds from other vehicles or activities can affect sound level measurements made during race vehicle monitoring. To avoid this, it is recommended that the sound level of the race vehicle being measured rise at least 6 dBA before and fall at least 6 dBA after the maximum sound level occurs.
- 4.6 Equipment Set Up and Use.
- 4.6.1 Calibration. The meter should be periodically field calibrated as outlined in section 4.3.1 and following the manufacturer's instruction manual.
- 4.6.2 Battery Check. The batteries in the sound meter and calibrator are to be checked whenever performing field calibrations.
- 4.6.3 "A"-Weighting. The "A"-weighting electronic network on the meter is to be engaged and used during vehicle testing (i.e., not the "B", "C", "D", or flat networks).
- 4.6.4 "Fast" and "Slow". For the moving vehicle test, the fast meter response network is to be engaged and used during testing. For the stationary vehicle test, the slow meter response is to be engaged and used during testing.
- 4.6.5 Microphone Height. The microphone shall be placed on a tripod if an extension cable is used. If a cable is not used, the sound meter with the microphone attached may be hand held or placed on a tripod. Ideally, the microphone should be positioned  $4 \pm 1/2$  feet ( $1.2 \pm .15$  meters) above the ground or water for the moving test and at the same height as the exhaust outlet for the stationary test. See Chapter 5 for more details.
- 4.6.6 Microphone Orientation. Care should be taken to correctly orient the microphone to the race vehicle. Some microphones are designed to be pointed directly at the noise source, while others are designed to be pointed perpendicular to the sound so that

the sound grazes the microphone diaphragm. Consult the sound meter instruction manual for the proper microphone orientation.

- 4.6.7 Personnel Location. Care should be exercised to prevent interference with sound measurements caused by personnel in the measuring area. No person should stand between the race vehicle and the sound meter. The person taking sound measurements should stand back from the microphone as much as possible and to one side of the sound path. This will minimize sound reflections off the body. Consult the manufacturer's instruction manual for more details. Bystanders should stand behind the test personnel to minimize body reflections.
- 4.6.8 Range Setting. Set the meter to the appropriate range to measure the anticipated sound level.

## CHAPTER 5

### SOUND MEASUREMENT SITES AND PROCEDURES

- 5.1 General. The DEQ noise regulations for motor sports facilities require all race vehicles , except for drag vehicles, to meet specific maximum allowable sound emission limits. Also the noise regulations specify the type of noise test procedures to be followed. The non-motorcycle race vehicle categories are only noise tested while moving about the race course. Open course motorcycles are tested only while stationary. Closed course motorcycles are tested either while moving or while stationary at the option of the Noise Control Steward.

For the moving vehicles noise test, the vehicle is first inspected to determine if it complies with the muffler requirements (See Chapter 3). If the muffler complies, then the vehicle can be allowed to operate on the facility for practice runs prior to the race event. During these practice runs, the Noise Control Steward shall take sound measurements to determine if the vehicle complies with the noise emission limits. If it fails the emission limits, then the vehicle shall not be allowed to operate further on the facility until the emissions are lowered. Section 5.2 describes the moving vehicle sound measurement procedures.

For the stationary vehicle test, the muffler system is first inspected for compliance with the muffler requirements. If it complies, then the vehicle is stationary noise tested, per the test procedures in Section 5.3. If the vehicle fails the muffler requirements and/or the noise emission limits, it shall not be allowed to operate on the race facility until it complies.

#### 5.2 Moving Vehicle Sound Measurement Procedure.

- 5.2.1 Microphone Height. Ideally, the sound measurement area for the moving vehicle test should be flat and the microphone positioned  $4 \pm 1/2$  feet ( $1.2 \pm .15$  meters) above the plane of the ground or water surface. In practice, this is sometimes difficult to achieve. Figure 5-1 shows some acceptable microphone heights. In general, the NCS should maintain at least 3-1/2 feet of line-of-site clearance between the microphone and the vehicle above the surrounding ground terrain.
- 5.2.2 Blockage of the Sound Path. The ideal moving vehicle measurement site is shown in Figure 5-2. The ideal site is flat and is clear of objects within the area between the vehicle path and the microphone position for a distance of 100 feet (30.5 meters) in each direction along the track. Objects located within the measurement area between the vehicle and the microphone can potentially influence the sound level measurements. Any site where an object "significantly" blocks the sound path is not a legitimate test site and shall not be used for monitoring compliance with the noise standards for racing facilities.

At most moving vehicle test sites, there will be something located within the measurement area that may block sound (i.e., Armco safety barriers, hay bales, fences, bleachers, other race vehicles, trees, piles of dirt, etc.). Fortunately, not everything will "significantly" block the sound path. If the following conditions are met, then a moving vehicle test site is not "significantly" blocked and is therefore an acceptable test site:

- 1) In general, there must be good line-of-sight clearance between the microphone and the vehicle exhaust outlets (excluding shielding by the vehicle body) for most of the vehicle's pass by. More precisely, the line-of-sight view of exhaust outlets must be at least 80% open area during the pass by, and
- 2) The area immediately in front of the microphone must be clear of obstruction.

If the Noise Control Steward has any doubts about the site, then choose an alternate measurement site.

5.2.3 Reflective Surfaces. Objects with large flat surfaces (excluding the ground or water surface) which are basically parallel to the track and located behind the microphone or on the other side of the track, can increase the measured sound level. The ideal moving vehicle measurement site has no reflective surfaces located in an area less than 100 feet (30.5 meters) from the microphone and the microphone point (see Figure 5.2). Since an ideal site with no reflective surfaces is not always available, then the next best thing is to not measure at sites where reflective surfaces are less than the following distances away from the microphone or the race vehicle:

- a) 10 feet (3.0 meters) for the 50 ft. (15.24 m) measurement sites, or
- b) 20 feet (6.0 meters) for the 100 ft. (30.5 m) measurement sites.

5.2.4 50 Ft. Trackside Measurement Point. The DEQ noise regulations for racing facilities specifies a moving vehicle sound measurement position (microphone location) at "trackside." "Trackside" is defined as 50 feet (15.24 meters) from the edge race vehicle. For the purpose of this rule, this means the sound measurements shall be made 50 feet (15.24 meters) from the edge of the Driving Groove. The Driving Groove is the path that most race vehicles follow around the race course. In order to determine the driving groove, the Noise Control Steward must draw upon his knowledge of the race vehicles and the race course.

After the driving groove has been located, the NCS shall measure 50 feet (15.24 meters) from the edge and perpendicular to the driving groove. This is the position where sound measurements will be taken.

Note: It is recommended that a mark be placed at the edge of the driving groove, perpendicular to the microphone. This can be used to determine the location of each vehicle with respect to the 50 foot monitoring distance. (See

Section 5.4.2 for more details)

- 5.2.5 Alternate 100 ft. Trackside Measurement Point. If it is determined that a measurement at 50 ft. (15.24 meters) is unsafe or not feasible, then measurements may be taken at 100 ft. (30.5 meters) for the driving groove. If the 100 foot distance is used a 6 dBA correction shall be added to the observed sound reading or 6 dBA may be subtracted from the required maximum sound emission limits specified in the noise regulations. (The sound emission limits list in form NPCS-35-1 were adjusted.)
- 5.2.6 Choosing Loudest Moving Vehicle Measurement Location. Given the general test site constraints outlined in Section 5.2.1 to 5.2.5, many possible measurement locations are typically available at racing facilities. The moving vehicle standards require race vehicles not exceed a specified noise emission level under all operating conditions (acceleration, deceleration, cruising, full out, etc.). The Noise Control Steward shall therefore monitor for compliance with the moving vehicle limits at those measurement sites where the vehicle is producing its maximum noise levels.

Comment: The Noise Control Steward must measure at the noisiest site. A non-complying vehicle may pass or fail depending on the ability of the steward to choose the noisiest site. The owner of a vehicle that passes or fails due to improper measurement procedures will lose confidence in the validity and the need for the rules. In such a case, the Steward will have compromised the track, sanctioning organization, and the vehicle owner.

Generally, race vehicles produce their maximum noise levels when they are accelerating near the highest engine RPM. Determining the point of maximum sound emissions takes a knowledge of the vehicle and the race course. Even then, vehicles may need to be tested at several sites before a final test site is selected. Long, straight sections of the track tend to be noisier than the corners. Also, vehicles may be noisier on one side than the other, depending on the location of the exhaust outlet. Measurements shall be made on the noisiest side of the vehicle.

- 5.3 Stationary Vehicle Sound Measurement Procedure.
- 5.3.1 Test site. The test site should be relatively flat and free of loose or powdered snow, plowed soil, grass of height greater than 6 inches (.15 meters), brush, trees, or other extraneous material. Also the site should be free of large sound reflective surfaces (other than the ground) such as parked vehicles, sign boards, buildings, or hillsides; located within 15 ft. (4.6 meters) radius of the vehicle being tested.

- 5.3.2 Microphone Location. The microphone shall be located with respect to the rear most exhaust outlet on either side of the vehicle as follows:
- a) 20 inches  $\pm$  1/2 in. (0.5 meters  $\pm$  .01 m) from the exhaust outlet,
  - b) At a 45-degree angle ( $\pm$  10 degree), from the axis of the outlet,
  - c) At the same height as the exhaust outlet, and
  - d) With its longitudinal axis parallel to the ground.

Figure 5-3 shows the microphone location.

Note: For microphones designed for grazing noise measurement (see Section 4.6.6), point the microphone rearward away from the engine. Further no wire or other means of distance measurement shall be attached to the microphone. This may lead to erroneous readings.

- 5.3.3 Vehicle Operations. The rider shall sit astride of the motorcycle in a normal riding position with both feet on the ground. The engine shall be operated at the normal operating temperatures with gear box in neutral. If no neutral is provided the motorcycle shall be operated either with the rear wheel 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. (The preferred test procedure is listed first; the least preferred test procedure is last):
- a) The engine speed shall be stabilized at 50% (1/2) of the manufacturer's recommend maximum engine speed ("Red Line RPM"), or
  - b) If no "Red Line RPM" is published for the vehicle, then stabilize the engine speed at 60% of the engine speed at which maximum horsepower is developed, or
  - c) If neither "Red Line RPM" nor maximum horsepower RPM information is available, then calculate the test RPM from the following formulae:

$$\text{RPM} = \frac{306,000}{\text{stroke in mm}} \quad \text{or} \quad \text{RPM} = \frac{12,000}{\text{stroke in inches}}$$

- d) If engine test speed cannot be determined from steps a, b, and c above or if a tachometer is not available, then test the motorcycle at 1/2 of full open throttle.

Comment: During stationary noise testing, the Noise Control Steward should make certain the tachometer is accurately measuring the engine speed. Also do not allow the exhaust to impinge on the microphone.

## 5.4 Sound Measurements

- 5.4.1 Preliminary Steps. The following steps should be followed before taking sound measurements.
- a) Check battery
  - b) Calibrate sound meter
  - c) Switch meter to "A" weighting scale.
  - d) Set meter to correct a range setting
  - e) Windscreen - on
  - f) No significant blockage of the sound path
  - g) No reflective surfaces
  - h) Test personnel located correctly behind meter
  - i) No significant background noises.
  - j) For moving vehicle sound testing:
    - \* Select the loudest measurement site
    - \* Determine the Driving Groove
    - \* Place the meter at 50 (or 100 ft.) from Driving Groove
    - \* Set meter on "Fast" response
    - \* Set meter at  $4 \pm 1/2$  ft. above terrain
    - \* Point microphone correctly
    - \* Monitor the loudest side of vehicle
  - k) For stationary vehicle sound testing:
    - \* Vehicle at normal temperature and in neutral.
    - \* Vehicle operator in normal riding position.
    - \* Attach and check tachometer.
    - \* Determine the engine test speed.
    - \* Monitor the rear most exhaust outlet for each side.
    - \* Set the meter to "slow" response
    - \* Place microphone 20 inches from exhaust outlet.
    - \* Place microphone  $45^\circ$  from the axis of the outlet.
    - \* Place microphone at the same height as the outlet.
    - \* Place longitudinal axis of the microphone parallel to the ground.
    - \* Point the microphone correctly.
    - \* Monitor both sides of the vehicle.
    - \* Stabilize the engine at the engine test speed.

- 5.4.2 Moving Vehicle Measurements. The measured noise emission level for a moving race vehicle shall be the maximum sound level reading displayed on a meter position 50 or 100 feet (15.2 or 30.5 meters) from the vehicle's driving groove, taken during the vehicle's pass by. To avoid background noise from affecting the sound measurements, the sound level should ideally rise and fall at least 6 dBA from the maximum noise level. Also, the sound meter's "Fast" response should be used.

Ideally, all moving vehicles will follow the driving groove and the sound measurements will be made at the proper measurement distance. However, this may not always be the case. The following comments may be of value to minimize the time it takes for testing vehicles:

Comment: If the moving vehicle is measured on its noisiest side and under its noisiest operating conditions, then the following statements can be considered valid:

- a) If the vehicle passes less than 50 (or 100) feet from the microphone and does not exceed the noise emission limits, then it does not violate the noise limits at 50 (or 100) feet.
- b) If the vehicle passes greater than 50 (or 100) feet and exceeds the emission limits, then it does violate the noise limits at 50 (or 100) feet.
- c) If the vehicle passes less than 50 (or 100) feet and exceeds the emission limits, then the situation is uncertain and the vehicle shall be remeasured.
- d) If the vehicle passes greater than 50 (or 100) feet and does not exceed the emission limits, then the situation is again uncertain and the vehicle shall be remeasured.

5.4.3 Stationary Vehicle Measurements. The reported noise emission level for the stationary vehicle shall be the highest sound level reading displayed on the meter during steady state operation at the proper engine speed. Sound level readings obtained during acceleration or deceleration of the engine are not included. If there are exhaust outlets on both sides of the vehicle, then readings shall be obtained on both sides and the highest reading reported as the vehicle's emission level. The sound meters "Slow" response should be used for stationary testing. Although the "Fast" response is acceptable. Further, to avoid background noise from affecting the sound measurements, the sound level should ideally rise and fall at least 6 dBA from the maximum noise level.

5.4.4 Recording Sound Level Measurements. Noise data for all race vehicles which exceed the maximum allowable noise emissions shall be recorded on form NPC-35-1. The race facility owner shall keep such recorded noise data for a period of at least one calendar year and, upon request, shall make such data available to the Department. The owner may also submit the data to the Department for storage.

5.5 Form NPC-35-1. Form NPC-35-1 is used to record muffler and sound level data on all race vehicles exceeding the DEQ noise standards. Figure 5-4 shows an example of Form NPC-35-1. Enclosed in this procedure manual is a master form of NPC-35-1 to be photocopied and used to record race data. The following describes form NPC-35-1 and the information to be recorded on it:

- a) The name and location of the racing facility.
- b) The name of the sponsoring organization, if any.
- c) Name of the individual who inspected the vehicles for compliance with the noise standards.
- d) Mark the type of racing event and the appropriate maximum allowable noise emission limits for the event.
- e) Description of the sound level meter (make and model).

- f) Location of the measurement site and distance from race vehicle.
- g) A check list for use in taking sound level measurements is included on the form.
- h) The description of the racing vehicle (type of vehicle, vehicle number, driver's name, etc.).
- i) The maximum measured sound level expressed in dBA (decibels measured on an "A" weighted sound meter). This is at 20 inch, 50 ft., or 100 ft. depending on what type of test was performed as indicated in item d and f above. Also include with the sound level, the test RPM for the 20 inch stationary test.
- j) A list of muffling systems which meet the requirements for a "Well Maintained Muffling System" is included on the form.
- k) Indicate on the form whether the vehicle passed or failed the visual inspection of the muffling system (whether or not the vehicle meets the "properly installed and well maintained muffler" requirements).
- l) Describe the muffler system and given the reason(s) for vehicle passing or failing the visual inspection of the muffling system. (See list of "Well Maintained Muffling Systems" included on the form.)
- m) Indicate any results or actions taken on the vehicle (i.e. not allowed to race, muffler was fixed and retested, etc.).

Note: Form NPC-35-1 is designed to provide the user with most of the important information contained in the DEQ race noise standards and procedure manual. However, this form could not contain all the information. Consult the standards and the manual if questions arise.

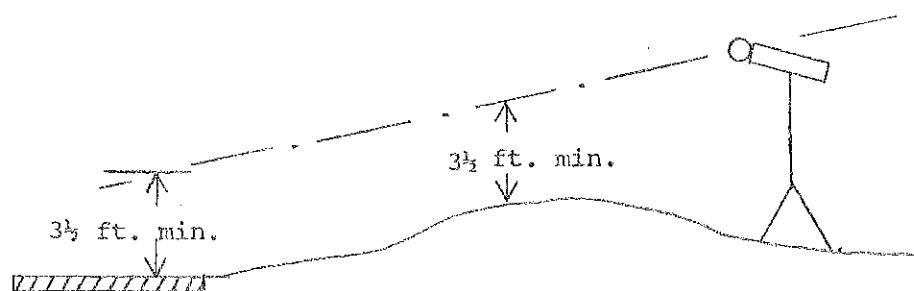
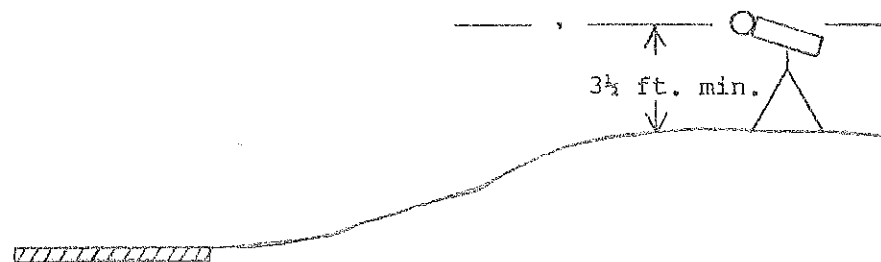
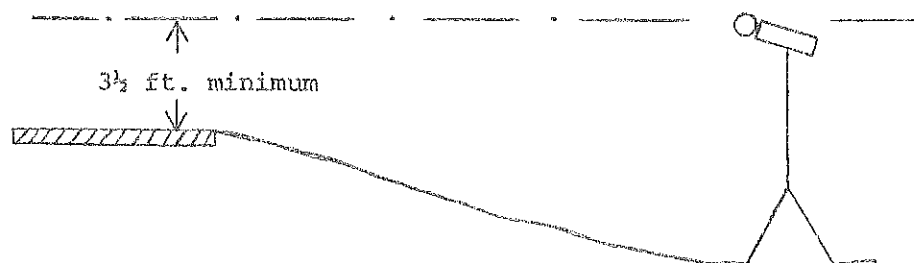
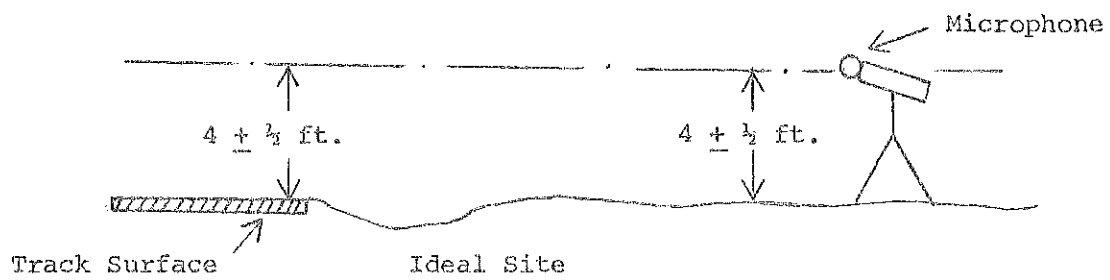


Fig. 5 - 1 Acceptable Microphone Heights

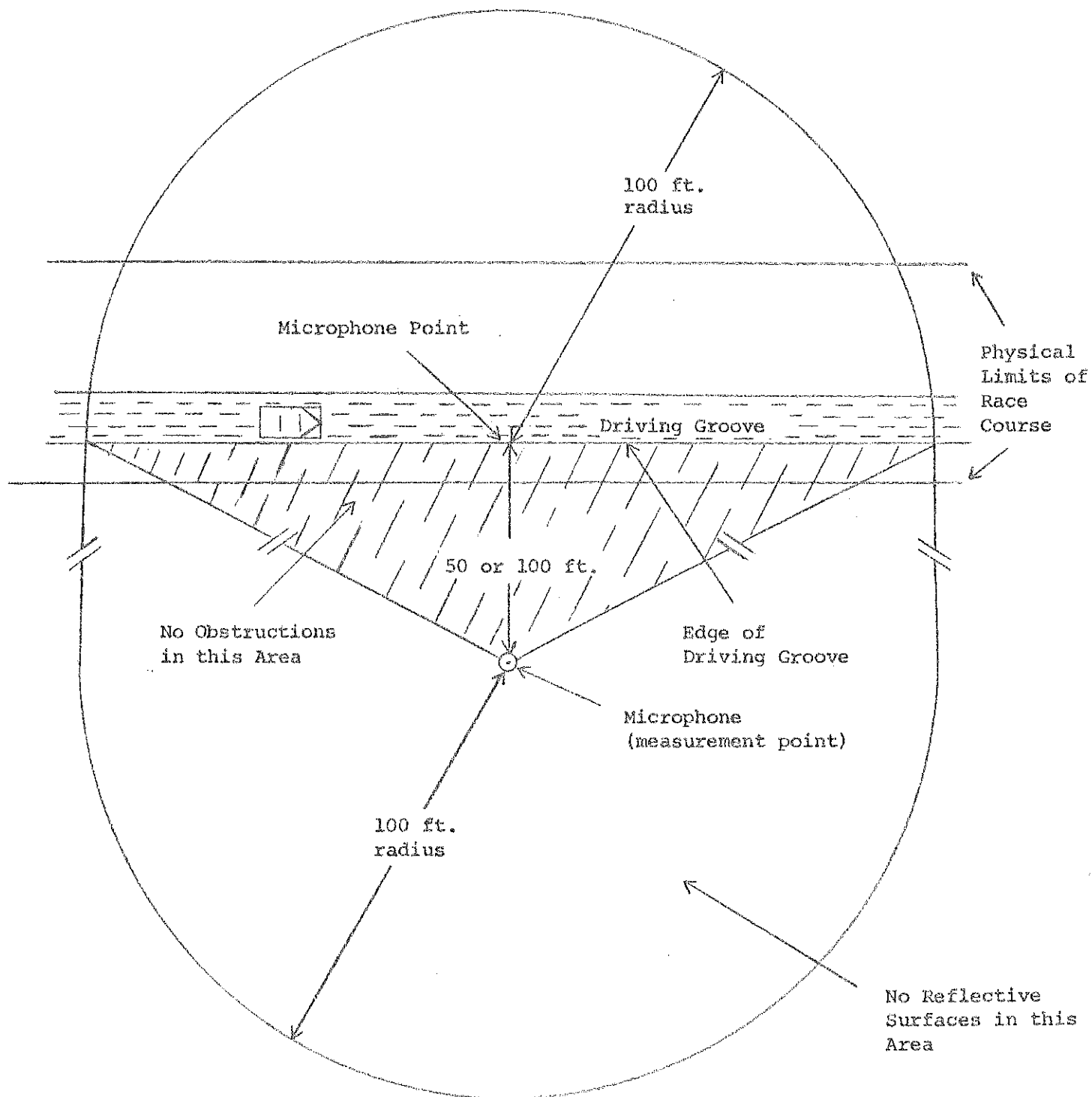
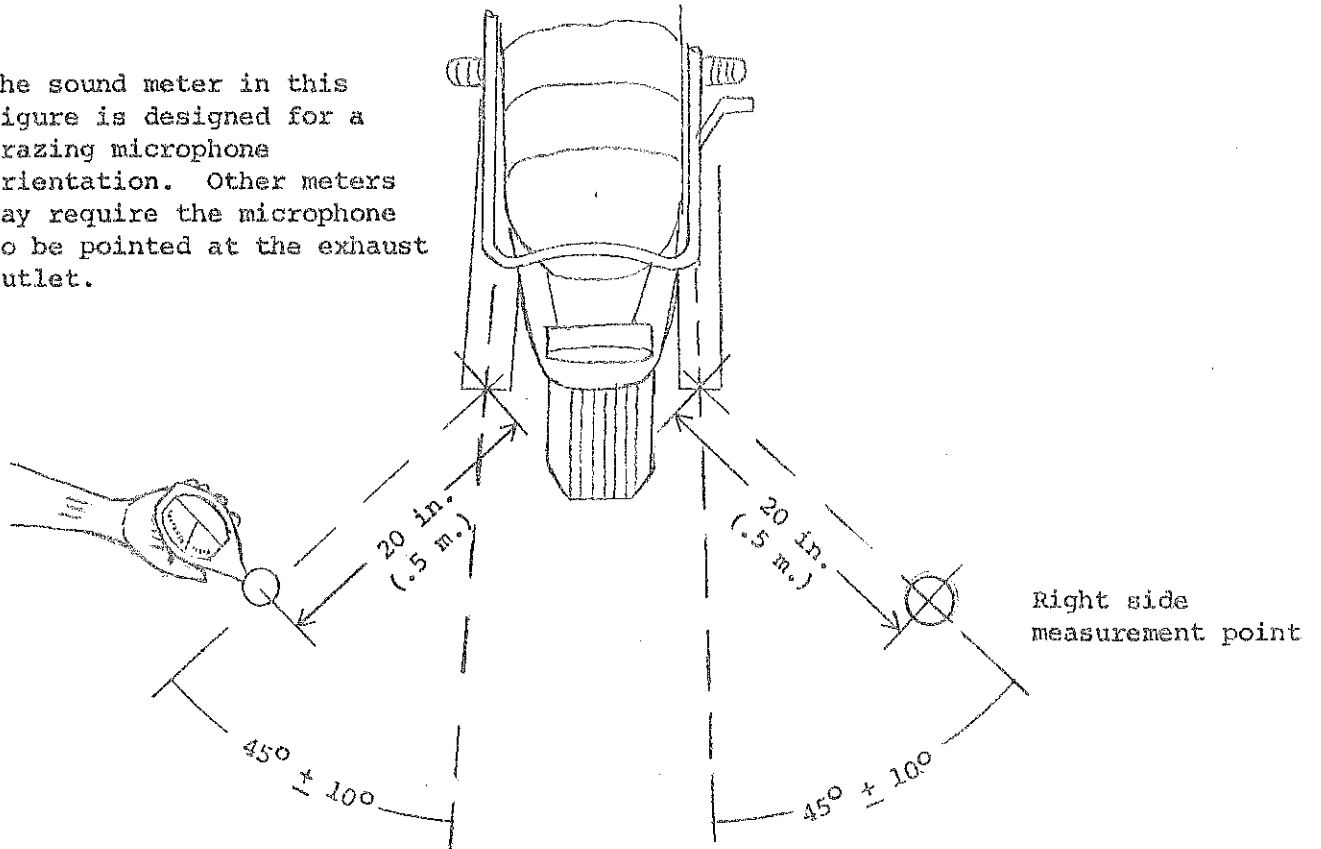


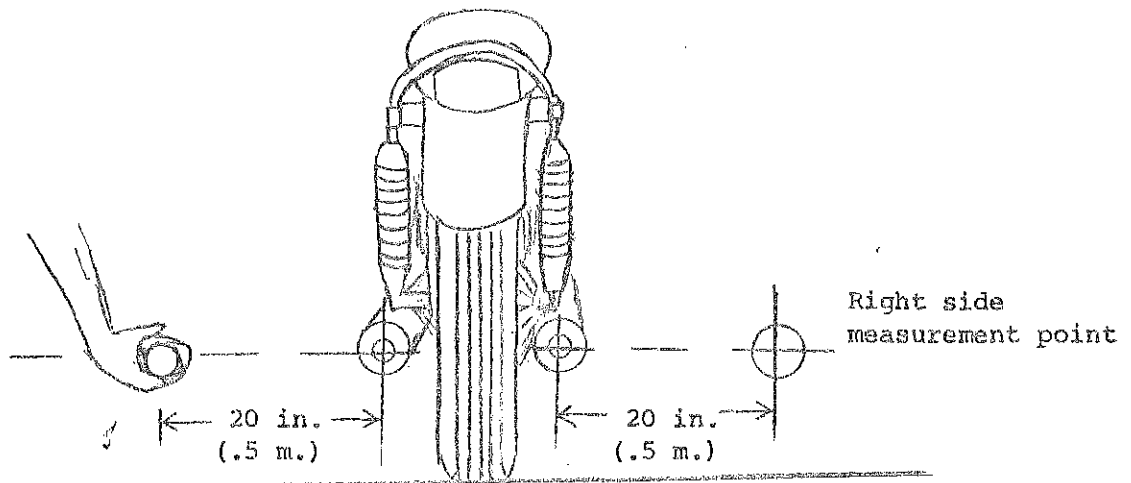
Fig. 5-2 General Layout of Ideal Moving Vehicle Sound Measurement Site (Flat Terrain, No Obstructions to Block the Sound Path, No Reflective Surfaces)

Fig. 5-3 Stationary Test Microphone Location

The sound meter in this figure is designed for a grazing microphone orientation. Other meters may require the microphone to be pointed at the exhaust outlet.



- \* Measure from rear most exhaust outlet on each side.
- \* For exhaust outlets on both sides, measure both.
- \* Report the highest reading at the test RPM.
- \* Do not allow exhaust to impinge on the microphone.



DEPARTMENT OF ENVIRONMENTAL QUALITY  
MOTOR SPORTS RACING RECORD FORM<sup>1</sup>

Racing Facility Name and Location:

Acme Race Track - Smallville

Sponsoring Organization:

23rd St. Sports Car Club

Track Type of Race and Max. Allowed Noise Emissions:

|                                                          | -dBA- |     |     |
|----------------------------------------------------------|-------|-----|-----|
|                                                          | 25    | 50  | 100 |
|                                                          | in.   | ft. | ft. |
| <input type="checkbox"/> Drag - - - - -                  | -     | 105 | 99  |
| <input type="checkbox"/> Oval - - - - -                  | -     | 105 | 99  |
| <input checked="" type="checkbox"/> Sports Car - - - - - | -     | 105 | 99  |
| Closed Course Motorcycle - -                             | 105   | 105 | 99  |
| Open Course Motorcycle - -                               | 105   | -   | -   |
| Wheel Drive - - - - -                                    | -     | 105 | 99  |
| Water Craft - - - - -                                    | -     | 105 | 99  |
| Autocross - - - - -                                      | -     | 90  | 84  |
| <input type="checkbox"/> Go-Kart - - - - -               | -     | 105 | 99  |
| <input type="checkbox"/> Other - - - - -                 | -     | -   | -   |

Date:

Nov. 4 1980

Inspected By:

John Doe

Sound Meter Make and Model:

Gen Rad 1983

Sound Measurement Position:

North Straight-away

- ☐ 20 in.  
☒ 50 ft.  
☐ 100 ft.

Sound Measurement Check List:

- ☒ Battery and Meter Calibration - OK  
☒ "A" Weighting and Windscreen  
☒ "Fast" - for Moving, "Slow" - for Stationary  
☒ No Reflections or Blockage of Path  
☒ Low Background Noise  
- MOVING TEST -  
☒ Find Loudest Site and Driving Groove  
☒ 50 or 100 ft. from Driving Groove  
☒ Microphone Height and Orientation - OK  
☒ Test Loud Side of Vehicle  
- STATIONARY TEST -  
☐ Microphone at 20 in. and 45° from Outlet  
☐ Tachometer Working - OK  
☐ Test at 50% of Red Line or...[see Manual]  
☐ Test Both Sides at Steady State RPM

All non-Top Fuel Burning Drag<sup>2</sup> vehicles must have a "Properly Installed and Well Maintained Muffling" system. If properly installed, the following systems meet this requirement. Also, all exhaust outlets must be muffled:

- Reverse Flow, Baffle Muffler
- Stacked Diffuser Disc Muffler
- Exhaust Turbocharged System<sup>3</sup>
- Muffler Approved for Go-Karts
- Original Factory Muffler Installed on a Motorcycle
- Underwater Exhausted Outboard Boat Motor
- Anger Type Muffler
  - Minimum 16" muffler for greater than 1600 cc engines, or]
  - Minimum 10" muffler for 1600 cc or less engines.]
- Perforated Straight Core, Absorbent Lined Muffler; Not Installed on a Rotary Engine
  - Minimum 20" muffler on any engine exceeding 1600 cc.]
  - Minimum 12" muffler on a non-motorcycle engine 1600 cc or less.]
  - Minimum 6" muffler on any 4-cycle motorcycle engine, or]
  - Minimum 8" muffler on any 2-cycle motorcycle engine.]
- Any other DEQ approved muffling system.

(1600 cc = 96.7 cu. in)

| VEHICLE DESCRIPTION                     | MEASURED NOISE LEVEL (dBA & RPM) | VISUAL INSPECTION OF THE MUFFLING SYSTEM                                  |                                                                           | RESULTS AND ACTIONS                                |
|-----------------------------------------|----------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------|----------------------------------------------------|
|                                         |                                  | Muffler System                                                            | Describe Muffler System and Give Reason(s) for Pass/Fail (see list above) |                                                    |
| 23 Smith #19                            | 109                              | <input checked="" type="checkbox"/> Pass<br><input type="checkbox"/> Fail | Diffuser Disc Muffler                                                     | Took some discs out of Muffler; Passed at 102 dBA. |
| Jones #3                                | —                                | <input type="checkbox"/> Pass<br><input checked="" type="checkbox"/> Fail | No Muffler; Straight Pipes                                                | Not allowed on track                               |
| Brown #12 (Rotary Engine)               | —                                | <input type="checkbox"/> Pass<br><input checked="" type="checkbox"/> Fail | Straight Core muffler on a Rotary Engine Car                              | Said he would fix it.                              |
| Wilson #5 (1400 cc Engine)              | 111                              | <input checked="" type="checkbox"/> Pass<br><input type="checkbox"/> Fail | Dual exhaust, 14-inch glass packs on each side                            | Not allowed to race                                |
| Roberts #10 (1200 cc motorcycle Engine) | 115                              | <input checked="" type="checkbox"/> Pass<br><input type="checkbox"/> Fail | Stock Motorcycle Mufflers                                                 | Not allowed to race                                |
| Brown #12 (see above)                   | 97                               | <input checked="" type="checkbox"/> Pass<br><input type="checkbox"/> Fail | Stock baffled mufflers                                                    | Allowed to race                                    |
| McKay #112                              | 101                              | <input checked="" type="checkbox"/> Pass<br><input type="checkbox"/> Fail | Turbo Charged Engine                                                      | Just interested in what it produced.               |

(1) Only those race vehicles failing to comply with the "properly installed and well maintained muffler" requirements and/or the maximum allowable noise emission requirements, are required to be recorded on this form.

(2) Top Fuel Burning Drag vehicles are powered by greater than 50% alcohol or by nitromethane and are commonly known as top fuel or funny cars. These vehicles are not required to have a muffler.

(3) An Exhaust Turbocharged system is considered a "well maintained muffling" system.

Fig. 5 - 4

Example of Form  
NPCS-35-1

DEPARTMENT OF ENVIRONMENTAL QUALITY  
MOTOR SPORTS RACING RECORD FORM<sup>1</sup>

Racing Facility Name and Location:

Sponsoring Organization:

Motor Type of Race and Max. Allowed Noise Emissions:

|                                                   | -dBA-     |           |            |
|---------------------------------------------------|-----------|-----------|------------|
|                                                   | 20<br>in. | 50<br>ft. | 100<br>ft. |
| <input type="checkbox"/> Drag                     | -         | -         | -          |
| <input type="checkbox"/> Oval                     | -         | 105       | 99         |
| <input type="checkbox"/> Sports Car               | -         | 105       | 99         |
| <input type="checkbox"/> Closed Course Motorcycle | 105       | 105       | 99         |
| <input type="checkbox"/> Open Course Motorcycle   | 105       | -         | -          |
| <input type="checkbox"/> 4-Wheel Drive            | -         | 105       | 99         |
| <input type="checkbox"/> Water Craft              | -         | 105       | 99         |
| <input type="checkbox"/> Autocross                | -         | 90        | 84         |
| <input type="checkbox"/> Go-Kart                  | -         | 105       | 99         |
| <input type="checkbox"/> Other                    | -         | -         | -          |

Date:

Inspected By:

Sound Meter Make and Model:

Sound Measurement Position: ☐ 20 in.  
☐ 50 ft.  
☐ 100 ft.

Sound Measurement Check List:

- ☐ Battery and Meter Calibration - OK
- ☐ "A" Weighting and Windscreen
- ☐ "Fast" - for Moving, "Slow" - for Stationary
- ☐ No Reflections or Blockage of Path
- ☐ Low Background Noise
- MOVING TEST -
- ☐ Find Loudest Site and Driving Groove
- ☐ 50 or 100 Ft. from Driving Groove
- ☐ Microphone Height and Orientation - OK
- ☐ Test Loud Side of Vehicle
- STATIONARY TEST -
- ☐ Microphone at 20 in. and 45° from Outlet
- ☐ Tachometer Working - OK
- ☐ Test at 50% of Red Line or... (see Manual)
- ☐ Test Both Sides at Steady State RPM

All non-Top Fuel Burning Drag<sup>2</sup> vehicles must have a "Properly Installed and Well Maintained Muffling" system. If properly installed, the following systems meet this requirement. Also, all exhaust outlets must be muffled:

1. Reverse Flow, Baffle Muffler
2. Stacked Diffuser Disc Muffler
3. Exhaust Turbocharged System<sup>3</sup>
4. Muffler Approved for Go-Karts
5. Original Factory Muffler Installed on a Motorcycle
6. Underwater Exhausted Outboard Boat Motor
7. Auger Type Muffler
  - [a. Minimum 16" muffler for greater than 1600 cc engines, or ]
  - [b. Minimum 10" muffler for 1600 cc or less engines.]
8. Perforated Straight Core, Absorbent Lined Muffler; Not Installed on a Rotary Engine
  - [a. Minimum 20" muffler on any engine exceeding 1600 cc.]
  - [b. Minimum 12" muffler on a non-motorcycle engine 1600 cc or less.]
  - [c. Minimum 6" muffler on any 4-cycle motorcycle engine, or ]
  - [d. Minimum 6" muffler on any 2-cycle motorcycle engine.]
9. Any other DEQ approved muffling system.

(1600 cc = 96.7 cu. in)

| VEHICLE DESCRIPTION | MEASURED NOISE LEVEL (dBA & RPM) | VISUAL INSPECTION OF THE MUFFLING SYSTEM                       |                                                                           | RESULTS AND ACTIONS |
|---------------------|----------------------------------|----------------------------------------------------------------|---------------------------------------------------------------------------|---------------------|
|                     |                                  | Muffler System                                                 | Describe Muffler System and Give Reason(s) for Pass/Fail (see list above) |                     |
| 24                  |                                  | <input type="checkbox"/> Pass<br><input type="checkbox"/> Fail |                                                                           |                     |
|                     |                                  | <input type="checkbox"/> Pass<br><input type="checkbox"/> Fail |                                                                           |                     |
|                     |                                  | <input type="checkbox"/> Pass<br><input type="checkbox"/> Fail |                                                                           |                     |
|                     |                                  | <input type="checkbox"/> Pass<br><input type="checkbox"/> Fail |                                                                           |                     |
|                     |                                  | <input type="checkbox"/> Pass<br><input type="checkbox"/> Fail |                                                                           |                     |
|                     |                                  | <input type="checkbox"/> Pass<br><input type="checkbox"/> Fail |                                                                           |                     |
|                     |                                  | <input type="checkbox"/> Pass<br><input type="checkbox"/> Fail |                                                                           |                     |
|                     |                                  | <input type="checkbox"/> Pass<br><input type="checkbox"/> Fail |                                                                           |                     |

(1) Only those race vehicles failing to comply with the "properly installed and well maintained muffler" requirements and/or the maximum allowable noise emission requirements, are required to be recorded on this form.

(2) Top Fuel Burning Drag vehicles are powered by greater than 50% alcohol or by nitromethane and are commonly known as top fuel or funny cars. These vehicles are not required to have a muffler.

(3) An Exhaust Turbocharged system is considered a "well maintained muffling" system.

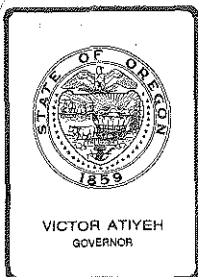
## CHAPTER 6

### NOISE IMPACT BOUNDARIES

- 6.1 General. Prior to the construction or operation of any permanent new motor sports facility, the owner shall submit for Department approval the projected daily Noise Impact Boundaries for the facility representing an estimate of maximum projected use. The data and analysis used for determining the boundary shall also be submitted for Department evaluation. The Noise Impact Boundary is a map of the area around the facility with the maximum daily operation Ldn - 55 dBA noise contour drawn on it. The information needed by the Department to evaluate the project are such things as:
- a) Maps giving the physical layout of the facility; the terrain of the land around the facility; the location and type of noise sensitive property nearby; and the local land use zoning.
  - b) Data about the type of events and vehicles using the facility including the days and hours of operation.
  - c) Information about practice sessions.
  - d) Information about recreation use at the facility.
  - e) Information on how the impact contours were predicted.
  - f) Information on the facility's public address system.

The facility owner should coordinate the development of the Noise Impact Boundaries for new facilities with the DEQ Noise Control Section.

NPCS35



## *Environmental Quality Commission*

Mailing Address: BOX 1760, PORTLAND, OR 97207

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

### MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. F, April 8, 1983, EQC Meeting

Adoption of Proposed Changes in the New Source Review, Hot Mix Asphalt Plant, Volatile Organic Compound and Stack Height Rules in the State Implementation Plan

### Background

The Department is proposing several changes in the New Source Review, Hot Mix Asphalt Plant, Volatile Organic Compound and Stack Height rules. These changes are required to correct wording problems, to update the rules where changes have been required by EPA, to make Oregon's stack height rule more consistent with EPA's stack height rule, and to streamline Department procedures. The Department feels that these changes will have no significant impact on air quality or on sources.

At the December 3, 1982 EQC meeting, authority was granted to conduct a public hearing on the proposed changes. The public hearing was subsequently held on January 17, 1983, pursuant to the attached hearing notice (Attachment 1).

### Statement of Need

The Statement of Need prepared pursuant to ORS 183.335(2) is presented in Attachment 2.

### Discussion

The proposed changes involve revising the following rules:

1. Definition of Non-attainment Area needs to be revised to indicate that the approval of EPA is required for nonattainment area designations. [OAR 340-20-225(16)].
2. Two language corrections need to be made in the New Source Review rules to clarify the intent of the rules. [OAR 340-20-245(2)(a) (c) and 260(2)].

3. Growth increments for volatile organic compound emissions in Medford and Portland need to be updated in the rules. The growth increments sections should be placed in a separate section of the New Source Review Rules. [OAR 340-20-241].
4. The Department should be granted authority to approve the use of non-guideline air quality models, rather than requiring Commission approval each time. [OAR 340-20-245(4)].
5. The Stack Height rules are proposed to be revised to be more consistent with the new EPA rules. [OAR 340-20-275].
6. The Portable Hot Mix Asphalt Plant rules need to be revised to delete an outdated provision and to allow the Department to issue permits for longer than one year at a time. [OAR 340-25-120].
7. The limited bubble rule contained in the Volatile Organic Compound Rules is now redundant and should be revoked. [OAR 340-22-108].

These changes are discussed in detail in the report requesting authorization to conduct the public hearing (Attachment 3, Agenda Item No. G, December 3, 1982, EQC Meeting).

During the public comment period, written comments were submitted by Richard Brandman of METRO, David Bray of EPA, and Max Bader of the Oregon Health Division. No oral testimony was presented at the public hearing. The written comments are included in this report as Attachment 4.

#### 1 - METRO Comments

METRO made the following suggestions concerning growth cushions:

- A. The Environmental Quality Commission could establish a policy that, in the event it appears the growth cushion could become insufficient to fulfill the demand of new or expanding industry, the DEQ staff take appropriate action to begin the process of rebuilding it. This process could be the proposal of new rules for existing stationary sources or establishing new credits from transportation improvements.
- B. If the Commission chooses not to establish such a policy, we recommend that the DEQ staff be directed to work with interested parties throughout the region to define an economic development criteria for use of the growth cushion which would ensure that a growth cushion is available until attainment is achieved. METRO would be willing to assist in such an effort.

The DEQ staff believes that it is the policy of the Commission to establish and maintain growth cushions (or increments) for major new sources and major modifications of sources wherever feasible. Such cushions are feasible in both the Medford and Portland ozone nonattainment areas,

although the present cushion in Portland is small. The staff is reviewing the options for increasing the available growth cushion and will bring these options before the Commission at such time it appears that the existing cushion will be depleted.

The proposed rules provide for allocation of the growth cushion on a first-come-first-served basis depending on the date of submittal of a complete permit application. No single source can receive an allocation of more than 50% of any remaining growth cushion. The Department considers this allocation scheme to be equitable and simple to implement. The Department has no authority that would provide for allocations based on economic development criteria. Local agencies in the Portland area have considered developing a growth cushion allocation scheme based on economic development criteria, but no agreement was ever reached on specific proposals. Until such proposals are made and adopted, the Department should continue to manage the growth cushion on a first-come-first-served basis.

## 2 - EPA Comments

EPA requested a change in the stack height rule to require "fluid" modeling when an applicant requests a stack height higher than what would normally be considered good engineering practice. Fluid modeling is a more sophisticated modeling procedure than is normally used and entails the use of physical models to predict downwash due to structures or terrain. EPA's requested change has been incorporated by adding the word "fluid" to OAR 340-20-340(2), 340(3)(c), and 345(2) preceeding the words "modeling evaluation".

## 3 - Health Division Comments

The Health Division found the proposed rule changes for stack heights to be reasonable and satisfactory but commented that there should be more emphasis on best available control technology and less reliance on increasing stack heights to avert exceeding pollution standards. The Department agrees with this comment. It should be pointed out that the purpose of the stack height rule is to discourage excessive stack heights or other dispersion techniques by disallowing any credit for such devices when determining best available control technology.

A further comment has been raised internally by staff concerning the location in the rules of the VOC growth increments. It is possible that some of the nonattainment areas may be classified attainment at some future time. In some cases it may be appropriate to retain a growth increment in areas that have been reclassified to attainment as an airshed management tool. The staff has therefore recommended that the section of the rules dealing with growth increments be removed from the nonattainment portion of the New Source Review rules and placed in a separate section of the New Source Review Rules. The staff proposes that this section be established as OAR 340-20-241, Growth Increments (see Attachment 5).

### Summation

The following housekeeping revisions are proposed by the Department to update the New Source Review, Hot Mix Asphalt Plant, Volatile Organic Compound and Stack Height Rules. The proposed changes for each rule are shown on Attachment 5.

1. The definition of Nonattainment Area needs to be revised to indicate that the approval of EPA is required for nonattainment area designations. [OAR 340-20-225(16)].
2. Two language corrections need to be made in the New Source Review rules to clarify the intent of the rules. [OAR 340-20-245(2)(a) (c) and 260(2)].
3. Growth increments for volatile organic compound emissions in Medford and Portland need to be updated in the rules. The growth increments sections should be placed in a separate section of the New Source Review Rules, [OAR 340-20-241].
4. The Department should be granted authority to approve the use of non-guideline air quality models, rather than requiring Commission approval each time. [OAR 340-20-245(4)].
5. The Stack Height rules are proposed to be revised to be more consistent with the new EPA rules. [OAR 340-20-275].
6. The Portable Hot Mix Asphalt Plant rules need to be revised to delete an outdated provision and to allow the Department to issue permits for longer than one year at a time. [OAR 340-25-120].
7. The limited bubble rule contained in the Volatile Organic Compound Rules is now redundant and should be revoked. [OAR 340-22-108]
8. The Department concludes that the above changes will have little or no significant impact on air quality or on sources.

### Director's Recommendation

Based on the above Summation and after considering the public comments that were submitted, it is recommended that the Commission adopt the proposed rule changes shown in Attachment 5 and incorporate them into the State Implementation Plan.

*Bill*

William H. Young

- Attachments:
1. Notice of Public Hearing
  2. Statement of Need for Proposed Rulemaking
  3. Staff Report from Agenda Item No. G, December 3, 1982, EQC Meeting
  4. Public Comments Received
  5. Proposed Rule Revisions

L. Kostow:a  
229-5186  
March 14, 1983  
AA3099

## RULEMAKING STATEMENTS

for  
Proposed Revisions to the New Source Review, Hot Mix Asphalt Plant,  
and Volatile Organic Compound Rules

Pursuant to ORS 183.335, these statements provide information on the intended action to amend a rule.

### STATEMENT OF NEED:

#### Legal Authority

This proposal amends OAR 340-20-220 through 275, OAR 340-22-108 and OAR 340-25-120. It is proposed under authority of ORS 468.020 and 468.295.

#### Need for the Rule

These revisions to the New Source Review Rule, Hot Mix Asphalt Plant rule, and Volatile Organic Compound rule are required to correct wording problems, to update the rules where changes have been required by EPA and to streamline Department procedures.

#### Principal Documents Relied Upon

1. Approval and Promulgation of Implementation Plans: Oregon, EPA, Federal Register, August 13, 1982.
2. Stack Height Regulations, EPA, Federal Register, February 8, 1982.
3. Oregon State Implementation Plans for Ozone, Medford-Ashland and Portland Ozone Nonattainment Areas.

### FISCAL AND ECONOMIC IMPACT STATEMENT:

The fiscal impact of these revisions on sources of air pollution is expected to be nil. The DEQ will be able to save personnel resources because of simplified administrative procedures.

### LAND USE CONSISTENCY STATEMENT:

The proposed rule does not affect land use as defined in the Department's coordination program approved by the Land Conservation and Development Commission.

*Oregon Department of Environmental Quality*

## **A CHANCE TO COMMENT ON...**

**WHO IS AFFECTED:**

New Sources and Modifications of Sources and Hot Mix Asphalt Plants

**WHAT IS PROPOSED:**

The Department of Environmental Quality is proposing to amend the New Source Review Rules, the Hot Mix Asphalt Plant rules, and the Volatile Organic Compound rules to correct wording problems, update the rules where changes have been required by EPA, and streamline Department procedures.

**WHAT ARE THE HIGHLIGHTS:**

1. The definition of Nonattainment Area needs to be revised to indicate that the approval of EPA is required for nonattainment area designations.
2. Two language corrections need to be made in the New Source Review rules to clarify the intent of the rules.
3. Growth margins for volatile organic compound emissions in Medford and Portland need to be updated in the rules.
4. The Stack Height rules need to be revised to meet the new EPA requirements.
5. The Portable Hot Mix Asphalt Plant rules need to be revised to delete an outdated provision and to allow the Department to issue permits for longer than one year at a time.
6. The Department should be granted authority to approve the use of non-guideline air quality models, rather than requiring Commission approval each time.
7. The limited bubble rule contained in the Volatile Organic Compound Rules is now redundant and should be revoked.



P.O. Box 1760  
Portland, OR 97207

8/10/82

**FOR FURTHER INFORMATION:**

Contact the person or division identified in the public notice by calling 229-5696 in the Portland area. To avoid long distance charges from other parts of the state, call 1-800-452-7813, and ask for the Department of Environmental Quality.

PUBN. AH (9/82)  
AG1741

**HOW TO COMMENT:**

Copies of the complete proposed rule package may be obtained from the Air Quality Division in Portland or the regional office nearest you.

A public hearing will be held before a hearings officer at:

(To be Arranged)

Oral and written comments will be accepted at the public hearing. Written comments may be sent to the Department of Environmental Quality, Air Quality Division, but must be received by no later than (to be arranged).

**WHAT IS THE NEXT STEP:**

After public hearing the Environmental Quality Commission may adopt rule amendments identical to the proposed amendments, adopt modified rule amendments on the same subject matter, or decline to act. The adopted rules will be submitted to the U. S. Environmental Protection Agency as part of the State Clean Air Act Implementation Plan. The Commission's deliberation should come in February as part of the agenda of a regularly scheduled Commission meeting.

A Statement of Need, Fiscal and Economic Impact Statement, and Land Use Consistency Statement are attached to this notice.

PUBN.AH (9/82)  
AG1741



## *Environmental Quality Commission*

Mailing Address: BOX 1760, PORTLAND, OR 97207

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

### MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. G, December 3, 1982, EQC Meeting

Request for Authorization to Hold a Public Hearing  
Concerning Proposed Changes in the New Source Review, Hot  
Mix Asphalt Plant, and Volatile Organic Compound Rules in  
the State Implementation Plan

### Background

The Department is proposing several changes in the New Source Review, Hot Mix Asphalt Plant, and Volatile Organic Compound rules. These changes are required to correct wording problems, to update the rules where changes have been required by EPA, to make Oregon's stack height rule more consistent with EPA's stack height rule, and to streamline Department procedures. The Department feels that these changes will have no significant impact on air quality or on sources.

The proposed changes are discussed below and involve revising the following rules:

1. Definition of Non-attainment Area [OAR 340-20-225(16)].
2. Language corrections [OAR 340-20-245(2)(a)(C) and 260(2)].
3. Growth margins for volatile organic compounds [OAR 340-20-240(7)].
4. Stack Height Regulations [OAR 340-20-275].
5. Portable Hot Mix Asphalt Plants [OAR 340-25-120].
6. Commission approval for use of non-guideline models [OAR 340-20-245(4)].
7. Repeal of redundant "Bubble" rule in the Volatile Organic Compound rules [OAR 340-22-108].

### Statement of Need

The Statement of Need prepared pursuant to ORS 183.335(2) is presented in Attachment 1.

## Discussion

### 1. Definition of Non-attainment Area

The term 'nonattainment area' is defined in the New Source Review Rules as follows (OAR 340-20-225(16)) : "'Nonattainment Area' means a geographical area of the State which exceeds any State or federal primary or secondary ambient air quality standard as designated by the Environmental Quality Commission".

EPA has pointed out that section 107 of the Clean Air Act requires that all designations of areas as attainment, nonattainment, or unclassifiable must be approved by EPA. It is, therefore, proposed that the phrase "and approved by the Environmental Protection Agency" be added at the end of the definition of nonattainment area.

### 2. Language Corrections

Two minor language changes are required to clarify the meaning of wording in the New Source Review rule. In OAR 340-20-240(6), Special Exemption for the Salem Ozone Nonattainment Area, new sources and modifications of sources which would emit volatile organic compounds (VOC) are exempted from the offset requirement. A clarification needs to be added to OAR 340-20-245(2)(a)(C) to indicate that new sources or modifications of sources of VOC near Salem but outside of the nonattainment area are also exempted as follows:

#### (2) Air Quality Analysis:

(a) The owner or operator of the proposed major source or major modification shall demonstrate that the potential to emit any pollutant at a significant emission rate (OAR 340-20-225 definition (22)), in conjunction with all other applicable emissions increases and decreases, (including secondary emissions), would not cause or contribute to air quality levels in excess of:

(A)..... (No Change)

(B)..... (No Change)

(C) An impact on a designated nonattainment area greater than the significant air quality impact levels (OAR 340-20-225 definition 23)). New sources or modifications of sources which would emit volatile organic compounds which may impact the Salem ozone nonattainment area are exempt from this requirement.

In OAR 340-20-260(2), Requirements for Net Air Quality Benefit, the words "in or" should be deleted from the fourth sentence as follows: "Proposed major source or major modifications which emit volatile organic compounds and are located [in or] within 30 kilometers of an ozone nonattainment area shall provide reductions which are equivalent or greater than the proposed emission increases unless the applicant demonstrates that the proposed emissions will not impact the non-attainment area." This sentence does not make sense with "in or" included, because the preceeding sentences already require sources

## Discussion

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within the nonattainment area to provide reductions equivalent to or greater than the proposed increases.

### 3. Growth Margins for Volatile Organic Compounds

As part of the ozone State Implementation Plans for Medford-Ashland and Portland, growth margins were developed for new major sources of volatile organic compounds. The growth margin for Medford-Ashland presently included in the New Source Review rules at OAR 340-20-240(7) needs to be revised. The growth margin for Portland is not presently included in the rules. It is proposed that OAR 340-20-240(7) be revised to read as follows:

#### (7) Growth Margins

The ozone control strategies for the Medford-Ashland and Portland ozone nonattainment areas establish growth margins for new major sources or major modifications which will emit volatile organic compounds. The growth margin shall be allocated on a first-come-first served basis depending on the date of submittal of a complete permit application. No single source shall receive an allocation of more than 50% of any remaining growth margin. The allocation of emission increases from the growth margins shall be calculated based on the ozone season (April 1 to October 31 of each year). The amount of each growth margin that is available is defined in the State Implementation Plan for each area and is on file with the Department.

### 4. Stack Height Regulations

EPA promulgated new requirements for stack heights on February 8, 1982. It is proposed that the Oregon rules be modified to conform to the new EPA requirements by:

- a. Removing the stack height rule from the New Source Review rules and establishing a new section on Stack Heights and Dispersion Techniques to make it clear that the stack height provision applies to all sources, not just major new sources or major modifications.
- b. Modifying the definitions of "dispersion technique" and "good engineering stack height" to conform to EPA definitions and adding definitions of three other terms used in the new EPA regulations.

The stack height rule limits neither the minimum or maximum stack height that may actually be constructed at a source. The rule does limit the maximum height that can be used for air quality modeling to good engineering practice (GEP) stack height. The rule does not allow any relaxation of control equipment requirements such as Best Available Control Technology (BACT).

In some cases, the rules may require sources to increase stack heights to avoid excessive concentrations created by downwash. The minimum definition of GEP for stacks not affected by structures or terrain features has been increased from 30 meters to 65 meters as allowed by the EPA regulations. This change will allow the Department greater flexibility in avoiding downwash problems.

In rare cases, the rules will require emission controls greater than BACT where standards or increments would be exceeded. In such cases the stack height could not be increased above good engineering practice stack height to avoid the more stringent control requirements.

It is therefore proposed that OAR 340-20-275, Stack Heights, and OAR 340-20-225(7) and (11), Definitions, be revoked and replaced by new provisions which would be renumbered OAR 340-20-340 and 345 Stack Heights and Dispersion Techniques. This provision is Attachment 2.

5. Portable Hot Mix Asphalt Plants

The rules for Hot Mix Asphalt Plants [OAR 340-25-120] need to be updated to eliminate a section that is now outdated and to change the permit issuance period from the present one year period to the same period as other permits (normally 5 years). The outdated provision was originally adopted to provide an exemption for portable hot mix plants locating in dry areas where water for scrubbers may not be available. In practice, this provision is not used and any temporary exemption for such facilities can be provided through normal variance procedures. These changes can be made by deleting the sections shown in brackets below:

Portable Hot Mix Asphalt Plants

340-25-120[(1) Portable hot mix asphalt plants temporarily located outside of special control areas and complying with the emission limitation of section 340-25-110(1) need not comply with rules 340-21-015 and 340-21-030, provided, however, that the particulate matter emitted does not create or tend to create a hazard to human, animal, or plant life, or unreasonably interfere with agriculture operations, recreation areas, or the enjoyment of life and property.]

[(2)] Portable hot mix asphalt plants may apply for air contaminant discharge permits within the area of Department jurisdiction without indicating specific site locations. [Said permits will be issued for periods not to exceed one (1) calendar year.] As a condition of said permit, the permittee will be required to obtain approval from the Department for the air pollution controls to be installed at each site location or set-up at least ten (10) days prior to operating at each site location or set-up.

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In rare cases, the rules will require emission controls greater than BACT where standards or increments would be exceeded. In such cases the stack height could not be increased above good engineering practice stack height to avoid the more stringent control requirements.

It is therefore proposed that OAR 340-20-275, Stack Heights, and OAR 340-20-225(7) and (11), Definitions, be revoked and replaced by new provisions which would be renumbered OAR 340-20-340 and 345 Stack Heights and Dispersion Techniques. This provision is Attachment 2.

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[(2)] Portable hot mix asphalt plants may apply for air contaminant discharge permits within the area of Department jurisdiction without indicating specific site locations. [Said permits will be issued for periods not to exceed one (1) calendar year.] As a condition of said permit, the permittee will be required to obtain approval from the Department for the air pollution controls to be installed at each site location or set-up at least ten (10) days prior to operating at each site location or set-up.

6. Commission Approval for Use of Non-guideline Models

The New Source Review rule, under OAR 340-20-245(4), requires the approval of the Commission before air quality models which are not listed in EPA's Guideline on Air Quality Models can be used for reviewing new sources. It is proposed that the Department be given the authority to approve the use of non-guideline models. The approval of EPA would still be required. OAR 340-20-245(4) would be modified to read as follows:

- (4) Air Quality Models. All estimates of ambient concentrations required under these rules shall be based on the applicable air quality models, data bases, and other requirements specified in the "Guideline on Air Quality Models": (OAQPS 1.2-080, U. S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, April 1978). Where an air quality impact model specified in the "Guideline on Air Quality Models" is inappropriate, the model may be modified or another model substituted. Such a change must be subject to notice and opportunity for public comment and must receive approval of the [Commission] Department and the Environmental Protection Agency. Methods like those outlined in the "Workbook for the Comparison of Air Quality Models" (U. S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, May, 1978) should be used to determine the comparability of air quality models.

7. Repeal of Redundant "Bubble" Rule

On August 28, 1981, the Commission adopted OAR 340-20-315, Alternative Emission Controls (Bubble) as part of the Plant Site Emission Limit rules. A limited bubble rule (OAR 340-22-108) was included in the Volatile Organic Compound (VOC) Rules when they were adopted in 1980. This VOC bubble rule is now redundant and should be revoked in favor of OAR 340-20-315.

Summation

The following housekeeping revisions are proposed by the Department to up-date the New Source Review, Hot Mix Asphalt Plant, and Volatile Organic Compound Rules. The proposed changes for each rule are shown on Attachment 3.

1. The definition of Nonattainment Area needs to be revised to indicate that the approval of EPA is required for nonattainment area designations. [OAR 340-20-2245(2)(a)(C) and 260(2)]
2. Two language corrections need to be made in the New Source Review rules to clarify the intent of the rules. [OAR 340-20-240(6) and 260(2)]
3. Growth margins for volatile organic compound emissions in Medford and Portland need to be updated in the rules. [OAR 340-20-240(7)]

4. The Stack Height rules are proposed to be revised to be more consistent with the new EPA rules. [OAR 340-20-275]
5. The Portable Hot Mix Asphalt Plant rule s need to be revised to delete an outdated provision and to allow the Department to issue permits for longer than one year at a time. [OAR 340-25-120]
6. The Department should be granted authority to approve the use of non-guideline air quality models, rather than requiring Commission approval each time. [OAR 340-20-245(4)]
7. The limited bubble rule contained in the Volatile Organic Compound Rules is now redundant and should be revoked. [OAR 340-22-108]
8. The Department concludes that the above changes will have little or no significant impact on air quality or on sources.

Director's Recommendation

Based on the above summation, it is recommended that a public hearing be authorized concerning these proposed changes in the New Source Review, Hot Mix Asphalt Plant, and Volatile Organic Compound rules as shown in Attachment 3.

*Bill*

William H. Young

- Attachments:
1. Statement of Need for Proposed Rulemaking
  2. Stack Heights and Dispersion Techniques - Proposed Rule
  3. Rules Being Revised (for reference purposes)

L. Kostow:a  
229-6459  
November 9, 1982  
AA2718

4. The Stack Height rules are proposed to be revised to be more consistent with the new EPA rules. [OAR 340-20-275]
5. The Portable Hot Mix Asphalt Plant rule s need to be revised to delete an outdated provision and to allow the Department to issue permits for longer than one year at a time. [OAR 340-25-120]
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Director's Recommendation

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*Bill*

William H. Young

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L. Kostow:a  
229-6459  
November 9, 1982  
AA2718

STATEMENT BY THE METROPOLITAN SERVICE DISTRICT  
REGARDING PROPOSED REVISIONS TO OAR 340-20-240(7)  
January 17, 1983

The Metropolitan Service District (Metro) and the Department of Environmental Quality (DEQ) were the primary bodies responsible for establishing the "growth cushion" for new or expanding major sources of volatile organic compounds in the Portland metropolitan area.

The primary intent of establishing this growth cushion was two-fold:

1. To foster and stimulate economic development and new employment in the region by making it far less costly and time-consuming for new or expanding industry to locate in the region through the availability of a "growth cushion" rather than by purchasing costly or non-existent emission "offsets".
2. To alleviate the burdensome and costly regulatory process of administering an offset program by the DEQ, recognizing that this region is projected to more than attain the federal ozone standard by the 1987 federal deadline.

Both aspects of this intent are of consequence, although we feel that the former, stimulating economic development, is clearly the most important.

Keeping in mind the primary goal of the growth cushion, Metro feels that the proposed rule change to allocate the growth cushion on a first-come, first-served basis is a responsible change only if it is the intent of the Environmental Quality Commission and the DEQ to always maintain a cushion; that is, to ensure that the growth cushion is not "used up" before 1987. The reason for this is as follows:

At the rate that applications for use of the existing growth cushion are being received by DEQ, there is an increasing likelihood that the cushion could be depleted within one to two years. If the growth cushion were allocated without regard to the type of sources requesting a portion of it, there is a strong possibility that it could be depleted by so-called "major sources" who do not offer this region significant employment potential. (This is because some firms are labor intensive; some are capital intensive.) If this were to happen, the primary reason for establishing the growth cushion would not have been fulfilled, not to mention that DEQ would again have to administer a cumbersome offset program.

We therefore feel that it is incumbent for the Environmental Quality Commission to maintain a VOC growth cushion in this region until attainment of the federal ozone standard is achieved. This may be achieved in one of two ways:

1. The Environmental Quality Commission could establish a policy that, in the event it appears the growth cushion could become insufficient to fulfill the demand of new or expanding industry,

the DEQ staff take appropriate action to begin the process of rebuilding it. This process could be the proposal of new rules for existing stationary sources or establishing new credits from transportation improvements.

2. If the Commission chooses not to establish such a policy, we recommend that the DEQ staff be directed to work with interested parties throughout the region to define an economic development criteria for use of the growth cushion which would ensure that a growth cushion is available until attainment is achieved. Metro would be willing to assist in such an effort.

Thank you for consideration of our comments.

RB:lmk

U.S. ENVIRONMENTAL PROTECTION AGENCY

REGION X

1200 SIXTH AVENUE  
SEATTLE, WASHINGTON 98101



REPLY TO  
ATTN OF: M/S 532

JAN 4 1983

Lloyd Kostow  
Department of Environmental Quality  
Air Quality Division  
P. O. Box 1760  
Portland, Oregon 97207

Dear Mr. <sup>Lloyd</sup>Kostow:

I have reviewed the proposed changes in the New Source Review, Hot Mix Asphalt Plant, and Volatile Organic Compound rules and find them to be approvable with only one exception. That exception is in the proposed "Stack Heights and Dispersion Techniques" rule. In three places dealing with good engineering practice stack height, the proposed rule refers to a "modeling evaluation". EPA's regulations specifically require the use of a fluid model for determining the height which would ensure that emissions from a stack do not result in excessive concentrations as a result of downwash, wakes, or eddy effects (40 CFR 51.1(ii)(3)). The proposed rule would not limit the demonstration to fluid models but could allow the use of diffusion or other mathematical models. The word "fluid", therefore, needs to be added to OAR 340-20-340(2), 340(3)(c), and 345(2) preceeding the words "modeling evaluation".

Thank you for the opportunity to review these proposed rules. I expect that EPA will be able to quickly approve these changes as revisions to the Oregon SIP once the stack height rule is corrected. If you have any questions, please call me at (206) 442-1980.

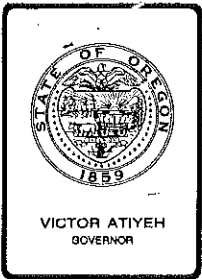
Sincerely,

*David C. Bray*  
David C. Bray  
Technical Advisor

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED  
JAN 07 1983

AIR QUALITY CONTROL



INTERGOVERNMENTAL RELATIONS DIVISION

DEC 10 1982

*Department of Human Resources*

**HEALTH DIVISION**

1400 S.W. 5th AVENUE, PORTLAND, OREGON 97201 PHONE 229-5806

December 9, 1982

To: Intergovernmental Relations Division  
155 Cottage Street N.E.  
Salem, Oregon

From: Max Bader, M.D., M.P.H.  
Public Health Officer  
Health Division

*Max Bader, M.D.*

Re: Proposed Revisions to Rules for New Source Review, Hot  
Mix Asphalt Plants and Volatile Organic Components  
By DEQ, Air Quality Division

The Health Division finds the proposed rule changes to be reasonable and satisfactory.

One observation which might be made relates to the issue of acid rain and the use of stacks to disperse pollutants. As this problem increases, there will need to be more emphasis on best available control technology and less reliance on stack heights to avert exceeding pollution standards.

MB:cb

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Mailing Address: P.O. Box 231, Portland, Oregon 97207  
EMERGENCY PHONE (503) 229-5599

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## Proposed Rule Revisions

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### New Source Review

#### 340-20-220      Applicability

1. No owner or operator shall begin construction of a major source or a major modification of an air contaminant source without having received an Air Contaminant Discharge Permit from the Department of Environmental Quality and having satisfied OAR 340-20-230 through 280 of these Rules.
  
2. Owners or operators of proposed non-major sources or non-major modifications are not subject to these New Source Review rules. Such owners or operators are subject to other Department rules including Highest and Best Practicable Treatment and Control Required (OAR 340-20-001), Notice of Construction and Approval of Plans (OAR 340-20-020 to 032), Air Contaminant Discharge Permits (OAR 340-20-140 to 185), Emission Standards for Hazardous Air Contaminants (OAR 340-25-450 to 480), and Standards of Performance for New Stationary Sources (OAR 340-25-505 to 545).

#### 340-20-225      Definitions

1. "Actual emissions" means the mass rate of emissions of a pollutant from an emissions source.

- a. In general, actual emissions as of the baseline period shall equal the average rate at which the source actually emitted the pollutant during the baseline period and which is representative of normal source operation. Actual emissions shall be calculated using the source's actual operating hours, production rates and types of materials processed, stored, or combusted during the selected time period.
  - b. The Department may presume that existing source-specific permitted mass emissions for the source are equivalent to the actual emissions of the source if they are within 10% of the calculated actual emissions.
  - c. For any newly permitted emission source which had not yet begun normal operation in the baseline period, actual emissions shall equal the potential to emit of the source.
2. "Baseline Concentration" means that ambient concentration level for a particular pollutant which existed in an area during the calendar year 1978. If no ambient air quality data is available in an area, the baseline concentration may be estimated using modeling based on actual emissions for 1978.

The following emission increases or decreases will be included in the baseline concentration:

- a. Actual emission increases or decreases occurring before January 1, 1978, and
  - b. Actual emission increases from any major source or major modification on which construction commenced before January 6, 1975.
3. "Baseline Period" means either calendar years 1977 or 1978. The Department shall allow the use of a prior time period upon a determination that it is more representative of normal source operation.
4. "Best Available Control Technology (BACT)" means an emission limitation (including a visible emission standard) based on the maximum degree of reduction of each air contaminant subject to regulation under the Clean Air Act which would be emitted from any proposed major source or major modification which, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such air contaminant. In no event, shall the application of BACT result in emissions of any air contaminant which would exceed the emissions allowed by any applicable new source performance standard or any standard for hazardous air

pollutants. If an emission limitation is not feasible, a design, equipment, work practice, or operational standard, or combination thereof, may be required. Such standard shall, to the degree possible, set forth the emission reduction achievable and shall provide for compliance by prescribing appropriate permit conditions.

5. "Commence" means that the owner or operator has obtained all necessary preconstruction approvals required by the Clean Air Act and either has:
  - a. Begun, or caused to begin, a continuous program of actual on-site construction of the source to be completed in a reasonable time, or
  - b. Entered into binding agreements or contractual obligations, which cannot be canceled or modified without substantial loss to the owner or operator, to undertake a program of construction of the source to be completed in a reasonable time.
6. "Construction" means any physical change (including fabrication, erection, installation, demolition, or modification of an emissions unit) or change in the method of operation of a source which would result in a change in actual emissions.

- [7. "Dispersion Technique" means any air contaminant control procedure which depends upon varying emissions with atmospheric conditions including but not limited to supplementary or intermittent control systems and excessive use of enhanced plume rise.]
- [8.] 7 "Emission Reduction Credit Banking" means to presently reserve, subject to requirements of these provisions, emission reductions for use by the reserver or assignee for future compliance with air pollution reduction requirements.
- [9.] 8 "Emissions Unit" means any part of a stationary source (including specific process equipment) which emits or would have the potential to emit any pollutant subject to regulation under the Clean Air Act.
- [10.] 9 "Fugitive emissions" means emissions of any air contaminant which escape to the atmosphere from any point or area that is not identifiable as a stack, vent, duct, or equivalent opening.
- [11. "Good Engineering Practice Stack Height" means that stack height necessary to insure that emissions from the stack do not result in excessive concentrations of any air contaminant in the immediate vicinity of the source as a result of atmospheric downwash, eddies, and wakes which may be created by the source

structure, nearby structures, or nearby terrain obstacles and shall not exceed the following:

- a. 30 meters, for plumes not influenced by structures or terrain;
- b.  $H_G = H + 1.5 L$  , for plumes influenced by structures;  
Where  $H_G$  = good engineering practice stack height,  
H = height of structure or nearby structure,  
L = lesser dimension (height or width) of the structure or nearby structure,
- c. Such height as an owner or operator demonstrates, after notice and opportunity for public hearing, is necessary to avoid plume downwash.]

[12.] 10 "Growth Increment" means an allocation of some part of an airshed's capacity to accomodate future new major sources and major modifications of sources.

[13.] 11 "Lowest Achievable Emission Rate (LAER)" means that rate of emissions which reflects a) the most stringent emission limitation which is contained in the implementation plan of any State for such class or category of source, unless the owner or operator of the proposed source demonstrates that such limitations are not achievable, or b) the most stringent emission

limitation which is achieved in practice by such class or category of source, whichever is more stringent. In no event, shall the application of this term permit a proposed new or modified source to emit any air contaminant in excess of the amount allowable under applicable new source performance standards or standards for hazardous air pollutants.

[14.] 12 "Major Modification" means any physical change or change of operation of a source that would result in a net significant emission rate increase (as defined in definition [22] 20) for any pollutant subject to regulation under the Clean Air Act. This criteria also applies to any pollutants not previously emitted by the source. Calculations of net emission increases must take into account all accumulated increases and decreases in actual emissions occurring at the source since January 1, 1978, or since the time of the last construction approval issued for the source pursuant to the New Source Review Regulations for that pollutant, whichever time is more recent. If accumulation of emission increases results in a net significant emission rate increase, the modifications causing such increases become subject to the New Source Review requirements including the retrofit of required controls.

[15.] 13 "Major source" means a stationary source which emits, or has the potential to emit, any pollutant regulated under the Clean

Air Act at a Significant Emission Rate (as defined in definition [22] 20).

[16.] 14 "Nonattainment Area" means a geographical area of the State which exceeds any State or Federal primary or secondary ambient air quality standard as designated by the Environmental Quality Commission[.] and approved by the Environmental Protection Agency.

[17.] 15 "Offset" means an equivalent or greater emission reduction which is required prior to allowing an emission increase from a new major source or major modification of a source.

[18.] 16 "Plant Site Emission Limit" means the total mass emissions per unit time of an individual air pollutant specified in a permit for a source.

[19.] 17 "Potential to Emit" means the maximum capacity of a source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is enforceable. Secondary emissions do not count in determining the potential to emit of a source.

[20.] 18 "Resource Recovery Facility" means any facility at which municipal solid waste is processed for the purpose of extracting, converting to energy, or otherwise separating and preparing municipal solid waste for reuse. Energy conversion facilities must utilize municipal solid waste to provide 50% or more of the heat input to be considered a resource recovery facility.

[21.] 19 "Secondary Emissions" means emissions from new or existing sources which occur as a result of the construction and/or operation of a source or modification, but do not come from the source itself. Secondary emissions must be specific, well defined, quantifiable, and impact the same general area as the source associated with the secondary emissions. Secondary emissions may include, but are not limited to:

- a. Emissions from ships and trains coming to or from a facility,
- b. Emissions from off-site support facilities which would be constructed or would otherwise increase emissions as a result of the construction of a source or modification.

[22.] 20 "Significant emission rate" means emission rates equal to or greater than the following for air pollutants regulated under the Clean Air Act.

Table 1: Significant Emission Rates for Pollutants Regulated under the Clean Air Act

| <u>Pollutant</u>                                      | <u>Significant Emission Rate</u> |
|-------------------------------------------------------|----------------------------------|
| Carbon Monoxide                                       | 100 tons/year                    |
| Nitrogen Oxides                                       | 40 tons/year                     |
| Particulate Matter*                                   | 25 tons/year                     |
| Sulfur Dioxide                                        | 40 tons/year                     |
| Volatile Organic Compounds*                           | 40 tons/year                     |
| Lead                                                  | 0.6 ton/year                     |
| Mercury                                               | 0.1 ton/year                     |
| Beryllium                                             | 0.0004 ton/year                  |
| Asbestos                                              | 0.007 ton/year                   |
| Vinyl Chloride                                        | 1 ton/year                       |
| Fluorides                                             | 3 tons/year                      |
| Sulfuric Acid Mist                                    | 7 tons/year                      |
| Hydrogen Sulfide                                      | 10 tons/year                     |
| Total reduced sulfur (including hydrogen sulfide)     | 10 tons/year                     |
| Reduced sulfur compounds (including hydrogen sulfide) | 10 tons/year                     |

\* For the nonattainment portions of the Medford-Ashland Air Quality Maintenance Area, the Significant Emission Rates for particulate matter and volatile organic compounds are defined in Table 2.

For pollutants not listed above, the Department shall determine the rate that constitutes a significant emission rate.

Any emissions increase less than these rates associated with a new source or modification which would construct within 10 kilometers

of a Class I area, and would have an impact on such area equal to or greater than 1 ug/m<sup>3</sup> (24 hour average) shall be deemed to be emitting at a significant emission rate.

Table 2: Significant Emission rates for the Nonattainment Portions of the Medford-Ashland Air Quality Maintenance Area.

|                                 | Emission Rate |        |           |        |           |        |
|---------------------------------|---------------|--------|-----------|--------|-----------|--------|
|                                 | Annual        |        | Day       |        | Hour      |        |
| Air Contaminant                 | Kilograms     | (tons) | Kilograms | (lbs)  | Kilograms | (lbs)  |
| Particulate Matter (TSP)        | 4,500         | (5.0)  | 23        | (50.0) | 4.6       | (10.0) |
| Volatile Organic Compound (VOC) | 18,100        | (20.0) | 91        | (200)  | --        | --     |

[23.] 21 "Significant Air Quality Impact" means an ambient air quality impact which is equal to or greater than:

| Pollutant       | Annual                | Pollutant Averaging Time |                       |                      |                     |
|-----------------|-----------------------|--------------------------|-----------------------|----------------------|---------------------|
|                 |                       | 24-hour                  | 8-hour                | 3-hour               | 1-hour              |
| SO <sub>2</sub> | 1.0 ug/m <sup>3</sup> | 5 ug/m <sup>3</sup>      |                       | 25 ug/m <sup>3</sup> |                     |
| TSP             | 0.2 ug/m <sup>3</sup> | 1.0 ug/m <sup>3</sup>    |                       |                      |                     |
| NO <sub>2</sub> | 1.0 ug/m <sup>3</sup> |                          |                       |                      |                     |
| CO              |                       |                          | 0.5 mg/m <sup>3</sup> |                      | 2 mg/m <sup>3</sup> |

For sources of volatile organic compounds (VOC), a major source or major modification will be deemed to have a significant impact if it is located within 30 kilometers of an ozone nonattainment area and is capable of impacting the nonattainment area.

[24.] 22 "Source" means any building, structure, facility, installation or combination thereof which emits or is capable of emitting air contaminants to the atmosphere and is located on one or more contiguous or adjacent properties and is owned or operated by the

same person or by persons under common control.

340-20-230      Procedural Requirements

1.    Information Required

The owner or operator of a proposed major source or major modification shall submit all information necessary to perform any analysis or make any determination required under these Rules. Such information shall include, but not be limited to:

- a.    A description of the nature, location, design capacity, and typical operating schedule of the source or modification, including specifications and drawings showing its design and plant layout;
- b.    An estimate of the amount and type of each air contaminant emitted by the source in terms of hourly, daily, seasonal, and yearly rates, showing the calculation procedure;
- c.    A detailed schedule for construction of the source or modification;
- d.    A detailed description of the system of continuous emission reduction which is planned for the source or modification, and any other information necessary to determine that best

available control technology or lowest achievable emission rate technology, whichever is applicable, would be applied;

- e. To the extent required by these rules, an analysis of the air quality impact of the source or modification, including meteorological and topographical data, specific details of models used, and other information necessary to estimate air quality impacts; and
- f. To the extent required by these rules, an analysis of the air quality impacts, and the nature and extent of all commercial, residential, industrial, and other growth which has occurred since January 1, 1978, in the area the source or modification would affect.

## 2. Other Obligations

Any owner or operator who constructs or operates a source or modification not in accordance with the application submitted pursuant to these Rules or with the terms of any approval to construct, or any owner or operator of a source or modification subject to this section who commences construction after the effective date of these regulations without applying for and receiving an Air Contaminant Discharge Permit, shall be subject to appropriate enforcement action.

Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, if construction is discontinued for a period of 18 months or more, or if construction is not completed within 18 months of the scheduled time. The Department may extend the 18-month period upon satisfactory showing that an extension is justified. This provision does not apply to the time period between construction of the approved phases of a phased construction project; each phase must commence construction within 18 months of the projected and approved commencement date.

Approval to construct shall not relieve any owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan and any other requirements under local, State, or Federal law.

### 3. Public Participation

- a. Within 30 days after receipt of an application to construct, or any addition to such application, the Department shall advise the applicant of any deficiency in the application or in the information submitted. The date of the receipt of a complete application shall be, for the purpose of this section, the date on which the Department received all required information.

b. Notwithstanding the requirements of OAR 340-14-020, but as expeditiously as possible and at least within six months after receipt of a complete application, the Department shall make a final determination on the application. This involves performing the following actions in a timely manner.

A. Make a preliminary determination whether construction should be approved, approved with conditions, or disapproved.

B. Make available for a 30 day period in at least one location a copy of the permit application, a copy of the preliminary determination, and a copy or summary of other materials, if any, considered in making the preliminary determination.

C. Notify the public, by advertisement in a newspaper of general circulation in the area in which the proposed source or modification would be constructed, of the application, the preliminary determination, the extent of increment consumption that is expected from the source or modification, and the opportunity for a public hearing and for written public comment.

D. Send a copy of the notice of opportunity for public

comment to the applicant and to officials and agencies having cognizance over the location where the proposed construction would occur as follows: The chief executives of the city and county where the source or modification would be located, any comprehensive regional land use planning agency, any State, Federal Land Manager, or Indian Governing Body whose lands may be affected by emissions from the source or modification, and the Environmental Protection Agency.

E. Upon determination that significant interest exists, provide opportunity for a public hearing for interested persons to appear and submit written or oral comments on the air quality impact of the source or modification, alternatives to the source or modification, the control technology required, and other appropriate considerations. For energy facilities, the hearing may be consolidated with the hearing requirements for site certification contained in OAR 345, Division 15.

F. Consider all written comments submitted within a time specified in the notice of public comment and all comments received at any public hearing(s) in making a final decision on the approvability of the application. No later than 10 working days after the

close of the public comment period, the applicant may submit a written response to any comments submitted by the public. The Department shall consider the applicant's response in making a final decision. The Department shall make all comments available for public inspection in the same locations where the Department made available preconstruction information relating to the proposed source or modification.

G. Make a final determination whether construction should be approved, approved with conditions, or disapproved pursuant to this section.

H. Notify the applicant in writing of the final determination and make such notification available for public inspection at the same location where the Department made available preconstruction information and public comments relating to the source or modification.

340-20-235      Review of New Sources and Modifications for Compliance With Regulations

The owner or operator of a proposed major source or major modification must demonstrate the ability of the proposed source or modification to comply with all applicable requirements of the Department of

Environmental Quality, including New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants, and shall obtain an Air Contaminant Discharge Permit.

340-20-240      Requirements for Sources in Nonattainment Areas

New major sources and major modifications which are located in designated nonattainment areas shall meet the requirements listed below.

1.    Lowest Achievable Emission Rate

The owner or operator of the proposed major source or major modification must demonstrate that the source or modification will comply with the lowest achievable emission rate (LAER) for each nonattainment pollutant. In the case of a major modification, the requirement for LAER shall apply only to each new or modified emission unit which increases emissions. For phased construction projects, the determination of LAER shall be reviewed at the latest reasonable time prior to commencement of construction of each independent phase.

2.    Source Compliance

The owner or operator of the proposed major source or major modification must demonstrate that all major sources owned or operated by such person (or by an entity controlling, controlled

by, or under common control with such person) in the State are in compliance or on a schedule for compliance, with all applicable emission limitations and standards under the Clean Air Act.

3. Growth Increment or Offsets

The owner or operator of the proposed major source or major modification must demonstrate that the source or modification will comply with any established emissions growth increment for the particular area in which the source is located or must provide emission reductions ("offsets") as specified by these rules. A combination of growth increment allocation and emission reductions may be used to demonstrate compliance with this section. Those emission increases for which offsets can be found through the best efforts of the applicant shall not be eligible for a growth increment allocation.

4. Net Air Quality Benefit

For cases in which emission reductions or offsets are required, the applicant must demonstrate that a net air quality benefit will be achieved in the affected area as described in OAR 340-20-260 (Requirements for Net Air Quality Benefit) and that the reductions are consistent with reasonable further progress toward attainment of the air quality standards.

5. Alternative Analysis

An alternative analysis must be conducted for new major sources or major modifications of sources emitting volatile organic compounds or carbon monoxide locating in nonattainment areas.

This analysis must include an evaluation of alternative sites, sizes, production processes, and environmental control techniques for such proposed source or modification which demonstrates that benefits of the proposed source or modification significantly outweigh the environmental and social costs imposed as a result of its location, construction or modification.

6. Special Exemption for the Salem Ozone Nonattainment Area

Proposed major sources and major modifications of sources of volatile organic compounds which are located in the Salem Ozone nonattainment area shall comply with the requirements of Sections 1 and 2 of OAR 340-20-240 but are exempt from all other sections of this rule.

[7. Growth Increments

a. Medford-Ashland Ozone Nonattainment Area

The ozone control strategy for the Medford-Ashland nonattainment area establishes a growth increment for new major sources or major modifications which will emit volatile

organic compounds. The cumulative volatile organic compound growth increment may be allocated as follows:

| <u>year</u>  | <u>cummulative<br/>volatile organic compound<br/>growth increment</u> |
|--------------|-----------------------------------------------------------------------|
| 1980 to 1982 | 185 tons of VOC                                                       |
| 1983         | 388                                                                   |
| 1984         | 591                                                                   |
| 1985         | 794                                                                   |
| 1986         | 997                                                                   |
| 1987         | 1200                                                                  |

No single owner or operator shall receive an allocation of more than 50% of any remaining growth increment in any one year. The growth increment shall be allocated on a first come-first served basis depending on the date of submittal of a complete permit application.]

340-20-241 Growth Increments

The ozone control strategies for the Medford-Ashland and Portland ozone nonattainment areas establish growth margins for new major sources or major modifications which will emit volatile organic compounds. The growth margin shall be allocated on a first-come-first-served basis depending on the date of submittal of a complete permit application. No single source shall receive an allocation of more than 50% of any remaining growth margin. The allocation of emission increases from the growth margins shall be calculated based on the ozone season (April 1 to October 31 of each year). The amount of each growth margin that is available is defined in the State Implementation Plan for each area and is on file with the Department.

340-20-245      Requirements for Sources in Attainment or Unclassified  
Areas (Prevention of Significant Deterioration)

New Major Sources or Major Modifications locating in areas designated attainment or unclassifiable shall meet the following requirements:

1.    Best Available Control Technology

The owner or operator of the proposed major source or major modification shall apply best available control technology (BACT) for each pollutant which is emitted at a significant emission rate (OAR 340-20-225 definition [22]. 20 ) In the case of a major modification, the requirement for BACT shall apply only to each new or modified emission unit which increases emissions. For phased construction projects, the determination of BACT shall be reviewed at the latest reasonable time prior to commencement of construction of each independent phase.

2.    Air Quality Analysis

The owner or operator of the proposed major source or major modification shall demonstrate that the potential to emit any pollutant at a significant emission rate (OAR 340-20-225 definition [22]. 20 ) in conjunction with all other applicable emissions increases and decreases, (including secondary emissions), would not cause or contribute to air quality levels in excess of:

- a. Any State or National ambient air quality standard, or
- b. Any applicable increment established by the Prevention of Significant Deterioration requirements (OAR 340-31-110),  
or
- c. An impact on a designated nonattainment area greater than the significant air quality impact levels (OAR 340-20-225 definition 23). New sources or modifications of sources which would emit volatile organic compounds which may impact the Salem ozone nonattainment area are exempt from this requirement.

Sources or modifications with the potential to emit at rates greater than the significant emission rate but less than 100 tons/year, and are greater than 50 kilometers from a nonattainment area are not required to assess their impact on the nonattainment area.

If the owner or operator of a proposed major source or major modification wishes to provide emission offsets such that a net air quality benefit as defined in OAR 340-20-260 is provided, the Department may consider the requirements of OAR 340-20-245(2) to have been met.

3. Exemption for Sources Not Significantly Impacting Designated Nonattainment Areas.

A proposed major source is exempt from OAR 340-20-220 to 275 if:

- a. The proposed source does not have a significant air quality impact on a designated nonattainment area, and
- b. The potential emissions of the source are less than 100 tons/year for sources in the categories listed in Table 3 or less than 250 tons/year for sources not in the categories listed in Table 3.

Major modifications are not exempted under this section unless the source including the modifications meets the requirements of a. and b. above. Owners or operators of proposed sources which are exempted by this provision should refer to OAR 340-20-020 to 032 and OAR 340-20-140 to 185 for possible applicable requirements.

Table 3: Source Categories

1. Fossil fuel-fired steam electric plants of more than 250 million BTU/hour heat input
2. Coal cleaning plants (with thermal dryers)
3. Kraft pulp mills
4. Portland cement plants

5. Primary Zinc Smelters
6. Iron and Steel Mill Plants
7. Primary aluminum ore reduction plants
8. Primary copper smelters
9. Municipal Incinerators capable of charging more than 250 tons of refuse per day
10. Hydrofluoric acid plants
11. Sulfuric acid plants
12. Nitric acid plants
13. Petroleum Refineries
14. Lime plants
15. Phosphate rock processing plants
16. Coke oven batteries
17. Sulfur recovery plants
18. Carbon black plants (furnace process)
19. Primary lead smelters
20. Fuel conversion plants
21. Sintering plants
22. Secondary metal production plants
23. Chemical process plants
24. Fossil fuel fired boilers (or combinations thereof) totaling more than 250 million BTU per hour heat input
25. Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels
26. Taconite ore processing plants
27. Glass fiber processing plants
28. Charcoal production plants

#### 4. Air Quality Models

All estimates of ambient concentrations required under these Rules shall be based on the applicable air quality models, data bases, and other requirements specified in the "Guideline on Air Quality Models" (OAQPS 1.2-080, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, April 1978). Where an air quality impact model specified in the "Guideline on Air Quality Models" is inappropriate, the model may be modified or another model substituted. Such a change must be subject to notice and opportunity for public comment and must receive approval of the [Commission] Department and the Environmental Protection Agency. Methods like those outlined in the "Workbook for the Comparison of Air Quality Models" (U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, May, 1978) should be used to determine the comparability of air quality models.

#### 5. Air Quality Monitoring

- a. The owner or operator of a proposed major source or major modification shall submit with the application, subject to approval of the Department, an analysis of ambient air quality in the area of the proposed project. This analysis shall be conducted for each pollutant potentially emitted at a significant emission rate by the proposed source or modification. As necessary to establish ambient air quality

levels, the analysis shall include continuous air quality monitoring data for any pollutant potentially emitted by the source or modification except for nonmethane hydrocarbons. Such data shall relate to, and shall have been gathered over the year preceding receipt of the complete application, unless the owner or operator demonstrates that such data gathered over a portion or portions of that year or another representative year would be adequate to determine that the source or modification would not cause or contribute to a violation of an ambient air quality standard or any applicable increment.

Air quality monitoring which is conducted pursuant to this requirement shall be conducted in accordance with 40 CFR 58 Appendix B, "Quality Assurance Requirements for Prevention of Significant Deterioration (PSD) Air Monitoring" and with other methods on file with the Department.

The Department may exempt a proposed major source or major modification from monitoring for a specific pollutant if the owner or operator demonstrates that the air quality impact from the emissions increase would be less than the amounts listed below or that the concentrations of the pollutant in the area that the source or modification would impact are less than these amounts.

Carbon monoxide - 575 ug/m<sup>3</sup>, 8 hour average

Nitrogen dioxide - 14 ug/m<sup>3</sup>, annual average

Total suspended particulate - 10 ug/m<sup>3</sup>, 24 hour average

Sulfur dioxide - 13 ug/m<sup>3</sup>, 24 hour average

Ozone - Any net increase of 100 tons/year or more of volatile organic compounds from a source or modification subject to PSD is required to perform an ambient impact analysis, including the gathering of ambient air quality data.

Lead - 0.1 ug/m<sup>3</sup>, 24 hour average

Mercury - 0.25 ug/m<sup>3</sup>, 24 hour average

Beryllium - 0.0005 ug/m<sup>3</sup>, 24 hour average

Fluorides - 0.25 ug/m<sup>3</sup>, 24 hour average

Vinyl chloride - 15 ug/m<sup>3</sup>, 24 hour average

Total reduced sulfur - 10 ug/m<sup>3</sup>, 1 hour average

Hydrogen sulfide - 0.04 ug/m<sup>3</sup>, 1 hour average

Reduced sulfur compounds - 10 ug/m<sup>3</sup>, 1 hour average

- b. The owner or operator of a proposed major source or major modification shall, after construction has been completed, conduct such ambient air quality monitoring as the Department may require as a permit condition to establish the effect which emissions of a pollutant (other than nonmethane hydrocarbons) may have, or is having, on air quality in any area which such emissions would affect.

6. Additional Impact Analysis

- a. The owner or operator of a proposed major source or major modification shall provide an analysis of the impairment to visibility, soils and vegetation that would occur as a result of the source or modification and general commercial, residential, industrial and other growth associated with the source or modification. The owner or operator may be exempted from providing an analysis of the impact on vegetation having no significant commercial or recreational value.
- b. The owner or operator shall provide an analysis of the air quality concentration projected for the area as a result of general commercial, residential, industrial and other growth associated with the major source or modification.

7. Sources Impacting Class I Areas

Where a proposed major source or major modification impacts or may impact a Class I area, the Department shall provide notice to the Environmental Protection Agency and to the appropriate Federal Land Manager of the receipt of such permit application and of any preliminary and final actions taken with regard to such application. The Federal Land Manager shall be provided an opportunity in accordance with OAR 340-20-230 Section 3 to

present a demonstration that the emissions from the proposed source or modification would have an adverse impact on the air quality related values (including visibility) of any Federal mandatory Class I lands, notwithstanding that the change in air quality resulting from emissions from such source or modification would not cause or contribute to concentrations which would exceed the maximum allowable increment for a Class I area. If the Department concurs with such demonstration the permit shall not be issued.

340-20-250      Exemptions

1. Resource recovery facilities burning municipal refuse and sources subject to federally mandated fuel switches may be exempted by the Department from requirements OAR 340-20-240 Sections 3 and 4 provided that:

- a. No growth increment is available for allocation to such source or modification, and
- b. The owner or operator of such source or modification demonstrates that every effort was made to obtain sufficient offsets and that every available offset was secured.

(Such an exemption may result in a need to revise the State Implementation Plan to require additional control of existing

sources.)

2. Temporary emission sources, which would be in operation at a site for less than two years, such as pilot plants and portable facilities, and emissions resulting from the construction phase of a new source or modification must comply with OAR 340-20-240(1) and (2) or OAR 340-20-245(1), whichever is applicable, but are exempt from the remaining requirements of OAR 340-20-240 and OAR 340-20-245 provided that the source or modification would impact no Class I area or no area where an applicable increment is known to be violated.

3. Proposed increases in hours of operation or production rates which would cause emission increases above the levels allowed in an Air Contaminant Discharge Permit and would not involve a physical change in the source may be exempted from the requirement of OAR 340-20-245(1) (Best Available Control Technology) provided that the increases cause no exceedances of an increment or standard and that the net impact on a nonattainment area is less than the significant air quality impact levels. This exemption shall not be allowed for new sources or modifications that received permits to construct after January 1, 1978.

3. 4. Also refer to OAR 340-20-245(3) for exemptions pertaining to sources smaller than the Federal Size-cutoff Criteria.

The baseline for determining credit for emission offsets shall be the Plant Site Emission Limit established pursuant to OAR 340-20-300 to 320 or, in the absence of a Plant Site Emission Limit, the actual emission rate for the source providing the offsets. Sources in violation of air quality emission limitations may not supply offsets from those emissions which are or were in excess of permitted emission rates. Offsets, including offsets from mobile and area source categories, must be quantifiable and enforceable before the Air Contaminant Discharge Permit is issued and must be demonstrated to remain in effect throughout the life of the proposed source or modification.

340-20-260      Requirements for Net Air Quality Benefit

Demonstrations of net air quality benefit must include the following.

1. A demonstration must be provided showing that the proposed offsets will improve air quality in the same geographical area affected by the new source or modification. This demonstration may require that air quality modeling be conducted according to the procedures specified in the "Guideline on Air Quality Models". Offsets for volatile organic compounds or nitrogen oxides shall be within the same general air basin as the proposed source. Offsets for total suspended particulate, sulfur dioxide,

carbon monoxide and other pollutants shall be within the area of significant air quality impact.

2. For new sources or modifications locating within a designated nonattainment area, the emission offsets must provide reductions which are equivalent or greater than the proposed increases. The offsets must be appropriate in terms of short term, seasonal, and yearly time periods to mitigate the impacts of the proposed emissions. For new sources or modifications locating outside of a designated nonattainment area which have a significant air quality impact (OAR 340-20-225 definition 23) on the nonattainment area, the emission offsets must be sufficient to reduce impacts to levels below the significant air quality impact level within the nonattainment area. Proposed major sources or major modifications which emit volatile organic compounds and are located [in or] within 30 kilometers of an ozone nonattainment area shall provide reductions which are equivalent or greater than the proposed emission increases unless the applicant demonstrates that the proposed emissions will not impact the nonattainment area.

3. The emission reductions must be of the same type of pollutant as the emissions from the new source or modification. Sources of respirable particulate (less than three microns) must be offset with particulate in the same size range. In areas where atmospheric reactions contribute to pollutant levels, offsets may

be provided from precursor pollutants if a net air quality benefit can be shown.

4. The emission reductions must be contemporaneous, that is, the reductions must take effect prior to the time of startup but not more than one year prior to the submittal of a complete permit application for the new source or modification. This time limitation may be extended as provided for in OAR 340-20-265 (Emission Reduction Credit Banking). In the case of replacement facilities, the Department may allow simultaneous operation of the old and new facilities during the startup period of the new facility provided that net emissions are not increased during that time period.

340-20-265      Emission Reduction Credit Banking

The owner or operator of a source of air pollution who wishes to reduce emissions by implementing more stringent controls than required by a permit or by an applicable regulation may bank such emission reductions. Cities, counties or other local jurisdictions may participate in the emissions bank in the same manner as a private firm. Emission reduction credit banking shall be subject to the following conditions:

1. To be eligible for banking, emission reduction credits must be in terms of actual emission decreases resulting from permanent

continuous control of existing sources. The baseline for determining emission reduction credits shall be the actual emissions of the source or the Plant Site Emission Limit established pursuant to OAR 340-20-300 to 320.

2. Emission reductions may be banked for a specified period not to exceed ten years unless extended by the Commission, after which time such reductions will revert to the Department for use in attainment and maintenance of air quality standards or to be allocated as a growth margin.
3. Emission reductions which are required pursuant to an adopted rule shall not be banked.
4. Permanent source shutdowns or curtailments other than those used within one year for contemporaneous offsets as provided in OAR 340-20-260(4) are not eligible for banking by the owner or operator but will be banked by the Department for use in attaining and maintaining standards. The Department may allocate these emission reductions as a growth increment. The one year limitation for contemporaneous offsets shall not be applicable to those shutdowns or curtailments which are to be used as internal offsets within a plant as part of a specific plan. Such a plan for use of internal offsets shall be submitted to the Department and receive written approval within one year of the permanent shutdown or curtailment. A permanent source shutdown or

cutailment shall be considered to have occurred when a permit is modified, revoked or expires without renewal pursuant to the criteria established in OAR 340-14-005 through 050.

5. The amount of banked emission reduction credits shall be discounted without compensation to the holder for a particular source category when new regulations requiring emission reductions are adopted by the Commission. The amount of discounting of banked emission reduction credits shall be calculated on the same basis as the reductions required for existing sources which are subject to the new regulation. Banked emission reduction credits shall be subject to the same rules, procedures, and limitations as permitted emissions.
6. Emission reductions must be in the amount of ten tons per year or more to be creditable for banking except as follows: a) In the Medford-Ashland AQMA emission reductions must be at least in the amount specified in Table 2 of OAR 340-20-225([22] 20) b) In Lane County, the Lane Regional Air Pollution Authority may adopt lower levels.
7. Requests for emission reduction credit banking must be submitted to the Department and must contain the following documentation:
  - a. A detailed description of the processes controlled,

- b. Emission calculations showing the types and amounts of actual emissions reduced,
  - c. The date or dates of such reductions,
  - d. Identification of the probable uses to which the banked reductions are to be applied,
  - e. Procedure by which such emission reductions can be rendered permanent and enforceable.
8. Requests for emission reduction credit banking shall be submitted to the Department prior to or within the year following the actual emissions reduction. The Department shall approve or deny requests for emission reduction credit banking and, in the case of approvals, shall issue a letter to the owner or operator defining the terms of such banking. The Department shall take steps to insure the permanence and enforceability of the banked emission reductions by including appropriate conditions in Air Contaminant Discharge Permits and by appropriate revision of the State Implementation Plan.
9. The Department shall provide for the allocation of the banked emission reduction credits in accordance with the uses specified by the holder of the emission reduction credits. When emission reduction credits are transferred, the Department must be

notified in writing. Any use of emission reduction credits must be compatible with local comprehensive plans, Statewide planning goals, and State laws and rules.

340-20-270      Fugitive and Secondary Emissions

Fugitive emissions shall be included in the calculation of emission rates of all air contaminants. Fugitive emissions are subject to the same control requirements and analyses required for emissions from identifiable stacks or vents. Secondary emissions shall not be included in calculations of potential emissions which are made to determine if a proposed source or modification is major. Once a source or modification is identified as being major, secondary emissions must be added to the primary emissions and become subject to these rules.

[340-20-275      Stack Heights

The degree of emission limitation required for any air contaminant regulated under these rules shall not be affected in any manner by so much of the stack height as exceeds good engineering practice or by any other dispersion technique. This section shall not apply with respect to stack heights in existence before December 31, 1970, or to dispersion techniques implemented before that date.]

## Stack Heights and Dispersion Techniques

### 340-20-340 Definitions

(1) "Dispersion Technique" means any technique which attempts to affect the concentration of a pollutant in the ambient air by using that portion of a stack which exceeds good engineering practice stack height, varying the rate of emission of a pollutant according to ambient concentrations of that pollutant, or by addition of a fan or a reheater to obtain a less stringent emission limitation. The preceeding sentence does not include: (a) the reheating of a gas stream, following use of a pollution control system, for the purpose of returning the gas to the temperature at which it was originally discharged from the facility generating the gas stream; (b) the use of smoke management in agricultural or silvicultural programs; or (c) combining the exhaust gases from several stacks into one stack.

(2) "Excessive Concentrations" for the purpose of determining good engineering practice stack height in a fluid modeling evaluation or field study means a maximum concentration due to downwash, wakes, or eddy effects produced by structures or terrain features which is at least 40 percent in excess of the maximum concentration experienced in the absence of such downwash, wakes, or eddy effects.

(3) Good Engineering Practice (GEP) Stack Height" means the greater of:

(a) 65 meters,

(b)  $H_g = H + 1.5 L$ , where

$H_g$  = good engineering practice stack height, measured

from the ground level elevation at the base of the  
stack,

H = height of nearby structure or structures measured from  
ground level elevation at the base of the stack,

L = lesser dimension (height or width) of the nearby  
structure or structures.

(c) The height demonstrated by a fluid modeling evaluation or a  
field study which is approved by the Department and ensures  
that the emissions from a stack do not result in excessive  
concentrations of any air pollutant as a result of downwash,  
wakes, or eddy effects created by the source itself, nearby  
structures, or terrain obstacles.

(4) "Nearby Structures" means those structures within a distance of  
five times the lesser of the height or the width dimension of a  
structure but not greater than one-half mile. The height of the  
structure is measured from the ground level elevation at the base of  
the stack.

340-20-345 Limitations

(1) The degree of emission limitation required for any source shall not be affected in any manner by so much of the stack height as exceeds good engineering practice (GEP) or by any other dispersion technique. This provision applies to new sources and, modifications of sources, and to existing sources proposing to increase stack heights.

(2) An emission limitation established pursuant to the proposed construction of a stack under the criteria established in 340-20-340(3)(c) shall be subject to notice and opportunity for public comment concerning the fluid modeling evaluation or field study that was used to demonstrate the need for the increased stack height.

## Portable Hot Mix Asphalt Plants

340-25-120 [(1) Portable hot mix asphalt plants temporarily located outside of special control areas and complying with the emission limitation of section 340-25-110(1) need not comply with rules 340-21-015 and 340-21-030, provided, however, that the particulate matter emitted does not create or tend to create a hazard to human, animal, or plant life, or unreasonably interfere with agriculture operations, recreation areas, or the enjoyment of life and property.]

[(2)] Portable hot mix asphalt plants may apply for air contaminant discharge permits within the area of Department jurisdiction without indicating specific site locations. [Said permits will be issued for periods not to exceed one (1) calendar year.] As a condition of said permit, the permittee will be required to obtain approval from the Department for the air pollution controls to be installed at each site location or set-up at least ten (10) days prior to operating at each site location or set-up.

[Applicability of Alternative Control Systems

340-22-108(1) A source may install and operate alternative control systems or changes in process on a plant site basis and be exempt from these rules provided:

- (a) An application for an alternative control system is submitted in writing; and
  - (b) An application and supporting documentation demonstrates that the volatile organic compound reduction in emissions is equal to or greater than that required by the General Emission Standards for Volatile Organic Compounds; and
  - (c) Approval is granted in writing by the Department;
  - (d) The alternative control system is approved by the Environmental Protection Agency.
- (2) Alternative Control Systems shall be approved for a specified period of time, however, such approval shall not exempt the source from complying with subsequent rule modifications or air quality control strategies required, provided further the source may provide new alternative control systems to meet the new promulgation or requirements.]