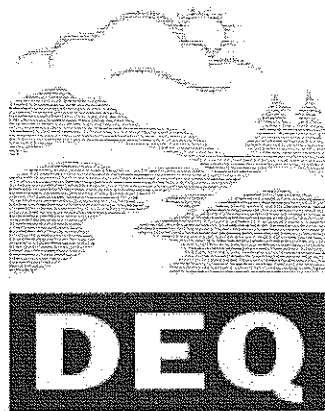


ANOTHER 27, 1976, 8000 MOUNTAINS

ALBION 1976

8/27/1976

**OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS**



**State of Oregon
Department of
Environmental
Quality**

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AGENDA

Environmental Quality Commission Meeting

August 27, 1976
602 Multnomah County Courthouse
1021 S.W. Fourth
Portland, Oregon 97201

9:00 a.m.

- A. Minutes of July 30, 1976, EQC Meeting *—deferred*
- B. Monthly Activity Report for July, 1976
- C. Tax Credit Applications
- D. *pass* Recommendations for Bid Award - Request for Proposal for Disposal of Alkali Lake Pesticide Residues R. Brown
- E. *pass* Consideration of Adoption as a Permanent Rule the Temporary Rule Changing Fee Schedules for Subsurface Sewage Disposal Permits and Site Evaluations in Jackson County J. Osborne
- F. *pass* Request for Authorization to Conduct Public Hearings on Proposed Addition to OAR Chapter 340, Division 7, Subsurface and Alternative Sewage Disposal, Proposed Geographic Region Rule B (pertaining to use of fill sand in constructing subsurface disposal systems) J. Osborne
- G. *pass* Authorization for Public Hearing to Consider Amending OAR Chapter 340, Sections 25-305 through 25-325 Pertaining to Veneer Dryer Emissions F. Skirvin
- H. *pass* Consideration of Adoption of Revisions to OAR Chapter 340, Sections 35-025 through 35-030 Pertaining to Motor Vehicle Noise Standards J. Hector
- I. *pass* Consideration of Adoption of Revisions to OAR Chapter 340, Sections 24-320 through 24-330 Pertaining to Motor Vehicle Inspection Standards Ron Householder
- J. *pass* Consideration of Adoption of Revised Rules Governing Administrative Procedures, OAR Chapter 340, Section 11-005 et. seq. P. McSwain
- 10:30 a.m. K. Contested Case Review - DEQ vs. *default overruled* R. Randall Taylor P. McSwain
- pass* L. Noise Control Program - Current and Projected Status J. Hector
- M. Discussion of Costs of Indirect Source Compliance Measures T. George

Because of the uncertain time spans involved, the Commission reserves the right to deal with any item, except Item K, at any time in the meeting.

The Commission will breakfast at the Trees Restaurant in the Portland Hilton Hotel at 7:30 a.m.

MINUTES OF THE SEVENTY-EIGHTH MEETING
of the
Oregon Environmental Quality Commission
August 27, 1976

At 9:00 a.m. on Friday, August 27, 1976 the seventy-eighth meeting of the Oregon Environmental Quality Commission convened in Room 602 of the Multnomah County Courthouse at 1021 S.W. Fourth Avenue, Portland, Oregon.

Present were all Commission members except Dr. Grace S. Phinney. Those present were Mr. Joe B. Richards, Chairman; Dr. Morris Crothers, Vice Chairman; (Mrs.) Jacklyn L. Hallock; and Mr. Ronald M. Somers. Present on behalf of the Department were its Director, Mr. Loren (Bud) Kramer and several members of the Department's staff. Mr. Raymond Underwood, Counsel to the Commission was present for the Department of Justice.

PROGRAM ACTIVITY REPORTS AND TAX CREDIT APPLICATIONS

Upon the meeting being called to order, it was MOVED by Commissioner Somers, seconded by Commissioner Hallock, and unanimously carried that the Commission approve the Director's recommendations with regard to both the Program Activity Report of July, 1976 and the Tax Credit Applications before the Commission.

RECOMMENDATION FOR BID AWARD - REQUEST FOR PROPOSAL TO DISPOSE OF ALKALI LAKE PESTICIDE RESIDUES

Mr. Robert Brown of the Department's Solid Waste Management Division addressed the Commission regarding this agenda item. He reported that bids had ranged from \$45,000 (termed unresponsive) to \$310,000. It was further reported that two teams, working independently, had both selected the recommended bid. The chosen bid of Chem-Nuclear was said to involve compacting of the barrels of waste in trenches, covering them with two feet of earth, and stabilizing them with one to five inches of crushed rock. The Director's recommendation was as follows:

That the Department be authorized and directed to:

1. Apply to the State Emergency Board for project funding in the amount of the Chem-Nuclear proposal.
2. That upon approval of the State Emergency Board a final contract be negotiated with Chem-Nuclear for on-site burial of all wastes.

It was MOVED by Commissioner Somers that the Director's recommendation be accepted provided that the Attorney General's Office attach a memorandum stating compliance with laws relative to the acceptance of bids on contracts by public agencies.

NOTE: These minutes were extracted from a mechanical recording and from staff reports presented to the Commission regarding each agenda item. The recording and the reports are available under the provisions of Oregon Revised Statutes Chapter 192, and are hereby made a part of these minutes, incorporated by reference.

Mr. Brown noted that the matter had been submitted to the Department of General Services for approval and that the procedure had been evaluated as acceptable.

Mr. Frank Espinosa of Chemical Disposition Service addressed the Commission. It was Mr. Espinosa's opinion that crushing the barrels of chemical residue at Alkali Lake or handling them in a like manner would result in increased hazards to workers and the community.

Further, he reported his view that back-filling of the proposed trench would result in the residue's floating to the surface.

Mr. Espinosa suggested that his proposal be considered further because just like diking an oil spill, it would contain the residues with diking and covering and leave them undisturbed.

Mr. Larry Wilkenson, a professional engineer representing Northwest VIP and Wes-Con, Inc. argued strongly against on-site burial. He cautioned the Commission that the proposed monitoring wells were unnecessary in that their revelation of groundwater contamination in the future would be a revelation which the Commission would not want. He recalled that the proposal of his sponsors was to remove the waste to a site in Idaho.

Commissioner Hallock informed the Commission that she would appreciate further staff testimony regarding hazard to the ground water before acceptance of Commissioner Somers' motion.

Mr. Wilkenson assured Commissioner Richards that the firm represented by Mr. Wilkenson was a national corporation whose backbone was environmental waste disposal.

Mr. George Ward of the Land Use Research Institute addressed the Commission. He recommended that all bids, including his own, be rejected due to Environmental Protection Agency concerns. He noted that federal information had indicated the project to be grant eligible. It was his request that the entire matter be reconsidered.

Mr. Robert Brown again addressed the Commission with his information that land for soil incorporation, as suggested by Dr. Witt of Oregon State University, was available but was not under the control of the state. He added that a chemist of the Hazardous Materials Division of the Environmental Protection Agency had expressed no interest in the project and deferred to the expertise of Mr. Terry Hegdahl of EPA Region 10. Mr. Hegdahl, Mr. Brown reported, had approved of the current proposal over the phone.

Mr. Brown assured Commissioner Hallock that the present proposal would tend to preserve the deeper water table while not preserving the more shallow, already useless water table close to the surface.

He added that no compacting of the drums would result in cavitations which would collect rainwater and further contaminate the waters.

Commissioner Somers, reciting the need for preserving the integrity of the bid process by not revising bid terms, MOVED that the Director's recommendation be accepted under the condition that he had before mentioned. The motion was seconded by Commissioner Crothers and unanimously carried by those present.

Counsel to the Commission, Mr. Raymond Underwood had cautioned that review of the bid process by his office might reveal some deficiency (though he was aware of none) with the result that the Commission would have to act again on the bids. Because of the waning construction season, the Commissioners agreed this risk should be undertaken.

In response to inquiry by Commissioner Hallock, Mr. Brown noted that the advisory committee had studied Chem-Nuclear's recommendation that the drums be compacted and had concluded that this should be done.

AGENDA ITEMS E, F, AND G

It was MOVED by Commissioner Somers, seconded by Commissioner Hallock, and carried with the unanimous support of the four commissioners present that the Director's recommendation be adopted with regard to Agenda Items E, F, and G. Those recommendations were as follows:

CONSIDERATION OF ADOPTION OF A PERMANENT RULE TO REPLACE TEMPORARY RULE CHANGING FEE SCHEDULE FOR SUBSURFACE SEWAGE DISPOSAL PERMITS AND SITE EVALUATIONS IN JACKSON COUNTY

That the Commission adopt as a permanent rule to be filed promptly with the Secretary of State the proposed amendment to OAR Chapter 340, Division 7, as follows: in subsection 72-015(4), line 6 - delete "Jackson,".

REQUEST FOR AUTHORIZATION TO CONDUCT PUBLIC HEARINGS ON PROPOSED AMENDMENT TO OAR CHAPTER 340, DIVISION 7, SUBSURFACE AND ALTERNATIVE SEWAGE DISPOSAL

That the Commission authorize public hearings to be conducted at the earliest possible date for the purpose of considering the adoption of the proposed amendment (Geographic Region Rule B) to the rules pertaining to subsurface and alternative sewage disposal.

REQUEST FOR AUTHORIZATION TO HOLD A PUBLIC HEARING ON PROPOSED AMENDMENTS TO THE AIR QUALITY REGULATION FOR THE BOARD PRODUCTS INDUSTRIES (i.e. VENEER AND PLYWOOD MILLS)

That the Environmental Quality Commission:

1. Hear public testimony concerning the proposed amendments to the Board Products Industries Air Quality Regulations, specifically those related to the opacity regulation on veneer drier operations.
2. Take appropriate action on the regulation after giving consideration to the testimony received.

RULE AMENDMENTS: RULES PERTAINING TO NOISE STANDARDS FOR MOTOR VEHICLES
(INCLUDING MOTORCYCLES)

Mr. John Hector of the Department's noise control program addressed the Commission with the conclusions and recommendation in the staff report as previously distributed. Mr. Hector recalled that the need to control noise levels from motor vehicles had been the cause of the present rules, adopted in 1974. The rules, as then adopted, had included increments of progress to be achieved over the years. The reasons for considering present amendments were requests from the automobile and motorcycle industries that some of the required improvements for the future be relaxed or deleted and the need for certain housekeeping amendments. After public hearing on these proposals, the staff had concluded that the increment of improvement to the final 75 dBA standard for automobiles and light trucks should be delayed for two additional years, to 1981. It was recommended that "trucks" should be redefined as vehicles of five tons or more in gross weight (to conform to the federal definition). It was the Department's position that buses cause the major source of noise in urban commercial and residential areas and that the technology was available to make quieter buses. Therefore, the recommendation was not to relax the current, strict noise standards for buses simply because manufacturers were choosing to ignore available technology.'

Regarding motorcycles, the staff rejected the industry's view that off-road motorcycles, a major source of citizen complaints to the Department, should be given more lenient standards than road motorcycles. It was recommended also that the 80 dBA standard planned for the 1977 model year be increased to 81 dBA to be extended through model year 1982, with 1987 as the year when 75 dBA must be met. It was explained for the benefit of Commissioner Richards that a threat to the major line of road motorcycles manufactured by AMF Harley Davidson and Norton-Triumph lead to the recommended 1 dBA relaxation in the 1977 model year standard. It was reported that proposal (including the enforcement tolerance written into the Oregon rule) would bring Oregon into alignment with California in this regulatory area. The California pattern was reportedly followed with respect to the delay until 1987 in the 75 dBA standard also. California was said to be a leader in this area of regulation with great influence on the industry.

Commissioner Crothers questioned whether enforcement efforts would be seriously hampered by use of date of manufacture rather than model year to set standards, particularly in an industry where the model year concept is fading.

Commissioner Somers suggested that the upcoming Legislature should be approached with a program designed to reach the real offenders, those who modify vehicles after sale so that more noise is made. He inquired if a scheme involving revocation of registration through the Department of Motor Vehicles might not be in order.

In response to inquiry by Commissioner Hallock, Mr. Hector agreed that a major component of the problem was at the user level with regard to motorcycles whose riders discard noise muffling equipment in favor of after-market equipment or none at all.

State Representative Pat Whiting, District 7, testified against any change which would result in more lenient standards for off-road motorcycles, contending that they were a major source of complaint among her constituency. She was against relaxation of the 80 dBA standard for 1977 motorcycles but would defer to the agency's expertise in the matter. Finally, she cautioned against bowing to national standards which would drag Oregon down to a national average when Oregon's leadership should be retained.

Representative Whiting said she would be willing to support viable legislation providing for revocation of registration on vehicles modified after sale as Commissioner Somers had suggested.

She added that she would be severely critical of any effort by manufacturers to promote after-market accessories which would mitigate the noise controls required on motorcycles manufactured for retail sale.

Commissioner Somers noted that a great deal of the deficient after-market parts were manufactured and sold by firms which do not manufacture motor vehicles.

Mr. Russell Jura of Yamaha International Corporation addressed the Commission. It was his contention that adequate evidence would support the splitting of regulations between on and off-road motorcycles, including the evidence that the technological difficulties of quiet off-road bikes that still perform are great and that the bulk of citizen complaints flows from illegal bikes. He argued that illegal activities with bikes should not result in unemployment for law abiding retail sales personnel or frustration of law abiding recreational pursuits.

Commissioner Somers cautioned Mr. Jura that the state could govern in-use vehicles despite whatever manufacturer's standards might be adopted by EPA. He added that, while reduction of noise in Yamaha off-road vehicles, such as snowmobiles, had come a long way, the people of Oregon, (given a push for separate requirements) would probably make the off-road standards stricter than those for on-road vehicles. Commissioner Somers reminded Mr. Jura that even the Federal Government has extremely stringent standards for vehicles being used in or about designated wilderness areas.

Mr. Jura assured the Commission that Yamaha does not support the concept of off-road motorcycles in designated wilderness areas. He did assert that off-road motorcycles, in many areas, constitute a legitimate recreational pursuit and that, in his understanding from EPA information, EPA standards to be promulgated in the area of noise from off-road vehicles would pre-empt state regulations.

Commissioner Somers urged Mr. Jura to realize that the continued use of off-road motorcycles in residential areas, as had been cited by Representative Whiting, was the worst enemy of the manufacturers in their quest for lighter regulation.

Commissioner Somers and Mr. Jura discussed whether it would be lawful for Yamaha to exercise control over after market service and parts through the dealer agreements made with retail sales persons.

In response to inquiry by Commissioner Richards, Mr. Jura put Yamaha on record as in support of stronger enforcement policies for in-use vehicles.

Mr. John Walsh of Suzuki Motors addressed the Commission. He concurred in the statements made by Mr. Jura and assured the Commission that Suzuki did not presently make mufflers that were designed to succeed quieter mufflers on manufactured vehicles.

Commissioner Hallock suggested that the motorcycle manufacturers sell "quiet" in the same manner that "noise" had been sold in the past.

Mr. Jura informed her that steps in this direction had been taken and would be followed up.

Commissioner Somers was of the view that some recent case law had upheld the right of vehicle manufacturers to impose upon their dealers whatever conditions might be necessary to prevent the modification of vehicles to an illegal status. He cited Volkswagen as one firm which had done so in a thorough-going manner.

Commissioner Hallock received Mr. Walsh's assurance that he would testify in favor of appropriate legislation to increase enforcement efforts regarding present standards.

Mr. Norman Sherbert of General Motors Corporation addressed Commissioner Crothers' concern over the "model year versus date of manufacture" issue. Mr. Sherbert urged resort of "date of manufacture" which had already been done for trucks and buses while conceding that the present manufacturing customs did not make readily and plainly apparent to law enforcement officials the date of manufacture of automobiles.

Mr. Sherbert's estimation was that, despite a midyear introduction reported in the news by Ford, the industry was not moving away from model year delineations in the area of passenger car and light truck manufacture.

Commissioner Somers withdrew his assertion that date of manufacture might, at the present time, well supplant delineation by model year.

Mr. Sherbert took issue with the test procedure used for automobiles, claiming that it did not involve representative operating modes (it involves wide open throttle in low gear) and that dBA standards should not be lowered until a new procedure is found.

It was MOVED by Commissioner Somers and seconded by Commissioner Hallock that the Director's recommendations to revise the rules governing the motor vehicle noise be adopted. The Chairman was somewhat unsure of the 81 dBA standard for 1977 motorcycles but indicated he would support it. Commissioner Somers felt the Legislature must do more to enforce the in-use standards. Commissioner Crothers felt that imminent EPA pre-emption in the matter of new motor vehicles would justify changing the 1984 increment to 1987. The motion was carried with the unanimous support of the four Commissioners present.

CONTESTED CASE REVIEW: DEQ v. RANDALL TAYLOR

After hearing from respondent and counsel for the Department, the Commission decided that Respondent Randall Taylor should not be held in default as proposed by the hearing officer and the Commission remanded the matter to the hearing officer for a hearing on the merits of a remedial action order (ordering Respondent to repair his subsurface sewage disposal system).

The above decision was on the MOTION of Commissioner Somers, seconded by Commissioner Crothers and approved with the unanimous support of all four Commissioners present. The motion contained, as an aside, an admonition to the Respondent that any violation occurring with regard to his septic system could be the subject of civil penalty assessments on a daily basis.

RULE REVISION: RULES GOVERNING MOTOR VEHICLE EMISSIONS INSPECTION PROGRAM

Mr. Ron Householder of the Department's motor vehicle emissions inspection program addressed the Commission. He reported that in July of 1976 a public hearing had been held on the rule revisions which would extend for one additional year the enforcement tolerances for the inspection program, assign standards for emissions for certain new model automobiles, and correct certain provisions of the rules in a housekeeping fashion.

It was reported that Representative Chrest, of District No. 15, had been consulted on the rules and had found nothing in them to be objectionable.

It was MOVED by Commissioner Hallock, seconded by Commissioner Somers, and carried with the support of all four commissioners present that the Director's recommendation be adopted to repeal the temporary rule in this area which had been adopted in June and to adopt the proposed revisions.

RULE ADOPTION: RULES GOVERNING ADMINISTRATIVE PROCEDURES BEFORE THE COMMISSION

After testimony by Mr. Thomas Guilbert of the Oregon Environmental Council and Mr. Peter McSwain of the Department's staff, it was MOVED by Commissioner Somers that the language: "The Commission may require amendments to petitions under this section but shall not refuse any reasonably understandable petition for lack of form" be added to the proposed OAR Chapter 340, section 11-047(2) (Section Eight of the proposals). The motion carried with the support of all commissioners except Commissioner Phinney who was absent.

It was MOVED by Commissioner Somers that reference to "ORS 183.335(2)" in proposed OAR 340-11-010(3) be changed to "ORS 183.335(1)." The motion, seconded by Commissioner Hallock, passed with the support of all four commissioners.

It was MOVED by Commissioner Crothers, seconded by Commissioner Somers, and carried with the support of all four commissioners present that the proposals of the staff, as amended by the Commission, be adopted. A second vote was taken which confirmed that the adoption included adoption in OAR 340-11-010(3) (b) of the language: "and a description of the subject and issues involved in sufficient detail to inform a person that his interests may be affected."

NOISE POLLUTION PROGRAM PLANNING: STATUS REPORT

Mr. John Hector of the Department's noise control program informed the Commission that the Department intended to seek three additional positions from the Legislature to assist in the area of enforcement of the in-use standards for vehicles. He added that the Department would encourage local governments to adopt and enforce their own in-use noise ordinances. This effort, he said, would be the subject of a request for one new employee. It was reported that new standards were needed for racing facilities and for new highways. One position would be sought, he said, for plan review of new facilities. In addition, he reported, the Legislature would be asked to make revisions and additions to ORS Chapter 467, governing noise emissions.

It was reported that adoption of the Director's recommendation would in no way deny requests made by the League of Oregon Cities asking for further justification of rules governing highway design.

Mr. Allan Isley of the Motorcycle Industry Council addressed the Commission. He reported that the motorcycle industry had changed its stand to seek rationale and well-conceived laws rather than to resist regulation. He agreed totally with stepping up enforcement of in-use standards. It was reported that research conducted by the Council had resulted in model programs, including one to reduce the noise from the exhaust emissions of in-use motorcycles. Mr. Isley regretted that there was a degree of unnecessary polarity between government and industry and urged the Director to work for a motorcycle noise advisory committee to deal with the questions of rule making and legislation.

Commissioner Crothers asked if Mr. Isley would be willing to testify before Ways and Means regarding the additional funding that would be necessary for stepping up enforcement. The answer was affirmative.

It was MOVED by Commissioner Somers, seconded by Commissioner Crothers, and unanimously carried, that the Commission adopt the Director's recommendation with regard to this program.

It was unanimously agreed by the Commission members to defer an agenda item related to the cost control of indirect source construction conditions in permits.

There being no further business, the meeting was adjourned.



ENVIRONMENTAL QUALITY COMMISSION

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

ROBERT W. STRAUB
GOVERNOR

MEMORANDUM

To: Environmental Quality Commission
From: Director
Subject: Agenda Item B, August 27, 1976, EQC Meeting
July 1976 Program Activity Report

Discussion

Attached is the July 1976 Program Activity Report.

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

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

Recommendation

It is the Director's recommendation that the Commission take notice of the reported program activities and give confirming approval to the Department's actions relative to air quality project plans and specifications as described on page 10 of the report.

A handwritten signature in black ink, appearing to read "Loren Kramer", with a long horizontal stroke extending to the right.

LOREN KRAMER
Director



RLF:ee
8/18/76

Department of Environmental Quality
Technical Programs

Permit and Plan Actions

July 1976

<u>Water Quality Division</u>	<u>Page</u>
84 Plan Actions Completed - Summary	1
Plan Actions Completed - Listing	2
64 Plan Actions Pending - Summary	1
3 Permit Actions Completed - Summary	8
Permit Actions Completed - Listing	9
201 Permit Actions Pending - Summary	8
 <u>Air Quality Division</u>	
12 Plan Actions Completed - Summary	1
Plan Actions Completed - Listing	10
21 Plan Actions Pending - Summary	1
49 Permit Actions Completed - Summary	11
Permit Actions Completed - Listing	12
132 Permit Actions Pending - Summary	11
 <u>Solid Waste Management Division</u>	
16 Plan Actions Completed - Summary	1
Plan Actions Completed - Listing	16
20 Plan Actions Pending - Summary	1
22 Permit Actions Completed - Summary	18
Permit Actions Completed - Listing	19
75 Permit Actions Pending - Summary	18

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air, Water & Solid

Waste Divisions

(Reporting Unit)

July 1976

(Month and Year)

SUMMARY OF PLAN ACTIONS

	Plans Received		Plans Approved		Plans Disapproved		Plans Pending
	Month	Fis.Yr.	Month	Fis.Yr.	Month	Fis.Yr.	
<u>Air</u>							
Direct Sources	12	12	12	12			21
Indirect Sources							
Total	12	12	12	12			21
<u>Water</u>							
Municipal	101	101	77	77			57
Industrial	6	6	7	7			7
Total	107	107	84	84			64
<u>Solid Waste</u>							
General Refuse	7	7	7	7			13
Demolition	2	2	2	2			1
Industrial	4	4	4	4			5
Sludge	1	1	1	1			1
Total	14	14	14	14			20
<u>Hazardous Wastes</u>							
	2	2	2	2			
<u>GRAND TOTAL</u>	135	135	112	112			101

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality Division
(Reporting Unit)

July 1976
(Month and Year)

PLAN ACTIONS COMPLETED - 84

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>MUNICIPAL SEWERAGE PROJECTS - 77</u>			
Josephine	Grants Pass - Cedar Glen Subdn Sewers -	7/1/76	Provisional Approval
Clackamas	CCSD #1 - 1) Sunny Creek Sewers	7/2/76	Provisional Approval
	2) Tolbert View Subdn Sewers	7/2/76	Provisional Approval
	3) Nadiew Addn Sewers	7/2/76	Provisional Approval
Union	Union - Addenda 3 & 4 STP	7/2/76	Approved
Lane	Florence - Greentrees 1st Addn	7/7/76	Provisional Approval
Multnomah	Troutdale - Rainbow Ridge Subdn Sewers	7/7/76	Provisional Approval
Lane	Springfield - "T" Street Sewer	7/7/76	Provisional Approval
Lane	Springfield - "G" Street Sewer	7/7/76	Provisional Approval
Jackson	Medford - Winema Subdn Sewers	7/7/76	Provisional Approval
Linn	Halsey - Central Linn H.S. Sewer	7/7/76	Provisional Approval
Deschutes	Black Butte Ranch Pressure Sewers	7/7/76	Provisional Approval
Umatilla	Boardman - Hillview Estates Sewers	7/8/76	Provisional Approval
Washington	USA - Summerfield Phase IV Sewers	7/8/76	Provisional Approval
Washington	Hillsboro - 1) Centennial Park	7/8/76	Provisional Approval
	2) Timothy Acres	7/8/76	Provisional Approval
	3) Eastwood #2 Ph. II	7/8/76	Provisional Approval

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality Division
(Reporting Unit)

July 1976
(Month and Year)

PLAN ACTIONS COMPLETED (84 con't)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>MUNICIPAL SEWERAGE PROJECTS</u> _ Continued			
Washington	USA - Cascade Ave. Sewer	7/12/76	Provisional Approval
Marion	Salem - D & A Estates Sewers	7/12/76	Provisional Approval
Lane	Springfield - Bren Subdn Sewers	7/12/76	Provisional Approval
Clatsop	Warrenton - N. Coast Shopping Center Sewer	7/12/76	Provisional Approval
Polk	Dallas - Reed Lane Sewer	7/13/76	Provisional Approval
Umatilla	Milton-Freewater - Short Construction Co. Sewer	7/13/76	Provisional Approval
Douglas	Green S.D. - Lateral "R" Extension	7/13/76	Provisional Approval
Klamath	South Suburban S.D. - "Tract 1116 Sewers"	7/13/76	Provisional Approval
Clackamas	West Linn - Lower Tualatin Interceptor	7/13/76	Provisional Approval
Lane	Junction City - Brentwood 3rd Addn.	7/14/76	Provisional Approval
Lane	Florence - LID 1976-1 Sewers	7/14/76	Provisional Approval
Tillamook	Twin Rocks S.D. - Barview System	7/14/76	Provisional Approval
Yamhill	McMinnville - Borden Addn Sewer	7/15/76	Provisional Approval
Marion	Salem - Mt. View Subdn Sewers	7/15/76	Provisional Approval
Washington	Hillsboro - N. First Ave. Sewer	7/16/76	Provisional Approval

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality Division
(Reporting Unit)

July 1976
(Month and Year)

PLAN ACTIONS COMPLETED - (84 con't)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>MUNICIPAL SEWERAGE PROJECTS - Continued</u>			
Washington	Hillsboro - Beaumead Subdn Sewers	7/16/76	Provisional Approval
Jackson	Ashland - Baum St. Sewer	7/16/76	Provisional Approval
Yamhill	Newberg - College Park Subdn Sewers	7/16/76	Provisional Approval
Clackamas	West Linn - Tamarisk Subdn Sewers	7/16/76	Provisional Approval
Washington	USA - Evergreen Terrace Sewer	7/19/76	Provisional Approval
Washington	Hillsboro - Shamrock - Mead Sewers	7/20/76	Provisional Approval
Lane	Springfield - 16th St. Sewer	7/20/76	Provisional Approval
Lane	Oakridge - Chubb Court Sewer	7/20/76	Provisional Approval
Lane	Springfield - 707-1/2 Hayden Bridge Rd. Sewer	7/20/76	Provisional Approval
Linn	Albany - College Green First Addn Sewers	7/20/76	Provisional Approval
Lane	Creswell - Meadow Park Subdn	7/20/76	Provisional Approval
Washington	USA - Sorrento Ridge No. 2 Subdn	7/21/76	Provisional Approval
Washington	USA - Westridge Subdn Sewers	7/21/76	Provisional Approval
Douglas	Sutherlin - Cascade Estates 3rd Addn	7/22/76	Provisional Approval
Washington	USA - C.O. #23 for Durham STP	7/22/76	Approved

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality Division

July 1976

(Reporting Unit)

(Month and Year)

PLAN ACTIONS COMPLETED - (84 con't)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>MUNICIPAL SEWERAGE PROJECTS - Continued</u>			
Umatilla	Athena - System Extensions	7/22/76	Provisional Approval
Malheur	Farewell Bend Revised Piping Plan for Lagoon	7/22/76	Provisional Approval
Deschutes	Ward Construction Co. - Timber Ridge Subdn Sewers	7/22/76	Provisional Approval
Yamhill	McMinnville - Betty's Orchard Sewers	7/22/76	Provisional Approval
Linn	Sweet Home - Fern Lane Sewer	7/22/76	Provisional Approval
Multnomah	Portland - S. W. 52nd Ave. Sewer	7/22/76	Provisional Approval
Jackson	Medford - Cedar Hill Subdn Sewers	7/22/76	Provisional Approval
Jackson	Ashland - Mt. Ranch Subdn Phase II Sewers	7/22/76	Provisional Approval
Clatsop	Warrenton - N.W. Birch Ct. Sewer	7/23/76	Provisional Approval
Clatsop	Warrenton - N.W. Cedar Ave. Sewer	7/23/76	Provisional Approval
Crook	Prineville - Ochoco Heights Sewers	7/23/76	Provisional Approval
Polk	Independence - Ash Brook Addn Sewers	7/23/76	Provisional Approval
Polk	Independence - Donita Estates Sewers	7/27/76	Provisional Approval
Multnomah	Gresham - Toalots 138 & 152 Sewer	7/27/76	Provisional Approval

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality Division
(Reporting Unit)

July 1976
(Month and Year)

PLAN ACTIONS COMPLETED - (84 con't)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>MUNICIPAL SEWERAGE PROJECTS - Continued</u>			
Clatsop	Astoria - 1) Burlington Northern Sewer	7/27/76	Provisional Approval
Clatsop	Astoria - 2) W. 14th St. Sewer	7/27/76	Provisional Approval
Klamath	Chiloquin - C.O. #1 for the STP	7/28/76	Approved
Clackamas	Lake Oswego - Oswego Park Estates Sewers	7/28/76	Provisional Approval
Jackson	BCVSA - Madrona Lane Trunk	7/28/76	Provisional Approval
Linn	Lebanon - Downing Addn Sewers	7/29/76	Provisional Approval
Josephine	Redwood S.D. - Sewerage System & STP	7/29/76	Provisional Approval
Lincoln	Depoe Bay - Little Whale Cove I Sewers	7/29/76	Provisional Approval
Washington	USA - McLain West #2 Sewers	7/29/76	Provisional Approval
Clackamas	Canby - Berg Ave. Sewer	7/29/76	Provisional Approval
Multnomah	Inverness - N.E. 158 St. Sewer	7/30/76	Provisional Approval
Jackson	Medford - Hilltop Townhouses - Sewers	7/30/76	Provisional Approval
Umatilla	Pendleton - Newson-Wilson Addn Sewers	7/30/76	Provisional Approval
Marion	Salem - Nebraska Acres Sewers	7/30/76	Provisional Approval
Clackamas	Milwaukie - Morrison Addn Sewers	7/30/76	Provisional Approval

DEPARTMENT OF ENVIRONMENTAL QUALITY
 TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality Division
 (Reporting Unit)

July 1976
 (Month and Year)

PLAN ACTIONS COMPLETED - (84 con't)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>INDUSTRIAL WASTE SOURCES - 7</u>			
Lane	Springfield - Slaughtering Plant. Waste water control.	6/25/76	Approved
Yamhill	McMinnville - Ron Turley. Animal waste.	7/12/76	Approved
Polk	Independence - Desert Seed Co., Inc. Processing waste water treatment.	7/14/76	Approved
Multnomah	Portland - Rhodia, Inc. Storm water collection basin.	7/22/76	Approved
Lane	Oregon Fish & Wildlife. Leaburg Hatchery waste treatment.	7/26/76	Approved
Malheur	Nyssa - Albertson Land & Cattle Co. Feed lot - expanded animal waste system.	7/30/76	Approved
Klamath	Klamath Falls - Weyerhaeuser Co. Log handling plan.	7/30/76	Approved, provisionally.

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality
(Reporting Unit)

July 1976
(Month and Year)

SUMMARY OF WATER PERMIT ACTIONS

	Permit Actions Received		Permit Actions Completed		Permit Actions Pending	Sources Under Permits	Sources Reqr'g Permits
	Month	Fis.Yr.	Month	Fis.Yr.			
	* **	* **	* **	* **			
<u>Municipal</u>							
New	0 0	0 0	0 0	0 0	6 7		
Existing	0 0	0 0	0 0	0 0	3 5		
Renewals	4 0	4 0	0 0	0 0	52 1		
Modifications	5 0	5 0	0 0	0 0	26 0		
Total	9 0	9 0	0 0	0 0	87 13	290 52	299 64
<u>Industrial</u>							
New	1 2	1 2	0 0	0 0	4 5		
Existing	0 0	0 0	0 1	0 1	10 2		
Renewals	5 3	5 3	0 2	0 2	30 10		
Modifications	4 1	4 1	0 0	0 0	38 3		
Total	10 6	10 6	0 3	0 3	82 20	423 76	437 82
<u>Agricultural (Hatcheries, Dairies, etc.)</u>							
New	0 0	0 0	0 0	0 0	2 1		
Existing	0 0	0 0	0 0	0 0	0 1		
Renewals	0 0	0 0	0 0	0 0	0 1		
Modifications	0 0	0 0	0 0	0 0	4 0		
Total	0 0	0 0	0 0	0 0	6 3	61 5	63 7
<u>GRAND TOTALS</u>	19 6	19 6	0 3	0 3	175 36	774 133	799 153

* NPDES Permits

** State Permits

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality
(Reporting Unit)

July 1976
(Month and Year)

PERMIT ACTIONS COMPLETED (3)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Jackson	M. C. Lininger & Sons, Inc.	7/16/76	State Permit Renewed
Yamhill	S & S Farms Dayton Feed Yard	7/16/76	State Permit Renewed
Jackson	Pacific Standard Transformer White City	7/30/76	Exempt from Permit

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality
(Reporting Unit)

July 1976
(Month and Year)

PLAN ACTIONS COMPLETED (12)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>Direct Stationary Sources</u>			
Douglas	Permaneer, baghouse for cyclones 13 & 14	6/11/76	Approved
Coos	Marshfield Electric, new motor burnout oven	6/18/76	Approved
Yamhill	Coast Range Plywood, wet canvas to capture sanderdust	6/23/76	Approved Conditionally
Malheur	Amalgamated Sugar, upgrade scrubbers on pulp dryers	7/15/76	Approved
Multnomah	Flintkote Co., baghouse for granule plant	7/16/76	Approved
Malheur	Holy Rosary Hospital, new incinerator	7/12/76	Approved
Lincoln	N.W. Natural Gas Co., liquefaction & vaporization	7/13/76	Approved
Linn	Wah Chang, new smokehouse	7/13/76	Approved
Linn	Wah Chang, new baghouse for ball mill	7/12/76	Approved
Jackson	Georgia-Pacific, bark dryer for Herreschoff furnace	7/27/76	Approved
Multnomah	Boeing, paint mixing booth	7/21/76	Approved
Washington	Noble Warrant Co., baghouse for millwork plant	7/27/76	Approved

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality
(Reporting Unit)

July 1976
(Month and Year)

SUMMARY OF AIR PERMIT ACTIONS

	Permit Actions Received		Permit Actions Completed		Permit Actions Pending	Sources under Permits	Sources Reqr'g Permits
	Month	Fis.Yr.	Month	Fis.Yr.			
<u>Direct Sources</u>							
New	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>12</u>		
Existing	<u>11</u>	<u>11</u>	<u>8</u>	<u>8</u>	<u>45</u>		
Renewals	<u>6</u>	<u>6</u>	<u>22</u>	<u>22</u>	<u>54</u>		
Modifications	<u>1</u>	<u>1</u>	<u>14</u>	<u>14</u>	<u>9</u>		
Total	<u>21</u>	<u>21</u>	<u>47</u>	<u>47</u>	<u>120</u>	<u>2144</u>	<u>2201</u>
<u>Indirect Sources</u>							
New	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>12</u>		
Existing							
Renewals							
Modifications	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>0</u>		
Total	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>12</u>	<u>37</u>	
<u>GRAND TOTALS</u>	<u>23</u>	<u>23</u>	<u>49</u>	<u>49</u>	<u>132</u>	<u>2181</u>	<u>2201</u>

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality
(Reporting Unit)

July 1976
(Month and Year)

PERMIT ACTIONS COMPLETED (49)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Benton	Leading Plywood 02-2479, Plywood (Renewal)	7/23/76	Permit Issued
Benton	Evans Products 02-2490, Asphalt Felt Coating (Existing)	6/24/76	Permit Issued
Benton	Publisher's Paper Company 02-7091, Particleboard (Renewal)	7/23/76	Permit Issued
Clackamas	Parker Northwest Paving 03-1760, Asphalt Plant (Renewal)	7/8/76	Permit Issued
Clackamas	Willamette-Western Corp. 03-1937, Ready Mix Concrete (Renewal)	7/23/76	Permit Issued
Clackamas	Dick's Concrete Service 03-2501, Ready Mix Concrete (Renewal)	6/24/76	Permit Issued
Clackamas	Mt. Hood Box Co. 03-2625, Sawmill (Existing)	6/24/76	Permit Issued
Clatsop	Jewell Shake Mill 04-0047, Shake Mill (Existing)	7/23/76	Permit Issued
Clatsop	Norm Saarheim 04-0048, Hardwood Mill (Existing)	6/24/76	Permit Issued
Deschutes	Maywood Industries of Oregon 09-0010, Sawmill (Modification)	7/23/76	Permit Issued
Douglas	The Hanna Nickel Smelting Co. 10-0007, Addendum	7/23/76	Addendum Issued
Douglas	Little River Box 10-0021, Addendum	7/13/76	Addendum Issued
Grant	Blue Mountain Mills 12-0004, Sawmill (Existing)	7/23/76	Permit Issued
Jackson	SWF Plywood 15-0039, Veneer Mfg. (Modification)	6/24/76	Permit Issued

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DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality
(Reporting Unit)

July 1976
(Month and Year)

PERMIT ACTIONS COMPLETED (49 con't)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Jackson	Boise Cascade 15-0046, Veneer & Sawmill (Modification)	7/8/76	Permit Issued
Klamath	Maywood Industries of Oregon 18-0063, Millwork (New)	7/23/76	Permit Issued
Lincoln	Caffall Bros. Forest Products 21-0015, Shake Mill (Existing)	7/8/76	Permit Issued
Lincoln	New Lincoln Hospital 21-0040, Addendum	7/12/76	Addendum Issued
Linn	Oregon Fir Supply 22-2521, Sawmill (Renewal)	7/8/76	Permit Issued
Marion	Valley Brass & Aluminum 24-0725, Brass Foundry (Modification)	7/8/76	Permit Issued
Marion	Viesko Redi Mix 24-1283, Concrete, Crusher (Renewal)	7/8/76	Permit Issued
Marion	Oregon State Hospital 24-5145, Boiler (Renewal)	6/24/76	Permit Issued
Marion	Oregon State Penitentiary 24-5155, Boiler (Renewal)	7/23/76	Permit Issued
Marion	Rawlinson's Capital City Laundry 24-5274, Boiler (Renewal)	7/8/76	Permit Issued
Marion	Oregon State School for the Deaf 24-5508, Boiler (Renewal)	7/23/76	Permit Issued
Marion	Oregon State Correctional Institute 24-5835, Boiler (Renewal)	7/8/76	Permit Issued
Marion	Fairview Hospital and Training Center 24-5842, Incinerator (Renewal)	7/23/76	Permit Issued
Multnomah	Broadmore Apartments 26-0099, Boiler (Existing)	7/23/76	Permit Issued

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality
(Reporting Unit)

July 1976
(Month and Year)

PERMIT ACTIONS COMPLETED (49 con't)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Multnomah	Jim E. Smith Apartments 26-0356, Boiler (Modification)	7/23/76	Permit Issued
Multnomah	Crescent Orchard Apartments 26-1224, Boiler (Modification)	7/23/76	Permit Issued
Multnomah	Owens-Illinois 26-1876, Glass Mfg. (Renewal)	7/8/76	Permit Issued
Multnomah	Glacier Sand & Gravel Company 26-1895, Rock Crusher & Ready Mix (Renewal)	7/23/76	Permit Issued
Multnomah	Willamette-Western Corp. 26-1910, Ready Mix Concrete (Renewal)	7/23/76	Permit Issued
Multnomah	Troutdale Sand & Gravel Co. 26-1939, Ready Mix Concrete (Renewal)	7/23/76	Permit Issued
Multnomah	Rich Manufacturing Co. of Oregon 26-2016, Iron Foundry (Renewal)	7/23/76	Permit Issued
Multnomah	Burns Bros., Inc. 26-2485, Addendum	7/21/76	Addendum Issued
Multnomah	Pacific Coast Hardwoods, Inc. 26-2556, Planing Mill (Modification)	7/23/76	Permit Issued
Multnomah	Cook Industries 26-2807, Addendum	7/13/76	Addendum Issued
Multnomah	Layton Creations 26-2961, Boiler (Existing)	7/23/76	Permit Issued
Polk	Dallas Co-op 27-0219, Grain Elevator (Renewal)	7/23/76	Permit Issued
Polk	R. C. Parsons & Son 27-8002, Ready Mix Concrete (Renewal)	6/24/76	Permit Issued
Polk	R. C. Parsons & Son 27-8003, Rock Crusher (Renewal)	7/23/76	Permit Issued

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality
(Reporting Unit)

July 1976
(Month and Year)

PERMIT ACTIONS COMPLETED (49 con't)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Wasco	The Dalles General Hospital 33-0021, Addendum	7/13/76	Addendum Issued
Washington	Tigard Sand & Gravel 34-2636, Asphalt Plant (New)	7/8/76	Permit Issued
Washington	Tualatin Valley Paving 34-2637, Asphalt Plant (New)	7/8/76	Permit Issued
Yamhill	Willamina Lumber Co. 36-8005, Sawmill (Modification)	7/8/76	Permit Issued
Portable	Roy L. Houck Construction 37-0022, Asphalt Plant (Renewal)	7/8/76	Permit Issued

Indirect Sources (2)

Marion	K-Mart Store 800 space parking facility	7/16/76	Withdrawn
Multnomah	Raffer Restaurant 96 space modification of existing lot.	7/76	Withdrawn

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Solid Waste Management
(Reporting Unit)

July 1976
(Month and Year)

PLAN ACTIONS COMPLETED (16)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Washington	Edwards Business Industrial Park New Demolition Site Operational Plan	6/30/76	Letter of Authorization Issued
Crook	Louisiana-Pacific Corporation New Site Operational Plan	6/30/76	Letter of Authorization Issued
Josephine	Marlsan Sludge Lagoon Existing Site Operational Plan	7/1/76	Approved
Jackson	Ousterhout Wood Waste Fill Existing Industrial Site Operational Plan	7/1/76	Letter of Authorization Amended
Gilliam	Chem-Nuclear EHW Disposal Site Existing Site Construction Plan for Trench #5	7/2/76	Approved
Clatsop	Seaside Disposal Site Existing Site Closure Plan	7/2/76	Provisional Approval
Coos	Joe Ney Disposal Site Existing Site Operational Plan	7/7/76	New Operational Plan Requested
Coos	Fairview Landfill Existing Site Operational Plan	7/7/76	Upgrading of Operation Required
Curry	Agness Disposal Site Existing Site Closure Plan	7/7/76	Approved
Marion	Woodburn Sanitary Landfill Existing Site Operational Plan	7/12/76	Provisional Approval

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Solid Waste Management
(Reporting Unit)

July 1976
(Month and Year)

PLAN ACTIONS COMPLETED (Cont.)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Lincoln	Logsdon Dump Existing Site Interim Operational and Closure Plan	7/14/76	Approved
Jackson	ReMon's Wood Specialities New Industrial Site Operational Plan	7/15/76	Letter of Authorization Issued
Linn	Larry Neker Property Relic Drainageway Fill New Demolition Site Operational Plan	7/19/76	Letter of Authorization Issued
Lane	Weyerhaeuser Co. Truck Road Landfill Existing Site Construction and Operational Plan	7/23/76	Approved
Gilliam	Chem-Nuclear EHW Disposal Site Existing Site Construction Plan for Evaporation Pond #2	7/23/76	Approved
Douglas	Glide Disposal Site Existing Site Closure Plan	7/27/76	Provisional Approval

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Solid Waste Management
(Reporting Unit)

July 1976
(Month and Year)

SUMMARY OF SOLID AND HAZARDOUS WASTE PERMIT ACTIONS

	Permit Actions Received		Permit Actions Completed		Permit Actions Pending	Sites Under Permits	Sites Reqr'g Permits
	Month	Fis. Yr.	Month	Fis. Yr.			
<u>General Refuse</u>							
New	1	1	2	2	1		
Existing			2	2	49	(*49)	
Renewals			2	2	5		
Modifications	1	1			1		
Total	2	2	6	6	56	197	198
<u>Demolition</u>							
New	1	1	2	2			
Existing			1	1			
Renewals					1		
Modifications							
Total	1	1	3	3	1	12	12
<u>Industrial</u>							
New	1	1	2	2			
Existing					15	(*11)	
Renewals					1		
Modifications			1	1			
Total	1	1	3	3	16	86	90
<u>Sludge Disposal</u>							
New	1	1			1		
Existing							
Renewals			2	2			
Modifications	1	1	1	1			
Total	2	2	3	3	1	8	9
<u>Hazardous Waste</u>							
New							
Authorizations	7	7	7	7	1		
Renewals							
Modifications							
Total	7	7	7	7	1	1	1
<u>GRAND TOTALS</u>	<u>13</u>	<u>13</u>	<u>22</u>	<u>22</u>	<u>75</u>	<u>304</u>	<u>310</u>

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

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Solid Waste Management
(Reporting Unit)

July 1976
(Month and Year)

PERMIT ACTIONS COMPLETED (22)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>General Refuse (Garbage) Facilities (6)</u>			
Douglas	Canyonville Transfer Station New Facility	7/2/76	Permit issued
Multnomah	MDC Tire Processing Center New Facility	7/2/76	Permit issued
Yamhill	Whiteson Landfill Existing Facility	7/12/76	Permit issued (renewal)
Deschutes	Alfalfa Disposal Site Existing Facility	7/23/76	Permit issued
Polk	Valsetz Disposal Site Existing Facility	7/26/76	Permit issued (renewal)
Douglas	Milo Academy Existing Facility	7/30/76	Application withdrawn. Site closed. Non- permitted facility.
<u>Demolition Solid Waste Disposal Facilities (3)</u>			
Washington	Edwards Industrial Park New Facility	6/30/76	Letter author- ization issued. Not reported last month.
Multnomah	Hidden Valley Landfill Existing Facility	7/12/76	Permit issued
Linn	Larry Neher New Facility	7/19/76	Letter author- ization issued
<u>Sludge Disposal Facilities (3)</u>			
Jefferson	Jefferson Co: Sludge Site Existing Facility	7/20/76	Permit amended
Josephine	Marlsan Sludge Site Existing Facility	7/23/76	Permit issued (renewal)

DEPARTMENT OF ENVIRONMENTAL QUALITY
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Solid Waste Management
(Reporting Unit)

July 1976
(Month and Year)

PERMIT ACTIONS COMPLETED (Cont.)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Lane	Florence Sludge Site Existing Facility	7/23/76	Permit issued (renewal)
<u>Industrial Solid Waste Facilities (3)</u>			
Jackson	Ousterhout Wood Waste Site Existing Facility	7/1/76	Letter author- ization amended.
Crook	Louisiana-Pacific New Facility	6/30/76	Letter author- ization. Not reported last month.
Jackson	ReMon's Wood Specialties New Facility	7/15/76	Letter author- ization issued.
<u>Hazardous Waste Facilities (7)</u>			
Gilliam	Chem-Nuclear Inc. Existing Facility	7/2/76	Disposal author- ization approved.
"	" "	7/14/76	" "
"	" "	7/22/76	" "
"	" "	7/28/76	Four (4) disposal authorizations approved.



ENVIRONMENTAL QUALITY COMMISSION

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

ROBERT W. STRAUB
GOVERNOR

MEMORANDUM

To: Environmental Quality Commission
From: Director
Subject: Agenda Item C, August 27, 1976, EQC Meeting

Tax Credit Applications

Attached are review reports on 22 requests for Tax Credit action. These reports and the recommendations of the Director are summarized on the attached table.

Director's Recommendation

It is recommended that the Commission issue Pollution Control Certificates T-757R, T-768, T-769, T-770, T-775, T-776, T-779, T-780, T-781, T-782, T-783, T-787, T-790, T-793, T-794, T-795, T-798, T-802, T-803, T-804, T-805 and T-809 in the amounts indicated.

LOREN KRAMER
Director

Attachments
Tax Credit Summary
Tax Credit Review Reports



Contains
recycled
Materials

TAX CREDIT APPLICATIONS

<u>Applicant/Plant Location</u>	<u>Appl. No.</u>	<u>Facility</u>	<u>Claimed Cost</u>	<u>% Allocable to Pollution Control</u>	<u>Director's Recommendation</u>
Cascade Locks Lumber Co. Cascade Locks	T-757R	Planer Shaving Cyclone	\$ 20,151.00	100%	Issue
Thomsen Orchards Hood River	T-768	Wind Machine	10,055.00	100%	Issue
Laraway Orchards Hood River	T-769	Wind Machine	10,260.00	100%	Issue
Weyerhaeuser Co. Springfield	T-770	Condensate Collection Tank	54,,804.00	100%	Issue
Georgia Pacific Corp. Toledo	T-775	Spilled liquor collection and pumping system	52,761.00	100%	Issue
Georgia Pacific Corp. Toledo	T-776	Recirculation of Evaporator Condensate	21,245.00	100%	Issue
Georgia Pacific Corp. Eugene	T-779	Veneer Dryer Scrubber	98,724.73	100%	Issue
Georgia Pacific Corp. Springfield	T-780	Veneer Dryer Scrubber	148,845.82	100%	Issue
Georgia Pacific Corp. Eugene	T-781	Veneer Dryer Scrubber	167,972.27	100%	Issue
Georgia Pacific Corp. Springfield	T-782	Pneu Aire Baghouse Filter	20,437.00	100%	Issue
Georgia Pacific Corp. Toledo	T-783	Veneer Dryer Scrubber	152,000.00	100%	Issue
Georgia Pacific Corp. Toledo	T-787	Lamella Thickener	92,003.00	60% or more but less than 80%	Issue

Applicant/Plant Location	Appl. No.	Facility	Claimed Cost	% Allocable to Pollution Control	Director's Recommendation
Amalgamated Sugar Co. Nyssa	T-790	Western Precipitator Baghouse	\$ 467,939.10	100%	Issue
Amalgamated Sugar Co. Nyssa	T-793	Three Wet Scrubbers	127,758.64	100%	Issue
Amalgamated Sugar Co. Nyssa	T-794	Wheelabrator Frye Baghouse	294,926.54	100%	Issue
Hobin Lumber Co. Philomath	T-795	Collection Settling Tanks	6,700.00	100%	Issue
Hobin Lumber Co. Philomath	T-798	Two Bark Bins, 1 Hammer Hog	29,247.00	100%	Issue
Paasch Orchards Hood River	T-802	Wind Machine	7,945.00	100%	Issue
International Paper Co. Gardiner	T-803	High Energy Scrubber	219,579.98	100%	Issue
International Paper Co. Gardiner	T-804	Recovery Boiler #3	4,823,808.30	100%	Issue
Weyerhaeuser Co. North Bend	T-805	12 Wet Scrubbers	167,724.00	100%	Issue
Boise Cascade St. Helens	T-809	120,000 gal. tank, 2 transfer pumps, a recirculating pump, related piping and controls	123,102.55	100%	Issue

Proposed August 1976 Totals:

Air Quality	\$ 6,767,374.38
Water Quality	350,615.55
Solid Waste	<u>0</u>
	\$ 7,117,989.93

Calendar Year Totals to date: (Excluding August totals)

Air Quality	\$ 5,824,790.20
Water Quality	5,307,299.27
Solid Waste	<u>835,144.56</u>
	\$11,967,234.03

Total Certificates Awarded (monetary values)
since inception of program (excluding
proposed august 1976 certificates)

Air Quality	\$ 105,083,034.42
Water Quality	90,116,568.90
Solid Waste	<u>20,288,177.47</u>
	\$ 215,487,780.79

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

1. Applicant

Columbia Corporation
 Cascade Locks Lumber Company
 P. O. Box 427
 Cascade Locks, Oregon 97014

The applicant owns and operates a lumber mill at Cascade Locks, Hood River County. The applicant installed a cyclone to convey wood by-products generated at the mill.

2. Description of Claimed Facilities

The claimed facility is a planer shaving cyclone.

a. Cyclone and stack	\$18,600.00
b. 8" cone liner	1,100.00
c. Overtime Labor	450.98
	<u>\$20,150.98</u>

The claimed facility was placed in operation on October 1, 1975, after being constructed in September. Notice of construction was not submitted to the Department prior to construction as required under ORS 468.175, but the Department was informed of the project and did not request a Notice of Construction from the Mill.

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

Facility cost: \$20,151.00 (Accountant's certification was provided).

3. Evaluation of Application

Solid Waste

The Columbia Corporation acquired the Cascade Locks Lumber Company in 1969. Since that time, shavings generated by the planing mill have been purchased on a continuing basis by various hardboard producing companies. In 1974 the Company started to haul the shavings by truck instead of barge. The reason for installation of the claimed facility was to convey wood shavings into a storage bin before loading the trucks. This cyclone cannot be considered a "pollution control facility" utilizing solid waste because the planer shavings were not a solid waste prior to installation of the claimed facility. For this reason, certification can be denied under ORS 468.165(1)(b). This reasoning was presented to the Environmental Quality Commission on June 25, 1976. The Commission heard Columbia Corporation's counter claims at that meeting and continued the matter to the July 30 meeting. The Department was instructed to consider the application from all aspects to see if the tax credit could be granted for any reason. The Department was not able to arrange a meeting and work out the problem with the applicant until after July 30.

Prior Approval

Tax credit law, ORS 468.175, requires applicants, prior to construction, to submit projects to the Department for approval. Before September 13, 1975 the submittal had to be on the Notice of Construction form; from September 13, 1975 the project had to be submitted on the Department's form for preliminary certification. The Department was aware that the applicant was going forward on projects to halve their surplus wood by-products (see 5/3/74 memo Central Region Office to F. M. Bolton, and Variance Request, Agenda Item F at 4/25/75 EQC Meeting, third paragraph, second page). The applicant states in his August 11, 1976 letter that prior notification and approval occurred verbally. While the Department's staff cannot recall the conversations, they conclude that they may have taken place. This appears to be the case since the Department reported the intent of the Company to sell chip etc. in the 5/3/74 memorandum. The prior approval requirement is concluded to have been fulfilled in an equivalent, verbal manner.

Air Quality

According to the Company the cyclone was installed to eliminate sawdust and planer shavings from blowing around the mill site and escaping off of it. The previous method of handling the wood promoted this problem.

When the planer shavings were used as hogged fuel in the mill's boilers, the boilers emitted black smoke in excess of the Department's rules.

It is concluded that the claimed facility enabled the mill to stop burning the shavings which caused opacity and probably particulate emission concentration rules violations.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$20,151 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-757R.

Loren Kramer
Director

PBB:ds

State of Oregon
Department of Environmental QualityDate 7/22/76

Tax Relief Application Review Report

1. Applicant

Thomsen Orchards
Route 6, Box 125
Hood River, Oregon 97031

The applicant, Bob Thomsen, owns and operates orchards near Hood River, Oregon.

2. Description of Facility

The facility claimed in this application consists of a tower mounted, revolving fan, with a gasoline fueled Ford industrial engine providing the power. The installed cost is:

Tropic Breeze Wind Machine, Model GP391, S/N16699.....\$10,055

Construction of the facility was started April 26, 1976, completed April 30, 1976, and placed in operation May 3, 1976. The Department granted preliminary certification for this project April 26, 1976 from a request dated April 12, 1976.

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

Facility costs: \$10,055 (accountant's certification was provided).

3. Evaluation of Application

A group of Hood River orchardists approached the Department in April 1976 to see about tax credits for substituting orchard fans for diesel-oil-fired smudge pots. The fans break-up the freezing air around the pear and apple trees by bringing in air that is slightly warmer from above. The smudge pots, while not being within the Department's jurisdiction, do cause considerable smoke and odor.

The orchardists demonstrated that there was no positive return on investment for buying the fans to replace the smudge pots, in spite of the diesel oil cost savings. The Department granted preliminary certification for tax credit on previous applications only after this was shown. The fans work; the smudge pots were not used.

In conclusion, 100% of the fan costs are allocable to air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$10,055 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application T-768.

LOREN KRAMER
Director

State of Oregon
Department of Environmental Quality

Appr 1-765
Date 7/22/76

Tax Relief Application Review Report

1. Applicant

W. C. Laraway
Route 6, Box 165
Hood River, Oregon 97031

The applicant, W. C. Laraway, owns and operates orchards near Hood River, Oregon.

2. Description of Facility

The facility claimed in this application consists of a tower mounted, revolving fan, with a gasoline-fueled Ford industrial engine providing the power. The installed cost is:

Tropic Breeze Wind Machine, Model GP391, S/N16704.....\$10,260.

Construction of the facility started April 26, 1976, was completed April 30, 1976, and was placed in operation May 3, 1976. The Department granted preliminary certification for this facility April 26, 1976 from a request dated April 12, 1976.

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

Facility costs: \$10,260 (accountant's certification was provided).

3. Evaluation of Application

A group of Hood River orchardists approached the Department in April 1976 to see about tax credits for substituting orchard fans for diesel-oil-fired smudge pots. The fans break-up the freezing air around the pear and apple trees by bringing in air that is slightly warmer from above. The smudge pots, while not being within the Department's jurisdiction, do cause considerable smoke and odor.

The orchardists demonstrated that there was no positive return on investment for buying the fans to replace the smudge pots, in spite of the diesel oil cost savings. The Department granted preliminary certification for tax credit on previous applications only after this was shown. The fans work; the smudge pots were not used.

In conclusion, 100% of the fan costs are allocable to air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$10,260 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application T-769.

LOREN KRAMER
Director

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

1. Applicant

Weyerhaeuser Company
Paperboard Manufacturing
P. O. Box 275
Springfield, Oregon 97477

The applicant owns and operates a large unbleached kraft paperboard mill near Springfield, Oregon in Lane County.

The application was received June 26, 1976.

2. Description of Claimed Facility

The claimed facility consists of a condensate collection tank, 2 pumps, piping, valves, flow and conductivity meters, and associated controls to facilitate evaporator condensate reuse.

The claimed facility was completed and put into service in June, 1975.

Certification must be made under the 1969 Act and the percentage claimed for pollution control is 100%.

Facility costs: \$54,804 (Accountant's certification was provided).

3. Evaluation of Application

A notice of construction for this facility was received January 29, 1975. No plans were requested or reviewed by the Department. The staff believes the Company has complied with the prenotification requirements of ORS 468.175.

Prior to the installation of the claimed facility, the evaporator condensate could not be efficiently distributed to points in the mill for reuse. Some points would receive too much condensate and others not enough. This would result in much of it being sewered to the paper mill sewer. With the claimed facility, the condensate can be more effectively distributed with less going to the sewer. In addition, that portion which is sewered now going to the pulp mill sewer instead of the paper mill sewer. This eliminates any of the condensate from going through the new flotator which is adversely affected by the higher pH condensate.

Inspection of the claimed facility shows that it is well-built and operates effectively.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the costs of \$54,804 with more than 80% of the cost allocated to pollution control be issued for the facility claimed in Tax Application T-770.

RJN:em
8/2/76

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

1. Applicant

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

The applicant owns and operates an integrated pulp and paper mill at Toledo, Oregon in Lincoln County.

The application was received July 8, 1976

2. Description of Claimed Facility

The claimed facility consists of drain pipes, tanks, pumps, controls, valves, etc. for collecting and pumping spilled liquor in the recovery area back to weak liquor storage tanks.

The claimed facility was completed and put into service in April 1975.

Certification must be made under the 1969 Act and the percentage claimed for pollution control is 100%.

Facility costs: \$52,761 (Accountant's certification was submitted).

3. Evaluation of Application

Prior to the installation of the claimed facility, liquor spilled in the recovery area would be sewerred. With the facility, these spills are collected and reclaimed in the liquor recovery system.

The company notified the Department of its intent to construct the facility by letter dated September 9, 1974. No plans were requested and no plan review was made. The staff believes the requirements for pre-notification as stated in ORS 468.175 have been fulfilled.

Inspection of the facility shows that it is well designed and operates satisfactorily.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$52,761 with 80% or more of the cost allocated to pollution control be issued for the facility claimed in Tax Application T-775.

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

1. Applicant

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

The applicant owns and operates an integrated pulp and paper mill at Toledo, Oregon in Lincoln County.

The application was received July 8, 1976.

2. Description of Claimed Facility

The claimed facilities consist of two steel tanks, two pumps, piping, electric controls, etc. for recirculating evaporator condensate either to the washers for use as shower water or to the evaporators for recovery of pulping chemicals, depending on the relative contamination of the condensate.

The claimed facility was placed in operation in March, 1975.

Certification must be made under the 1969 Act and the percentage claimed for pollution control is 100%.

Facility costs: \$21,245 (Accountant's certification was submitted).

3. Evaluation of Application

Prior to the installation of the claimed facility, the evaporator condensate was sewered into the waste treatment system. With the claimed facility, the condensate is reused as shower water or is returned to the chemical recovery system depending on the extent of its contamination.

Notification of the Company's intent to construct the claimed facilities was submitted by letter dated September 9, 1974. Plans were not requested by the Department for review. The staff believes the Company has fulfilled the requirement of prenotification as required by ORS 468.175.

Inspection of the claimed facility shows that it performs satisfactorily except at times when there is a build-up of water such that the quantity of water exceeds the capacity of the system. When this happens, the condensate is sewered as before. Though the system has not eliminated the condensate as a waste water, it is a significant improvement and should be considered as a pollution control facility.

T-776
August 5, 1976
Page 2

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$21,245 with 80% or more of the cost allocated to pollution control be issued for the facility claimed in Tax Application T-776.

RJN:em
August 5, 1976

State of Oregon
Department of Environmental QualityTax Relief Application Review Report

1. Applicant

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

The applicant owns and operates a plywood siding and decorative panelling manufacturing plant in Eugene, Oregon (Irving Road).

2. Description of Facility

The facility claimed in this application consists of a Georgia Pacific designed scrubber for the control of veneer dryer emissions.

The facility was begun August 5, 1974 and was completed and placed in operation on May 7, 1975. A notice of construction and application for approval was filed with the Lane Regional Air Pollution Authority; Approval was granted on April 24, 1974 fulfilling the prior approval requirement.

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

Facility cost: \$98,724.73 (Accountant's certification was provided).

3. Evaluation of Application

Veneer dryers are well known for the "blue haze" emissions from their stacks. Oregon Administrative Rules require that these emissions not exceed a 10% opacity level. In order to comply with the regulation Georgia Pacific was required to remove visible contaminants from their veneer dryer plumes.

A majority of these contaminants are hydrocarbon compounds driven from the wood in the drying process. A significant portion of these hydrocarbons do condense upon entering the cooler ambient air forming very small particles. It is these submicron particles that are most visible and cause noncompliance with the regulation.

After some research and development work, Georgia Pacific designed a control device. The basic idea was to condense and collect these hydrocarbon aerosols before they could leave the stack. Through the use of water scrubbing and mist eliminators they were able to accomplish this task and comply with the visible emission standard. The collected pitch is subsequently disposed of in the boiler unit. The fuel value of the recovered pitch does not nearly offset the scrubber operating costs. It is concluded that this scrubber equipment is 100% allocable to air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$98,724.73 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-779.

LOREN KRAMER

DDO:cs
8/13/76

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

1. Applicant

Georgia Pacific Corporation
900 S. W. 5th Avenue
Portland, Oregon 97204

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

2. Description of Facility

The facility claimed in this application consists of a Georgia Pacific designed scrubber for the control of veneer dryer emissions.

The facility was begun August 5, 1974 and was completed and placed in operation on March 10, 1975. A notice of construction and application for approval was filed with the Lane Regional Air Pollution Authority. Approval was granted on April 24, 1974, fulfilling the prior approval requirement.

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

Facility cost: \$148,845.82 (Accountant's certification provided).

3. Evaluation of Application

Veneer dryers are well known for the "blue haze" emissions from their stacks. Oregon Administrative Rules require that these emissions not exceed a 10% opacity level. In order to comply with the regulation Georgia Pacific was required to remove visible contaminants from their veneer dryer plumes.

A majority of these contaminants are hydrocarbon compounds driven from the wood in the drying process. A significant portion of these hydrocarbons do condense upon entering the cooler ambient air forming very small particles. It is these submission particles that are most visible and cause non-compliance with the regulation.

After some research and development work Georgia Pacific designed a control device. The basic idea was to condense and collect these hydrocarbon aerosols before they could leave the stack. Through the use of water scrubbing and mist eliminators they were able to accomplish this task and comply with the visible emission standard. The collected pitch is subsequently disposed of in a boiler unit. The fuel value of the recovered pitch does not nearly offset the scrubber operating costs. It is concluded that this scrubber equipment is 100% allocable to air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$148,845.82 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application Number T-780.

State of Oregon
Department of Environmental Quality

Appl T-781

Date 8/16/76

Tax Relief Application Review Report

1. Applicant

Georgia Pacific Corporation
900 S. W. 5th Avenue
Portland, Oregon 97204

The applicant owns and operates a plywood panelling manufacturing plant in Eugene, Oregon (Prairie Road).

2. Description of Facility

The facility claimed in this application consists of a Georgia Pacific designed scrubber for the control of veneer dryer emissions.

The facility was begun on December 30, 1974 and was completed and placed in operation on April 30, 1975. A notice of construction and application for approval was filed with the Lane Regional Air Pollution Authority. Approval was granted on April 24, 1974, fulfilling the prior approval requirement. Certification is claimed under current statutes and the percentage claimed for pollution control is 100%.

Facility cost: \$167,972.27 (Accountant's certification provided).

3. Evaluation of Application

Veneer dryers are well known for the "blue haze" emissions from their stacks. Oregon Administrative Rules require that these emissions not exceed a 10% opacity level. In order to comply with the regulation, Georgia Pacific was required to remove visible contaminants from their veneer dryer plumes.

A majority of these contaminants are hydrocarbon compounds driven from the wood in the drying process. A significant portion of these hydrocarbons do condense upon entering the cooler ambient air forming very small particles. It is these submicron particles that are most visible and cause noncompliance with the regulation.

After some research and development work, Georgia Pacific designed a control device. The basic idea was to condense and collect these hydrocarbon aerosols before they could leave the stack. Through the use of water scrubbing and mist eliminators they were able to accomplish this task and comply with the visible emission standard. The collected pitch is subsequently disposed of in a boiler unit. The fuel value of the recovered pitch does not nearly offset the scrubber operating costs. It is concluded that this scrubber equipment is 100% allocable to air pollution control.

T-781

8/16/76

Page 2

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$167,972.27 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-781.

LOREN KRAMER

DDO:cs
8/16/76

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

1. Applicant

Georgia-Pacific Corporation
900 S. W. 5th Avenue
Portland, Oregon 97204

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

2. Description of Facility

The facility claimed in this application consists of a bag filter system. It includes:

a. Clarke's "Pneu-Aire", Model No. 40-20, baghouse filter	\$14,920
b. Foundation	900
c. Electrical	1,200
d. Viking Sprinkler fire-control system	3,417

The facility was begun in August 1974 and was completed and placed in operation on October 15, 1974. A notice of construction and application for approval was filed with the Lane Regional Air Pollution Authority. Approval was granted on August 1, 1974, fulfilling the prior approval requirement.

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

Facility cost: \$20,437 (Accountant's certification was provided).

3. Evaluation of Application

In the manufacture of plywood it is necessary to trim panels and handle the subsequent waste material along with other waste from the process. Previously, wood waste material was directed to a cyclone and storage bin. Cyclones efficiency drops off rapidly as particle size decreases, thus excessive amounts of the fine material was being emitted. In order to best control these fines and comply with the 0.1 grain per standard cubic foot regulation, it was decided to install a bag filter device. This type of device is recognized as the best practicable control for this fine particulate. The increase in recovered material does not nearly offset operational costs. It is concluded that this bag filter is 100% allocable to air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$20,437 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Relief Application Number T-782.

Loren Krämer
Director

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

1. Applicant

Georgia Pacific Corporation
900 S. W. 5th Avenue
Portland, Oregon 97204

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

2. Description of Facility

The facility claimed in this application consists of a Georgia Pacific designed scrubber for the control of veneer dryer emissions.

The facility was begun on March 5, 1975 and was completed and placed in operation on July 21, 1975. A notice of construction and application for approval was filed with the Department of Environmental Quality. Approval was granted on November 15, 1974, fulfilling the prior approval requirement.

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

Facility cost: \$152,000 (Accountant's certification provided).

3. Evaluation of Application

Veneer dryers are well known for the "blue haze" emissions from their stacks. Oregon Administrative Rules require that these emissions not exceed a 10% opacity level. In order to comply with the regulation Georgia Pacific was required to remove visible contaminants from their veneer dryer plumes.

A majority of these contaminants are hydrocarbon compounds driven from the wood in the drying process. A significant portion of these hydrocarbons do condense upon entering the cooler ambient air forming very small particles. It is these submicron particles that are most visible and cause non-compliance with the regulation.

After some research and development work Georgia Pacific designed a control device. The basic idea was to condense and collect these hydrocarbon aerosols before they could leave the stack. Through the use of water scrubbing and mist eliminators they were able to accomplish this task and comply with the visible emission standard. The collected pitch is subsequently disposed of in a boiler unit. The fuel value of the recovered pitch does not nearly offset the scrubber operating costs. It is concluded that this scrubber equipment is 100% allocable to air pollution control.

T-783
8/16/76
Page 2

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$152,000 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application Number T-783.

Loren Kramer
Director

DDO:ds

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

1. Applicant

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

The applicant owns and operates an integrated pulp and paper mill at Toledo, Oregon in Lincoln County.

The application was received July 8, 1976.

2. Description of Claimed Facility

The claimed facility consists of 2 basic systems:

- 1) A Lamella Thickener LT-141 and associated piping and controls.
- 2) A collection sump, transfer pump and pipeline.

The claimed facility was completed and put into service in April 1974.

Certification must be made under the 1969 Act and the percentage claimed for pollution control is 100%.

Facility costs: \$92,003 (Accountant's certification was submitted).

3. Evaluation of Application

Prior to the installation of the claimed facility, waste water from the lime kiln scrubbing systems would frequently overflow and be discharged into the main waste water sewer which is discharged to the Pacific Ocean. With the claimed facilities, a greater portion of scrubber water can be recirculated, CaCO_3 collected in the Lamella Thickener is reclaimed, and waste water which does overflow the scrubber system is collected and pumped to the outer lagoon where it is reused inside the mill.

A notice of construction and plans were submitted January 17, 1974, but the Department did not review the plans. The staff believes the company fulfilled its requirement of pre-notification slated in ORS 468.175.

The company claims a return on investment of 7.5% due to the value of the reclaimed CaCO_3 which was previously sewered.

Inspection of the claimed facility shows that it operates satisfactorily.

T-787

July 28, 1976

Page 2

4. Conclusions

Because the facility has a return on investment of 7.5%, the cost allocable to pollution control should be more than 60% but less than 80%.

5. Director's Recommendation

It is recommended that a Pollution Control Facility certificate bearing the costs of \$92,003 with 60% or more but less than 80% of the cost allocated to pollution control be issued for the facility claimed in Tax Application T-787.

RJN:em

July 28, 1976

AUG 12 1976

App# T-790

State of Oregon
Department of Environmental Quality

Date 8/6/76

Tax Relief Application Review Report

1. Applicant

Amalgamated Sugar Company
First Security Bank Building
Ogden, Utah 84401

The applicant owns and operates a sugar beet refinery in Nyssa, Oregon. The facility extracts and refines sugar from sugar beets for five months each year from about October 1 to March 1. The plant generates steam to generate electrical power and to make process steam for heat. Part of this steam is produced by a 100,000 lb/hr Foster-Riley pulverized-coal fired boiler. The boiler had fly ash emissions of about 260 tons per five months.

2. Description of Facility

The facility claimed in this application is a baghouse to control fly ash from the Foster-Riley boiler. It consists of:

a. Baghouse, Western Precipitation, Joy Division	\$193,447.00
b. Electric controls	85,193.47
c. Piping, valves, lines	49,120.92
d. ID fan, Buffalo, Size 1460 type L-21 SWSI, Arr #3	19,177.00
e. Other machinery	54,475.15
f. Structural steel	13,939.85
g. Electrical work, motors, etc.	13,000.42
h. Engineering	12,534.64
i. Building concrete	9,272.65
j. Site preparation and yard work	8,458.91
k. Miscellaneous	9,319.09

The facility was begun in March 1974, completed in September 1975, and placed in operation in October 1975. The prior approval requirement of the tax credit law was not effective when the Environmental Quality Commission approved the project at its 12/21/72 meeting.

Certification is claimed under the 1969 Act and the percentage claimed for pollution control is 100%.

Facility costs: \$467,939.10 (Accountant's certification was provided).

3. Evaluation of Application

The Company was required by the Department to bring their Foster-Riley boiler into compliance by Condition 9 of their Air Contaminant Discharge Permit No. 23-0002, issued April 17, 1973. The completed baghouse was tested recently and the fly ash emissions have been reduced to four tons per five months. The boiler is now operating in compliance with Departmental rules.

The fly ash caught by the baghouse is wetted, then pumped to the lime pond. It is a worthless slurry.

It is concluded that the claimed facility has no economic return to the applicant, and that 100% of its cost can be allocated to air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$467,939.10 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-790.

LOREN KRAMER

PBB:cs
8/10/76

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

1. Applicant

Amalgamated Sugar Company
 First Security Bank Building
 Ogden, Utah 84401

The applicant owns and operates a sugar beet refinery at Nyssa, Oregon near the Idaho Border.

2. Description of Facility

The facility claimed in this application is three wet scrubbers which capture fly ash and sugar beet pulp escaping from three coal-fired beet pulp dryers. It consists of:

a. Machinery	\$47,712.35
b. Electric controls	28,518.13
c. Electrical work, motors, etc.	23,553.51
d. Structural steel	13,989.30
e. Piping, lines, valves	2,991.79
f. Engineering	6,869.64
g. Miscellaneous	4,123.92

The facility was begin in March 1975, the first phase completed in September 1975 and placed in operation in October 1975. The Company requested approval for the project on October 3, 1974 and received it, thus meeting prior notice requirements.

Certification is claimed under the 1969 Act and the percentage claimed for pollution control is 100%.

Facility costs: \$127,758.64 (Accountant's certification was provided).

3. Evaluation of Application

Tests of the pulp dryer stacks showed them to be out of compliance with Department rules. The Department received a compliance program. Doyle type wet scrubbers were designed and installed by Amalgamated Sugar, per the plans (NC 275 and 633) submitted.

Tests done on January 24, 1976 showed that the claimed facility (phase one) was capturing over 300 lb/hr of particulate emissions. The emissions from each dryer and after the scrubber still range from 60 to 86 lb/hr, which is more than the 50.5 lb/hr allowed by the Department's rule. Phase two, not part of this facility, was submitted June 4, 1976 (NC 772) and approved July 15, 1976. Phase two will lower the emissions to below 50 lb/hr from each dryer.

The captured fly ash and beet pulp particulate is pumped as a slurry to ponds owned by the Company. It is considered to be worthless.

It is concluded that the claimed facility was installed solely for air pollution control and has brought about a significant reduction in emissions from the Company's three beet pulp dryers.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$127,758.64 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-793.

LOREN KRAMER

PBB:cs
8/13/76

State of Oregon
Department of Environmental Quality

Tax Relief Application Review Report

1. Applicant

Amalgamated Sugar Company
First Security Bank Building
Ogden, Utah 84401

The applicant owns and operates a sugar beet refinery at Nyssa, Oregon near the Idaho border.

2. Description of Facility

The facility claimed in this application is a baghouse which captures fly ash from the plant's Foster-Wheeler coal fired boiler. It consists of:

a. Wheelabrator Frye baghouse and related machinery	\$232,500
b. Piping, air and vacuum lines	39,500
c. Process controls	17,300
d. Electrical work	16,300
e. Concrete	14,300
f. Lighting and wiring	8,600
g. Machine support structure	4,300

Total \$332,800

The facility was begun in April 1973, completed and placed in operation in October 1973. Prior approval was requested and given for the project.

Certification is claimed under the 1969 Act and the percentage claimed for pollution control is 100%.

Facility costs: \$294,926.54 (Accountant's certification was provided).

3. Evaluation of Application

By a July 7, 1972 submittal (NC-139), Amalgamated Sugar requested approval to install a new, large boiler with emissions controlled by a baghouse to meet highest and best practicable treatment requirements. The Department gave written approval on November 22, 1972. The Company's Air Contaminant Discharge Permit, issued April 17, 1973, required the baghouse in Condition 8, and required it to be source tested in Condition 10. The test results of .06 gr.scf were sent to the Department on December 31, 1974. The source test was approved and the facility was accepted as being in compliance by the Department's March 24, 1975 letter. Subsequent plant inspections have noted that emissions from the new boiler, the Foster-Wheeler, are in compliance with Department rules. The 1200 lb/hr of fly ash captured by the baghouse is wetted, then pumped as slurry to the Company's lime pond. It is considered to be worthless.

T-794
8/11/76
Page 2

It is concluded that the claimed facility was installed solely for air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$294,926.54 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-794.

LOREN KRAMER

PBB:cs
8/16/76

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

1. Applicant

Hobin Lumber Company
P. O. Box 709
Philomath, Oregon 97370

The applicant owns and operates a manufacturing facility which converts logs into rough sawn lumber.

2. Description of Claimed Facility

The facility consists of:

- a. Mill Pond Settling Tank (water diverted from spillway for treatment) - 1250 gallon.
- b. Two yard run-off collection settling tanks - 1250 gallon, equipped with Hydromatic 5K60 Sump Pumps.
- c. 160 ft. of 8 inch drainage culvert.

Construction of the claimed facility was completed and placed in operation in October 1975.

Certification is claimed under the 1969 Act with 100% allocated to pollution control.

Facility cost: \$6,700.00 (Invoices were attached to the application).

The facility was required by one of the conditions of NPDES Permit 2169-J. The Midwest Regional Office received the plans for the facility August 18, 1975 and approved them by letter of September 8, 1975.

3. Evaluation of the Application

The applicant has complied with water quality control requirements for storm runoff (as required in the permit). Staff has confirmed this. No profit to the company is derived from the installation of this facility.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate be issued for the claimed facility bearing the actual cost of \$6,700.00 with 80% or more allocable to pollution control.

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

1. Applicant

Hobin Lumber Company, Inc.
 P. O. Box 709
 Philomath, Oregon 97370

The applicant owns and operates a rough sawn lumber mill in Philomath, Oregon, 6 miles west of Corvallis, on the same premises as Hobin Forest Products, Inc.

2. Description of Facility

The facility claimed in this application is a bark hog with storage bins. It replaced a wigwam waste burner. The bark hog system consists of:

a. Jeffery hammer hog, S/N 4919	\$ 5,000
b. Bark bins, 2 Carothers 15 unit with connecting 12' screw conveyor	12,172
c. Infeed conveyor, two 80' belts with SKK 5 HP gearhead motors	3,740
d. Two metal detectors, Rens model C 1612	2,370
e. Outfeed conveyor, 17' chain type, SKK 5 HP motor	965
f. Electrical installation	4,500
g. Concrete and building for hog	1,500

The facility was started in July 1968, completed and placed in operation in September 1968. The prior approval requirement of the tax credit law was not in effect yet.

Certification is claimed under the 1967 Act and the percentage claimed for pollution control is 100%.

Facility costs: \$29,247 (Accountant's certification was provided).

3. Evaluation of Application

Mid-Willamette Valley Air Pollution Authority passed rules in 1967 which required wigwam burners to meet stringent emission and operational standards. Hobin Lumber was required to comply with MWVAPA rule. The company chose to phase out the use of the burner. Hobin Lumber lies to the south of Philomath, population 1960, where the prevailing southwest wind could carry the smoke across part of the town.

The claimed facility was installed so that the mill's wood waste could be trucked away rather than be burned. While the wood waste (now all bark) yields an annual income of about \$7,000 and the wigwam annual maintenance cost of \$1,324 is no longer incurred, the hog takes an estimated \$9,448 annually to run. The operation does not return a profit.

It is concluded that the hog system replaced the wigwam waste burner but still runs at a loss, so 100% of the claimed facility can be allocated to air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$29,247 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-798.

Loren Kramer
Director

PBB:ds

State of Oregon
Department of Environmental Quality

Tax Relief Application Review Report

1. Applicant

Paasch Orchard
Route 6, Box 305
Hood River, Oregon 97031

The applicant, Allen Paasch, owns and operates orchards near Hood River, Oregon.

2. Description of Facility

The facility claimed in this application consists of a tower mounted, revolving fan, with a gasoline fueled Ford industrial engine providing the power. The installed cost is:

Tropic Breeze Wind Machine, Model GP300, S/N16705.....\$7,945

Construction of the facility was started April 26, 1976, completed May 1, 1976, and placed in operation May 3, 1976. The Department granted preliminary certification for this project April 26, 1976 from a request dated April 12, 1976.

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

Facility costs: \$7,945 (accountant's certification was provided).

3. Evaluation of Application

A group of Hood River orchardists approached the Department in April 1976 to see about tax credits for substituting orchard fans for diesel-oil-fired smudge pots. The fans break-up the freezing air around the pear and apple trees by bringing in air that is slightly warmer from above. The smudge pots, while not being within the Department's jurisdiction, do cause considerable smoke and odor.

The orchardists demonstrated that there was no positive return on investment for buying the fans to replace the smudge pots, in spite of the diesel oil cost savings. The Department granted preliminary certification for tax credit on previous applications only after this was shown. The fans work; the smudge pots were not used.

In conclusion, 100% of the fan costs are allocable to air pollution control.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$7,945 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application T-802.

LOREN KRAMER
Director

State of Oregon
 Department of Environmental Quality

Date 8/9/76

Tax Relief Application Review Report

1. Applicant

International Paper Company
 P. O. Box 854
 Gardiner, Oregon 97441

The applicant owns and operates a kraft pulp and paper mill in Gardiner, Oregon, 30 miles north of Coos Bay.

2. Description of Facility

The facility claimed in this application is a high energy venturi scrubber. It cleans the exit gas from the mill's lime kiln. The claimed facility consists of:

a. Venturi Scrubber	\$122,564.65
b. Fan	26,131.00
c. Motors	11,250.00
d. Motor starters, electrical wire and cable	6,477.04
e. Pipe, fittings, valves	2,887.23
f. Painting material	1,246.98
g. Miscellaneous Material	18,320.35
h. Company Labor	5,899.01
i. Construction Overhead and Engineering	24,801.72

The claimed facility was begun before March 29, 1974, construction started in August 1974, and the facility was finished and placed in operation in December, 1975. To receive tax credit, prior approval must have been granted by the Department. Status on the project was given to the Department by letters dated 3/24/74, 6/7/74 and 10/4/74. The formal Notice of Construction was submitted 1/29/75 and technical details submitted 2/12/75. The Department's 3/25/75 letter gave formal approval for the project. The prior approval requirement was fulfilled because the Department was giving verbal approval as the project became more detailed with each transmittal in 1974. Formal approval was given after details were available and transmitted in 1975.

Certification is claimed under the 1969 Act and the percentage claimed for pollution control is 100%.

- Facility costs: \$219,579.98 (accountant's certification was provided).

3. Evaluation of Application

More stringent control of lime kiln emissions was required by the Department in Air Contaminant Discharge Permit 10-0036, condition 14, issued 8/2/73. The claimed high energy scrubber was installed and has brought the lime kiln into compliance per the latest status report and 3/15/76 inspection. The monthly reports from International Paper to the Department measure emissions from the lime kilns, and also document compliance.

The claimed scrubber captures more particulates than the former control. The annual value of the recovered materials (CaCO_3) of \$2,552 is more than offset by the annual utility cost of \$13,850 to run the scrubber.

Therefore the claimed facility is run at a loss and thus 100% of the capital cost can be allocated to air pollution control.

Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$219,579.98 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-803.

Loren Kramer
Director

PBB:ds

State of Oregon
Department of Environmental Quality

Tax Relief Application Review Report

1. Applicant

International Paper Company
P. O. Box 854
Gardiner, Oregon 97441

The applicant owns and operates a kraft pulp and paper mill in Gardiner, Oregon, 30 miles north of Coos Bay.

2. Description of Facility

The facility claimed in this application is known as Recovery Boiler No. 3. The installation burns black liquor resulting from 420 tons/day of pulp making to produce 203,000 lb/hr of 600 psig steam and 140 tons per day of salt cake. The No. 3 boiler was installed to meet regulatory requirements and so that the No. 2 recovery furnace could be scrapped; No. 3 boiler is a low odor boiler, compared to No. 1 and No. 2. No. 1 recovery boiler shares the new electrostatic precipitator built to capture the air contaminants from No. 3.

The facility consists of:

a.	No. 3 Recovery Boiler	\$ 928,898.25
b.	Electrostatic precipitator	503,664.82
c.	Insulation, in place	262,269.77
d.	Black liquor concentrator	152,817.25
e.	Duct work and stacks	105,262.97
f.	Fan, soot blowers, other equipment	352,405.34
g.	Building to house boiler	1,213,633.03
h.	Outside labor	860,793.55
i.	Labor fringe benefits	469,674.40
j.	Construction engineering and overhead	377,970.69
k.	Central design service charge	151,906.28
l.	Boiler foundations	59,822.24
m.	Flooring	238.04
n.	Piping, valves	240,749.74
o.	Electrical	138,089.37
p.	Instruments and controls	136,718.63
q.	Steel	37,707.32
r.	Painting labor and paint	119,433.13
s.	Equipment rental and miscellaneous	60,842.83
t.	Expendable small tools, supplies and temporary facilities	256,067.11
u.	Outside consulting services	1,800.00
v.	Additional siding on building (October 1975)	23,230.85
w.	New demineralizer plant for boiler makeup water (February 1974)	81,486.70
	TOTAL	<u>\$6,535,482.31</u>

The claimed facility was begun in September 1972, placed in operation in August 1974, and completed in December 1975.

Certification is claimed under the 1969 Act and the percentage claimed for pollution control is 100%. The company submitted a notice of construction in January 1972 and the project was approved by the Department and Commission prior to construction.

Facility costs: \$6,535,482.31 (Accountant's certification was provided).

3. Evaluation of Application

The State of Oregon has required International Paper Company to reduce its kraft mill emissions. A July 20, 1970 letter requested a compliance program. Condition 12.a. of their Air Contaminant Discharge Permit No. 10-0036, signed August 2, 1973, required the installation of the claimed No. 3 recovery furnace, and the retirement of No. 2 recovery furnace.

International Paper Company submitted a Notice of Construction to the Department on January 10, 1972 to build the claimed facility. The Department and the Environmental Quality Commission approved the project on March 6, 1972 so that, upon completion, International Paper would be in compliance with the kraft mill regulation, OAR Chapter 340, Section 25-170. On June 22, 1972, the Department signed an Air Pollution Abatement Program certificate so that the mill could get Port of Umpqua bonds issued to finance the project. The bonds were issued in 1973 for this project.

The No. 3 recovery boiler has been operating in compliance with the Department's 1983 particulate, TRS, and SO₂ emission limits. The mill was last inspected March 15, 1976. The Department has been receiving acceptable monthly self-monitoring reports from International Paper Company.

The claimed facility has lowered the emissions of odorous TRS to 10 ppm from the former 300 ppm. Particulates (mostly salt cake) are currently being emitted at 70 lb/hr from the recovery boilers' stack; if No. 3 boiler were not installed, 350 lbs/hr would be being emitted.

Precedents

The applicant states that 100% of the cost is allocable to pollution control. In most previous cases, the staff and Commission have allowed 100%, as follows:

- a. Publishers Paper, T-40 granted \$4,035,703 for a recovery boiler at Oregon City on June 26, 1970.
- b. Publishers Paper, T-236 granted \$6,405,622 for a recovery boiler at Newberg on August 13, 1971.
- c. Western Kraft, T-359 granted \$5,405,274 for a recovery boiler at Albany on September 5, 1972.

- d. Boise Cascade, T-416 granted \$6,101,818 for a recovery boiler at Salem on March 2, 1973.
- e. Weyerhaeuser, T-580 granted \$8,511,981 for a recovery boiler at Springfield on November 22, 1974.
- f. Boise Cascade, T-649 granted \$12,051,771 for a recovery boiler at St. Helens on June 27, 1975.
- g. American Can, T-213 granted \$175,400 portion for that part of a recovery boiler allocable to pollution control alone, at Halsey on June 4, 1971.
- h. Georgia Pacific, T-622R granted 60% of \$100,706 for rebuilding the electrostatic precipitator on No. 3 recovery boiler at Toledo on June 25, 1976.

The applicant and the other firms given 100% credit for the whole recovery boiler projects contend that their old, odorous recovery boilers were only retired because of pressure from DEQ to reduce odor and particulate emissions. They would not have built these new recovery boilers if it had not been for the State of Oregon's air quality rules. The additional chemicals recovered from the claimed facility are worth only \$76,856 per year for a 1.18% return on investment.

New for Old

While odor reduction was why the Company went ahead with this project, it is also very true that nearly all the components of a recovery boiler produce a product of real financial worth. A recovery boiler is just what the name says: first it makes steam, and second it recovers chemicals to be used in the pulping process. In the case of International Paper Company, the applicant acquired a new recovery boiler with a 30 year estimated life, scrapped an old recovery boiler installed used 10 years ago, and put on standby an old recovery boiler installed 12 years ago. In acquiring a new boiler, and turning out to pasture two old boilers, the applicant may have done something in 1974 which would have had to be done in any case by 1994. Recovery boilers have a useful life span and must be replaced after a certain number of years.

If one assumes that the moving up of the project by twenty years (1974 instead of 1994) is allocable to air pollution control, then 20/30th of the project (66.67%), or \$4,356,988 is allocable to air pollution control, on this basis. This basis is without precedent in Oregon, however, and would deny International Paper Company tax credit which has already been granted to four of its competitors under policy established by former Environmental Quality Commissions.

Return on Investment

As a chemical process, the No. 3 recovery boiler has a return on investment. Each year it recovers \$6,360,690 worth of salt cake chemicals. Each year it makes steam worth \$2,627,692. The value of these two products is offset

by operating expenses totaling \$2,140,186 and depreciation of \$408,468. The net annual profit is \$6,439,728. This computes to a return on investment of 98.6% for the claimed cost of \$6,535,482.31. The Department allows 0% allocable to air pollution control for a return on investment of that amount. This computation does not take into account that International Paper already had recovery boilers at its Gardiner mill in 1974, and they did not need the claimed facility for other than to meet pollution control standards.

Increased Capacity

The mill had a capacity of 420 tons/day from #1 recovery boiler and 110 tons/day from #2 recovery boiler before the 420 tons/day #3 recovery boiler was installed. After #3 recovery boiler was installed, the mill had a rated capacity for recovery boilers of 840 tons/day, because the #2 recovery boiler was scrapped. The mill's actual capacity is only 640 tons/day because additional digester and paper machine capacity is lacking to hit the 840 ton/day production rate. Currently the mill is operating on #3 recovery boiler alone at 420 tons/day because of the depressed pulp and paper market.

In allocating a part of #3 recovery boiler for pollution control and the remaining portion to increased capacity and not allocable to pollution control, clearly the increase in plant capacity from:

1970

#1 recovery boiler	420 T/D
#2 recovery boiler	110 T/D
Plant Capacity	<u>530 T/D</u>

to:

1976

#1 recovery boiler (derated)	220 T/D
#3 recovery boiler	420 T/D
Plant Capacity	<u>640 T/D</u>

or 110 tons/day is increased capacity and not allocable to pollution control. The derating or placing on standby 200 T/D capacity of the #1 recovery boiler can be considered pollution control because the operation of #3 recovery boiler is considerably less odorous than #1 recovery boiler.

This results in 310/420 or 73.81% of the claimed facility being allocable to pollution control, and the remaining 110/420 or 26.19% being increased capacity.

Summary

In summary, the claimed cost should not include the increase in plant capacity from 530 tons per day to 640 tons per day. Therefore 73.81% of the claimed cost is allocable to air pollution control, deducting 26.19% for an increase in capacity. The other reasons for allocating less to pollution control do not follow six previous cases and would be unfair to the applicant if used. It is concluded that 73.81% or \$4,823,808.30 is allocable to air pollution control, the other part is allocable to increased plant capacity. Should the mill increase its capacity to over 640 tons/day, then this tax credit should be voided and a new one written.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$4,823,808.30 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-804. If the mill's production capacity goes above 640 adt/day, then the certificate shall become void.

LOREN KRAMER

EJW:PBB:cs
8/13/76

State of Oregon
Department of Environmental Quality

Tax Relief Application Review Report

1. Applicant

Weyerhaeuser Company
P. O. box 389
North Bend, Oregon 97450

The applicant owns and operates a wood products complex which includes a plywood plant in the town of North Bend on Coos Bay, Oregon.

2. Description of Facility

The facility claimed in this application is a set of 12 wet scrubbers used to capture the blue haze being emitted from the plywood mill's two veneer dryers. It consists of:

- | | |
|--|----------|
| a. Twelve three-stage Burley Industries scrubbers,
two pitch removal tanks, associated piping | \$97,164 |
| b. Installation labor and materials | 52,063 |
| c. Engineering charges | 18,497 |

The facility was begun on July 29, 1975, was placed into operation as each unit was completed, and was completed in April 1976. Weyerhaeuser applied for approval by NC 599 on April 21, 1975, and received approval from the Department, meeting the prior approval requirement.

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

Facility costs: \$167,724 (Accountant's certification was provided).

3. Evaluation of Application

Weyerhaeuser was required by their Air Contaminant Discharge Permit 06-0007 to control the blue haze from their two veneer dryers. The Company, with the Department's knowledge and approval, worked with Burley Industries to install, develop, test and prove the Burley wet scrubber.

The Department has been reading the opacity of the blue haze escaping the Burleys. They average less than 10% opacity and are in compliance.

The pitch captured by the scrubbers may be used for boiler fuel, but its value is more than offset by the \$15,817 annual operating cost of the scrubbers.

It is concluded that the claimed facility was installed solely for air pollution control.

T-805
8/12/76
Page 2

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$167,724 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-805.

LOREN KRAMER

PBB:cs
8/17/76

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

1. Applicant

Boise Cascade Corporation
Paper Group
Kaster Road
St. Helens, Oregon 97051

The applicant owns and operates a 900 tpd bleached kraft pulp mill at St. Helens, Oregon in Columbia County.

The application was submitted August 2, 1976.

2. Description of Claimed Facility

The claimed facility consists of a 120,000 gallon concrete surge basin, a 5 h.p. recirculating pump and 2 40 h.p. transfer pumps, related piping and controls. Filter backwash and clariflocculator underflow is collected in the basin and pumped to the paper mill sewer where it is conducted to the primary clarifier.

The claimed facility was put in operation on December 1, 1975.

Certification must be made under the 1969 Act and the percentage claimed for pollution control is 100%.

Facility costs: \$123,102.55 (Accountant's certification was provided).

3. Evaluation of Application

Prior to the installation of the claimed facility, filter backwash and clariflocculator underflow from the fresh water treatment plant at the mill was discharged into Milton Creek via a small swamp. Silt contained in this water settled out in the swamp and Milton Creek. With the claimed facility this waste water is collected, the silt is removed in the existing primary clarifier, and the discharge to Milton Creek has been eliminated.

Plans were approved by letter dated April 15, 1975. On this basis, the staff believes the applicant has fulfilled his obligation of pre-notification as required by ORS 468.175.

Inspection of the facility shows that it is well-designed and well-constructed and operates effectively.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the costs of \$123,102.55 with 80% or more of the cost allocated to pollution control be issued for the facility claimed in Tax Application T-809.



ENVIRONMENTAL QUALITY COMMISSION

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

ROBERT W. STRAUB
GOVERNOR

MEMORANDUM

To: Environmental Quality Commission
From: Director
Subject: Agenda Item No. D August 27, 1976 EQC Meeting

Recommendations for Bid Award - Request for Proposal
for Disposal of Alkali Lake Pesticide Residues

Background

On April 30, 1976 the EQC authorized the DEQ to seek proposals for the disposal of pesticide wastes stored at the Alkali Lake site. A request for proposal document (RFP) was prepared by the Department. The RFP contained the following four alternatives for the bidders to consider:

- (1) Removal of the wastes from the present storage site and transportation to and disposal at an EHW disposal site licensed in the State of Oregon or at an authorized disposal facility outside the State.
- (2) Burial of wastes on the present storage site.
- (3) Removal of the wastes from the present storage site and incorporation into the soil over a large enough area to effect, by biodegradation, a reduction in the pesticide activity to a biologically acceptable level.
- (4) Recycling or re-use of the wastes for beneficial purposes.

The RFP was issued by GSA on July 27, 1976 with a bid opening date of August 18, 1976.



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FACTUAL ANALYSIS

Six proposals were received. A summary of these proposals is attached as Exhibit A. One proposal (A. H. Sheer) was determined to be non-responsive as only a bid price was submitted with no proposal or qualifications as required by the RFP. The responsive bids ranged from \$78,420 to \$310,000. Four bidders responded to item #2 (burial on site) and one bidder responded to item #1 (haul off).

The five proposals were evaluated by two separate evaluation teams. The first consisted of Dr. Westgarth, Director of the DEQ Lab. and Ernest Schmidt, Fred Bromfeld and Robert Brown of the Solid Waste Division. The second evaluation team consisted of a subcommittee of the State Solid Waste Citizen's Advisory Committee (Mr. Gould, Dr. Amberg, Mr. Aschoff and Dr. Charlton.)

EVALUATION PROCEDURE

Proposals were rated on a scale of 4-3-2-1, with 4 being superior, on the following items: Bid price (30%), proposal (30%), bidder qualifications (15%), employee protection (10%), time for completion (10%) and equipment (5%).

Both evaluation teams working independent of each other rated the Chem-Nuclear proposal as number one. This bid contained the following key provisions which established it as superior to the lower bid:

1. Stabilization of finished area by use of six inches of rock cover to prevent wind erosion, the low bid proposed only compaction which was felt to be not acceptable. (Rock to range from five (5) inches to one (1) inch in size).
2. Installation of six monitoring wells. The lower bid proposed no wells. (This was a required item of the RFP).

The subcommittee of the State Citizen's Committee further recommended that compaction in the trench before cover should be emphasized in any contract developed. Disposal on site was chosen over haul-off on the following:

1. Transfer would be to an out of state site. This could possibly lead towards other states wishing to dispose of wastes in Oregon.
2. Any time there is over the road haul there is risk of possible spillage. Each of two trucks proposed for transfer would travel approximately 700 miles round trip each day and would continue for seven months.

3. The Alkali Lake Site is an acceptable site for disposal and has even been considered as an environmentally hazardous waste site by the Department and advisory committee.
4. A savings to the State of Oregon of \$226,800.

The Chem-Nuclear proposal consists of 20' wide by 3' deep trenches, compaction of the barrels in the trenches, cover with two feet of native soil and stabilization by cover with six inches of rock. Six monitoring wells will be installed and the site including fencing returned to original conditions.

CONCLUSIONS

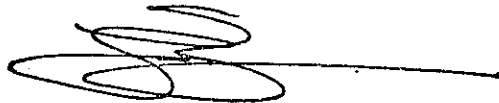
Based on the foregoing, the following conclusions have been reached:

1. Chem-Nuclear was the most responsive bidder.
2. Any contract should emphasize compaction of the containers before cover.

RECOMMENDATIONS

The Director recommends that the Department be authorized and directed to:

1. Apply to the State Emergency Board for project funding in the amount of the Chem-Nuclear proposal.
2. That upon approval of the State Emergency Board a final contract be negotiated with Chem-Nuclear for on-site burial of all wastes.



LOREN KRAMER
Director

RLB:mm/sa
8/23/76

Attachment: Exhibit A - Bid Summary

EXHIBIT A.

	<u>BID</u>	<u>COMPLETION DATE</u>	<u>PROPOSAL</u>
Western Env. Services	\$124,350	24 working days	Cover in place stabilization by grass with wood fiber mulch. 4 test wells.
Chem-Nuclear	84,200	12/31/76	Trench 20' wide 3' deep compaction of drums & pallets in trench cover with next trench. Visually contaminated soil in trench. 2' cover - 6" rock gravel over cover 5" 1". 6 test wells. 4"x10'.
A. H. Sheer	45,000	-	-
Chartier Construction	78,420	1/77	Trench 12x3. Cover stabilization? 2-3 wells not included in bid.
Land Use Research Inst. Land Reclamation Inc. Larry Cooper Chemical Disposition Service	304,836	10/29/76	Cover in place w/2-4' concentrated on 6.75 acre leachate control dike 813x420 - cells. No compaction of drums, 2 wells Leachate Collection System extra cost + 30%. Stabilization of mound similar to Boardman.
Northwest Vip (Wilkinson)	310,000	Seven months 4/76	Removal from site, disk 10 acres. Enclosed trucks lined w/6 mill liner.

RLB:mmm



ENVIRONMENTAL QUALITY COMMISSION

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ROBERT W. STRAUB
GOVERNOR

MEMORANDUM

To: Environmental Quality Commission
From: Director
Subject: Agenda Item E, August 27, 1976, EQC Meeting

Consideration of Adoption of a Permanent Rule to Replace
Temporary Rule Changing Fee Schedule for Subsurface Sewage
Disposal Permits and Site Evaluations in Jackson County

Background

ORS 454.745 establishes maximum fees that may be charged for subsurface or alternative sewage disposal system permits and fees for site evaluations. By rule of the Commission counties may be allowed to charge fees less than the maximum.

Discussion

When ORS 454.745 was amended in the 1975 legislative session establishing an increased fee structure, Jackson County chose not to increase its fees but to continue with the old fee schedule. The County now has budgetary constraints that necessitate increased fees to operate the program at an effective level. At their meeting on April 30, 1976 the Commission adopted a temporary rule which allows Jackson County to charge statutory maximum fees.

Public hearings have been held, including two in Medford, (afternoon and evening) on the question of making permanent the temporary rule establishing an increased fee schedule. Only one person testified on this subject. The gist of that person's testimony was that since the rules primarily protect public health and public water, he objects to that percentage of the program supported by fees rather than general funds. No specific recommendation was offered, but opinion offered that \$100 permit fee is excessive. (Mr. Likely).

The temporary rule will expire on September 5, 1976 unless made permanent by the Commission prior to that date.



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Conclusions

1. An increase in subsurface and alternative sewage systems permit fees and fees for site evaluations is necessary for Jackson County to continue to operate an efficient program.
2. Failure to adopt the attached proposed amendment to OAR 340-72-015(4) could result in a cutback in necessary program services in Jackson County.

Recommendations

It is the Director's recommendation that the Commission adopt as a permanent rule to be filed promptly with the Secretary of State the proposed amendment to OAR Chapter 340, Division 7, contained in Attachment A.

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke extending to the right.

LOREN KRAMER
Director

TJO:md
8/12/76

Attachment: Attachment A, August 1976, Proposed Rule Amending Oregon Administrative Rules Chapter 340, Division 7.

August 1976

ATTACHMENT A

Proposed Rule Amending Oregon Administrative Rules Chapter
340, Division 7

In subsection 72-015(4) Line 6 - delete "Jackson,".



ENVIRONMENTAL QUALITY COMMISSION

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

ROBERT W. STRAUB
GOVERNOR

MEMORANDUM

To: Environmental Quality Commission
From: Director
Subject: Agenda Item F, August 27, 1976 EQC Meeting

Request for Authorization to Conduct Public Hearings on Proposed Amendment to OAR Chapter 340, Division 7, Subsurface and Alternative Sewage Disposal. (Geographic Region Rule B.)

Background

The existing rules on subsurface and alternative sewage disposal were adopted by the Commission in August 1975 and became effective September 1, 1975.

Statutory authority exists (ORS 454.615(1)) for adopting rules for subsurface sewage disposal that may vary in different areas or regions of the State.

Discussion

One of the most frequent reasons for denial of subsurface construction permits on the Coast, and to a lesser degree parts of Central and Eastern Oregon, is high water tables in the unconsolidated (loose dune-type) sands. A separation distance of four (4) feet is required between the bottom of the disposal trench and the water table.

Since sands have no soil structure the filling of sand-on-sand appears to be an acceptable method of attaining the necessary separation distances between the trench bottom and the water table.

Conclusion

Filling of sand-on-sand appears to be a feasible method of bringing into compliance with the rules certain parcels that have been or may be denied.



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Recommendation

It is the Director's recommendation that the Commission authorize public hearings to be conducted at the earliest possible date for the purpose of considering the adoption of the proposed amendment (Geographic Region Rule B) to the rules pertaining to subsurface and alternative sewage disposal.

A handwritten signature in black ink, appearing to read 'Loren Kramer', with a long horizontal stroke extending to the right.

LOREN KRAMER
Director

TJO:md
8/13/76

Attachment: Attachment A - Proposed Subsection 71-030(9)
(Geographic Region Rule B).

PROPOSED AMENDMENT TO OREGON ADMINISTRATIVE RULES

CHAPTER 340, DIVISION 7

Section 71-030 - Amend by adding a new subsection (9) to read as follows:

(9) Geographic Region Rule B.

- (a) In areas where the permanent water table or the permanently perched water table will be within four (4) feet of the bottom point of the effective sidewall of the disposal trench and the soil on the parcel is medium or fine unconsolidated sand, permits may be issued provided:
 - (A) The water table is not closer than twenty-four (24) inches of the original ground surface.
 - (B) The parcel is filled with like sand adequate in depth to provide four (4) feet of separation between the water table and the bottom point of the effective sidewall of the disposal trench.
 - (C) The parcel is adequate in size to accommodate a filled area for initial drainfield installation and a full replacement area to the construction specifications set forth in subsection (b) of this section.
 - (D) The full replacement area is filled at the same time the initial drainfield site is filled.
 - (E) The filled area is protected from erosion by planting of suitable grasses or other vegetative cover or other materials approved by the Director or his authorized representative.
- (b) Fills shall be adequate in size to accommodate a drainfield sized in accordance with subsection 71-030(3)(c) of these rules and:
 - (A) To accommodate a maximum fill side slope of 5 to 1.
 - (B) To provide for a disposal trench setback of ten (10) feet inside the crown of the fill.
 - (C) The area to be filled is cleared of all vegetative cover to root depth including side slopes.
 - (D) The surface area to be filled is scarified to a depth of at least six (6) inches.
 - (E) The total depth of the fill will not exceed the minimum needed to bring the site into compliance with the subsection 71-030(1)(c).

- (c) Inspection and approval. A sewage system construction permit will be issued only after:
 - (A) The fill has been completed, inspected and found to be in compliance with these rules.
- (d) This rule may apply in the following situations:
 - (A) Within new subdivisions or individual lots.
 - (B) To bring existing lots into compliance with subsection 71-030(1)(c) of these rules.
 - (C) On existing lots where a redundant drainfield is necessary due to inadequate lot area.
- (e) Fees. An additional site evaluation fee will not be charged if the site is modified and approved within ninety (90) days of initial site evaluation application.

8/4/76



ENVIRONMENTAL QUALITY COMMISSION

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

ROBERT W. STRAUB
GOVERNOR

To: Environmental Quality Commission
From: Director
Subject: Agenda Item No. G, August 27, 1976 EQC Meeting

Request for Authorization to Hold a Public Hearing on Proposed Amendments to the Air Quality Regulation for the Board Products Industries (i.e., Veneer and Plywood Mills)

Background

The proposed rule amendment under consideration consists of the following:

- A. A modification to the veneer drier visual emission limits.
- B. A rule which specifies a veneer drier self-monitoring program.
- C. Several minor revisions in the Board Products section of the Air Quality Regulations which will effect an update where necessary, will provide internal consistency, will eliminate duplication or will provide clarification through the use of definitions.

The significant rule amendment concerns the modification of the opacity limit for veneer drier emission points (i.e., veneer drier exhaust stacks). This change would occur in Section 25-215(1)(b) where the current veneer drier visible emission limit of 10% maximum opacity would be revised to read:

1. A maximum opacity of 20%, and
2. An average opacity of 10%; the average opacity shall be based upon a sufficient number of visual opacity determinations, accumulated over a period of time, which are representative of normal veneer drier operations and which take into account possible seasonal and temporal variations.

The 10% maximum opacity limit for veneer drier visible emissions is currently in effect. After a public hearing was held at the December 20, 1974 EQC meeting (agenda Item No. L), this rule was adopted at the January 24, 1975 EQC meeting (Agenda Item No. E).



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The 10% maximum opacity regulation was adopted in lieu of a general requirement to control veneer drier emissions based on either process weight limitations, grain loading, or mass emission versus rate of production. These three requirements would require costly and time consuming particulate emissions source tests. The Department concluded that visible emissions would constitute a sufficient control requirement. Pursuant to this, the 10% maximum opacity requirement was proposed and then adopted.

It should be noted that the adoption of a visible emission standard does not preempt the Department from requiring particulate emission source testing to determine the type, quality and quantity of emissions. Particulate emission source testing is beneficial in the evaluation of veneer drier emissions control equipment, especially for the application of new technology.

The pertinent attachments appear at the end of this report. Attachment 1 is an outline of the proposed Air Quality Rule changes, while Attachment 2 is the proposed Air Quality Regulations for the Board Products Industries (Veneer and Plywood Manufacturing). Attachment 3 is the current Air Quality Regulations for the Board Products Industries. Attachment 6 is a letter from Mr. W. D. Page of the American Plywood Association, which requests a public hearing before the Environmental Quality Commission for the purpose of revising the Air Quality Regulations for the Board Products Industries. Attachment 4 is the "DEQ Guidelines for Establishing a Self-Monitoring Program for Veneer Drier Visible Emissions and Attachment 5 is a list of systems and strategies for controlling veneer drier visible emissions.

Discussion

In the manufacture of plywood, green veneer is passed through a drier where the moisture content of the wood is reduced to below 10%. The heat which is supplied to vaporize the moisture in the veneer also vaporizes a fraction of the volatile organic compounds in the wood. When the exhaust gas stream from the driers comes in contact with the cooler atmosphere, part of the organic fraction condenses to form tiny droplets (0.1 to 10 μ in diameter).

Due to their small size these droplets remain suspended in the atmosphere for a long time. This factor plus the fact that the droplets both absorb and scatter light, results in diminished visibility when they are present. Hence the characteristic "blue haze" that is often visible over active veneer mills.

Typically a veneer drier has two to four stacks and there usually are two to three driers per mill. Stack height varies, but stacks generally extend about five to eight feet above the roof. The low stack height usually results in poor mixing with the atmosphere.

Due to the many emission points (i.e., stacks) and their proximity to the ground, as well as the light scattering phenomenon of the droplets, veneer drier emissions are often conspicuous. This problem has become to be regarded as primarily a case of aesthetic or psychological pollution.

No human health problems have been reported to be associated with these organic emissions as they occur in the ambient air. Little research has been done in this area.

Since 1969, veneer and plywood manufacturers as well as equipment vendors have worked to develop technology and equipment to control veneer drier visible emissions. Several systems did not progress beyond the pilot plant development stage due to various difficulties encountered. Initial developmental work with other control systems proved more successful. Several of these systems have been scaled-up to production capacity units and were made operational within the past year. Performance and operational data on these production-scale units is being accumulated by the manufacturers and the users. A list of the control systems and strategies which the Department feels are successful in controlling veneer drier emissions appears in Attachment 5.

The Department intends to acquire additional particulate removal data for the various control devices and systems. It is considered important that control systems approved for installations in areas exceeding or close to exceeding particulate standards be compatible with maintenance plans that may be required for the area to meet Federal/State ambient air standards.

Observations by users and Departmental representatives indicate that several of the control systems in use do not always perform within the 10% maximum opacity limit. The exact cause for the performance fluctuations is not known, but several factors are thought to contribute to the problem. To an extent, the weather is a parameter. In the summertime when it is hot, dry, cloudless and with intense sunshine, veneer drier emissions are at their worst. Condensate plumes dissipate more rapidly and the intensity of the sunshine apparently amplifies the visible emissions problem.

Other factors contribute to levels of visible emissions from the drier stacks. Some of these are the type, age and condition of the drier itself, the species of veneer dried and the drier temperature. A visible emissions control system, whether it operates on just one stack, several stacks of the same drier or on stacks from several different driers, must contend with these variations.

Added to this, of course, is any variability in the performance of the control systems themselves.

The Department agrees with the plywood industry that the above factors justify a rule revision to accommodate the situation when veneer drier visible emissions may not be able to assure control below the 10% maximum opacity limit. These excursions above 10% opacity are proposed to be accommodated by a 10% average opacity limit qualified by a 20% maximum opacity. Furthermore, the average opacity of 10% is proposed to be based upon a sufficient number of visual opacity determinations accumulated over a period of time which are representative of normal veneer drier operations and which take into account possible seasonal and temporal variations.

The air quality in the vicinity of veneer mills should not be impaired significantly as the 10% average opacity limit will be of the same order of magnitude as the 10% maximum opacity limit. This means that essentially the same degree of control will have to be employed. The major difference is that allowance is being made for the variability in the drier systems, in the materials that are dried, the control equipment and in the weather.

Equipment vendors have been reluctant to guarantee compliance with the 10% opacity limit at all times and under all conditions. In turn, mill owners have been reluctant to commit themselves to costly control expenditures, especially if there is a possibility that the control equipment will not achieve continuous compliance. These concerns have caused delays in controlling veneer drier emissions. The proposed regulation modifications are designed, in part, to alleviate these concerns and thereby provide impetus to the Departmental control program.

The proposed self-monitoring program for veneer drier visible emissions (Section 25-315(3)) is designed to make mill operators aware of the degree and extent of the opacity problem. The program is intended to be an integral part of the veneer drier emissions control program. Only when the mill operators are fully aware of the problem will there be common ground for achieving corrective action.

The self-monitoring program is designed to be flexible. Each DEQ Regional Office will be responsible for negotiating a self-monitoring program with the mills in its territory on an individual basis. For those mills not yet documented as being in compliance or where a question about compliance exists the self-monitoring program will be more rigorous and intensive. Casual opacity readings would be permitted in the case where the mill is on an approved compliance schedule or where new control equipment is being installed.

OAR Chapter 340, Section 25-315(1)(a) addresses the "blue haze" problem at veneer drier facilities. This section states the objective which is to control veneer drier visible emissions so as to eliminate the "blue haze". The latter part of this section places distance restrictions beyond which the "blue haze" should not be visible.

It has been argued that the objective of eliminating "blue haze," especially within the distance limitations, is confusing with regard to the opacity limits (i.e., 10% average opacity, 20% maximum opacity) set forth in subsequent section 25-135(1)(b). An occasional wisp of "blue haze" might "extend beyond the exterior wall of the building housing a veneer drier or at any point further than 50 feet in any direction from the veneer drier, whichever is greater." This would be a contradiction to the objective stated in Section 25-315(1)(a).

In order to clarify Section 25-315(1)(a) and emphasize that it is the objective of the Department to eliminate "blue haze" from veneer drier emissions, it is proposed that the distance restrictions be deleted from this section.

Finally, when the Board Products Regulations were first proposed, restrictions on open burning were included. These restrictions are also addressed in other parts of the Air Quality Regulations, specifically OAR Chapter 340, Sections 23-005 to 23-020, Open Burning. As they are effectively dealt with in these sections, it is proposed to delete the prohibition in the Board Products Sections, 25-315(3), 25-320(4) and 25-325(5).


Summary and Conclusions

1. Due to their physical and chemical makeup, veneer drier emissions pose an opacity problem which is very difficult to control.
2. A 10% maximum opacity limit rule for veneer drier emissions was recommended for adoption by the EQC in January, 1975.
3. Control technology has been applied to veneer drier emissions; several production-scale control units have gone into operation during the past year.
4. Due to variations in the weather, in the operation of the veneer driers and perhaps to fluctuations in the performance of the control units themselves, some control units cannot always satisfy the 10% maximum opacity limit; there are excursions above 10% opacity, but within 20%.
5. Air quality conditions will not be significantly impaired by a change from 10% maximum opacity to 10% average and 20% maximum.
6. Control systems approved for installations in areas exceeding or close to exceeding particulate standards will have to be compatible with maintenance plans that may be required for the area to meet Federal/State ambient air standards.
7. Self-monitoring is conceived as an integral part of the veneer drier emission control program; it is designed to make mill operators aware of the extent of the veneer drier emissions opacity problem.
8. As a Department objective, it is not necessary for the control of the "blue haze" rule to contain distance limitations.
9. As the main body of the Open Burning Regulations is contained in OAR Chapter 340, Sections 23-005 through 23-020, it is not necessary to have open burning restrictions as part of the Board Products Industries Air Quality Rules.

Director's Recommendation

The Director recommends that the Environmental Quality Commission:

1. Hear public testimony concerning the proposed amendments to the Board Products Industries Air Quality Regulations, specifically those related to the opacity regulation on veneer drier operations; and
2. Take appropriate action on the regulation after giving consideration to the testimony received.



LOREN KRAMER
Director

AFB:cs
8/17/76

Attachments

LIST OF ATTACHMENTS

1. Outline of Proposed Changes to the Air Quality Regulations to the Board Products Industries.
2. The Proposed Air Quality Regulation for the Board Products Industries (Veneer and Plywood Mills), OAR Chapter 340, Section 25-305 through 25-315(3).
3. The Current Air Quality Regulations for the Board Products Industries (Veneer and Plywood Mills).
4. DEQ Guidelines for Establishing a Self-Monitoring Program for Veneer Drier Visible Emissions.
5. List of Systems and Strategies to Control Veneer Drier Visible Emissions.
6. Letter from Mr. W. D. Page of the American Plywood Association dated August 12, 1976, which requests a public hearing to modify the Veneer and Plywood Regulations.

OUTLINE OF PROPOSED CHANGES TO THE BOARD PRODUCTS INDUSTRIES
AIR QUALITY REGULATIONS

<u>Section</u>	<u>Section Title</u>	<u>Proposed Action</u>
1. 25-305(1-6)	Definitions	ORS Section No. Update
2. 25-305(1-10) thru 25-305(1-13)	Definitions	Additions
3. 25-310(2)	General Provisions	Consistency Change
4. 25-315(1a)	Veneer & Plywood Manufacturing Operations	Clarification of Objective to Eliminate "Blue Haze"
5. 25-315(1b)	Veneer & Plywood Manufacturing Operations	Opacity Condition; 20% max, 10% avg.
6. 25-315(1c)	Veneer & Plywood Manufacturing Operations	Date 25-315(1b) is effective
7. 25-315(3) 25-320(4) 25-325(5)	Veneer & Plywood Manufacturing Operations Particleboard Manufacturing Operations Hardboard Manufacturing Operations	Eliminate Open Burning Condition, Redundant
8. 25-315(3)	Monitoring and Reporting	Veneer drier emissions self-monitoring program rule.

BOARD PRODUCTS INDUSTRIES
(VENEER, PLYWOOD, PARTICLEBOARD, HARDBOARD)

[ED. NOTE: Unless otherwise specified, sections 25-305 through 25-325 of this chapter of the Oregon Administrative Rules Compilation were adopted by the Department of Environmental Quality March 5, 1971 and filed with the Secretary of State March 31, 1971 as Administrative Order DEQ 26.]

25-305 DEFINITIONS. (1) "Department" means Department of Environmental Quality.

(2) "Emission" means a release into the outdoor atmosphere of air contaminants.

(3) "Hardboard" means a flat panel made from wood that has been reduced to basic wood fibers and bonded by adhesive properties under pressure.

(4) "Operations" includes plant, mill, or facility.

(5) "Particleboard" means matformed flat panels consisting of wood particles bonded together with synthetic resin or other suitable binder.

** (6) "Person" means the same as ORS 468.005(5).

(7) "Plywood" means a flat panel built generally of an odd number of thin sheets of veneers of wood in which the grain direction of each ply or layer is at right angles to the one adjacent to it.

(8) "Tempering oven" means any facility used to bake hardboard following an oil treatment process.

(9) "Veneer" means a single flat panel of wood not exceeding 1/4 inch in thickness formed by slicing or peeling from a log.

* (10) "Opacity" is defined by Section 21-005(4).

* (11) "Visual Opacity Determination" consists of a minimum of 25 opacity readings recorded every 15 to 30 seconds and taken by a trained observer.

* (12) "Opacity Readings" are the individual readings which comprise a visual opacity determination.

* (13) "Fugitive Emissions" are defined by Section 21-050(1).

Note: * = Addition
** = Change
*** = Deletion

(2)

25-310 GENERAL PROVISIONS. (1) These regulations establish minimum performance and emission standards for veneer, plywood, particleboard, and hardboard manufacturing operations.

** (2) Emission limitations established herein are in addition to, and not in lieu of, general emission standards for visible emissions, fuel burning equipment, and refuse burning equipment, except as provided for in Section 25-315.

(3) Emission limitations established herein and stated in terms of pounds per 1000 square feet of production shall be computed on an hourly basis using the maximum 8 hour production capacity of the plant.

(4) Upon adoption of these regulations, each affected veneer, plywood, particleboard, and hardboard plant shall proceed with a progressive and timely program of air pollution control, applying the highest and best practicable treatment and control currently available. Each plant shall at the request of the Department submit periodic reports in such form and frequency as directed to demonstrate the progress being made toward full compliance with these regulations.

25-315 VENEER AND PLYWOOD MANUFACTURING OPERATIONS. (1) Veneer Driers.

** (a) Consistent with section 25-310(1) through (4), it is the objective of this section to control air contaminant emissions, including, but not limited to, condensible hydrocarbons such that visible emissions from each veneer drier are limited to a level which does not cause a characteristic "blue haze" to be observable.

** (b) No person shall operate any veneer drier such that visible air contaminants emitted from any stack or other emission point exceed:

(1) A maximum opacity of 20%.

(2) An average opacity of 10% which shall be based upon a sufficient number of visual opacity determinations accumulated over a period of time which are representative of normal veneer drier operations and which take into account possible seasonal and temporal variations.

Where the presence of uncombined water is the only reason for the failure to meet the above requirements, said requirements shall not apply.

(3)

** (c) After (3 months after adoption - date to be inserted later), no person shall operate a veneer drier which is not in compliance with the emission limitations of this rule or which is not subject to a compliance schedule approved by The Department and incorporated into an enforceable air contaminant discharge permit.

(d) Each veneer drier shall be maintained and operated at all times such that air contaminant generating processes and all contaminant control equipment shall be at full efficiency and effectiveness so that the emissions of air contaminants are kept at the lowest practicable levels.

(e) No person shall willfully cause or permit the installation or use of any means, such as dilution, which, without resulting in a reduction in the total amount of air contaminants emitted, conceals an emission which would otherwise violate this rule.

(f) Where effective measures are not taken to minimize fugitive emissions the Department may require that the equipment or structures in which processing, handling, and storage are done be tightly closed, modified, or operated in such a way that air contaminants are minimized, controlled, or removed before discharge to the open air.

(g) The Department may require more restrictive emission limits than provided in section 25-315(1)(b) for an individual plant upon a finding by the Commission that the individual plant is located or is proposed to be located in a special problem area. The more restrictive emission limits for special problem areas may be established on the basis of allowable emissions expressed in opacity, pounds per hour, or total maximum daily emissions to the atmosphere, or a combination thereof.

(2) Other Emission Sources.

(a) No person shall cause to be emitted particulate matter from veneer and plywood mill sources, including, but not limited to, sanding machines, saws, presses, barkers, hogs, chippers, and other material size reduction equipment, process or space ventilation systems, and truck loading and unloading facilities in excess of a total from all sources within the plant site of one (1.0) pound per 1000 square feet of plywood or veneer production on a 3/8 inch basis of finished product equivalent.

(b) Excepted from subsection (a) are veneer dryers, fuel burning equipment, and refuse burning equipment.

(4)

* (3) Monitoring and Reporting

The Department may require any veneer drier facility to establish an effective program for monitoring the visible air contaminant emissions from each veneer drier emission point. The program shall be subject to review and approval by the Department and shall consist of the following:

(a) A specified minimum frequency for performing visual opacity determinations on each veneer drier emission point;

(b) All data obtained shall be recorded on copies of a "Veneer Drier Visual Emission Report Form" which shall be provided by the Department of Environmental Quality; and

(c) A specified period during which all records shall be maintained at the mill site for inspection by authorized representatives of the Department.

BOARD PRODUCTS INDUSTRIES
(VENEER, PLYWOOD,
PARTICLEBOARD, HARDBOARD)

[ED. NOTE: Unless otherwise specified, sections 25-305 through 25-325 of this chapter of the Oregon Administrative Rules Compilation were adopted by the Department of Environmental Quality March 5, 1971 and filed with the Secretary of State March 31, 1971 as Administrative Order DEQ 26.]

25-305 DEFINITIONS. (1) "Department" means Department of Environmental Quality.

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(3) "Hardboard" means a flat panel made from wood that has been reduced to basic wood fibers and bonded by adhesive properties under pressure.

(4) "Operations" includes plant, mill, or facility.

(5) "Particleboard" means matformed flat panels consisting of wood particles bonded together with synthetic resin or other suitable binder.

* (6) "Person" means the same as ORS 449.760 (1).

(7) "Plywood" means a flat panel built generally of an odd number of thin sheets of veneers of wood in which the grain direction of each ply or layer is at right angles to the one adjacent to it.

(8) "Tempering oven" means any facility used to bake hardboard following an oil treatment process.

(9) "Veneer" means a single flat panel of wood not exceeding 1/4 inch in thickness formed by slicing or peeling from a log.

25-310 GENERAL PROVISIONS. (1) These regulations establish minimum performance and emission standards for veneer, plywood, particleboard, and hardboard manufacturing operations.

** (2) Emission limitations established herein are in addition to, and not in lieu of, general emission standards for visible emissions, fuel burning equipment, and

refuse burning equipment. 8/27/76

(3) Emission limitations established herein and stated in terms of pounds per 1000 square feet of production shall be computed on an hourly basis using the maximum 8 hour production capacity of the plant.

(4) Upon adoption of these regulations, each affected veneer, plywood, particleboard, and hardboard plant shall proceed with a progressive and timely program of air pollution control, applying the highest and best practicable treatment and control currently available. Each plant shall at the request of the Department submit periodic reports in such form and frequency as directed to demonstrate the progress being made toward full compliance with these regulations.

25-315 VENEER AND PLYWOOD MANUFACTURING OPERATIONS. (1) Veneer Driers.

(a) Consistent with section 25-310(1) through (4), it is the objective of this section to control air contaminant emissions, including, but not limited to, condensable hydrocarbons such that visible emissions from each veneer drier are limited to a level which does not cause a characteristic "blue haze" to be observable at any point beyond the exterior wall of the building housing the veneer drier or at any point further than 50 feet in any direction from the veneer drier, whichever is greater.

* (b) No person shall operate any veneer drier such that visible air contaminants emitted therefrom exceed 10% opacity, as defined by section 21-005(4), from any one stack. Where the presence of uncombined water is the only reason for the failure to meet this requirement, said requirement shall not apply.

* (c) After May 1, 1975, no person shall operate a veneer drier which is not in compliance with the emission limitations of this rule or is not subject to a compliance schedule approved by the Department which is incorporated into an enforceable contaminant discharge permit.

(d) Each veneer drier shall be maintained and operated at all times such that air contaminant generating processes

and all contaminant control equipment shall be at full efficiency and effectiveness so that the emissions of air contaminants are kept at the lowest practicable levels.

(e) No person shall willfully cause or permit the installation or use of any means, such as dilution, which, without resulting in a reduction in the total amount of air contaminants emitted, conceals an emission which would otherwise violate this rule.

(f) Where effective measures are not taken to minimize fugitive emissions, as defined by section 21-050, OAR, Chapter 340, the Department may require that the equipment or structures in which processing, handling, and storage are done be tightly closed, modified, or operated in such a way that air contaminants are minimized, controlled, or removed before discharge to the open air.

(g) The Department may require more restrictive emission limits than provided in section 25-315(1)(b) for an individual plant upon a finding by the Commission that the individual plant is located or is proposed to be located in a special problem area. The more restrictive emission limits for special problem areas may be established on the basis of allowable emissions expressed in opacity, pounds per hour, or total maximum daily emissions to the atmosphere, or a combination thereof.

(2) Other Emission Sources.

(a) No person shall cause to be emitted particulate matter from veneer and plywood mill sources, including, but not limited to, sanding machines, saws, presses, barkers, hogs, chippers, and other material size reduction equipment, process or space ventilation systems, and truck loading and unloading facilities in excess of a total from all sources within the plant site of one (1.0) pound per 1000 square feet of plywood or veneer production on a 3/8 inch basis of finished product equivalent.

(b) Excepted from subsection (a) are veneer dryers, fuel burning equipment, and refuse burning equipment.

** (3) Open burning. Upon the effective date of these regulations, no person shall cause or permit the open burning of wood

residues or other refuse in conjunction with the operation of any veneer or plywood manufacturing mill and such acts are hereby prohibited.

Hist: Amended 2-15-72 by DEQ 37
Amended 5-5-72 by DEQ 43(T)
Amended 9-20-72 by DEQ 48
Amended 4-9-73 by DEQ 52
Amended 1-30-75 by DEQ 83

Note: * = Addition
** = Change
*** = Deletion

(Discussion Draft)

DEQ Guidelines for Establishing a Self-Monitoring Program
for Veneer Dryer Visible Emissions

OAR Chapter 340 Section 25-305 through 25-325

Self-monitoring is necessary in order to accommodate the concept of an "average" 10% opacity limit.

It is anticipated that a somewhat intensified self-monitoring program will be required initially for most driers to help establish:

- 1) Understanding and agreement between DEQ staff and Company representatives as to what constitutes compliance (10% average, 20% maximum any stack)
- 2) Current status of compliance/non-compliance, each drier.
- 3) An agreed program and schedule for attaining compliance.
- 4) Compliance attainment.

After a mill and DEQ staff have agreed that a mill has demonstrated ability to comply, the self-monitoring requirements can be reduced to almost any minimal level that can assure continued compliance.

The Department's intent is to not have the self-monitoring program require more work and cost more than is necessary to attain and maintain compliance with the standards.

The rule is drafted to allow each Regional Administrator to develop with each veneer plant, a self-monitoring program tailored to meet each mill's physical plant configuration and compliance status.

The following is offered as guidance to assist in development of the individual self-monitoring programs. Reasonable deviations to arrive at a practicable program are anticipated.

I. Suggested Initial Self-Monitoring Program

Each Dryer

- 1) Read opacity of "worst stack (for not less than 6 minutes) once in a.m. and once in p.m. each day. (Use DEQ forms)
- 2) Observe and record general "blue haze" condition in vicinity of plant, a.m. and p.m. (none, light, moderate, heavy).
- 3) Provide thorough cleaning and maintenance of drier and emission control equipment at least weekly with mid-week inspection (and maintenance as necessary).
- 4) Maintain written records of 1, 2 and 3 above, together with pertinent operating information, available for DEQ inspection for a period of at least one year.
- 5) Periodic (scheduled) "calibration" readings by Company and DEQ personnel.
- 6) Unscheduled "compliance assurance" readings by DEQ staff.

II. Minimal compliance maintenance program (for plants agreed to be operating in compliance)

- 1) Verification, by observation, that all stacks are operating at 10% opacity or less a.m. and p.m. each operating day.
- 2) Opacity readings for stacks operating at greater than 10% opacity, if any, and determination of drier and emission control system operating conditions or other conditions resulting in greater than 10% opacity.
- 3) Weekly dryer and control system cleaning and maintenance and mid-week inspection.
- 4) Written records of 1), 2), and 3) above available to DEQ staff maintained for at least one year.
- 5) Unscheduled "compliance assurance" readings by DEQ staff.

III. Self-monitoring programs for plants in marginal compliance/non-compliance would be tailored as necessary to assure attainment or maintenance of standards and would be expected to be similar to initial programs or between requirements of initial programs and minimal maintenance program.

General

The following general items are offered as further clarification of Department intent with regard to self-monitoring:

1. Self monitoring requirements shall generally be limited to company personnel or representatives making visual observations of emission points and recording pertinent dryer operation data.
2. Certification of Company observers is encouraged but is not required.
3. Self-Monitoring shall, to the extent practicable, be done under normal veneer dryer operation conditions (including normal production variations).
4. The Department will arrange for company observer training and certification (smoke school) as necessary to assist industry representatives to become certified observers. (In Portland; \$25.00 Registration Cost; 2 days duration)

Systems and Strategies to Control Veneer Drier Visible Emissions

Viable veneer drier emissions control systems fall into two broad categories, scrubbing and incineration; a third system, condensation, has not proven to be practical.

Scrubbing systems have the benefit of being add-on units (to the veneer drier). The following scrubbing systems are considered to be capable of demonstrating an ability to comply with a 10% opacity limit under most operating and weather conditions:

1. Becker Sand-Air Filter
2. Burley Scrubber
3. Georgia Pacific Scrubber (with Brink Demister)

It should be noted that all of the above have been reported exceeding 10% opacity on occasion.

There are several incineration systems available. The most economical involve using an existing hogged-fuel boiler or wigwam waste burner as an incinerator. The basic requirement in this method is that the incinerating device be able to accommodate the volume of exhaust gas which is emitted from the drier(s).

Special burners and furnaces are on the market which both supply heat to veneer driers and which incinerate veneer drier emissions. By their nature these units are integrated into the veneer drier system. They are more complex than either scrubbing systems or incineration in an existing fuel burning source.

A catalytic afterburner is installed on one veneer drier. It is a proto-type unit, but highly successful in controlling veneer drier visible emissions. The veneer drier exhaust gas stream has to be heated to about 500°F for the afterburner to work properly. A heat recovery system may be required to make the catalytic afterburner economically viable with other veneer drier emissions control systems.

The Department intends to acquire additional particulate removal data for the various control devices and systems. It is considered important that control systems approved for installations in areas exceeding or close to exceeding particulate standards be compatible with maintenance plans that may be required for the area to meet Federal/State ambient air standards.

W. D. Page
Director
Special Services



August 12, 1976

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

Dear Mr. Kramer:

This is written to respectfully request that a review be made of the Oregon regulations for Board Products Industries (Veneer, Plywood, Particleboard, Hardboard) and that a public hearing before the Environmental Quality Commission be requested for the purpose of considering needed revisions to Sections 25-305, 25-310, and 25-315 of this regulation.

The Board of Trustees of the American Plywood Association has carefully reviewed the discussion draft prepared by your staff which was attached to your letter dated April 5, 1976. The additions, changes, and deletions included in this draft appear to remove the major objections of the industry to the present regulation and the Board feels that the industry would support a revision in keeping with this draft.

In particular, we urge that Section 25-315 (1) (b) be revised to read:

- "1. A maximum opacity of 20%, and
2. An average opacity of 10%; the average opacity shall be based upon a sufficient number of visual opacity determinations, accumulated over a period of time, which are representative of normal veneer dryer operations and which take into account possible seasonal and temporal variations."

We note that the discussion draft includes a new section, 25-315(3) Monitoring and Reporting, which provides that DEQ may require an effective program of monitoring for visible air emissions by operators of veneer dryers. We understand that in those instances where DEQ does require such a program that it will be administered generally in keeping with your letter of August 6, 1976 together with its attachments.

There are several reasons why the industry believes there is urgent need to revise this regulation.

Mr. Loren Kramer

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August 12, 1976

UNPROVEN CONTROL TECHNOLOGY

First of all, we do not believe that consistent compliance to the present regulation can be assured with today's technology. The present regulation does not permit a veneer dryer to be operated at any time when the emission exceeds 10% opacity. The ability of the industry in Oregon to meet opacities of 10% under all conditions using available technology has not been established.

Promising systems are emerging as a result of vast sums of money spent in research and development by the plywood industry. In several mills, some or all of the dryers are now under control with devices which to our knowledge are the best available. It appears that in these particular situations control is such that opacities of 10% or less are achieved much of the time. However, to project this experience into a regulation which does not permit 10% to be exceeded is improper for several reasons:

1. As far as we can determine and with one exception, all of the installations which have on one or more occasions been officially evaluated by DEQ and others as providing opacities of 10% or less have on other occasions been recorded by fully qualified smoke readers operating at opacities in excess of 10%.
2. In one situation, a unit is operating on one dryer which has produced results which are most promising. We are not aware of any reading by a qualified smoke reader when the opacity exceeded 10%. However, it should be emphasized that this unit is still experimental. It is presently being operated on a fuel which is not available to all mills (with supply trends expected to worsen) and at temperatures which are considered impractical to maintain in full-scale operation. Present research is being aimed at demonstrating the feasibility of alternate fuels and determining the operating temperature which will give improved cost-benefit ratio. In no sense could this device be considered as a proven system available to all Oregon mills which will meet a 10% maximum opacity. (The plant where it is installed is looking to other answers for the remainder of its dryers.)
3. Experience with all of the promising control systems has not been sufficiently long in time span nor adequately widespread across the breadth of the industry in Oregon to conclude that what has worked in one situation can be expected to work the same way elsewhere in other circumstances.

Mr. Loren Kramer

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August 12, 1976

4. The depth of evaluations by DEQ of results being obtained with present devices is not yet sufficient to clearly show that the regulation can be met under all normal operating conditions which take into account season and temporal variations.

PRESENT REGULATION NEEDLESSLY BURDENSOME

The present regulation imposes a needless burden on the plywood industry as demonstrated by the fact that DEQ has seen fit to impose only a 20% opacity maximum on Oregon industry generally. We realize that where special problems affecting health exist, the DEQ has found it necessary to promulgate a special regulation, but we are convinced that with veneer dryers no such special problem exists. The single environmental concern underlying the regulation of veneer dryer emissions is visibility. There is no evidence that the emission has any harmful effects on health. All evidence available points to the lack of any health hazard.

Should the DEQ consider that in a few isolated instances the problems created by terrain and climate, together with concentrations of people, make visibility of veneer dryer emissions a special problem, this can be dealt with through the provisions of Section 25-315 (1)(g) of the present regulation.

ONEROUS ECONOMIC BURDEN

The present regulation would place an onerous economic burden on the plywood industry which would not substantially improve the quality of Oregon's air. First, there is an economic risk in spending large sums of money for devices not yet fully proven to meet the regulation. Beyond that, in pressing a device to operate constantly at maximum (or in excess of maximum) capacity, the benefits of optimum operating range are lost.

Although this might not be a major overriding factor in the decision, the cost of required environmental controls (veneer dryer control being probably the biggest single item for a plywood mill) could very well be the "straw that breaks the camel's back" in a decision to close a plywood mill. This has reportedly been the case already.

Apart from the drastic step of plant closure, every dollar that is spent for environmental control takes a dollar away from funds badly needed for capital expenditures which add to the industrial capability and the gross national product. Plant improvements which will result in more economical building materials to provide adequate housing at reasonable costs can be affected. If it is a dollar not needed to adequately protect the environment, we cannot afford to spend it.

DEQ'S GOALS NOT JEOPARDIZED

Finally, we believe that changing the regulation from a 10% maximum opacity to a 20% maximum-10% average will not defeat DEQ's goal of controlling veneer dryer emissions.

Mr. Loren Kramer

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August 12, 1976

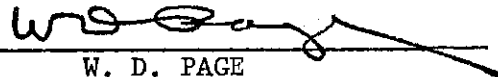
Experience to date with the best devices has shown that while excursions up to 20% do occur, opacities of 10% or less are achieved much of the time. The practical effect will be to achieve the desired control of blue haze while providing a realistic and practical standard which can be met by the industry with available technology.

We respectfully urge that you petition the Environmental Quality Commission to schedule a public hearing for a review of the veneer dryer regulation and that the DEQ staff recommend a revision to this regulation in keeping with the "discussion draft" attached to your letter of April 5, 1976.

Respectfully submitted,

AMERICAN PLYWOOD ASSOCIATION

By



W. D. PAGE

Director, Special Services

WDP:ks



ENVIRONMENTAL QUALITY COMMISSION

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

ROBERT W. STRAUB
GOVERNOR

MEMORANDUM

TO: Environmental Quality Commission

FROM: Director

SUBJECT: Agenda Item H, August 27, 1976, EQC Meeting

Staff Report - Consideration of Adoption of Revisions to OAR Chapter 340 Sections 35-025 through 35-030 Pertaining to Motor Vehicle Noise Standards and Associated Procedures Manuals

Background

Oregon Revised Statute Chapter 467 directs the Environmental Quality Commission to establish maximum permissible levels of noise emissions. In 1974 the Commission adopted noise rules and associated procedure manuals for new and in-use motor vehicles.

In May, 1976 the Department received a petition from the Motorcycle Industry Council, an organization of motorcycle manufacturers, to amend the motor vehicle noise rules as they relate to the sale and operation of motorcycles.

In June, 1976 a petition was received from General Motors Corporation to amend the motor vehicle noise standards as they relate to the sale of automobiles and light trucks, medium and heavy trucks, and buses. As staff had recommended consideration of amendments to these rules prior to the receipt of the petition, General Motors Corporation requested that their petition be held in abeyance until the Commission completed its hearing and made any rule changes.

After approximately two years of working with the motor vehicle noise rules, we find that some "housekeeping" revisions are desirable. These amendments are composed of changes that are strictly organizational and others that either add clarification to the rules or modify the effect of the rules.

A public hearing was authorized by the Commission at the June 25, 1976 meeting. This hearing was held in Portland on August 6, 1976. Testimony was presented by representatives of the motorcycle, automobile, and truck industries. Motor vehicle dealers also submitted



Contains
Recycled
Materials

testimony at the hearing. Citizens, concerned that the noise control rules for motor vehicles would become less stringent, also submitted testimony. Many letters were received at the Department stating the need for stringent motor vehicle noise controls, especially for off-road vehicles which are still a major problem in Oregon.

Evaluation

1) Motorcycle Industry Petition

The Motorcycle Industry Council has submitted a petition to the Commission proposing several amendments to the state's noise control regulations. Basically, these amendments would affect two aspects of the rules currently in effect, or scheduled to go into effect. They are 1) the noise level standards which must be met by new motorcycles, and 2) the classification scheme for motorcycles. The petition asks the Commission to approve less stringent noise standards for motorcycles, and to create a new motor vehicle sub-category for off-road motorcycles which would then be subject to less stringent noise regulation than at the present.

A. Noise Standards

The petitioner contends first that more restrictive motorcycle noise regulations are not necessary because new motorcycles meeting present standards are already quiet, and that most of the noisy bikes in operation today are the result of owner modification to the exhaust system.

While it is true that the noisiest bikes in operation today are modified, it is also true that unmodified motorcycles are louder than automobiles in comparable operating modes and that motorcycles are used in the loudest operating mode, full throttle, much more often than are cars. Therefore, the Department feels that while modified motorcycles do present a significant problem in the general sphere of motorcycle noise pollution, unmodified bikes also present special problems which should continue to be addressed through design features which quiet overall machine operation.

The petitioner next contends that available technology and production lead times are not adequate to implement the standards presently scheduled to go into effect in 1977 and 1979. They further claim that if these requirements are not modified, many motorcycle dealers will be forced out of business due to an inability to continue selling products in this state.

It should be pointed out in this regard that the present schedule of noise standards was adopted in 1974, and that all motorcycle manufacturers were notified at that time as to what the current and future standards were to be. It should also be noted that the Department specifically stated that it was aware of the problems surrounding the development of new technologies for noise control requirements, and that it was aware of the fact that adequate lead time was necessary before any new developments could be implemented in actual production runs.

While it has never been the intention of the Department to enact noise regulations that would only serve to effectively destroy a business or industry in Oregon, the Department expects manufacturers to be cooperative in meeting adopted noise regulations. If this cooperation is received, but certain standards are then found to be unattainable after the manufacturer has made reasonable good faith efforts to comply, Exception and Variance procedures are available to allow the non-complying product or activity to continue pending further study.

Examined in this context, the Department does not feel confident that the petitioner's requests are valid. Evidence of good faith efforts to meet standards currently identified in the regulations has been sparse. The Department is in fact aware of several instances in which motorcycle manufacturers have apparently disregarded noise elements in their product designs, and brought out new models which were noisier than previous versions of the same model.

For instance, it is known that one manufacturer has allowed the noise level of four of its models to increase in the past two years. In 1975, when these vehicles were certified as meeting the 86 dBA noise limit then in effect, test reports submitted to the Department indicated that three of the four models would also have met the 80 dBA standard scheduled to go into effect in 1977, taking into account the Department's 2 dBA instrumentation tolerance factor. When these same motorcycles were offered as 1977 models, with all outward appearances identical to the 1975 models, test reports indicated that noise levels had increased anywhere from 0.6 to 2.1 dBA over the previous (1975) reports.

In another case, testimony from the Norton Triumph Corporation indicated that two of the three models it sells in Oregon would have to be eliminated from the market in 1977 if the 80 dBA standard was not changed. However, the Department has information indicating that two of Norton's 1976 models were certified at 80 dBA, already meeting the standard it claims it cannot meet. Once again this would indicate that testimony was not accurate or that noise ratings have been increased rather than decreased on newer production runs of the same vehicle.

Finally, AMF/Harley-Davidson testified that the future noise standards as now scheduled were beyond the state-of-the-art capabilities for its heavy weight motorcycles, and an extension until 1981 was needed in order to meet the 80 dBA standard. However, in recent conversations with Harley-Davidson engineers, the Department has learned that the present XL motorcycle series is close to meeting the 80 dBA standard if the 2 dBA tolerance is considered. It has also found that the remaining heavy weight models, those of the FX and FL series, have the potential to meet even lower noise levels than the XL series. This clearly indicates that current technology is adequate, especially when coupled with the 2 dBA tolerance factor, for Harley-Davidson to manufacture its 1977 machines to at least an 81 dBA standard.

These situations have led the Department to believe that motorcycle manufacturers are not making as great an effort to reduce noise levels as they are capable of making, nor are they designing future models to meet the more restrictive standards that will be taking effect at later dates. The Department is therefore reluctant to make any major revisions in the current noise standards based on inadequate technology and lead time until evidence is received that the motorcycle manufacturing community is making greater efforts at noise control.

The petitioner finally requests that the standards be modified so as to remain consistent with other state and federal efforts in the same area. For instance, the State of California is now considering amendments to its motorcycle noise regulations which would delay implementation of the 80 dBA standard until 1981, the 75 dBA standard until 1986, and impose a new 70 dBA standard in 1990. On the federal level, the EPA has identified motorcycles as a major noise source, and is currently scheduled to publish a rule proposal for the industry in November, 1976, with final rule adoption set for September, 1977. This federal regulation, when finally adopted, would be pre-emptive of non-conforming state regulation. The Department is therefore willing to adjust its proposed noise control schedules to more closely conform to other jurisdictions with the knowledge that within several years, pre-emptive federal regulations will set the standards on a national basis.

In summary, the Department believes that the 80 dBA and 75 dBA standards now programmed to go into effect in the near future are attainable with present technology. Indeed several manufacturers have already certified a number of their 1977 models as meeting the 80 dBA standard. However, despite the fact that these standards were adopted in 1974, giving the industry adequate notice of the Department's expectations and requirements, numerous manufacturers have testified that these standards are presently beyond their technical capabilities, and that an additional period of up to four years is needed for further research and development.

The Department therefore reluctantly recommends that the allowable noise level for 1977 model year motorcycles be increased from 80 dBA to 81 dBA. This new standard, combined with the Department's 2 dBA tolerance factor, will insure that no businesses in the state will be jeopardized by strict noise regulations. In addition, the Department recommends that this standard be continued until the 1983 model year, at which time the levels would be reduced to 78 dBA. The final goal of 75 dBA would then be required in 1988.

B. Off-Road Motorcycle Category

The petitioner further proposes that motorcycles should be split into off-road and on-road categories, with the off-road standards being relaxed. The petitioner maintains that this is advisable because off-road motorcycles are operated in areas which either provide greater sound attenuation or require less noise restriction than areas normally used for the operation of on-road motorcycles. The Department is of the opinion, however, that this belief is not accurate.

Off-road motorcycles are frequently used in noise sensitive areas. In addition to wilderness areas, where the objectionable noise carries for great distances, residential areas receive a great deal of adverse exposure to these vehicles. Numerous complaints are received by the Department every month concerning this problem, and upon investigation it is often found that the situation creating the problem involves operation of motorcycles for several hours in one location, which is in close proximity to a complainant's house. While most motor vehicle noise is transitory in nature, lasting no more than a matter of seconds as the vehicle passes by, the noise from off-road vehicles operating in this fashion creates an entirely different, very aggravating problem which has become all too common. Testimony offered at the public hearing and received by the Department thereafter has also indicated that the public very strongly favors continued strict noise standards for these off-road vehicles.

For these reasons the Department firmly believes that it is a matter of necessity that off-road motorcycle standards remain identical to the standards required of on-road motorcycles, and that they not be relaxed in any way.

2. Revisions to New and In-Use Motor Vehicle Rules for Automobiles and Light Trucks, Medium and Heavy Trucks, and Buses

On June 16, 1976 the Department received a petition for proposed rule changes from the General Motors Corporation. However, upon learning that the Department was already engaged in making certain house-keeping amendments concerning the same issues it had raised, GM requested that its petition be held in abeyance. This request was granted by the Commission with the understanding that issues fully discussed now would not be brought up again unless new developments so warranted it.

The following items were discussed at the public hearing, and were also contained in the GM petition:

A. Deletion of the 75 dBA Standard for Automobiles and Light Trucks.

GM has requested that the 75 dBA standard for automobiles and light trucks manufactured in model year 1979 and thereafter be deleted. These vehicles currently meet an 80 dBA standard.

In support of this position GM has testified that the test procedures used to determine noise ratings of these vehicles are not representative of typical on-road operation. Specifically, they say that the procedures in question require the vehicle to be driven past a measurement point at full throttle, an operating mode seldom used in normal operation. They conclude, therefore, that most vehicles do not need any further noise reductions and that any future reductions gained in the wide-open throttle test would not be reflected in typical vehicle operation. However, this testing problem is not valid for sub-compacts or light trucks, two vehicle sub-categories.

Sub-compacts, or vehicles with a high weight to horsepower ratio, are normally operated in the near wide open throttle mode 10 to 20 times more than larger vehicles. Thus, although sub-compacts meet the present 80 dBA standard, they contribute significantly more noise than do larger automobiles operating under normal conditions. The staff asked GM if they were willing to establish a sub-category automobile class for sub-compact cars. Thus, by using the present test procedure, the benefits of the 75 dBA standard could be realized in this problem group. This concept was not feasible to GM as they believed they could not adequately define a sub-compact car.

Light trucks also are subjectively louder during normal operation than are average cars having the same noise rating. This phenomenon was recently observed in a demonstration put on by the Ford Motor Company, but no documentation has yet been assembled to explain its cause.

GM has testified that it is developing a noise rating test that would eliminate these apparent inconsistencies, but that it will be more than a year before they are ready to propose its use. In the meantime, both Ford and GM have estimated the per vehicle cost of meeting the 75 dBA standard. On a nationwide basis, GM estimates that the cost would be \$30 per automobile and \$123 per light truck. Based only on an "Oregon only" vehicle, Ford estimates that its costs would be \$70 and \$185 respectively. In addition, decisions would have to be made in the next few months concerning whether these 75 dBA vehicles would be built for model year 1979.

At the current time, most other states have either rescinded or delayed implementation of the 75 dBA standard. However, the EPA has begun work on an automobile noise standard. Testimony that they have received so far in the development of these standards reflects the need to maintain the 75 dBA standard.

The Department recognizes the concerns of the automobile industry, but feels that cars and light trucks are still major sources of environmental noise. It is therefore the Department's recommendation that the 75 dBA standard for these vehicles be delayed for two years, until model year 1981 for the following reasons:

- (1) A more representative noise rating test should be developed within the next year;
- (2) The EPA will probably promulgate standards for these vehicles within the next two years which will pre-empt the standards of other jurisdictions; and
- (3) If the EPA does not promulgate a standard, the 75 dBA standard should continue to be required of vehicles as the next necessary step in environmental noise abatement.

B. Definition of Truck Be Changed for Purposes of the Noise Regulations

At the present time, the definition of "truck" used in the Oregon noise regulations is taken from the Motor Vehicle Code (ORS 481.035). This originally identified vehicles with a gross vehicle weight rating (GVWR) in excess of 6,000 pounds as a truck, but has since been amended to refer instead to vehicles exceeding a GVWR of 8,000 pounds.

Federal truck noise regulations recently adopted by the EPA, and pre-emptive of non-conforming state and local regulations, have set that definition at 10,000 pounds. Because these federal regulations are pre-emptive, the Department agrees with GM that the definition of "truck" should be changed from the present 8,000 pound GVWR to the 10,000 pounds measure used in the federal standards.

C. Model Year Versus Manufacture Date

GM has requested that the noise regulations be amended to take effect on a manufacture date basis instead of a model year basis. In support of this position, they have pointed out that federal regulations use the manufacture date, and have indicated that state regulations should be consistent with that method.

In rebuttal, it should be pointed out that determination of the manufacture date can only be made by locating and examining an identification plate located somewhere on the vehicle, whereas model year is always designated on the vehicle registration. For enforcement purposes in the field, the latter method is more efficient and therefore preferable. While some vehicle types may not change substantially from year to year, a model year designation is always applied, alleviating any confusion that may arise as to the enforcement of applicable standards. In addition, this should not present any hardship on the manufacturer because they usually begin manufacturing new model years at the same time every year.

D. 80 dBA Truck Standard

GM recommended that the 80 dBA truck standard scheduled to go into effect in model year 1979, be postponed until model year 1982. Several reasons for this postponement were given, but the staff had already recommended in its housekeeping revisions that it be effected so that state regulations would remain consistent with the pre-emptive federal EPA standards.

E. Create Separate Category for Buses

The Department recommended in its housekeeping amendments that buses be placed in a new category separate from that used for trucks. GM concurred with this recommendation in its petition. The reason that this new category is needed is that truck standards have now been pre-empted by federal regulation, thus making it impossible to regulate buses at the state level if they continue to be categorized with trucks.

F. Postpone 80 dBA Standard for Buses

GM has requested that the 80 dBA standard for buses now scheduled to take effect in 1979, be postponed. Their reasoning is that because buses have been identified by the EPA as major noise sources, federal regulations pre-empting other jurisdictions may be forthcoming in the future, making the Department's standards obsolete.

The Department, however, feels that it has a great deal of experience in working with diesel bus noise, and should maintain its present

regulatory stance. Currently, diesel buses produce the same noise levels as heavy diesel trucks. However, buses used in urban transit systems are operated on residential surface streets where their impact on noise sensitive property is severe. Heavy trucks on the other hand, are usually operated on high speed highways where distances to noise sensitive properties are greater and resulting impacts more moderate. The need for continued regulation of bus noise therefore remains a high priority.

Presently, technology exists to build quieter buses. European transit buses are being built to standards approximately 10 dBA lower than their American counterparts. However, GM has just designed a new transit coach which it claims is no quieter than previous coaches. This would indicate that bus manufacturers in this country have not yet acknowledged the need for quieter buses, or are as yet unwilling to meet that need.

The Department therefore feels that the 80 dBA standard should be maintained as an incentive to progress in bus noise control development. The Department also intends to investigate the possibility of developing standards for buses even more stringent than the 80 dBA level now identified. It is possible that in the future, bus noise standards may be developed which are consistent with the noise levels required of other motor vehicles normally operated in noise sensitive areas.

3. Staff Housekeeping Recommendations

No opposing testimony was received on the following organizational revisions:

§35-015 Definitions

A. Definition (17), "New Motor Vehicle", now contains the explanation regarding model year for vehicle designation. Previously, it had been included in the body of the rules.

§35-025 Noise Regulations for the Sale of New Motor Vehicles

B. The definition of vehicle model year was moved from the text of the rule in §35-025(1) to the Definition Section 35-015(17).

C. The exemption for racing vehicles previously found in subsection (1) was moved to new subsection (5), "Exemptions".

D. The intent of subsection (3)(a) has been clarified by the addition of language to include the "offer" for sale, as well as the actual sale, in the certification time frame.

E. In subsection (4), "Exceptions", the explanation regarding initiation of the rule for model year 1975 was deleted as no longer being relevant.

§35-030 Noise Control Regulations for In-Use Motor Vehicles

F. Subsections (1)(a), "Road Vehicles" and (1)(b), "Off-Road Recreational Vehicles", were revised to include the exhaust defect rule previously contained separately under subsection (1)(c), "Exhaust Systems".

G. The exception available for classic and special interest vehicles, contained in subsection (1)(a), "Road Vehicles", was clarified.

H. A typographical error was corrected in subsection (1)(b), "Off-Road Recreational Vehicles", by adding the word level between the words noise and limits.

I. Subsection (1)(d), "Ambient Noise Limits", was structurally revised.

J. All distances mentioned in the rules were amended to include a reference distance in meters as part of the transition to the metric system.

NPCS-1, Sound Measurement Procedures Manual

K. Structural changes to the Forward and Table of Contents have been made, equivalent octave band measurements have been deleted, and language has been added to clarify that the ambient motor vehicle noise measurements made pursuant to rule 35-030(d) conform to the procedures contained in the manual.

NPCS-21, Motor Vehicle Sound Measurement Procedures Manual

L. A typographical error in Chapter 5 has been corrected.

Testimony was received on the following revisions now recommended by the Department in their final form:

§35-025 Noise Control Regulations for the Sale of New Motor Vehicles

A. Table "A" was amended to be consistent with federal new medium and heavy truck noise standards. These federal standards apply to all trucks over 10,000 pounds GVWR manufactured after January 1, 1978. Oregon rules set a standard of 83 dBA for models 1976 through 1978, and a standard of 80 dBA thereafter. The pre-emptive federal rule will delay implementation of the 80 dBA standard for three years.

Testimony agreed that the federal rule is pre-emptive and that the Department should therefore amend the Oregon rules to be consistent.

B. The exemption provided for racing motor vehicle sales, new subsection (5), "Exemptions", was expanded to include specific procedures and conditions. These were previously covered under a policy agreement between the Department and the motorcycle manufacturers and dealers.

Testimony was received asking that the notarization requirement for the "intent-of-use" affidavit be deleted because of the inconvenience and cost involved. The Department's legal counsel advised,

however, that the notarization requirement be maintained.

Testimony was also received from a dealer selling racing automobiles which can only be operated on closed-course race tracks. He requested that the "intent-of-use" affidavit not be required of racing automobiles because it is obvious that such vehicles can only be operated at racing facilities, thus insuring that the exception provision would not be violated. The Department agreed with this request and amended the revision to require that only racing motorcycles comply with the "intent-of-use" affidavit requirements.

§35-030 Noise Control Regulations for In-Use Motor Vehicles.

C. Tables "B" and "C" were revised to reflect the federal standards for new medium and heavy trucks as shown in the revisions to Table A. Thus, the in-use standards for stationary (Table B) and moving (Table C) conditions have been made consistent with the standards the vehicle was manufactured to meet.

The stationary test for automobiles and light trucks in Table "B" has been revised to include a new test procedure. This test checks the vehicle exhaust noise level 20 inches away from the end of the exhaust pipe rather than 25 feet away from the vehicle, as specified in the existing test. The advantages of this test are:

- (1) The test is conducted at a specific engine speed rather than with a wide open throttle. This eliminates the hazard of possible engine damage.
- (2) The test can be conducted indoors and at other restricted test sites. This eliminates the inclement weather problem and restrictions on available space.

No negative testimony was received concerning these amendments.

D. New subsection (1)(c) includes the federal truck standard for trucks engaged in interstate commerce. Because the federal rule is pre-emptive, the Department recommended that the federal rule be incorporated in its rules. Thus, Tables "B" and "C" were also modified to include this federal standard.

No negative testimony was received concerning this amendment.

E. Subsection (1)(d), "Ambient Noise Limits", was amended to include the operator of a motor vehicle causing a noise violation as the responsible party, in addition to the property owner. This subsection was also amended to include "quiet areas" in addition to "noise sensitive property" as areas receiving protection, thus correcting an oversight when the rule was adopted in 1974.

F. Subsection (3), "Exemptions", was amended to include the exemption for interstate carriers that is specified in the federal truck noise standards.

NPCS-21, Motor Vehicle Sound Measurement Procedures Manual

G. Chapter 6 has been added to the manual to include procedures for the new stationary test for in-use automobiles and light trucks. The Department has conducted approximately 1500 voluntary tests on various vehicles using this new procedure and has found the results to be satisfactory.

Summary and Conclusions

Motor vehicles continue to present the State of Oregon with its most severe and most common environmental noise problems. To deal with these problems, comprehensive motor vehicle noise control regulations were adopted by the Commission in 1974. These regulations set standards in all motor vehicle categories at both the manufacturing level, as new products, and at the user level, as in-use products. A final noise standard was also identified at a level where overall vehicle noise would be generated almost entirely by tire noise. These standards for new vehicles in the 1975 model year were adjusted for the state-of-the-art technical capabilities then available, with subsequent years becoming gradually more stringent until the final standard could finally be reached in model year 1979. In-use standards were patterned after these new vehicle standards, with a slight adjustment allowed for product deterioration.

Testimony in favor of a petition which proposed deleting the final 75 dBA standard was offered by parties claiming that major motor vehicle noise problems are caused entirely by in-use vehicles with either defective or modified exhaust systems.

The Department agrees that these vehicles are easily identifiable and are almost always in violation of the in-use standards. However, the fact remains that new vehicles have not yet reached the final level identified by the Department as being acceptable, and therefore the noise emissions from these vehicles must be considered excessive. Until final standards are met, the entire motor vehicle noise problem cannot be blamed exclusively on in-use vehicles with defective or modified exhausts.

Other factors brought out in testimony indicated, however, that a postponement of the standards might be advisable. Increased costs, inadequate testing procedures and possible federal pre-emption present reasonable grounds for postponing this standard for cars and light trucks until model year 1981, notwithstanding the fact that technology is available now to build these vehicles to the 75 dBA standard in 1979. The time gained by postponement could then be used to develop new testing procedures and ascertain the intentions of the federal government in this area.

It is therefore the recommendation of the Department that the petition requesting the deletion of the 75 dBA standard be rejected, but that implementation of the standard be postponed until 1981 for automobiles and light trucks.

The EPA has recently adopted standards for medium and heavy trucks. Like present state regulations, they set standards for new and in-use vehicles. However, the standards they have set are not consistent with those that have been adopted by the State of Oregon.

Because the federal regulations are pre-emptive, it is the recommendation of the Department that its regulations be amended to conform to the new federal regulations. In this regard, the Department also recommends that the definition of "truck" be amended to mean those vehicles with a GVWR in excess of 10,000 pounds, rather than the current 8,000 pounds. This change is also in keeping with the new federal regulations.

Testimony was received supporting a proposal to rescind present bus standards. Although the EPA has identified buses as a major noise source category, they have not yet promulgated standards for bus noise or indicated that they will eventually do so. Because buses exceed all other motor vehicle noise sources in residential urban areas, because the technology exists for building quieter buses, and because American manufacturers have refused to recognize the need for implementing this technology, the Department feels the state must maintain its present standards as adopted.

Therefore, the Department recommends that the proposal to rescind the present bus standards be rejected.

Off-road motor vehicles, especially motorcycles, have been a major source of citizen complaints received by the Department. Because road and off-road motorcycles have essentially the same propulsion systems, with the same muffling technology available to each, and because motorcycles operating off-road near noise sensitive areas are such a major problem, it was the view of the Department, concurred in by the Commission, at the time of initial rule adoption, that identical standards for the two types of machines were both necessary and possible. This conclusion has been strongly reinforced and supported in the brief period of time that the rule has been effective.

Testimony has been received from the motorcycle industry supporting an amendment that would end identical regulation of road and off-road motorcycles. However, based on our previous findings and the field experiences mentioned above, the Department firmly recommends that this proposed amendment be rejected. Although the effect of this rule may preclude the sale of some off-road motorcycles in the state, manufacturers are producing a large number of vehicles in compliance with the standards and no major hardships should follow.

Testimony was also offered by the motorcycle industry in support of a petition requesting the delay of the 80 dBA and 75 dBA standards set to go into effect in 1977 and 1979 respectively. It was claimed that implementation of these standards could result in economic hardship to the industry. Upon investigation, it is the recommendation of the Department first, that the programmed reduction between the 1976 and 1977 model years be reduced from 3 dBA to 2 dBA for a standard

of 81 dBA; second, that this standard be extended through the 1982 model year instead of the 1978 model year, at which time an intermediate step of 78 dBA would apply; and third, that the final 75 dBA standard be postponed until model year 1987.

These changes should eliminate any major problems that may arise with 1977 model certification. They are also believed to be consistent with the actions of other jurisdictions in controlling motorcycle noise.

The Department's housekeeping amendments are made up of both organizational and substantive revisions, and include several minor changes suggested by public testimony. It is the Department's recommendation that these amendments to the motor vehicle rules and procedure manuals be approved.

Director's Recommendation

It is the Director's recommendation that the Commission adopt the recommended revisions to the motor vehicle noise rules and the procedure manuals as attached to this report.



LOREN KRAMER
Director

8/20/76
Attachments

DEPARTMENT OF ENVIRONMENTAL QUALITY

PROPOSED AMENDMENT TO CHAPTER 340, OREGON ADMINISTRATIVE RULES

DIVISION 3

AIR POLLUTION CONTROL STANDARDS FOR AIR PURITY AND QUALITY

Subdivision 5

NOISE CONTROL REGULATIONS

Subdivision 5 is hereby proposed to be amended as follows: material deleted is indicated by brackets; material to be added is underlined.

35-015 DEFINITIONS.

(17) "New Motor Vehicle" means a Motor Vehicle whose equitable or legal title has never been transferred to a Person who in good faith purchases the New Motor Vehicle for purposes other than resale. The model year of such vehicle shall be the year so specified by the manufacturer, or if not so specified, the calendar year in which the new motor vehicle was manufactured.

35-025 NOISE CONTROL REGULATIONS FOR THE SALE OF NEW MOTOR VEHICLES

(1) Standards and Regulations. 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 A, except as otherwise provided in these rules.

[If no model year is defined for the new motor vehicle, then the model year shall be that calendar year in which the new motor vehicle is manufactured.

Racing vehicles will be exempt from the noise levels in Table A if it can be adequately demonstrated to the Department that these vehicles are used exclusively in sanctioned racing events.]

(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 A, the manufacturer or a designated representative shall certify in writing to the Department that vehicles listed in Table A 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. [It is recognized that noise data for 1975 model year vehicles may not be available prior to sale if manufacturers are not now engaged in noise tests.]

(5) Exemptions.

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

(A) Prior to the sale of a racing motorcycle, 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 (1) 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 (2) 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 (1) which is substantially similar to that required in (B)(1) and (B)(2) above, and (2) which is unambiguous as to which vehicle such notice applies.

35-030 NOISE CONTROL REGULATIONS FOR IN-USE MOTOR VEHICLES.

(1) Standards and Regulations.

(a) Road Vehicles.

(A) No person shall operate any road vehicle which exceeds the noise level limits specified in Table B or C, 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) [Upon application to the Department] Non-conforming "classic" and other "special interest" vehicles [shall] may be [considered for] granted an exception to this rule, pursuant to Section 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 noise level limits specified in Table D.

(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 1972, 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 has 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.

[(c) Exhaust Systems. No person shall operate any road vehicle or off-road recreational vehicle with a defective exhaust system. This rule is limited to exhaust systems with the following defects:

(A) no muffler

(B) leaks in the exhaust system

(C) pinched outlet pipe]

(d) Ambient Noise Limits.

(A) No person shall cause, allow, permit, or fail to control the [use] operation of motor vehicles, [which includes] 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 E is exceeded as measured from either of the following points, if located within 1000 feet (305 meters) of the [nearest noise sensitive property such that the noise levels specified in Table E are exceeded as measured 25 feet from the noise sensitive property toward the noise source] motor vehicle:

(i) noise sensitive property, or

(ii) the boundary of a quiet area.

(B) [Not included in] Exempt from the requirements of this subsection [are] 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 F, 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 1-1-75.

(2) Measurement. Sound measurement shall conform to test procedures adopted by the [Department] 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 C.

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

ED. NOTE: Pursuant to ORS 183.360(3), Sound Measurement Procedures Manual (NPCS-1) and Motor Vehicle Sound Measurement Procedures Manual (NPCS-21) are not printed in the Oregon Administrative Rules Compilation. Copies are available from the Department of Environmental Quality or from the Secretary of State as provided by ORS 183.355(6).

TABLE A

New Motor Vehicle Standards

Moving Test At 50 Feet (15.2 meters)

Vehicle Type	[Model Year] <u>Effective For:</u>	Maximum Noise Level, dBA
Motorcycles	1975 Model	86
	1976 Model	83
	1977- [1978] 1982 Models	[80] 81
	1983-1987 Models	78
	<u>Models after [1978] 1987</u>	75
Snowmobiles as defined in ORS 481.048	1975 Model	82
	1976- 1978 Models	78
	<u>Models after 1978</u>	75
Truck [and bus as defined under ORS 481.030 and 481.035] in excess of 10,000 <u>pounds GVWR</u>	1975 Model	86
	[1976-1978]	[83]
	[after 1978]	[80]
	1976-1981 Models or Models <u>manufactured after Jan. 1, 1978</u>	
	<u>and before Jan. 1, 1982</u>	83
	<u>Models manufactured after Jan. 1, 1982</u> <u>and before Jan. 1, 1985</u>	80
<u>Models manufactured after</u> <u>Jan. 1, 1985</u>	<u>(Reserved)</u>	
Automobiles, light trucks, and all other road vehicles	1975 Model	83
	1976- [1978] 1980 Models	80
	<u>Models after [1978] 1980</u>	75
Bus as defined under ORS 481.030	1975 Model	86
	1976- 1978 Models	83
	<u>Models after 1978</u>	80

TABLE B

In-Use Vehicle Standards

Stationary Test [At 25 Feet Or Greater]

Vehicle Type	Model Year	Maximum Noise Level, dBA	Minimum Distance from Vehicle to Measurement Point
<u>Vehicles in excess of 10,000 pounds 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)</u>	<u>All</u>	<u>88</u>	<u>50 feet (15.2 meters)</u>
<u>All other trucks [and bus as defined under ORS 481.030 and 481.035] in excess of 10,000 pounds GVWR</u>	before 1976	94	25 feet <u>(7.6 meters)</u>
	1976-[1978] <u>1981</u>	91	25 feet <u>(7.6 meters)</u>
	after [1978] <u>1981</u>	88	25 feet <u>(7.6 meters)</u>
Motorcycles	before 1976	94	25 feet <u>(7.6 meters)</u>
	1976	91	25 feet <u>(7.6 meters)</u>
	1977-[1978] <u>1982</u>	[88] <u>89</u>	25 feet <u>(7.6 meters)</u>
	1983-1987	86	25 feet <u>(7.6 meters)</u>
	after [1978] <u>1987</u>	83	25 feet <u>(7.6 meters)</u>
<u>Front-engine automobiles, light trucks and all other front-engine road vehicles</u>	[before 1976]	[92]	<u>20 inches (1/2 meter)</u>
	[1976-1978]	[88]	
	[after 1978]	[83]	
	<u>All</u>	<u>95</u>	
<u>Rear-engine automobiles and light trucks and mid-engine automobiles and light trucks</u>	<u>All</u>	<u>97</u>	<u>20 inches (1/2 meter)</u>
<u>Buses as defined under ORS 481.030</u>	before 1976	94	25 feet <u>(7.6 meters)</u>
	1976-1978	91	25 feet <u>(7.6 meters)</u>
	after 1978	88	25 feet <u>(7.6 meters)</u>

TABLE C

In-Use Vehicle StandardsMoving Test At 50 Feet (15.2 meters) Or Greater At Vehicle Speed

Vehicle Type	Model Year	Maximum Noise Level, dBA	
		35 mph or less	Greater than 35 mph
<u>Vehicles in excess of 10,000 pounds 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)</u>	<u>All</u>	<u>86</u>	<u>90</u>
<u>All other trucks [and bus as defined under ORS 481.030 and 481.035] in excess of 10,000 pounds GVWR</u>	before 1976	86	90
	1976-[1978] <u>1981</u>	85	87
	after [1978] <u>1981</u>	82	84
Motorcycles	before 1976	84	88
	1976	81	85
	1977-[1978] <u>1982</u>	[78] <u>79</u>	[82] <u>83</u>
	1983-1987	76	80
	after [1978] <u>1987</u>	73	77
Automobiles, light trucks and all other road vehicles	before 1976	81	85
	1976-[1978] <u>1980</u>	78	82
	after [1978] <u>1980</u>	73	77
Buses as defined under ORS 481.030	before 1976	86	90
	1976-1978	85	87
	after 1978	82	84

TABLE D

Off-Road Recreational Vehicle Standards

Allowable Noise Limits

Maximum Noise Level, dBA

Model Year	Stationary Test		Moving Test	
	25 feet <u>(7.6 meters)</u> or greater		50 feet <u>(15.2 meters)</u> or greater	
before 1976		94		88
1976		91		85
1977-[1978] <u>1982</u>		[88] <u>89</u>		[82] <u>83</u>
<u>1983-1987</u>		<u>86</u>		<u>80</u>
after [1978] <u>1987</u>		<u>83</u>		<u>77</u>

DEPARTMENT OF ENVIRONMENTAL QUALITY
RECOMMENDED REVISIONS TO PROCEDURE MANUALS

1. Sound Measurement Procedures Manual, NPC-1
 - a. FOREWARD - Inserted the word "individual" before "motor vehicle noise measurements" in the second paragraph in order to clarify that the referenced manual (NPCS-21) does not include procedures to measure multiple vehicle sound levels.
 - b. Table of Contents - Deleted 4.7 "Analysis of Equivalent Octave Band Sound Pressure Levels" because this procedure is not required by any adopted rule and is therefore not necessary.
 - c. Section 4.1 "Application", on page 5, is amended as shown below with new material underlined:

CHAPTER 4

ENVIRONMENTAL NOISE MEASUREMENT

4.1 Application

This chapter applies to ambient measurements, noise emissions from industrial facilities, commercial facilities, racetracks, and public roads, and to ambient noise limits from motor vehicles. Individual motor vehicle noise measurements are covered in a separate manual.

- d. Section 4.5.7 "Octave Band Measurements", on page 9, is amended to delete the reference in the "comment" to equivalent octave band levels.
 - e. Section 4.7 "Analysis of Equivalent Octave Band Sound Pressure Levels" (pages 27 through 33) is deleted. This includes Figures 4-13, 4-14, 4-15 and 4-16.
2. Motor Vehicle Sound Measurement Procedure Manual, NPCS-21
 - a. Table of Contents - Add reference to Chapter 6.
 - b. Added reference in Chapter 2, Stationary Motor Vehicle Procedure to Chapter 6 - Near Field Stationary Motor Vehicle Procedure.
 - c. Correct typographical error in Chapter 5, Auxiliary Equipment Sound Level Measurement Section 5.4.3 (3) 4. to read as follows with the correction underlined:
 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.
 - d. Chapter 6 Near Field Stationary Motor Vehicle Sound Level Measurements is added to this manual. Attached is this new chapter.

CHAPTER 6

NEAR FIELD STATIONARY MOTOR VEHICLE

SOUND LEVEL MEASUREMENTS

20 Inches (1/2 meter)

6.1 Scope. This Chapter establishes procedures for setting up and calibrating sound measuring equipment and conducting tests to determine the sound level output of a stationary vehicle as measured 20 inches (.5 meter) from the exhaust exit. This procedure allows testing indoors and at sites limited in open space.

6.2 Initial Inspection.

6.2.1 Subjective Evaluation. Before a vehicle is tested to the near field procedures, a subjective evaluation of the vehicle noise shall be made by experienced personnel to determine if an objective test is necessary. The subjective test, using the human ear as a sensing device, shall be conducted at engine idle and during rapid partial throttle opening in neutral gear. The inspector shall stand on the exhaust exit side and near the rear of the vehicle during this evaluation. The exhaust noise shall not be discernably louder than the engine noise and they shall blend together to be acceptable.

6.2.2 Visual Inspection. If a vehicle is found to be subjectively loud, a visual inspection of the exhaust system shall be conducted. This inspection should include the entire system from the engine to the outlet pipe.

Comment: Under Oregon Administrative Rules Chapter 340 Section 35-035 the following defects are a violation.

- a) No muffler
- b) Leaks in the exhaust system
- c) A pinched outlet pipe

6.2.3 Near Field Test. If the subjective evaluation warrants further inspection and the visual check does not disclose a violation, then the vehicle shall be subjected to the near field noise test as described in Section 6.5. This test uses a sound level meter to measure the noise level of the vehicle under controlled test conditions.

6.3 Measurement Sites.

6.3.1 Vehicle Location. The vehicle must rest on the open 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 of the microphone or vehicle during noise tests, except for operating personnel.

6.3.3 Wind. Do not conduct noise measurements when wind velocity at the test location exceeds 10 miles per hour.

6.3.4 Precipitation. Do not conduct noise measurements if precipitation is falling, unless the microphone and instruments are protected from moisture.

Warning: Do not let any moisture on microphone. This will cause damage. Do not attempt to clean microphone.

6.3.5 Ambient Noise. The ambient noise levels shall be at least 10 dBA below the sound level of the vehicle being tested.

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 NPC-2 Requirements for Sound Measuring Instruments and Personnel. The minimum meter required is a Type II as defined by American National Standards Institute number S.I. 4-1971.

6.4.2 Battery. A battery check shall be conducted on the Meter and Calibrator before each calibration.

6.4.3 Calibration. The sound level meter shall be field calibrated immediately prior to use following procedures described by the manufacturer's instruction manual. Meters should be calibrated at least at the beginning and end of each business day and at intervals not exceeding 2-hours when the instrument is used for more than a 2-hour period.

Comment: If the instrument is damaged or in need of service, contact the Noise Pollution Control office or Motor Vehicles office.

6.4.4 Annual Calibration. Within one year prior to use, each set of sound level meters shall receive a laboratory calibration in accordance with the manufacturer's specifications. This calibration shall be traceable to the National Bureau of Standards.

Comment: An inspection label will be attached to each instrument to determine when the calibration was performed.

6.4.5 Windscreens. Windscreens of open cell polyurethane foam furnished by the manufacturer shall be placed over the microphone after calibration. This will protect it from dust or other airborne matter.

Warning: Do not let exhaust gases impinge on microphone.

6.4.6 Meter Setting. The meter shall be set on the "A" scale and used in the slow response mode.

6.4.7 Tachometer. A calibrated engine tachometer shall be used to determine when the test RPM is attained. Tachometers shall have the following characteristic:

Steady state accuracy of $\pm 2\%$ of full scale.

The tachometer shall be calibrated at least once a year in accordance with manufacturer's calibration procedures.

6.5 Sound Level Measurements.

6.5.1 Preliminary Steps:

- a) Field calibration.
- b) Windscreen on.
- c) Set meter to the appropriate range to measure the anticipated sound level.
- d) Switch to "A" weighting scale and slow response mode.
- e) Turn meter on.

6.5.2 Mounting. The sound level meter shall be hand-held or placed on a tripod according to the manufacturer's instructions.

6.5.3 Orientation. The orientation of the sound level meter microphone shall be according to factory instructions.

Comment: Generally, the operating personnel will be to one side. The "General Radio" 1565B Sound Level Meter shall be oriented such that the microphone points aft and the sound path will "graze" the surface of the microphone. (See Figure 1)

6.5.4 Microphone Position. The microphone for the sound level meter shall be at the same height as the center of the exhaust outlet but no closer to the pavement than 8 in. (203 mm). The microphone shall be positioned with its longitudinal axis parallel to the ground, 20 in. (508 mm) from the edge of the exhaust outlet, and 45 ± 10 deg from the axis of the outlet (Figure 6.1). 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.

6.5.5 Vehicle Operation. Vehicles tested to determine exhaust system sound levels shall be operated as follows:

- a) Automobiles and Light Trucks. The engine shall be operated at normal operating temperatures with transmission in park or neutral. Sound level measurements shall be made at $3/4$ (75%) of the RPM for rated horsepower - 50 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. To be determined.

c) Trucks and Buses. To be determined.

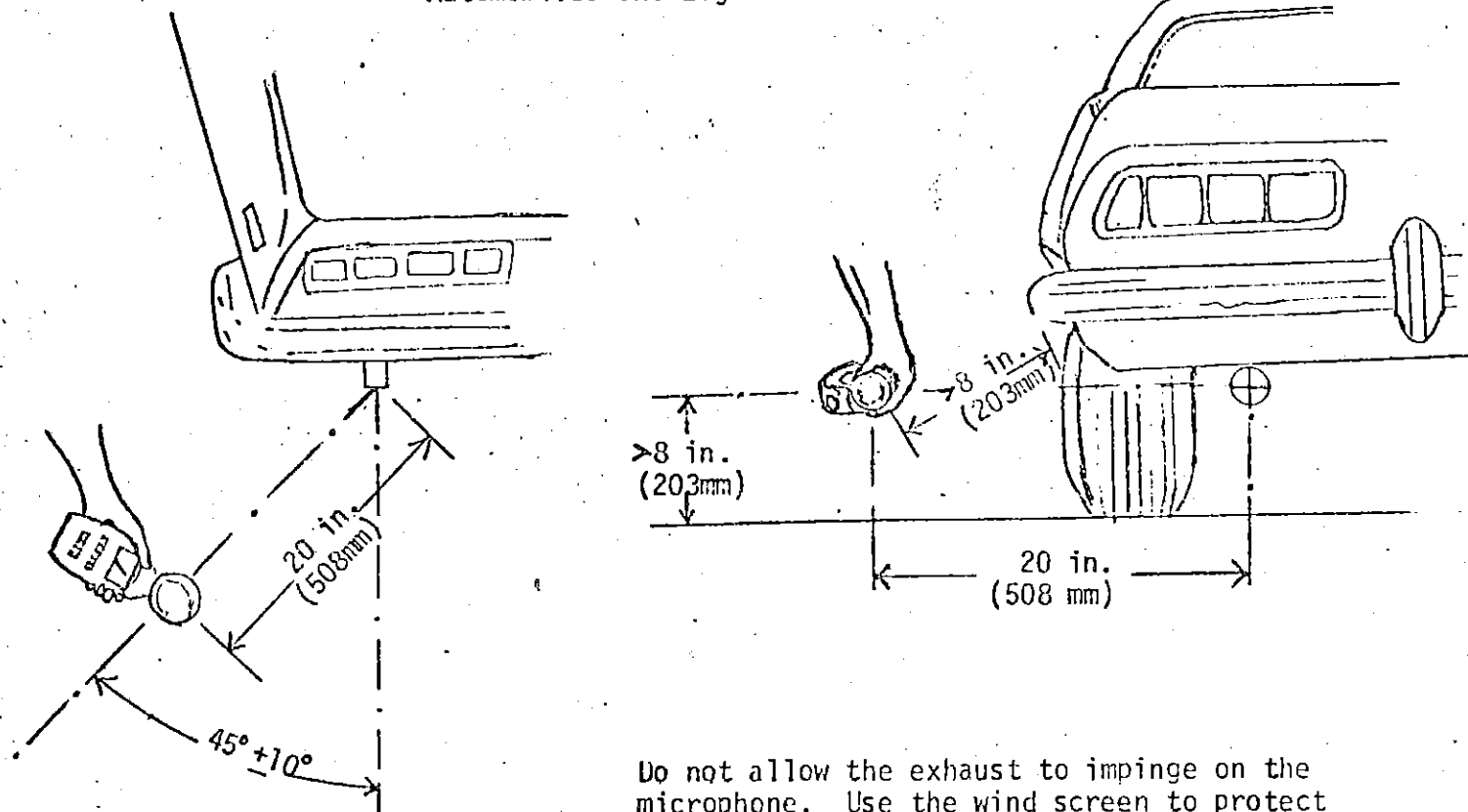
6.5.6 Reported Sound Levels. The reported exhaust system sound level reading shall be the highest reading obtained during the test, exclusive of peaks due to unrelated ambient noise or extraneous impulsive type noise obtained during the acceleration or deceleration portion of the test. When there is more than one exhaust outlet, the reported sound level shall be for the loudest outlet.

Comment: The purpose of this test is to measure exhaust noise, so there should not be any other noises within 10 dBA below the exhaust noise. (See Ambient Noise)

6.5.7 Variations. Allowances are necessary due to unavoidable variations in measurement sites and test equipment. Vehicles are not considered in violation unless they exceed the regulated limit by the value shown in the following table or more.

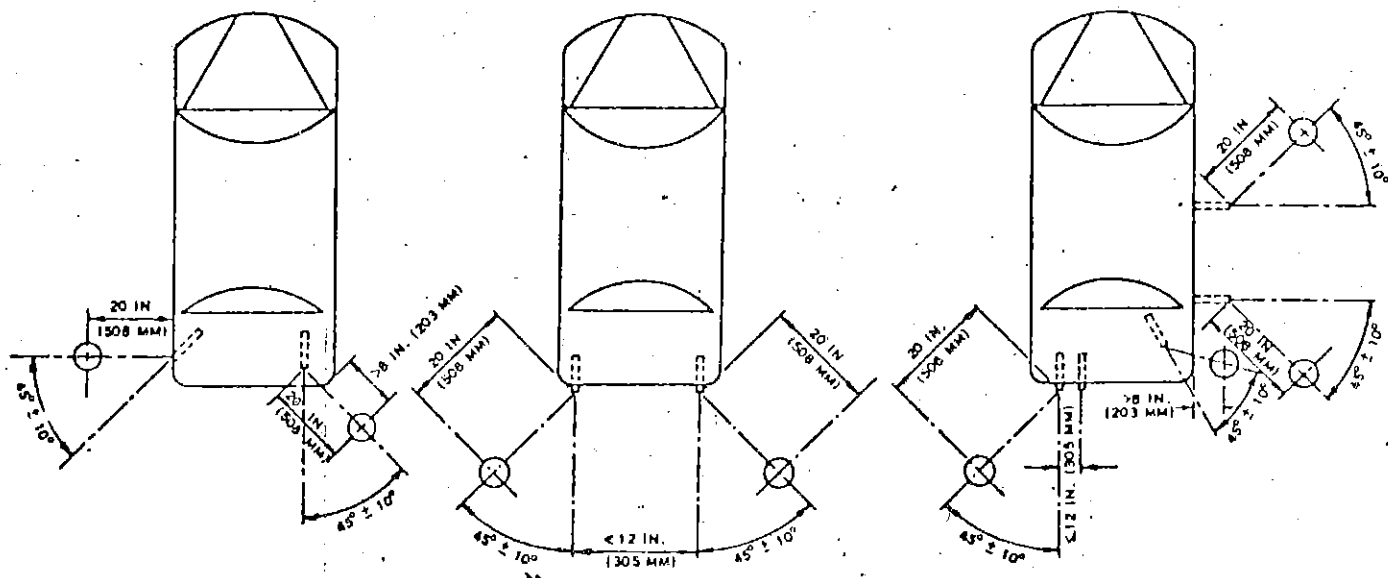
<u>Sound Level Meter Type</u>	<u>Allowable Exceedance</u>
ANSI Type I	1 dBA
ANSI Type II	2 dBA

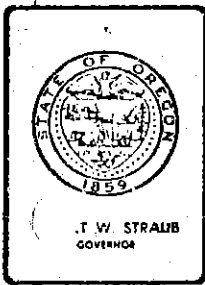
Figure 6.1
Microphone Placement for
Automobiles and Light Trucks



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.





DEPARTMENT OF ENVIRONMENTAL QUALITY

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

MEMORANDUM

To: Environmental Quality Commission
From: Hearing Officer
Subject: Hearing Report: August 6, 1976, Public Hearing on Proposed Amendments to the Rules Governing Motorcycle and Motor Vehicle Noise Emissions (Housekeeping Amendments were included also)

BACKGROUND

The hearing convened on August 6, 1976, in Room 602 of the Multnomah County Courthouse in Portland, Oregon. Present to represent the agency were the undersigned and Mr. John Hector of the Department's Noise Control Program. Approximately 38 persons attended and 20 persons offered testimony. Additional written testimony was offered to the record by mail both before and after the hearing. A summary of the testimony follows.

GENERAL TESTIMONY

Jane Underhill: Please continue to adopt and enforce standards higher than manufacturers are accustomed to in other states.

John Broome: Hold the line on noise standards. There is no reason why motorcycles and cars cannot be as quiet as they are in Europe. The manufacturers can meet the standards and, like other industry, will brag about it when they do.

Mr. Vencel V. Hamsik: The rules should be made more stringent. The Motorcycle Industry Council which petitions relaxation represents only a small portion of the public. The automobile industry should have a reduction in noise of 5 additional decibels in 1982. The automobile makers have done nothing for two years to meet the new standard and now should not expect a reward for their lack of diligence. "Jake Brakes" on trucks should be prohibited.

Thomas C. Mathews: The noise in the Portland residential areas is too high. Either enforcement of existing standards or tighter standards must be accomplished. This is particularly true with regard to garbage trucks.

Mrs. Helen Sturdivan: The noise regulations should not be relaxed. Mr. Frank Forster of the Oregon Motorcycle Dealers Association and the Oregon Motorcycle Riders Association concedes (as quoted in the newspapers) that most parents will not go along with the law and will assist their children in violating them (referring to Portland's off-road vehicle ordinance). Also, it is untoward that the motorcycle industry which



Contains
Recycled
Materials

has already escaped emission standards for air pollution should now seek regulations for noise that are less stringent than those being met by automobiles.

Professor Louise Felman of Pacific University has discovered significant high frequency hearing loss among students. One distinct differentiation was that experienced by a student who suffered hearing loss in excess of that suffered by a fellow motorcyclist who, unlike the student in question, wore earmuffs while riding his motorcycle.

Representative Pat Whiting (District 7): As previous Vice Chairperson to the Environment Committee of the House and one having had four years of extensive involvement in the writing of regulations for environmental, land use, and health care areas, Representative Whiting was opposed to any relaxation in existing noise standards. Representative Whiting questioned the justification for a differing standard for off-road motorcycles than that standard imposed on street bikes. Further, it was her position that the industry, if unable to meet present standards, had failed to sufficiently document this fact in its testimony.

Dr. Paul Herman of the City of Portland: Amendment to the heavy truck standard is necessary due to EPA pre-emption of this area of regulation.

The proposal to amend the off-road motorcycle use violation to include the operator as well as the property owner is very necessary from the standpoints of equity and enforcement.

The revision in the test procedures is needed to supplement present stationary testing procedures which prove unworkable due to the lack of voluntary submission of many operators to the test procedure. The "near field" test procedure should be implemented with regard to all classes of vehicles as soon as possible.

Reference to date of manufacture rather than model year (as proposed by General Motors) presents difficulty of identification and, therefore, enforcement. It should not be passed unless this difficulty is overcome.

The GM recommendation with regard to the definition of "truck" should be accepted because it is aligned with current EPA regulations.

Buses, which have differing noise problems compared to trucks, should be made a separate category. However, the 1979 standards imposed by present rules should not be relaxed for buses because buses have met this standard in 1974.

The proposal that off-road motorcycles be permitted more noise than others defies logic. Other users of off-road areas expect and deserve more quiet than usual, not less. The industry is trying to sell more high performance vehicles for non-racing purposes. Off-road bikes can be muffled as effectively as others and should be.

Similar reasoning refutes the proposals of the motorcycle industry and the automobile industry that the program's noise reduction in future vehicles should be recinded. First, the existing reductions are obtainable. Second, the cost of such reduction should be charged to the users in lieu of imposing the latent cost of frayed

nerves and hyper-tension now imposed on captive listeners. Roadway noise is now too high and is increasing. No relief will come under existing rules until we await the natural attrition in the rate of "in use" older vehicles. To adopt the proposed regulations may mean an infinite wait for reduction in the auto-caused ambient noise and an eight year wait for relief from motorcycle noise.

Industry argument that after - market modification, rather than manufacture - design is the right focal point must bow to the facts that many motorcyclists run original equipment and the motorcycle industry can sell "quiet" in the future as well as it has sold noise in the past.

Noise, as much as other aspects of motorized transport, is a cost which should be charged to motorists.

MOTORCYCLE NOISE TESTIMONY

Mr. Roger Hagie, Kawasaki: Kawasaki supports the proposals of the Motorcycle Industry Council. The proposal to designate calendar year instead of model year is more appropriate for the motorcycle industry. The proposals, including the off-road motorcycle category with lighter standards, will retain a strong noise regulatory scheme without sacrificing dealerships in Oregon.

The present 83dba standard in Oregon is based on worst-case operation which is not representative of general use.

Acknowledged existence of loud motorcycles is not attributable to newly sold motorcycles which have not been altered by their owners. Exhaust modification is a primary reason for owner-perpetuated noise increase.

Focus on exhaust-related noise has been shifted under ever-tightening standards to the costly focus on intake and mechanical noise sources on motorcycles whose result is often translated into higher cost and lower performance. The benefit has grown beyond cost-benefit justification.

Reductions in noise as required under current regulations would result in the possible elimination of many motorcycle models on the market, the elimination of existing, quiet models from a class containing many loud, older models, and an insignificant reduction of sound in normal operational modes. Further, no solution to the predominant problems of after-market modification would result.

It is often found that those models which "test" loudest are quietest in normal operation (particularly the larger, touring bikes whose sale constitutes a substantial part of dealer profit).

Oregon should be in step with virtually all other jurisdictions which base regulations on calendar year instead of model year. Calendar year designation facilitates enforcement because the date of manufacture is stamped on the frame of each vehicle.

The purposes served by off-road motorcycles required design within a more taxing parameter than street machines require. Dictated are more severe technological

barriers. Present regulations would forbid the sale of many off-road models in Oregon, despite their acceptance elsewhere. The Motorcycle Industry Council proposals would maintain noise control and allow presently forbidden recreation and revenue to Oregon's people.

No benefit in ambient noise levels will be served by focus on new motorcycles as is set forth in the current regulation. The culprit to be addressed is the user of the old or modified motorcycle.

Mr. Allan Isley, Motorcycle Industry Council: Most larger motorcycles (over 170 cc) are not capable of meeting the existing dba standard for 1977. By specifying 80dba for 1977 Oregon motorcycles, Oregon is alone with the most stringent requirement of any state. To effectuate the standard, even if such were possible for all motorcycles, the cost of an Oregon-only configuration would be prohibitive.

The muffling of exhaust and air intake which, in the main, have resulted in 83dba motorcycles will have to be supplemented by costly, dynamic, integral design changes in order to increase noise reduction. These changes must compete with other, stringent requirements being placed on an industry with moderate resources. Exemplary is the requirement for major new innovations to reduce exhaust emissions, an effort whose technology sometimes runs directly counter to noise reduction efforts. The mid-1974 adoption of the Oregon standards occurred only one year prior to the finalization of design for the 1977 industry model year, an insufficient amount of time for preparation by the industry.

The 1979 increment to 75dba is unworkable with any known technology for all but a few motorcycles. The quietest, large motorcycle in production today, a large touring bike, incorporates extensive intake and exhaust muffling, water cooling, shaft-drive, and other devices which contribute to the bike's 650 weight and \$3,000 plus cost. This bike will not meet the 75 dba standard. The 75dba goal, laudable though it is, cannot be implemented in Oregon in the near future.

The present standard for off-road bikes has resulted in a sufficiently quiet bike. Moreover, the design options to further reduce noise on this type of vehicle are more limited than with street bikes. The nature of its use dictates agility for the off-road bike. Increased width, and weight (results of noise-reduction add-ons) are particularly detrimental to the design of off-road bikes. These bikes employ the lighter, louder single cylinder engines and are in need of various innovations, including high clearance exhaust systems to insure lightness and low gravity. Without such features, the bike would not serve its off-road rider with appropriate reaction to steering input, drive-wheel acceleration, shifting of the body weight, or other handling aspects. Further, the knobby tires which optimize off-road use without contributing to off-road noise cause increased noise on pavement. Pavement is called for by the test conditions. (The Motorcycle Industry Council submitted additional materials, including a digest of current noise regulation in other jurisdictions.)

Finally, provisions should be made for practicing with racing vehicles as well as for their use in sanctioned events.

Mr. John Walsh, Suzuki: Excessive noise emissions as addressed in this statute

are primarily due to older motorcycles and those whose noise control devices have been tampered with at the operator-level. This contention is borne out by some 92% of the enforcement activities of the California Highway Patrol. Experiences in Lakewood, Colorado, and on the New Jersey Turnpike have been reported as similar. It is inferrable that Oregon's problem is much the same.

Studies show a 13-15 decibel increase in noise attends the average modification of stock motorcycles. Hence, the most efficient focal point for noise control efforts is not the reduction of noise limits for manufacturers, but is the enforcement of anti-tampering laws for in-use motorcycles.

A survey conducted by the Motorcycle Industry Council in Portland indicates that, under cruise conditions between 25-35 miles per hour, stock motorcycles make no more noise than automobiles which are stock. Standard trucks and buses were found significantly louder, even louder than modified motorcycles.

Suzuki is willing to help Oregon in its endeavor to enforce existing standards.

The use of the Motorcycle Industry Council's certified exhaust system program would be a step toward efficient enforcement.

The retention of the present rules will leave Oregon substantially out of alignment with regulatory schemes of several states, making necessary a loss of revenue from sales of motorcycles and its attendant economic hardships. For Suzuki dealers, this loss is projected to be \$500 to 900,000 in retail sales (from 30% to 60% of the total Suzuki market). Suzuki concurs with the statements of the Motorcycle Industry Council pointing out the limited engineering characteristics inherent to motorcycles (lack of space, lack of shrouding, etc.). These make it more difficult to reduce motorcycle noise than to reduce auto noise.

Suzuki urges the Commission to grant the petition of the Motorcycle Industry Council.

Mr. Ray Tarter, Apache-Yamaha Sales of Ontario: The current standard for motorcycles is sufficiently quiet. The proposed increment is too severe. The affidavit by buyers of intent to race is abused by many who simply sign the affidavit and then use the vehicle for off-road recreation in general.

Mr. J. L. Heisfeld: (Mr. Heisfeld lives at S. E. Yamhill and 30 Avenue in Portland, Oregon.) The noise problem is serious and is aggravated by a nearby motorcycle gang. This noise is very disturbing to older people who are unable to get a night's sleep because of it. Why is it that rich organizations like General Motors are always able to get a postponement of rules intended for the health and welfare of the people?

Mr. P. H. Lynch: Motorcycles should be governed as strictly as autos. The levels of noise emitted by motorcycles now constitute both a health hazard and a nuisance.

Mrs. Ina C. Hamsik: There are two categories of motorcycle uses: the quiet ones and the ones who enjoy the noise. The noise suggests power to the second kind of

rider, causing him to feel exhilaration. The basic issue is whether the manufacturers will be permitted to sell loud bikes to the second category of user at the expense of the general public.

Mr. William F. Fry: The noise of motorcycles interrupts peace and quiet in the wilderness. The off-road bikes, if they are to have a different standard, should have a stricter standard. The DEQ should be given the necessary funding to enforce the present standards by writing citations for violators.

Mr. Michael L. Rackham: A hiking trip in Mt. Hood National Forest this summer brought only constant sound of motorcycles from several miles away. The noise is not absorbed by brush and trees. Please impose tighter controls.

Mr. Russell Jura: The Motorcycle Industry Council petition will fully protect the health and welfare of Oregon citizens and will avoid severe, unnecessary hardship to the motorcycle industry. It should be granted.

Mr. Ray Miennert, for Harley-Davidson Motor Company, Inc.: Mr. Miennert introduced a telegram from Mr. Jeffrey Bleustein into the record. The telegram said Harley-Davidson could not meet the standards other than the present 83 dba standard. The telegram added that the most cost-effective way to improve noise levels is enforcement of existing standards. It was contended that failure to change the current rules would cause many Harley-Davidson motorcycles not to be sold in Oregon. Mr. Miennert supported the Motorcycle Industry Council's petition and called for an 83 dba standard until at least 1981. Strong enforcement was urged. Presently, there is no technology to meet the standard.

Mr. Harold Moore, motorcycle dealer: The current increment will cost Mr. Moore his business. Mr. Moore asked for reasonable standards and invites persons in government to listen to the new products which he now sells at his dealership. The noise levels of new motorcycles are not objectionable now. Enforcement against modification of the quiet motorcycles is the key.

Mr. Frank Forster, member and Vice President of the Oregon Motorcycle Dealers Association and Director of the Oregon Motorcycle Riders Association: The users in organized groups take steps to quiet their motorcycles. The Motorcycle Industry Council's petition deserves support.

There are safety reasons which would argue for a certain level of noise: the motorcycle is not sufficiently visible to auto drivers and, if made too quiet, will not be sufficiently heard by auto drivers.

The noise levels from larger, four cycle motorcycles, while greater, are more harmonious than noise created by smaller engines. Attention should be paid to the quality as well as the quantity of sound.

Mr. Gene F. Walker, Harley-Davidson dealer: If the 80 dba standard is invoked, Mr. Walker's dealership will fail because Harley-Davidson needs two to three years to meet the standard. He could last for a year or so selling repairs and accessories. The 83 dba standard should be retained for the present.

Mr. Richard Martin, motorcycle dealer in the Phoenix-Medford area: Mr. Martin wishes to stay in business and would support reasonable noise rules that will allow his continued dealership.

Mr. Ed Lempco, Albany motorcycle dealer: Mr. Lempco is the immediate past president of the Oregon Motorcycle Dealers Association and Director of the National Motorcycle Dealers Association. Dealers are not adversaries of environmentalists. It would be instructive if Representative Whiting, the Environmental Quality Commission, and any other interested person in the agency would visit a dealership and hear how unoffensive the sound from new motorcycles is. There is a lack of understanding as to how quiet 83 dba actually is.

Standards quieter than 83 dba would result in one of two things: the motorcycle will not be offered in the 2% of the market represented by Oregon, or there will be a "Mickey Mouse" add-on such as is done now with the Honda C-250 whose crate muffler is immediately discarded by new owners with the result of more noise.

Mr. Wiley Livesay, Klamath Falls dealer of Harley-Davidson motorcycles: Mr. Livesay has been around motorcycles for 40 years and attests that they are quieter today than ever. The only remaining problem is the problem caused by illegally modified bikes. Riders frequently ask Mr. Livesay to modify their motorcycles (and receive his refusal to do so). The quieter the motorcycles are made, the more riders wish to illegally modify them.

Mr. Kenneth Carlson, Mt. Scott Motorcycle Club, Inc.: The Motorcycle Industry Council petition should be granted.

New motorcycles are often quieter than automobiles. The problems are the older ones and those that have been modified.

The Hearing Officer's questioning whether off-road motorcycles should be quieter than street motorcycles is out of point because, as a member of a club that uses off-road motorcycles, Mr. Carlson finds that there are areas that are suitable primarily for motorcycles and there is little conflict with other users. Also, there are a lot of areas where motorcycles are not allowed.

Noise levels are decreasing as the standards come into effect on newer motorcycles. Standards should be slightly higher for off-road motorcycles than for those used on the street. There is no conflict with other user groups. For example, the Mt. Scott Motorcycle Club operates in the Tillamook Burn area which is not suitable for hiking. Also, the Bureau of Land Management and the Forest Service have granted approval for the Mt. Scott Motorcycle Club to use desert areas for a benefit race which occurred recently.

In helping to identify off-road motorcycles, it is feasible to use a sticker, or label. Removal could be a problem but few riders would remove the label. Fixture to the frame would be the most durable location for the identification tag.

Mr. Jack Allen, Harley-Davidson motorcycle dealer from Myrtle Creek: Harley-Davidson of Douglas County in Roseburg doesn't want to be put out of business.

Mr. Ed Hughes, Oregon Motorcycle Dealers Association: Oregon Motorcycle Dealers Association has 75 members at present. OMDA concurs wholeheartedly with the proposals of the Motorcycle Industry Council.

In addition, with regard to Oregon Administrative Rules Chapter 340, Section 35-025 (5)(a): Delete "notarized" and insert "certified." Make the same correction in other parts of the rule. These changes are consonant with ORS 483.448 and will avoid needless inconvenience and notarial fees.

Mr. Russell Juror, of Yamaha: Yamaha supports the petition and the testimony of the Motorcycle Industry Council.

TESTIMONY REGARDING AUTOMOBILE NOISE REGULATIONS

American Motors: Under the present Oregon regulations calling for a standard of 75 dba for 1979 and new cars, American Motors would be required to engage in development, testing, and certification of new exhaust, induction, and cooling systems whose cost would be distributed to the Oregon consumer as an option for Oregon-only buyers. This constitutes a measure which is not cost-effective and which should be avoided by deleting the 5 dba incremental reduction in noise for 1979 cars.

Ms. Gayle Shaffer, representing General Motors: Ms. Shaffer addressed and supported the general statement of General Motors as entered into the record in written form. She commented specifically on General Motors' position regarding the 75 dba limit for 1979 cars and the need for a separate set of regulations for busses.

A summary of General Motors' written statement follows: The 1979 model limit of 75 dba for cars and light trucks should be rescinded. The current test procedure is at wide open throttle in low gear. This mode of driving constitutes less than half of 1% of the 15% acceleration time which is normal to urban drivers. Further, current vehicles designed to meet the 80 dba standard test out lower than 80 dba and are, at normal acceleration and cruise modes, productive of noise in the mid to low 60 dba range. Florida's experience was that even older models, built to reach 84 or 86 dba in a test, rarely exceed 70 to 72 dba in normal use.

At 35 miles per hour and above, tires are the controlling source of noise in urban driving.

Industry-wide, it would cost \$30 per car and \$123 per truck to meet the 75 dba standard. The cost of an "Oregon-only" model would be even higher. It would, based on the figures above, cost 7.2 million dollars annually to Oregon car buyers. This figure would apply even if the 75 dba costs were a nation-wide expense of doing business.

There is no significant correlation between reduction in sound during wide-open throttle and reduction of noise at other, more typical modes.

The 80 dba level for medium and heavy-duty trucks should be postponed until January 1, 1982, to coincide with EPA standards. As it is now, trucks sold in Oregon must be equipped with an optional package to meet the 1976 standard of 83 dba. This package ranges from \$50 to \$750, depending on the truck model.

The arrangements cited above put Oregon dealers at a competitive disadvantage. Purchases from dealers in other states will increase with the inception of the new 80 dba for 1979 models.

Piecemeal regulation by applying the 80 dba standard to trucks and buses ranging between 4 and 10 tons is inappropriate. This category of vehicle is not subject to the pre-emptive EPA regulations.

Buses should not be subject to the proposed 80 dba standard. They should be a separate category whose further regulations should await the outcome of a May, 1977 EPA regulation. In addition, significant efforts to control the noise of motor coaches has largely failed, pointing out the need for extensive new study which General Motors hopes to have available in late 1976. The Commission's standard will only be pre-empted by the EPA standard and Commission action should await this study.

General Motors concurs in the use of a 10,000 pound threshold to distinguish between light vehicles and heavy vehicles. General Motors also concurs in the specification of date of manufacture, rather than model year, as a designation of applicability of these regulations. Such provisions would be in uniformity with other jurisdictions and other areas of regulation, such as safety standards.

The category "buses" will ultimately be further subdivided if the Environmental Protection Agency accepts the suggestions of General Motors.

ORS 467.010 empowers the Commission to adopt "reasonable" noise standards. The legal definition of "reasonable" means "customary," "moderate," "usual," "average," "ordinary," and so on. This does not empower the Commission to adopt standards that would force manufacturers to go to extraordinary efforts to meet them.

Also, the 80 dba truck standard will not result in any appreciable state-wide reduction in noise levels and will be outside the intent of the enabling statute.

The 75 dba standard suffers from the same defects mentioned above.

Imposition of the present 1979 standards will create severe marketing difficulties in Oregon and will prevent the sale of many General Motors model-year vehicles in Oregon in 1979 because, where re-tooling is needed to meet the standard, it is too late to retool. Also unreasonable additional expense will make some models practically unmarketable.

Mr. John Damian, for Ford Motor Company: While acceptable at higher decibel levels to identify cars with defective exhaust systems and so-called "muscle" cars, the present wide open throttle at low gear which the Department imposes should not be used to identify autos exceeding 80 dba standard. Operation at wide open throttle in low gear is a rare mode of urban travel which is not representative of vehicular noise in a typical urban environment. Reduction of noise levels below 80 dba in low gear at wide-open throttle would not translate into any meaningful reduction in community noise.

The Department's staff, on April 4, 1976, was given a drive-by demonstration of cars and light trucks to compare those meeting the 80 dba with those modified to meet the new 75 dba standard. Most observers of this multi-mode, drive-by test agreed

that, in modes more typical to urban driving than the current test mode, the difference between 80 and 75 dba vehicles was very minor in terms of perceived noise levels.

Jurisdictions such as California, Grand Rapids, Michigan, Florida, and Maryland have either abandoned or deferred requirements that vehicles pass a test more stringent than the 80 dba level. Others, including Cook County, Des Plains and Chicago, are considering postponement.

The price tag for a 75 dba car would be \$70 per car in 1979 dollars. Light trucks would cost \$185 per vehicle. These prices are based on an Oregon-only projection.

Many of the engineering decisions for the 1979 models (such as the engineering for certification of federal air pollution standards) have been made and there remains little flexibility of design to meet the new noise standard imposed by Oregon.

Ford recommends retention of the present 80 dba standard and a deletion of the increment to 75 dba. By way of information, EPA and others are now in the process of attempting to determine a test more reflective of actual urban noise from vehicular sources than is the current test. Part of this effort is Ford's search for representative, simple stationary tests.

Change to a calendar year, as opposed to a model year, would align Oregon with all other regulatory jurisdictions. It would make enforcement simple due to the presence of the manufacture date on the vehicle's certification label.

Busses, inherently different from trucks in terms of their sound configuration, should be separated from trucks in any regulatory scheme. The standard for busses should remain at 83 dba pending the outcome of the EPA regulatory activities.

The gross vehicle weight classification for trucks should be changed from 8,000 to 10,000 pounds to achieve alignment with other jurisdictions in other areas of regulation, such as that of safety standards.

The staff-proposed adoption of an exemption for the sale of "racing" motor vehicles should be adopted.

The amendment of Oregon's heavy-truck regulations to conform to the pre-emptive EPA regulations should not be done. Chrysler and four other companies have initiated judicial review of EPA regulations based on many allegedly unlawful provisions contained therein.

Pending adoption by the Society of Automotive Engineers of new stationary test procedure for front-engine, light-duty vehicles, the Department should not revise its rules.

For the sake of uniformity, the Commission's regulations should conform to those of EPA-ONAC, and DOT-BMCS for heavy duty trucks required to undergo stationary testing. The federal noise act requires any state regulations to be uniform as applied to

interstate motor carriers unless the EPA Administrator permits deviation.

Mr. Nick Miller, representing International Harvester: International Harvester enjoys 20% of the sport-utility market in Oregon and 26% to 58% of the "truck and bus" market. IH supports the maximum use of available technology to make quiet vehicles and IH has pioneered in this field.

IH joins others who support the removal of the 80 dba limit on trucks until 1982. IH feels this would conform to EPA requirements and bring about the uniformity intended by the Noise Control Act of 1972.

The Commission should change its rule to designate trucks by year of manufacture instead of model year. Trucks should be defined as vehicles weighing over 10,000 pounds (GVW). In addition to uniformity with EPA, this change would more accurately reflect the average breaking point (in weight) between recreational-private vehicles and those used strictly in commerce.

The Commission should adopt the suggestions of other car makers to rescind the 75 dba for passenger cars and light trucks.

A study Bolt, Deranek, and Newman which concluded that the most annoying noises related to vehicles are those associated with "hot rodding" reinforces the contention that the use of stricter enforcement of existing levels would be more cost-effective than imposing the 75 dba standard in a tough procedure that has little correlation with actual driving habits.

The level of noise for buses should be a separate category of regulation with an 86 dba standard (rescinding the future increments to 83 and 86 dba). EPA regulations will soon preempt this field.

The Commission should adopt a standard for in-use vehicles of 95 dba using the MVMA test procedure (8 inch high microphone at 20 inches from tailpipe of stationary vehicle and 45 degrees away from outlet axis). Such a method would readily identify gross offenders.

The EPA regulations for inter-state motor carriers should be adopted as part of the Oregon regulations.

Objectionable are the stationary test standards for "all other trucks" as defined in ORS 481.035. This leaves a separate standard for trucks not engaged in inter-state commerce. These trucks, too, should be subjected to the same standard as has been adopted by the EPA.

There should be imposed a stationary test with measurements taken at 50 feet. Levels of 88 dba for in-use vehicles made before 1976, 86 dba for newer vehicles made before 1982, and 83 dba for still newer vehicles would agree with the recommended addition of 3 dba over the drive-by limits from manufacturers and 1 dba deterioration. These figures would provide a real improvement in community noise levels and are realistically achievable.

The standards for vehicles of all kinds in the over-35-mile category should be set aside. At these speeds, tire noises are the major component whose improvement is beyond present technology.

It is impossible for enforcement personnel to determine the model year, interstate commerce involvement, and noise level as a traveling vehicle passes. Hence, the levels (except the 86 dba level) for trucks going less than 35 miles per hour should be set aside as impractical of enforcement.

Mr. Don DuBois, representing the Environmental Protection Agency: (The Environmental Protection Agency whose representatives were present at the hearing was asked to state its position regarding the proposed rule changes.) The automobile manufacturers can produce vehicles which will reach the 75 dba limit at a cost of \$30 to \$75 per vehicle. Florida and Chicago has retained 75 dba standard and so should Oregon, at least until the completion of EPA studies in early 1977. These studies include studies on the "Chase car" experiment of General Motors. Interpretation of this study is still open to question.

Pierre's Motors Racing: The "racing vehicle" definition is too wide in scope. The affidavit-procedure for buyers of single-seat racing vehicles should be revised.

RECOMMENDATION

Your Hearing Officer makes no recommendation in this matter.

Respectfully submitted,

Peter W. McSwain, Hearing Officer



ENVIRONMENTAL QUALITY COMMISSION

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

ROBERT W. STRAUB
GOVERNOR

MEMORANDUM

To: Environmental Quality Commission
From: Director
Subject: Agenda Item No. I, August 27, 1976, EQC Meeting

Consideration of Adoption of Revisions to OAR Chapter 340,
Sections 24-320 through 24-330 Pertaining to Motor Vehicle
Inspection Standards

Background

On June 25, 1976, the Environmental Quality Commission adopted emergency rules extending the enforcement tolerance for the motor vehicle emission inspection program until completion of public hearings could be held for adoption of housekeeping amendments and standards update. A Public Hearing was held July 16, 1976, and statements were submitted by a number of automobile manufacturers, as well as from members of the general public.

Discussion

A copy of the Hearing Officer's report is attached (Appendix B) and is considered to be an accurate summation of the testimony received. The Department's response to the technical issues raised by the manufacturers' comments is contained in Appendix C. There were several changes to the proposed amendments based upon the material presented at the Public Hearing.

The only portion of the proposed amendments included in the emergency rules was the extension of the enforcement tolerance. The remaining amendments constituted updates of the vehicle standards for the individual vehicle classes.

Based upon comments from the major American manufacturers, we would propose the elimination of the "and later" and the insertion of the specific model year of vehicle. This will necessitate yearly review, but eliminates the possibility of penalizing motorists should new engineering advances cause a significant change in idle levels while reducing overall emissions. Also, it is proposed that the enforcement tolerance on 1975 and 1976 hydrocarbon limits be raised from



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50 to 100 ppm. This is due in part to the comments from the manufacturers, a re-assessment of our own test data, and an attempt to provide greater compensation for the variation that is occurring within the service industry exhaust gas analyzers. Specific corrections were made at the manufacturers' suggestion and staff concurrence on Fiat, Toyota, and Renault vehicle classes. Also corrected was a clarification involving the categorizing of engines of under 50 cu. in. displacement (820 cc) as to the appropriate carbon monoxide standards.

A contention raised by two of the manufacturers, as well as by several local establishments, addresses the fact that often there is an incentive to misadjust or incorrectly adjust the vehicles in order to pass the test. The procedures outlined by the manufacturers are often complex and detailed, especially on the newer vehicles. There is often a strong economic, though good intentioned incentive to short cut some of these detailed procedures. The results of these short cuts can result in vehicles which are misadjusted, poorly running, or both. When correct procedures and techniques are followed, such as those exemplified in Appendix D, the vehicles should be well under DEQ standards, and provide all of the driveability and performance that has been designed into the vehicle.

The Department, in an effort to assist the local service industry, is increasing the frequency of its Information Bulletin series. This should provide an increase in information for use by the service industry, and also improve communications between the Department and the service industry.

Conclusion

The proposed amendments including the extension of the enforcement tolerance will allow for continued and equitable operation of the Vehicle Emission Inspection Program. With the adoption of these amendments, the emergency rules extending the enforcement tolerance adopted June 25, 1976, will no longer be necessary and can be repealed.

Director's Recommendation

It is the recommendation of the Director that the Environmental Quality Commission repeal the emergency rules adopted June 25, 1976, and adopt the proposed Amendments to the Rules for the Motor Vehicle Emission Inspection Program (OAR Chapter 340, Sections 24-320 through 24-330) as indicated in Appendix A.



LOREN KRAMER

Motor Vehicle Emission Control Inspection Test Criteria, Methods
and Standards.

PROPOSED RULES FOR MOTOR VEHICLE EMISSION INSPECTION PROGRAM

OAR 340-24-320 Light Duty Motor Vehicle Emission Control Test Criteria

(1) No vehicle emission control test shall be considered valid if the vehicle exhaust system leaks in such a manner as to dilute the exhaust gas being sampled by the gas analytical system. For the purpose of emission control tests conducted at state facilities, except for diesel vehicles, tests will not be considered valid if the exhaust gas is diluted to such an extent that the sum of the carbon monoxide and carbon dioxide concentrations recorded for the idle speed reading from an exhaust outlet is ~~[9]~~ 8% or less ~~[.]~~ , and on 1975 and later vehicles with air injection systems 7% or less. For purposes of enforcement through June, ~~[1976]~~ 1977, a 1% carbon dioxide tolerance shall be added to the values recorded.

(2) No vehicle emission control test shall be considered valid if the engine idle speed either exceeds the manufacturer's idle speed specifications by over 200 RPM on 1968 and newer model vehicles, or exceeds 1,250 RPM for any age model vehicle. For purposes of enforcement through June, ~~[1976]~~ 1977, a 100 RPM tolerance shall be added to the idle speed limits.

(3) No vehicle emission control test conducted after June, ~~[1976]~~ 1977, for a 1968 or newer model vehicle shall be considered valid if any element of the following factory-installed motor vehicle pollution control systems have been disconnected, plugged, or otherwise made inoperative in violation of ORS 483.825(1), except as noted in subsection (5):

- (a) Positive crankcase ventilation [~~PVC~~] (PCV) system
- (b) Exhaust modifier system
 - (A) Air injection reactor system

- (B) Thermal reactor system
- (C) Catalytic converter system - (1975 and newer model vehicles only)
- (c) Exhaust gas recirculation (EGR) systems - (1973 and newer model vehicles only)
- (d) Evaporative control system - (1971 and newer model vehicles only)
- (e) Spark timing system
 - (A) Vacuum advance system
 - (B) Vacuum retard system
- (f) Special emission control devices

Examples:

- (A) Orifice spark advance control (OSAC)
- (B) Speed control switch (SCS)
- (C) Thermostatic air cleaner (TAC)
- (D) Transmission controlled spark (TCS)
- (E) Throttle solenoid control (TSC)

(4) No vehicle emission control test conducted after June, [1976] 1977, for a 1968 or newer model vehicle shall be considered valid if any element of the factory-installed motor vehicle pollution control system has been modified or altered in such a manner so as to decrease its efficiency or effectiveness in the control of air pollution in violation of ORS 483.825(2), except as noted in subsection (5). For the purposes of this subsection, the following apply:

(a) The use of a non-original equipment aftermarket part (including a rebuilt part) as a replacement part solely for purposes of maintenance according to the vehicle or engine manufacturer's instructions, or for repair or replacement of a defective or worn out part, is not considered to be a

violation of ORS 483.825(2), if a reasonable basis exists for knowing that such use will not adversely effect emission control efficiency. The department will maintain a listing of those parts which have been determined to adversely effect emission control efficiency.

(b) The use of a non-original equipment aftermarket part or system as an add-on, auxiliary, augmenting, or secondary part or system, is not considered to be a violation of ORS 483.825(2), if such part or system is listed on the exemption list maintained by the department.

(c) Adjustments or alterations of a particular part or system parameter, if done for purposes of maintenance or repair according to the vehicle or engine manufacturer's instructions, are not considered violations of ORS 483.825(2).

(5) A 1968 or newer model motor vehicle which has been converted to operate on gaseous fuels shall not be considered in violation of ORS 483.825(1) or (2) when elements of the factory-installed motor vehicle air pollution control system are disconnected for the purpose of conversion to gaseous fuel as authorized by ORS 483.825(3).

(6) For the purposes of these rules, a motor vehicle with an exchange engine shall be classified by the model year and manufacturer make of the exchange engine, except that any requirement for evaporative control systems shall be based upon the model year of the vehicle chassis.

(7) Electric vehicles are presumed to comply with all requirements of these rules and those applicable provisions of ORS 468.360 to 468.405, 481.190 to 481.200, and 483.800 to 483.825, and may be issued the required certificates of compliance and inspection upon payment of the required fee.

(1) Carbon Monoxide idle emission values not to be exceeded:

	<u>%</u>	<u>Enforcement Tolerance</u> <u>Through June, [1976] 1977</u>
<u>[ALPHA] ALFA ROMEO</u>		
1975 and 1976	1.5	1.0
1971 through 1974	3.0	1.0
1968 through 1970	4.0	1.5
pre-1968	6.0	0.5
<u>AMERICAN MOTORS CORPORATION</u>		
1975 and 1976 Non-Catalyst	[1.0] 1.5	0.5
1975 and 1976 Catalyst Equipped	0.5	0.5
1972 through 1974	2.0	1.0
1970 through 1971	3.5	1.0
1968 through 1969	5.0	0.5
pre-1968	6.0	0.5
<u>Above 6000 GVW, 1974 through 1976</u>	<u>2.0</u>	<u>1.0</u>
<u>ARROW, Plymouth - see COLT, Dodge</u>		
<u>AUDI</u>		
1975 and 1976	[1.0] 1.5	0.5
1971 through 1974	2.5	1.0
1968 through 1970	4.0	1.0
pre-1968	6.0	0.5
<u>AUSTIN - see BRITISH LEYLAND</u>		
<u>BMW</u>		
1975 and 1976	1.5	0.5
1974, 6 cyl.	2.5	1.0
1974, 4 cyl.	2.0	1.0
1971 through 1973	3.0	1.0
1968 through 1970	4.0	1.0
pre-1968	6.0	0.5

BRITISH LEYLAND

Austin, Austin Healey, Morris, America, and Marina		
1975	2.0	0.5
1973 through 1974	2.5	1.0
1971 through 1972	4.0	1.0
1968 through 1970	5.0	1.0
pre-1968	6.5	0.5
Jaguar		
1975 and 1976	0.5	0.5
1972 through 1974	3.0	1.0
1968 through 1971	4.0	1.0
pre-1968	6.0	0.5
MG		
1976 MG	0.5	0.5
1975 MG, MG Midget and 1976 MG Midget	2.0	0.5
1973 through 1974 MGB, MGBGT, MGC	3.0	1.0
1971 through 1974 Midget	3.0	1.0
1972 MGB, MGC	4.0	1.0
1968 through 1971, except 1971 Midget	5.0	1.0
pre-1968	6.5	0.5
Rover		
1975	-----	
1971 through 1974	4.0	1.0
1968 through 1970	5.0	0.5
pre-1968	6.0	0.5
Triumph		
1975 and 1976	2.0	0.5
1971 through 1974	3.0 3.5	1.0
1968 through 1970	4.0	1.0
pre-1968	6.5	0.5

BUICK - See GENERAL MOTORS

CADILLAC - See GENERAL MOTORS

CAPRI - See FORD MOTOR COMPANY, 4 cyl.

CHECKER

1975 Non-Catalyst	1.0	0.5
1975 and 1976 Catalyst Equipped	0.5	0.5
1973 through 1974	1.0	1.0
1970 through 1972	2.5	1.0
1968 through 1969	3.5	1.0
pre-1968	6.0	0.5

CHEVROLET - See GENERAL MOTORS

CHEVROLET L.U.V. - See L.U.V., Chevrolet

CHRYSLER - See CHRYSLER CORPORATION

CHRYSLER CORPORATION (Plymouth, Dodge, Chrysler)

1975 and 1976 Non-Catalyst	1.0	0.5
1975 and 1976 Catalyst Equipped	0.5	0.5
1972 through 1974	1.0	1.0
1969 through 1971	1.5	1.0
1968	2.0	1.5
pre-1968	6.0	0.5
Above 6000 GVW, 1968 through 1971	4.0	1.0
<u>Above 6000 GVW, 1972 through 1976</u>	<u>2.0</u>	<u>1.0</u>

CITROEN

1975 -----]		
1971 through 1974	3.0	1.0
1968 through 1970	4.0	1.0
pre-1968	6.0	0.5

COLT, Dodge

1975 and 1976	3.0	0.5
1971 through 1974	5.0	1.0
pre-1971	6.0	0.5

COURIER, Ford

1975 and 1976	1.5	0.5
1973 through 1974	2.0	1.0
pre-1973	4.0	1.0

CRICKET, Plymouth

1975 -----]		
1973 through 1974 (twin carb. only)	3.0	1.0
1972 (twin carb. only)	4.5	1.0
pre-1972 (and 1972 through 1973 single carb. only)	7.5	0.5

DATSUN

1975 and 1976	2.0	0.5
1968 through 1974	2.5	1.0
pre-1968	6.0	0.5

DE TOMASO - See FORD MOTOR COMPANY

DODGE - See CHRYSLER CORPORATION

DODGE COLT - See COLT, Dodge

FERRARI

1975 and 1976	0.5	0.5
1971 through 1974	2.5	1.5
1968 through 1970	4.0	1.5
pre-1968	6.0	0.5

FIAT

1975 and 1976 Non-Catalyst	1.5	0.5
1975 and 1976 Catalyst Equipped	0.5	0.5
1974	2.5	1.0
1972 through 1973 124 spec. sedan and wgn.	4.0	1.0
1972 through 1973 124 sport coupe and spider	3.0	1.0
1972 through 1973 850	3.0	1.0
1971 850 sport coupe and spider	3.0	1.0
1971 850 sedan	6.0	0.5
1968 through 1970, except 850	5.0	0.5
1968 through 1970 850	6.0	0.5
pre-1968	6.0	0.5

FORD - See FORD MOTOR COMPANY

FORD MOTOR COMPANY (Ford, Lincoln, Mercury, Capri, except Courier)

1975 and 1976 Non-Catalyst	1.0	0.5
1975 and 1976 Catalyst Equipped	0.5	0.5
1972 through 1974, except 4 cyl.	1.0	1.0
1972 through 1974, 4 cyl., except 1971- 1973 Capri	2.0	1.0
1971 through 1973 Capri only	2.5	1.0
1970 through 1971	2.0	1.0
1968 through 1969	3.5	1.0
pre-1968	6.0	0.5

FORD MOTOR COMPANY cont'd.

<u>Above 6000 GVW, 1968 through 1971</u>	<u>4.0</u>	<u>1.0</u>
<u>Above 6000 GVW, 1972 through 1973</u>	<u>3.0</u>	<u>1.0</u>
<u>Above 6000 GVW, 1974 through 1976</u>	<u>2.0</u>	<u>1.0</u>

GENERAL MOTORS (Buick, Cadillac, Chevrolet, GMC, Oldsmobile, Pontiac)

1975 and 1976 Non-Catalyst	1.0	0.5
1975 and 1976 Catalyst Equipped	0.5	0.5
1972 through 1974	1.0	1.0
1970 through 1971, except 4 cyl.	1.5	1.0
1970 through 1971, 4 cyl.	2.5	1.0
1968 through 1969	3.5	1.0
pre-1968	6.0	0.5
<u>Above 6000 GVW, 1968 through 1971</u>	<u>4.0</u>	<u>1.0</u>
<u>Above 6000 GVW, 1972 through 1973</u>	<u>3.0</u>	<u>1.0</u>
<u>Above 6000 GVW, 1974 through 1976</u>	<u>2.0</u>	<u>1.0</u>

GMC - See GENERAL MOTORS

HONDA AUTOMOBILE

1975 and 1976 CVCC	1.0	0.5
1975 and 1976 except CVCC engine	1.5	0.5
1973 through 1974	3.0	1.0
pre-1973	5.0	1.0

INTERNATIONAL-HARVESTER

1975 and 1976	2.5	0.5
1972 through 1974	3.0	1.0
1970 through 1971	4.0	1.0
1968 through 1969	5.0	1.0
pre-1968	6.0	0.5

JAGUAR - See BRITISH LEYLAND

JEEP - See AMERICAN MOTORS

JENSEN-HEALEY

1973 and 1974	4.5	1.0
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JENSEN INTERCEPTOR & CONVERTIBLE - See CHRYSLER CORPORATION

LAND ROVER - See BRITISH LEYLAND, Rover

LINCOLN - See FORD MOTOR COMPANY

L.U.V., Chevrolet

[1975-----]		
1974 through 1976	1.5	1.0
pre-1974	3.0	1.0

MAZDA

1975 and 1976	1.5	0.5
1968 through 1974, Piston Engines	4.0	1.0
1974, Rotary Engines	2.0	0.5
[1974] 1970 through 1973, Rotary Engines	3.0	0.5

MERCURY - See FORD MOTOR COMPANY

MERCEDES-BENZ

1975 and 1976 Non-Catalyst, 4 cyl.	1.0	0.5
1975 and 1976, all other	0.5	0.5
1973 through 1974	2.0	1.0
1972	4.0	1.0
1968 through 1971	5.0	1.0
pre-1968	6.0	0.5
Diesel Engines (all years)	1.0	0.5

MG - See BRITISH LEYLAND

OLDSMOBILE - See GENERAL MOTORS

OPEL

1975 and 1976	1.5	0.5
1973 through 1974	2.5	1.0
1970 through 1972	3.0	1.0
1968 through 1969	3.0	1.0
pre-1968	6.0	0.5

PANTERA - See FORD MOTOR COMPANY

PEUGEOT

1975 and 1976	<u>1.5</u>	<u>0.5</u>
1971 through 1974	3.0	1.0
1968 through 1970	4.0	1.0
pre-1968	6.0	0.5
Diesel Engines (all years)	1.0	0.5

PLYMOUTH - See CHRYSLER CORPORATION

PLYMOUTH CRICKET - See CRICKET, Plymouth

PONTIAC - See GENERAL MOTORS

PORSCHE

1975 and 1976	<u>2.5</u>	<u>0.5</u>
1972 through 1974	3.0	1.0
1974 Fuel Injection 1.8 liter (914)	<u>5.0</u>	<u>1.0</u>
1968 through 1971	5.0	1.0
pre-1968	6.5	0.5

RENAULT

1976 Carbureted	<u>1.5</u>	<u>0.5</u>
1975 and 1976 Fuel Injection	<u>1.5</u>	<u>0.5</u>
1975 Carbureted	<u>0.5</u>	<u>0.5</u>
1971 through 1974	3.0	1.0
1968 through 1970	5.0	1.0
pre-1968	6.0	0.5

ROLLS-ROYCE and BENTLEY

1975 and 1976	<u>0.5</u>	<u>0.5</u>
1971 through 1974	3.0	1.0
1968 through 1970	4.0	1.0
pre-1968	6.0	0.5

ROVER - See BRITISH LEYLAND

SAAB

1975 and 1976	<u>1.5</u>	<u>0.5</u>
1968 through 1974, except 1972 99 1.85 liter	3.0	1.0
1972 99 1.85 liter	4.0	1.0
pre-1968 (two-stroke cycle)	3.0	3.5

SUBARU

1975 and 1976	<u>1.5</u>	<u>0.5</u>
1972 through 1974	<u>3.0</u>	<u>1.0</u>
1968 through 1971, except 360's	4.0	1.0
pre-1968 and all 360's	6.0	0.5

TOYOTA

1975 and 1976 Catalyst Equipped	<u>0.5</u>	<u>0.5</u>
1975 and 1976 4 cyl.	<u>2.0</u>	<u>0.5</u>
1975 and 1976 6 cyl.	<u>1.0</u>	<u>0.5</u>
1968 through 1974, 6 cyl.	3.0	1.0
1968 through 1974, 4 cyl.	4.0	1.0
pre-1968	6.0	0.5

TRIUMPH - See BRITISH LEYLAND

VOLKSWAGEN

1976 Rabbit and Scirocco	<u>0.5</u>	<u>0.5</u>
1976 All Others	<u>2.5</u>	<u>0.5</u>
1975 Rabbit, Scirocco, and Dasher	<u>0.5</u>	<u>0.5</u>
1975 All Others	2.5	0.5
1974 Dasher	2.5	1.0
1974 Type 4 Fuel Injection 1.8 liter	<u>5.0</u>	<u>0.5</u>
1972 through 1974, except Dasher	3.0	1.0
1972 through 1974 Dasher	<u>2.5</u>	<u>1.0</u>
1968 through 1971	<u>3.5</u>	<u>1.0</u>
pre-1968	6.0	0.5

VOLVO

1975 and 1976 6 cyl.	<u>1.0</u>	<u>0.5</u>
1975 and 1976 4 cyl.	<u>2.0</u>	<u>0.5</u>
1972 through 1974	3.0	1.0
1968 through 1971	4.0	1.0
pre-1968	6.5	0.5

NON-COMPLYING IMPORTED VEHICLES

A11	6.5	0.5
-----	-----	-----

DIESEL POWERED VEHICLES

A11	1.0	0.5
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ALL VEHICLES NOT LISTED and VEHICLES FOR WHICH NO VALUES ENTERED

1975 and 1976 Non-Catalyst, 4 cyl.	2.0	0.5
1975 and 1976 Non-Catalyst, all except 4 cyl.	1.0	0.5
1975 and 1976 Catalyst Equipped	0.5	0.5
1972 through 1974	3.0	1.0
1970 through 1971	4.0	1.0
1968 through 1969	5.0	1.0
pre-1968 and those engines less than <u>50 cu. in. (820 cc) displacement</u>	6.5	0.5

(2) Hydrocarbon idle emission values not to be exceeded:

Enforcement Tolerance
Through June [~~1976~~] 1977

No HC Check	-	All two-stroke cycle engines & diesel ignition
1600 ppm	250	Pre-1968 [3] <u>4 or less cylinder engines, 4 or less cylindered non-complying imports, [4 cylinder-only] and those engines less than 50 cu in (820 cc) displacement</u>
1300	250	Pre-1968 [3 -all-non-complying-imports-(except 4-cylinder)] <u>with more than 4 cylinder engines, and non-complying imports with more than 4 cylinder engines.</u>
800 ppm	200	1968 through 1969, 4 cylinder
600 ppm	200	All other 1968 through 1969
500 ppm	200	All 1970 through 1971
400 ppm	200	All 1972 through 1974, 4 cylinder
300 ppm	200	All other 1972 through 1974
[175] <u>200</u> ppm	[50] <u>100</u>	1975 and 1976 without catalyst
[100] <u>125</u> ppm	[50] <u>100</u>	1975 and 1976 with catalyst

(3) There shall be no visible emission during the steady-state unloaded engine idle portion of the emission test from either the vehicle's exhaust system or the engine crankcase. In the case of diesel engines and two-stroke cycle engines, the allowable visible emission shall be no greater than 20% opacity.

(4) The Director may establish specific separate standards, differing from those listed in subsections (1), (2), and (3), for vehicle classes which are determined to present prohibitive inspection problems using the listed standards.



ENVIRONMENTAL QUALITY COMMISSION

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

ROBERT W. STRAUB
GOVERNOR

To: The Environmental Quality Commission **Date:** August 12, 1976
From: Hearing Officer
Subject: Hearing Report on Proposed Amendments to the Vehicle Emissions Inspection Rules

SUMMARY

Pursuant to the required public notice, a public hearing was convened at 1:00 p.m. on Friday, July 16, 1976 in the City Council Chambers at 1220 S.W. 5th Street in Portland, Oregon. Oral testimony was offered by Mr. Stephen W. Matson of Toyota Motor Sales, USA, Inc. and by Mr. Henry Noppe of British Leyland Motors, Inc. Written testimony was presented by American Motors Corporation, Champion Spark Plug Company, Chrysler Corporation, Ford Motor Company, General Motors, Renault, Inc., Mr. Walter N. Smith, Toyota, U.S. Technical Research Corporation (on behalf of Peugeot), and Volkswagon of America, Inc. A summary of the testimony is set forth in categories below (written testimony is attached).

DEQ TEST ADEQUACY IN GENERAL

The concept of periodic emissions inspections of in-use vehicles is worthwhile in improving air quality (American Motors, Champion Spark Plug, Ford, and Renault).

The only valid purpose for testing at idle such as the Department does is to identify "gross emitters" (Ford).

Use of overly stringent standards in the test will only serve to impair public acceptance of the program (American Motors, Ford).

The test should be lenient enough to insure that no owners are unjustly penalized by the failure of their properly running autos to pass the test. It should be stringent enough to encourage tune-ups and eliminate gross emitters (American Motors, Ford, General Motors).

Future technology and/or federal regulations might result in refinements which reduce overall emissions while increasing idle emissions. The standards should be flexible enough to anticipate such a possibility (Chrysler).

An overly stringent test standard provides incentive to tune the test car improperly to pass the Department's test. The result is not consonant with air quality, fuel economy, or vehicle performance (Chrysler).



The cost effectiveness of a testing program for in-use vehicles should be considered (American Motors).

The test limits for certain autos are too stringent (American Motors, British Leyland, Ford, General Motors, Renault, Peugeot, Toyota, Volkswagon).

The test is too lenient, especially for cars with catalytic converters (Smith). (Our inference from Mr. Smith's testimony is drawn from his recital that two of his older autos passed the test without any particular preparation).

The Department should also test for storage emissions around the gas tanks, float bowls, and other components of vehicles (Smith).

The Department should focus its efforts on insuring proper gasoline composition in fuels sold to drivers (Smith).

EPA TEST v. DEQ TEST

There is no sufficient correlation between the idle test mode used by the Department and the Federal, multi-mode test used by EPA for new vehicles (American Motors, Chrysler, Ford, General Motors).

Since idle time constitutes only a small percentage of overall vehicular emissions, idle mode testing should not conflict with the federal standards and should be used only to identify gross emitters (General Motors).

Some vehicles which pass the federal test and are functioning properly will fail the Department's test and may not be capable of adjustments which will bring the vehicles into compliance with the Department's requirements (American Motors, Chrysler, Ford, General Motors).

General Motors presented graphs of data indicating that a small percentage of in-use vehicles which comply with federal standards do not meet those of the Department. The same data tends to show that most vehicles which pass the one test will pass the other. Inferable also is a strong correlation between failure of the federal test and failure of the Department's test.

Based on statistics gathered in California, Ford finds it predictable that over half of the engines in one of Ford's engine "families" will fail the Department's test for 1976 autos even though these engines comply with federal standards.

Some of Chrysler's engines which pass the federal standard reportedly exceed 500 parts permillion (ppm) at idle Hydro Carbon (HC) testing.

TEST PROCEDURE

The testing should be done by private service stations and the results should simply be certified to the Department (Smith).

The testing should be for carbon monoxide (CO) only. (Smith)

The test is too costly and inconvenient (Smith).

The tests could well be combined with vehicle safety inspections (Champion Spark Plug).

HC AND CO STANDARDS

Tailpipe, idle HC levels should not be set below 600 ppm for light or heavy vehicles newer than the 1971 model year. HC problems are expensive to diagnose and correct. Such expense should be born only by those whose vehicles are gross emitters (Chrysler).

Tailpipe idle CO limits should be no more stringent than 2.0% for light duty vehicles which are 1975 and later models and no lower than 5.0% for heavy duty vehicles which are 1975 and later models (Chrysler).

The Department should review the limitations set in other jurisdictions which might prove more useful in preventing unwarranted test failures (Ford).

The 1974 through 1978 model year heavy duty vehicles should have a relaxation of the HC standard by 300 ppm with the 200 ppm tolerance retained. This should continue until sufficient long range studies can be made. The 1974 standard for CO and HC should be applied to all subsequent model years until further studies have been done (General Motors).

1968 Peugeot vehicles should be allowed 1900 ppm HC. 1970-1972 Peugots should be allowed 600 ppm HC (at least 500 ppm), notwithstanding the 200 ppm enforcement tolerance (Peugot).

Renault vehicles should be allowed test values for CO and HC which are more lenient than those proposed (See ATTACHMENT I) (Renault).

At idle, Toyota models should have a standard of 300 ppm for HC and 2.5% for CO. Those models with catalytic converters should meet 50 ppm for HC and 0.3% for CO (Toyota).

The standards for idle CO should be set equally for all models at 3.0% with a 1.0% tolerance for 1975 models. The standard for older models should be 5.0% plus 1.0% tolerance. These figures should be corrected to sea level. There should be no standard for HC at idle. The 1976 and later standards proposed differ unjustifiably from the standards for older vehicles. The same standard should apply to all vehicles out of fairness, simplicity, compatibility with EPA requirements, and compatibility with the European uniform 4.5% idle standard (Volkswagon).

CATALYTIC CONVERTERS

The test is too lenient for catalyst equipped cars (Smith).

The uniform standard suggested by Volkswagon would detect improperly operating catalytic converters (Volkswagon).

There is insufficient experience with catalytic converters to provide data on the characteristics of steady state and idle emissions where the converters are used. The supposed characteristics have not been varified on in-use vehicles, particularly those of high mileage. (General Motors)

Attempts to repair General Motors Vehicles which pass the federal test and fail the Department's test will probably result in increased emissions due to the imprecise local adjustments available for the factory tuned components (General Motors).

HEAVY VEHICLES

The Department should not have an inspection program for vehicles weighing over 6000 pounds (gww) until or unless the EPA singles this category of vehicle out for regulation at the manufacturer's level (Ford).

LEGAL

There is questionable authority to retroactively impose idle emissions standards on vehicles manufactured and sold in the absence of any such standards. If a properly running vehicle fails, who is liable? Neither the owner nor the manufacturer should be liable (Renault).

The DEQ test has standards more stringent than those of any other jurisdiction. This is true even when the enforcement tolerances are taken into account. (Ford, General Motors).

A Departmental test which is failed by vehicles which are acceptable under the federal standards is inconsistent with the intent of the Clean Air Act Amendments of 1970 (Chrysler).

MISCELLANY

Tests indicate that cars which are not gross emitters and are in need of a tune up will emit less HC, CO, and NO_x after the installation of a new set of spark plugs. The cars will emit still less HC and CO after a complete tune up. Tune ups usually result in a slight increase in NO_x emissions (Champion Spark Plug Company).

The subject of nonoriginal aftermarket parts is complex, under study, and not an appropriate area for regulation at this time (Ford).

The Department should list all aftermarket parts of Volkswagons and Audis that have been approved by the EPA. Also, exchange engines for Volkswagons should be required to meet the standards for the model year of the receiving vehicle, not those for the year of the engine's manufacture. (Volkswagon).

Mr. Noppe of British Leyland Motors, Inc. reported that company engineers had concluded that it would be necessary to illegally tamper with some of the EPA-approved control devices on British Leyland cars in order to meet the proposed DEQ standard. (Mr. Jasper of the Department informed Mr. Noppe that tuning instructions for the cars provided for bypassing certain of the control components and a resultant increase in emissions numbers during the tuning process.)

The Department should not require a fee for electric vehicles to get a certificate (Smith).

DEQ you have a bucket of worms, DEQ, your campaign will eventually fail. Give it up. (Smith).

Respectfully Submitted,



Peter W. McSwain
Hearing Officer

ATTACHMENT I

RENAULT PROPOSALS

CO limits

	<u>Proposed Values</u>	<u>Values requested by Renault</u>
1975 and later (fuel inj.)	1.0 + 0.5	1.5 + 0.5
1975 (carburetor)	0.5 + 0.5	OK (catalyst)
1976 (carburetor)	0.5 + 0.5	1.5 + 0.5 (no catalyst)
1971 through 1974	3.0 + 1.0	OK
1958 through 1970	5.0 + 1.0	OK
Pre-1968	5.0 + 0.5	Maximum 8.0

(Chart based on figures given on page 12 of the proposed amendment)

HC limits

	<u>Proposed values</u>	<u>Values requested by Renault</u>
4 or less cylinder engines, pre-1968	1600 + 250	Maximum 1900
1970 through <u>1972</u>	(500 + 200) (400 + 200)	600 + 200
Others		OK



**American Motors
Corporation**

Vehicle Environmental and Energy Regulations
14250 Plymouth Road
Detroit, Michigan 48232

STATE OF OREGON
R E C E I V E D

JUL 26 1976

**Dept. of Environmental Quality
Vehicle Inspection Division**

July 21, 1976

Manager
Department of Environmental Quality
Vehicle Inspection Program
1234 S. W. Morrison Street
Portland, Oregon 97205

Dear Sir:

The following comments are submitted by American Motors Corporation in response to the proposed amendments to rules governing motor vehicle emission inspection for in-use vehicles proposed by the Department of Environmental Quality, Portland, Oregon.

We recognize that this submission will not arrive in time for the public hearing scheduled for July 16, 1976

We appreciate the fact that you extended this comment period to accommodate our submission.

Sincerely yours,

W. C. Jones
Manager
Emissions and Energy Standards

WCJ/jr

Attachment

AMERICAN MOTORS CORPORATION RESPONSE TO AMENDMENTS TO THE
PORTLAND, OREGON MOTOR VEHICLE EMISSION INSPECTION PROGRAM
FOR IN-USE VEHICLES

Since this is our first communication on the Portland, Oregon Motor Vehicle Emission Inspection Program some general comments expressing American Motors position on this subject are necessary.

1. American Motors supports the basic concept of in-use vehicle inspection. We believe this will serve as a reminder to the vehicle owner that certain maintenance requirements as spelled out in the owner's manual should be followed and will consequently result in lower emissions including identification of "gross emitters."
2. Pass-fail limits must not fail vehicles that would pass the official Federal (CVS) test procedures and must recognize the inherent variability in emission testing.
3. Cost-effectiveness must be considered.
4. The vehicle emissions inspection program (VEIP) must be clearly defined and supported by the citizens.
5. Specific vehicle engine designs as well as emission control systems must be recognized in establishing any emission limits.
6. There is no known relationship between the idle test and the Federal (CVS) test procedure except that a gross hydrocarbon and/or carbon monoxide emitter will fail both tests.

American Motors is concerned that the proposed inspection limits for hydrocarbon and carbon monoxide may fail vehicles that would pass the Federal (CVS) test procedure. As noted above in comment 2, the inspection limits must recognize the inherent variability in exhaust emission testing. The 0.5% tolerance required for 1975 and later vehicles does not recognize the total variability that is inherent in the idle test procedure. Until the vehicle's environment, prior thermal history and fuel composition are controlled test variability could well exceed the 0.5% tolerance level. Also, the level of the inspection limits for 1975 and later vehicles do not appear to be justified, especially in the case of our non-catalytic converter equipped vehicles.

As a result of the stringency of the inspection limits American Motors sees the possibility of wrongfully penalizing some owners

of our vehicles that may be unlucky enough to fail the idle test when in reality there is nothing wrong with their vehicle. The regulation requires that the vehicle pass the idle test before it can be registered. The problem of making the vehicle passable when nothing is wrong needs to be resolved by acknowledging this condition in the regulation or providing inspection limits that do not allow this situation to occur. If neither of these suggestions are adopted, the owner of the vehicle may resort to measures that would violate the recommended idle specifications.

American Motors suggests that this particular problem area could be resolved by the adoption of inspection levels that detect gross emitters and encourages vehicle owners to obtain the required maintenance that is recommended in the owner's manual.

July 21, 1976



CABLE ADDRESS "CHAMPION"

Champion Spark Plug Company

P. O. BOX 910, TOLEDO, OHIO • U.S.A. 43661
TELEPHONE: AREA CODE 419 • 535-2567

July 7, 1976

STATE OF OREGON
R E C E I V E D

JUL 12 1976

**Dept. of Environmental Quality
Vehicle Inspection Division**

The Department of Environmental Quality
Manager, Vehicle Inspection Program
1234 S. W. Morrison Street
Portland, Oregon 97205

Subject: Effect of Periodic Motor Vehicle Inspection

Gentlemen:

I will be unable to be present in person at your hearing at 1:00 on July 16, 1976. Therefore, I have prepared a written statement which I am submitting to you to be made a part of the record.

This information is contained in the attached write-up. If there are any questions concerning this activity, I would be glad to answer them.

Very truly yours,

CHAMPION SPARK PLUG COMPANY


L. R. Lentz
Director of Engineering

/dr

Encls.

cc: R. C. Teasel
R. D. Kudner
J. O. Boord



awda



EFFECT OF ENGINE TUNE-UP ON
EXHAUST EMISSIONS AND FUEL CONSUMPTION

THIS IS A REPORT ON A PROGRAM WHICH CHAMPION SPARK PLUG COMPANY HAS BEEN CARRYING ON FOR ABOUT 10 MONTHS. IN PART, THE PURPOSE OF THIS WORK IS TO OBTAIN VARIOUS TYPES OF PROPRIETARY MARKETING INFORMATION REGARDING SPARK PLUGS AND THEIR USAGE. HOWEVER, OF INTEREST TO THE PORTLAND DEPARTMENT OF ENVIRONMENTAL QUALITY IS THE OTHER PART OF THIS ACTIVITY RELATING TO PERIODIC MOTOR VEHICLE INSPECTION.

CHAMPION HAS DESIGNED TWO TYPES OF PORTABLE EQUIPMENT WHICH WE ARE TAKING TO VARIOUS PARTS OF THE U.S. AND CANADA. THUS FAR, WE HAVE BEEN TO CITIES IN THE EASTERN PART OF THE U.S., EASTERN CANADA, CENTRAL U.S., SOUTH WEST U.S., AND PORTLAND AND VANCOUVER. IN ALL, WE HAVE BEEN TO TWENTY-FOUR SITES IN THESE AREAS.

ONE TYPE OF EQUIPMENT IS SET UP ON A SO-CALLED DIAGNOSTIC LANE TO CHECK A LARGE NUMBER OF CARS ON AN IDLE-MODE TEST FOR HYDROCARBONS AND CARBON MONOXIDE. WE ADVERTISE IN LOCAL PAPERS, PUT OUT BANNERS AND POSTERS AND SET UP OUR EQUIPMENT IN THE PARKING LOT OF A LARGE SHOPPING CENTER. WE INSPECT ABOUT 25 VEHICLES PER DAY - THUS FAR A TOTAL OF ABOUT 4000.

FROM THE CARS WHICH GO THROUGH THIS DIAGNOSTIC LANE, WE SELECT CARS TO CHECK ON OUR PORTABLE DYNAMOMETER, THE OTHER TYPE OF EQUIPMENT USED IN THIS ACTIVITY. ON THE DYNAMOMETER TEST, WE RUN ONLY ONE CAR PER DAY, AND WE CHECK FOR FUEL ECONOMY AND EXHAUST EMISSIONS UNDER LOADED CONDITIONS. WE CHECK THE CAR AS RECEIVED, THEN WITH THE ONLY CHANGE A NEW SET OF CHAMPION SPARK PLUGS INSTALLED, AND THEN WITH A COMPLETE ENGINE TUNE-UP.

THE TUNE-UP MAY CONSIST OF ONE OR MORE OF THE FOLLOWING: CARBURETOR IDLE ADJUSTMENT, CORRECTION OF SPARK ADVANCE TIMING, REPLACEMENT OF DISTRIBUTOR POINTS, REPLACEMENT OF DEFECTIVE IGNITION WIRES AND, OF COURSE, THE NEW SET OF SPARK PLUGS ALREADY INSTALLED.

THE CARS FOR THE DYNAMOMETER TEST ARE GENERALLY ONES WHICH ARE JUDGED BY OUR OPERATORS TO BE DEFINITELY IN NEED OF AN ENGINE TUNE-UP; HOWEVER, THEY ARE NOT WHAT WE DEFINE AS GROSS EMITTERS; THAT IS, THOSE WHICH EXCEEDED THE METER READINGS ON THE IDLE INSPECTION IN THE DIAGNOSTIC LANE.

WE HAVE RUN ABOUT 200 CARS ON OUR DYNAMOMETER TEST, AND WE SHOW A DEFINITE REDUCTION IN ALL THREE EXHAUST POLLUTANTS, HC, CO AND NO_x, BY SIMPLY CHANGING TO NEW SPARK PLUGS. WE SHOW THAT A COMPLETE TUNE-UP RESULTS IN A FURTHER REDUCTION IN HC AND CO, BUT ON OUR TESTS WE FIND THAT THE COMPLETE TUNE-UP RESULTS IN AN INCREASE IN NO_x.

WE ALSO SHOW A SIGNIFICANT REDUCTION IN FUEL CONSUMPTION BY THE USE OF NEW PLUGS ONLY, AND A MORE SUBSTANTIAL DECREASE IN FUEL CONSUMPTION BY A COMPLETE ENGINE TUNE-UP.

CHAMPION'S PURPOSE IN DOING THIS IS TO SHOW THAT AN IMPROVEMENT IN AIR QUALITY AS WELL AS A REDUCTION IN FUEL CONSUMPTION CAN BE OBTAINED BY PERIODIC MOTOR VEHICLE INSPECTION WITH A REQUIREMENT THAT THOSE CARS WHICH HAVE HIGH EXHAUST EMISSIONS HAVE AN ENGINE TUNE-UP. WE ADMIT THAT WE SELECTED THESE CARS FOR THE DYNAMOMETER TEST ON THE BASIS OF NEEDING A TUNE-UP, BUT NEVERTHELESS, THESE WERE ORDINARY ROAD VEHICLES OWNED BY PEOPLE WHO VOLUNTARILY CHOSE TO GO THROUGH OUR DIAGNOSTIC LANE. THESE FIGURES IN THE ATTACHED TABULATION SHOW THE AMOUNT OF IMPROVEMENT IN MILES PER GALLON (ABOUT 12%), AND THE REDUCTION IN EXHAUST EMISSIONS THAT CAN BE OBTAINED ON THOSE CARS WHICH HAVE HIGH EXHAUST EMISSIONS AND ARE IN NEED OF A TUNE-UP. (INCIDENTALLY, ALL OF THE TESTS ARE CERTIFIED BY THE U.S. AUTO CLUB.)

NOW I DON'T MEAN TO SAY THAT IF ALL CARS WERE SUBJECTED TO A TUNE-UP THAT THE IMPROVEMENTS WOULD BE AS DRAMATIC AS THOSE LISTED IN THE TABULATION. AS A MATTER OF FACT, WE KNOW THEY WOULD NOT. OTHER STUDIES SHOW ABOUT A 3% REDUCTION IN FUEL CONSUMPTION WHERE A LARGER PERCENTAGE OF CARS IS TESTED. THE IMPROVEMENT OBTAINED WILL DEPEND UPON THE FAILURE POINT WHICH IS ESTABLISHED FOR EXHAUST EMISSIONS. FOR EXAMPLE, IF THE FAILURE POINT ON EXHAUST EMISSIONS WERE THOSE LIMITS WHICH WERE TO HAVE GONE INTO EFFECT IN NEW JERSEY IN 1976, WE SHOW THAT ABOUT 44% OF THE CARS WOULD HAVE FAILED. HOWEVER, IF THESE 44% OF THE CARS HAD BEEN TUNED, WE WOULD NOT EXPECT THE IMPROVEMENT IN FUEL ECONOMY AND REDUCTION IN EMISSIONS TO HAVE BEEN AS GREAT AS SHOWN ON THE CARS WE TESTED.

WE WOULD LIKE TO ENCOURAGE PERIODIC MOTOR VEHICLE INSPECTION FOR EXHAUST EMISSIONS. WE BELIEVE THAT IT WOULD BE MOST FEASIBLE TO COMBINE PMVI WITH THE INSPECTION FOR VEHICLE SAFETY. THIS WOULD REDUCE THE COST AS WELL AS THE TIME REQUIRED FOR THE CAR TO BE TESTED. THE SAVINGS RESULTING FROM REDUCTION IN FUEL CONSUMPTION WOULD ALSO GO A LONG WAY TOWARDS PAYING FOR THE COST OF THE SAFETY AND EMISSIONS CHECKS.

THESE INSPECTIONS, OF COURSE, COULD BE DONE ON A YEARLY BASIS, OR THEY COULD BE DONE ON A CHANGE OF OWNERSHIP. OUR RECOMMENDATION WOULD BE THE FORMER.

THIS TEST PROGRAM IS CONTINUING THROUGH THE NORTH CENTRAL STATES. A COMPLETE REPORT WILL BE PREPARED AT ITS COMPLETION AND WILL BE MADE AVAILABLE TO ALL GOVERNMENTAL AGENCIES CONCERNED WITH AIR QUALITY AND ENERGY CONSERVATION.

CHAMPION SPARK PLUG COMPANY
L. R. LENTZ 7-7-76

CHAMPION MPG PROGRAM - DYNAMOMETER LANE

CO (%) Results

<u>Test Condition</u>	CO% as Received	<u>New Spark Plugs Only</u>		<u>New Spark Plugs Plus Tune-up</u>	
		<u>CO Actual</u>	<u>% Improvement</u>	<u>CO Actual</u>	<u>% Improvement</u>
Idle	3.52	3.48	1.20	2.01	42.94
35 MPH	1.19	1.19	0.0	0.59	50.22
55 MPH	0.84	0.79	5.79	0.59	29.34
65 MPH	0.91	0.84	7.66	0.63	30.02

HC (PPM) Results

<u>Test Condition</u>	HC-PPM as Received	<u>New Spark Plugs Only</u>		<u>New Spark Plugs Plus Tune-up</u>	
		<u>HC Actual</u>	<u>% Improvement</u>	<u>HC Actual</u>	<u>% Improvement</u>
Idle	493	372	24.65	225	54.37
35 MPH	367	212	42.12	130	64.65
55 MPH	324	192	40.85	100	69.19
65 MPH	305	183	40.05	85	72.12

NO_x (PPM) Results

<u>Test Condition</u>	NO _x PPM as Received	<u>New Spark Plugs Only</u>		<u>New Spark Plugs Plus Tune-up</u>	
		<u>NO_x Actual</u>	<u>% Improvement</u>	<u>NO_x Actual</u>	<u>% Improvement</u>
Idle	80	74	6.79	104	-29.95
35 MPH	666	617	7.22	905	-36.04
55 MPH	1599	1566	2.07	2092	-30.87
65 MPH	1985	1971	0.70	2594	-30.73

Fuel Economy M/G

<u>Test Condition</u>	M/G as Received	<u>New Spark Plugs Only</u>		<u>New Spark Plugs Plus Tune-up</u>	
		<u>M/G Actual</u>	<u>% Improvement</u>	<u>M/G Actual</u>	<u>% Improvement</u>
35 MPH	18.27	19.38	6.08	21.29	16.54
55 MPH	16.38	16.87	3.00	18.12	10.67
65 MPH	14.04	14.70	4.69	15.55	10.74
Cycle	13.85	14.36	3.67	15.53	12.11



July 15, 1976

Mr. R. Householder
Department of Environmental Quality
1234 S.W. Morrison Street
Portland, Oregon 97205

Dear Mr. Householder:

We are pleased to provide the information which you requested for your public hearing on July 16, 1976.

Chrysler Corporation vehicles meet Federal emissions standards when they leave our plants. As long as they are properly maintained, and used, they will continue to meet the numbers for the designated "useful life" of the vehicle--5 years or 50,000 miles. Field investigations have found that our vehicles meet emission standards unless they have been tampered with, or their systems have not been maintained properly. Chrysler and its dealers keep owners informed about what is needed to keep the vehicles and emission control systems properly maintained and in good working order.

The purpose of a field emission test is to identify vehicles that have not been properly maintained or have been tampered with. To provide meaningful data along these lines, the results must correlate with the Federal standards which vehicles are designed to meet. Unfortunately, the Oregon idle test does not correlate with the Federal standards. In fact, many cars that meet the Federal standards will not pass the Oregon idle test. In effect, the Oregon test goes beyond the emissions requirements for vehicles. This is unnecessary and inconsistent with the dictates of the Federal Clean Air Act which governs the control of emissions from motor vehicles. While it is true that Oregon is permitted to inspect the emissions performance of in-use vehicles, Chrysler submits that any inspection which fails vehicles that comply with the Federal standards is improper under all applicable law including the Federal Clean Air Act.

In addition, if the idle test standards are too low there is a very high incentive to set the vehicles "out of specifications" just to pass the required tests. This creates problems with air quality, fuel economy, and vehicle performance.

We recognize the need for some type of field test to identify vehicles which are gross emitters and the need to encourage owners to keep their vehicles properly maintained. However, the emission test should be practical, economical, and, most important, correlate with the results of the Federal tests which our cars are designed to meet.

There has been no requirement for any automotive manufacturer to meet idle HC & CO levels. Thus, it is not surprising that many models do not pass such tests even though they meet Federal standards. As a matter of fact, there is no requirement for future models to meet any specific idle standards.

July 15, 1976

Mr. R. Householder

Based on our observation of various inspection and maintenance programs and our experience with Chrysler products, we suggest the following:

1. Tailpipe idle HC levels would be considered too stringent on 1972 and later models if set below 600 ppm (NDIR Hexane) for both light and heavy duty vehicles.

An idle HC reading above this value would make it worthwhile to justify the costs and inconvenience of the diagnostic and corrective work it often takes to reduce it. We are all aware that many light-duty vehicles with catalytic converters can attain far lower HC levels under optimum conditions. However, the normal HC range is quite wide at idle due to many variables including, but not limited to, climatic conditions, individual vehicle differences, fuel volatility, and test procedure.

Hydrocarbon emissions are usually the most difficult and expensive to reduce. In fact, in some cases, if the idle standard is too low the vehicle would not pass even when adjusted to specifications.

Chrysler currently builds engines which meet the Federal Test Procedure, and, in some instances, these exceed 500 PPM HC at idle.

Other engines with catalytic converters can have HC levels above your proposed 175 PPM standard with very minor deficiencies such as an intermittent, occasional miss at idle. The owner of such a vehicle should not be required to absorb expensive diagnostic costs when the vehicle is not a "gross emitter".

2. Tailpipe idle CO limits would be too stringent if set below 2.0% for light-duty vehicles and 5.0% for heavy-duty vehicles on 1975 and later models.

Although some of these vehicles can attain much lower levels if all conditions are ideal, the owner should not be penalized for variations in vehicles, test procedures, idling time, fuel volatility, climatic conditions, and other variables which do affect idle CO readings.

The above numbers can be recommended at this time. However, it is important to remember that new systems and innovations in hardware may appear in the future which might lower the emissions on a Federal Test Procedure or prove otherwise beneficial, but cause violation of the above HC and CO recommended idle test numbers. These numbers must remain flexible enough to reflect such future product changes.

Please let me know if we can be of further assistance in this matter.

Sincerely,



T. J. O'ROURKE
Manager, Emission Systems &
Investigation

TJO/dd

STATE OF OREGON
R E C E I V E D

JUL 15 1976

Dept. of Environmental Quality
Vehicle Inspection Division



D. A. Jensen, Director
Automotive Emissions Office
Environmental and Safety
Engineering Staff

Ford Motor Company
The American Road
Dearborn, Michigan 48121

July 12, 1976

Mr. R. C. Householder, Manager
Vehicle Inspection Program
Department of Environmental Quality
1234 S. W. Morrison Street
Portland, Oregon 97205

Dear Mr. Householder:

This is submitted in response to a Notice of Public Hearing to consider amendments to rules governing motor vehicle emission inspection. The general content of this submission was discussed by Mr. McKenna of my staff and Mr. Jasper of the DEQ.

As you know, Ford supports the concept of inspection/maintenance programs for in-use vehicles. Accordingly, in March of this year we testified in support of the Oregon program during hearings held by the Oregon House Task Force on Auto Emissions Control. However, at that time we cautioned against the establishment of overly stringent inspection standards, which could produce unjustified rejection of vehicles with acceptable emissions and, as a result of such rejections, produce public resistance to the program. The overly stringent nature of the Oregon program is still our major concern with the program. Accordingly, we have provided extensive comment on this point in the Attachments to this letter. We hope you will find these comments useful.

Ford also would like to comment briefly on two other aspects of the proposed program. First, we believe that the proposed Oregon standards for vehicles over 6000# GVW (up to 8400# GVW) are premature. Currently, motor vehicle manufacturers either certify vehicles to standards applicable to light duty vehicles (i.e., 6000# GVW and under) or certify engines tested on engine

July 12, 1976

dynamometers. The standards are applicable to the engines which are ultimately installed in a variety of heavy duty vehicles (i.e., over 6000# GVW). Accordingly, we believe that no inspection program should establish a new "medium duty" classification prior to the establishment by EPA of such a classification for certification.

Second, the subject of non-original equipment aftermarket parts should be excluded from a public hearing at this time. This topic is very complex and has been the subject of much study by the EPA. Accordingly, we do not believe that Oregon should include language, as proposed for § 24-320 (4), which could conflict with possible Federal actions on aftermarket parts. We would suggest that the topic of aftermarket parts be the subject of on-going investigation and, perhaps, a subsequent, separate public hearing.

We hope these comments are helpful to you. If we may be of assistance in subsequent phases of the Oregon inspection program, please contact us.

Sincerely,



D. A. Jensen

Attachments
cd

FORD MOTOR COMPANY COMMENTS ON
MOTOR VEHICLE INSPECTION PROGRAM
AS ADMINISTERED BY THE
OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

These comments are submitted in response to the Notice of Public Hearing and proposed amendments which were forwarded to the Automotive Emissions Office of Ford Motor Company by the Oregon Department of Environmental Quality.

Ford has stated in testimony before State inspection agencies, in Oregon and other states, that we support the concept of periodic emissions inspection programs for in-use vehicles. We believe such programs support an overall strategy for controlling vehicular emissions. Further, we believe that the basis for this overall strategy is appropriate design and manufacturing actions to produce a population of vehicles which, on average, meets emission standards. To the extent that inspection programs ensure that in-use vehicles are properly maintained by owners at their original design level and, based on a short inspection test, do not indicate atypically high emission levels, those programs could play an important role in the attainment of ever-improving ambient air quality.

As you know, Ford testified concerning the Oregon Vehicle Inspection program earlier this year before the Oregon House Task Force on Auto Emission Control. We would like to repeat and emphasize certain aspects of that testimony and to add pertinent comments that relate to inspection of in-use light duty vehicles.

As we testified previously, Ford supports an inspection strategy which ensures that an in-use vehicle is properly maintained, that critical emission-related parameters (e.g., idle rpm and timing) are set to manufacturer's specifications, and that critical emission-related components (e.g., EGR valve and air pump) are functioning properly.

Chapter 340 of the Oregon Administrative Rules (OAR) reflects the same concern by establishing prerequisites and procedures for an in-use inspection program. Specifically, § 24-320 (2) requires all vehicles to have the idle rpm set to manufacturer's specification as a prerequisite for a valid test. However, we believe that the limitation of idle speed to 1250 rpm should apply only to vehicles for which no manufacturer's specifications are available. Although it would be a highly unusual situation, a manufacturer may specify an idle rpm

above 1250 rpm. Accordingly, we believe § 24-320 (2) should be modified to emphasize that setting a vehicle to specifications (with no artificially imposed limitations) is the prerequisite for a valid test. Further, we suggest that the DEQ consider a second prerequisite for a valid test - that is, that ignition timing also must be set to manufacturer's specifications within an appropriate tolerance band (e.g., $\pm 2^\circ$).

Regarding functional checks of certain critical emission-related components, § 24-320 (3) requires that certain factory-installed motor vehicle pollution control systems have not been tampered with and are operative on in-use vehicles. We support this and believe that the items listed in § 24-302 (3) are generally appropriate.

Ford also supports the use of an idle inspection test, similar to the one currently specified by the DEQ, as a valid means of identifying "gross emitters", that is, vehicles whose idle emissions are substantially above typical levels seen for similar vehicles. Although it is a recognized fact that there is no valid correlation between the results of any short inspection test and the results of the official certification test, there are data to suggest that a high percentage of properly defined "gross emitters" might also demonstrate atypically high emission levels if tested according to the official certification test cycle.

We believe that the value of an inspection/maintenance program based on an idle test strategy has been established (see Attachments II and III herein, which concern a report by the California Air Resources Board on a comprehensive program now in place in Riverside, California). However, the validity and public acceptance for any such idle inspection program is predicated on inspection standards which have been properly set to identify "gross emitters". It is significant to note that the proposed Oregon standards, even incorporating the "enforcement tolerance", are substantially more stringent than the standards in effect in California and in other cities or states with in-use inspection programs. (See Table I on page 15 of Attachment III for a tabulation of California Standards).

Therefore, it seems certain that the proposed Oregon standards, even retaining the "enforcement tolerance", would fail a high percentage of vehicles which comply with all aspects of good design, manufacture and assembly practice but which have "typical" idle emission levels at or above the stringent Oregon inspection standards. In fact, there is every reason to believe

- 3 -

your proposed idle standards would fail cars that would comply with the full scale 14 hour laboratory cold start test for emissions prescribed by the Federal Government. We want to emphasize this discriminatory aspect of the proposed Oregon program by means of an example based on idle test results for over 30,000 1976 model vehicles produced for sale and registration in California. As you may know, all California vehicles must be successfully tested for idle emissions before being shipped to a dealer for sale. Therefore, each vehicle must meet a statistically established control limit for HC and CO idle emissions. As a second requirement, a representative sample of each engine family (a minimum of 2% of vehicles from the family produced in each calendar quarter) must be tested according to the full certification test cycle. Further, California regulations require that a minimum of 90% of the vehicles tested for each family must demonstrate compliance with the certification standard for each controlled constituent (HC, CO and NOx).

However, if a population of Ford vehicles, all of which had satisfactorily met the 100% idle test requirement and for which a minimum constituent pass rate of 90% had been demonstrated during certification-type testing on a 2% sample, were tested immediately after shipment from the assembly plant, a substantial percentage would fail to meet the stringent Oregon standards. For example, at a standard of 1.0% CO (the current Oregon standard of 0.5% plus the enforcement tolerance of 0.5% for 1976 vehicles), over one half of the vehicles for certain of Ford's California engine families (i.e., families which represent approximately 32% of California production) would fail the Oregon idle test. That is, the mean idle CO value for these families is close to or substantially above the Oregon standard. Of course, this estimate of an early, and unjustifiably high, rejection rate under the Oregon program is based on Ford's testing of California vehicles. However, Ford will soon complete a test program to establish "typical" idle levels for Federal vehicles. We do not believe these will be significantly different from the California results. The results from the test program for Federal vehicles will be forwarded to the DEQ for their review when the analysis is finalized.

To summarize our comments on this point, Ford believes that the only valid purpose of an in-use inspection program is to improve ambient air quality by identifying and requiring correction of "gross emitters". Accordingly, we believe that Oregon should establish valid

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"gross emitter" standards to identify that group of vehicles which might need mechanical attention. Further, we believe that the current detailed list of DEQ idle emission standards, which differentiate between vehicle manufacturers and models, implies inspection procedure accuracy and vehicle repeatability which are not borne out by experience. Therefore, we suggest that the DEQ review the specifications used by other jurisdictions and which might be more appropriate for use in Oregon also. By limiting the number of cut-off points to identify "gross emitters", testing, record keeping and data analysis functions of the program can be simplified, while the air quality improvements resulting from identifying for repair valid "gross emitters" will be retained. We believe that air quality improvement will result since readjustment and/or repair of "gross emitters" often yields significant improvement in HC/CO levels. (NOTE: The attached California report supports this opinion.) Generally, such "gross emitters" have readily identifiable malfunctions which respond to normal service technician repair actions.

AIR RESOURCES BOARD1709-11th STREET
SACRAMENTO 95814

May 19, 1976

The Honorable Robert B. Presley
Chairman, Joint Committee on
Motor Vehicle Inspections
California State Senate
State Capitol
Sacramento, California

Dear Senator Presley:

On October 2, 1973, Governor Reagan signed SB 479 which enacted a Motor Vehicle Inspection Program (MVIP) in the State of California. Since that time there have been dramatic demonstrations of the importance of minimizing public inconvenience and cost if programs which directly affect the public are to be successful. MVIP has real potential for public acceptance because it provides the car owner the benefits of improved fuel economy and early diagnosis of problems which, if undetected, could result later in more expensive repairs. Attached is a report prepared by the staff of the Air Resources Board which evaluates the MVIP and makes recommendations for changes in the program.

During the pilot program in Riverside, the ARB determined that the MVIP can provide cost/effective emission reductions and that streamlining the program to minimize the public's time and expense is possible, while at the same time providing maximum air quality benefits. This streamlining includes (1) use of a less complicated but equally effective idle emissions test in place of the 3-mode dynamometer test during the next phase of the program, (2) simplification of the repair procedures specified for the program, (3) deletion of the re-repair requirement for vehicles which fail re-inspection after repair, (4) reduction of the maximum liability of car owners from \$150 to \$50 and (5) deletion of the requirements for the inspection of new cars before delivery to the customer.

In addition to this streamlining, the ARB is recommending that the change of ownership phase of the program be delayed six months and that the mandatory annual inspection not be commenced until January 1, 1980. This will provide the state an opportunity to delay decisions on the final phase of the program until experience with the

change of ownership phase has been obtained. We believe this to be a desirable way to proceed since a program which is not flexible enough to sense and respond to public reaction may damage the State's efforts to reduce air pollution. Based on past experiences with the change of ownership retrofit programs and the pilot MVIP in Riverside, it appears that the change of ownership phase of MVIP will be found to be acceptable by the public. During change of ownership, the State can review further the planned implementation of a mandatory annual inspection and make more detailed analyses of alternatives such as leaving the program as a change of ownership program only or combining the change of ownership program with a random roadside inspection program. Any or all of these programs have the potential to provide cost/effective emission control for the State. Each program requires, at a minimum, the construction of 21 permanent facilities within the boundaries of the South Coast Air Basin.

During the preparation of the attached report, we have heard comments from various parties that the ARB's recommendations for program streamlining and cost reduction may eliminate the need for the permanent inspection facilities. Operation of an efficient program, however, necessitates the construction of the permanent facilities because of the volume of traffic to be handled and the need for tape controlled equipment to minimize waiting time. Use of temporary, non-automated test facilities in the parking lots of existing State facilities has been studied and will, in our opinion, generate traffic jams and waiting times which may result in a termination of the program and a loss to the State of the millions of dollars invested in MVIP.

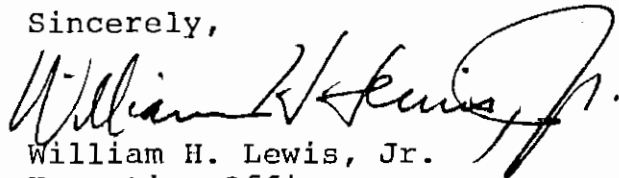
In assessing the tasks facing us in implementing the MVIP, it appears that this program will be far more consumptive of the time of ARB management than any other program in which we are involved. While MVIP should be cost/effective and is definitely worth pursuing, the program makes disproportionate demands on ARB management resources. For this reason, we believe the Legislature should consider whether the ARB should request bids from prospective prime contractors for the operation of the inspection facilities under contract. Current legislation requires the state to run the facilities with state employees and the involvement of a contractor is limited to the construction and equipping of the facilities. We anticipate that the cost of contracting for the operation of the inspection stations could be competitive with the cost of a State run operation since some organizations in the private community have the requisite experience in operating similar programs that the State will have to

May 19, 1976

develop. The ARB should retain the responsibility for management of the continued surveillance and program optimization tasks and should retain the responsibility for training and monitoring of the repair industry.

During the preparation of the attached report we have shared the data on which the conclusions are based and our method of analysis with the technical advisory committee to the Joint Committee on Motor Vehicle Inspections. We hope that this group will advise you to support our recommendations. The Motor Vehicle Inspection Program represents one of the most significant ways the public can contribute to environmental quality and energy conservation. We look forward to working with you to make MVIP a success in the State of California.

Sincerely,



William H. Lewis, Jr.
Executive Officer

cc: Hon. Walter Ingalls
Hon. Bill Lancaster
Hon. Newton Russell
Hon. Jerry Lewis
Hon. Vic Calvo
Hon. Daniel E. Boatwright
Hon. Ken MacDonald
Hon. Anthony Beilenson
Hon. Albert S. Rodda
Hon. Randolph Collier
Mr. A. Alan Post
Mr. Hal Waraas

Evaluation of Mandatory
Vehicle Inspection and
Maintenance Programs

Summary Report

May, 1976

State of California
AIR RESOURCES BOARD

State of California
AIR RESOURCES BOARD

Evaluation of Mandatory Vehicle Inspection
and Maintenance Programs

May, 1976

EXECUTIVE SUMMARY AND CONCLUSIONS

The need for regular maintenance of vehicle emission control systems has long been recognized as an essential part of the total vehicle emission control program. In California there have been two inspection programs which were aimed at inspecting vehicle emission control systems and which required repairs when necessary. The first is the Certificate of Compliance (C. of C.) procedure, which requires that all vehicles be inspected for proper operation of their emission control systems upon transfer of ownership or initial registration in California. This program, which is still in effect, requires a state-licensed mechanic to inspect basic engine parameters and emission control components and to make repairs within specified guidelines. There is no inspection of vehicle emissions prior to the parameter inspection, and consequently low-polluting and high-polluting cars are subjected to the same requirements. The minimum cost for a C. of C., even for a properly operating vehicle, is currently \$8 to \$12.

The second program, now discontinued, was the California Highway Patrol's (CHP) random roadside inspection program. The CHP pulled motorists to the side of the road and subjected their vehicles to a brief safety and idle emissions inspection. Vehicles which failed the idle emissions standards were required to obtain needed repairs and a Certificate of Compliance within fourteen days. Thus the CHP program differed from the C. of C. program in that "gross emitters" were separated from the general population before being subjected to additional inspections and repairs.

In 1973, the California Legislature adopted Senate Bill 479 establishing a phased program for the periodic inspection of motor vehicles in the South Coast Air Basin. The inspection program is supposed to identify gross emitters in the general vehicle population and subject them to additional diagnosis and maintenance to reduce their emissions. SB 479 requires that the inspections include the measurement of hydrocarbon (HC), carbon monoxide (CO), and oxides of nitrogen (NOx) emissions while the vehicle is being operated in a loaded (over the road) condition. It also requires that a written indication of the vehicle's probable cause for exceeding the standard be given to the vehicle owner, and limits the dollar value of required repairs to a maximum of \$150, or 20% of the low current market value of the car.

As enacted, the mandatory vehicle inspection program (MVIP) consists of several phases: (0) a program design phase, (1) a trial inspection program with voluntary repairs (currently underway in the city of Riverside), (2) an expanded inspection program which requires inspection of all vehicles undergoing change of ownership and mandatory repairs for failing vehicles, and (3) a fully implemented program which requires the inspection of all vehicles in the South Coast Air Basin prior to annual reregistration.

METHODOLOGY

Many studies have been conducted regarding MVI programs. Most have come to the conclusion that an MVIP can result in significant reductions in HC and CO emissions, with a slight improvement in fuel economy. However nearly all of these studies simulated an inspection and maintenance program rather than evaluating a program which was already underway. This report will discuss an evaluation of the Riverside trial inspection program, and will address the following issues:

(1) What emissions reductions can be realistically achieved with a mandatory vehicle inspection program?

(2) What fuel costs (benefits), repair costs, inspection costs, and enforcement costs will a mandatory vehicle inspection program impose on the consumer?

(3) How accurate can we expect an inspection regime to be in pinpointing vehicles which are in need of emissions related repairs?

(4) Is the repair industry in California capable of handling the additional responsibilities related to a mandatory inspection and maintenance program?

An equally important issue, but one which is beyond the scope of this report, is how acceptable a mandatory inspection and maintenance program will be to the general public. The answer to this last question will depend to some extent on the answers to the other four questions.

Despite the primary objective of evaluating an MVI program under real world conditions, some compromises had to be made for this study in the interests of time and good experimental design. These compromises are briefly mentioned in this summary, and are more fully discussed in the main text.

Two MVI programs are evaluated in this study: a loaded-mode inspection, diagnostic and repair procedure, as reflected by the pilot inspection program currently underway in Riverside, and an idle emissions inspection and repair program which was developed specifically for this study. Vehicles were randomly solicited from the Riverside population to participate in this study. Figures I and II show how test vehicles were processed in the loaded-regime and idle-regime test fleets, respectively. Volunteers were randomly assigned to one of the two inspection regimes, and were then subjected to an emissions inspection at the Bureau of Automotive Repair's (BAR) Riverside inspection station. A total of 631 1955-1974 model vehicles were used for the study. Loaded regime test vehicles were classified as either pass or fail vehicles according to their performance on the loaded-mode inspection test. Idle regime test vehicles were passed or failed only according to the idle emissions recorded during the BAR inspection. In each case the inspection standards (Tables 1 and 2) were set so as to fail approximately 35% of the vehicle population. After inspection all vehicles in the test fleet were subjected to a full engine diagnosis (no repairs) and a certification-type (CVS) emissions test by Air Resources Board (ARB) staff and hired contractors. Vehicles which had passed their MVIP inspection were returned to their owners, and failed vehicles were sent out for repairs.

Loaded-regime vehicles were repaired in Riverside by mechanics who had been qualified by BAR to participate in the pilot MVIP. These mechanics received a diagnostic sheet from the BAR inspection lane for each failed vehicle. This sheet listed the probable cause for failure and directed the mechanic to specific repair procedures in accordance with previously administered BAR training. The repair procedures limited the dollar value of repairs to \$150 or to some lower number provided by BAR to represent 20% of the vehicle's low current market value. All inspection and repair procedures were supposed to be carried out strictly in accordance with BAR procedures, and no special diagnostic or repair techniques were used for those vehicles participating in this study.

Idle-regime vehicles were repaired in nearby San Bernardino by mechanics who were trained in idle inspection and repair techniques in a style similar to the way Riverside mechanics were trained by BAR. Idle-regime mechanics did not receive any diagnostic information regarding a failed vehicle except for a statement that the vehicle had failed idle emission standards for HC, CO or both. The instructions given to idle regime mechanics at the start of the program detailed those inspections and adjustments which were to be made to all failed vehicles, and functionally limited what engine parts could be repaired or replaced. There was no maximum repair cost specified.

Since there was no idle emissions inspection program being carried out in San Bernardino, idle-regime mechanics knew they were participating in a special evaluation program, and knew which cars were part of that program. Loaded-regime mechanics also knew that they were part of a special evaluation program, but did not always know which cars were part of the study and which belonged to consumers participating in the Riverside pilot inspection program.

Altogether 36 repair facilities (all licensed Class A smog stations) were selected for the study - 24 in Riverside and 12 in San Bernardino. These garages were chosen to match the statewide distribution between new car dealers, service stations, and independent garages. However, the emissions analyzers in these facilities were in such poor condition that BAR conducted special inspections which resulted in the repair and recalibration of 80% of the emissions analyzers. In addition, more training was given to mechanics in this special surveillance study than was provided to mechanics participating in the general Riverside pilot MVIP. Both actions were contrary to our stated goal of evaluating real-world performance of an MVIP; however, both actions were necessary to allow the evaluation to collect any useful information at all, since service industry confusion at the beginning of the surveillance program was a serious problem.

After they were repaired, loaded-regime vehicles were reinspected by BAR in accordance with routine BAR procedures. Vehicles which passed this re-inspection were given an ARB engine diagnosis and CVS emissions test, and returned to their owners. Vehicles which failed the reinspection were additionally subjected to an engineering evaluation by ARB staff to determine why the repairs were not successful in reducing the vehicle's emissions to acceptable levels. After this evaluation these failed vehicles were returned to the same repair facility that performed the first repair for additional corrective action. These loaded-regime vehicles were then inspected a third time by BAR: passing vehicles were given an ARB engine diagnosis and CVS emissions test, and then returned to their owners, while failing vehicles were given another engineering evaluation in addition to the engine diagnosis and CVS test before finally being returned to their owners.

Idle regime vehicles were reinspected by BAR after they had been repaired, but no additional repairs were required if after-repair emissions were still high. This policy was in keeping with the low-cost objectives of the idle regime used in this surveillance. All repaired idle regime vehicles were given an engine diagnosis and a CVS emission test, and vehicles which had high idle emissions after repair were also given an engineering evaluation to determine the cause of failure.

All emission, fuel consumption, and repair cost data were weighted to reflect the actual model-year distribution of cars in California in 1975. All emission and fuel consumption data were additionally weighted to reflect the average annual mileage driven by different age vehicles. Emissions and fuel consumption after repairs were assumed to deteriorate linearly to their "before repair" condition within one year. This assumption was based, in part, on a recent study by Olson Laboratories which indicated that a linear deterioration assumption was reasonably accurate and that repaired vehicles returned to their "before repair" condition after approximately one year. Data analysis techniques are more fully analyzed in the main text.

RESULTS

The results of this study indicated that those vehicles which were repaired under the idle inspection and maintenance regime achieved immediate reductions of 38% in HC emissions, 33% in CO emissions, and 4% in NOx emissions (Tables 3, 4, 5). These vehicles showed a 4% improvement in fuel economy (Table 6) and the average repair cost was about \$21 (Table 7). When these reductions are deteriorated over one year's time and distributed over the total vehicle population, the reductions are 9% HC, 8% CO, 0.7% NOx. The average fuel economy improvement is 0.6%.

Similarly, vehicles repaired under the loaded-mode inspection and maintenance regime showed immediate reductions of 36% in HC emissions and 34% in CO with a 4% increase in NOx. These vehicles had a 1% improvement in fuel economy and the average repair cost was \$23. When deterioration is taken into account and the reductions distributed over the automobile population, the emissions reductions are 9% HC and 8% CO, with a 0.8% increase in NOx emissions and a fuel economy improvement of 0.2%.

A statistical analysis showed that there was no significant difference between the effects of the two MVIP regimes on emissions, fuel economy, or average repair cost.

Table 8 projects these results to total motor vehicle emissions throughout the South Coast Air Basin. In 1980, either MVIP regime would reduce hydrocarbon emissions by about 20 tons/day (6% of total motor vehicle exhaust HC emissions), and carbon monoxide by about 200 tons/day (5% of total motor vehicle CO emissions). These tonnages are equivalent to the emissions from 1.9 million 1977 model California cars.

Two different techniques were used to evaluate the accuracy of the idle and loaded-mode inspection regimes in identifying gross emitters. Both techniques, which are described in Table 9, came to the same conclusion: less than 3% of the vehicles in each regime failed but should have passed, and 50-60% of the vehicles in each regime passed but had some malfunction which, if detected, would have resulted in a significant reduction in emissions. More stringent inspection standards would detect more gross emitters in either regime, but would also increase the likelihood of failing a vehicle which had no malfunctions. This is because the correlation between a vehicle's emissions and the condition of its engine, although very good, is not perfect.

The loaded regime had slightly fewer errors of omission (passing cars which should have failed), and the same or slightly more errors of commission (failing cars which should have passed) than the idle-regime.

Table 10 shows how the number of vehicles repaired, repair costs, fuel economy improvement, and total emissions reductions vary with the maximum repair cost for each inspection regime. Due to data limitations these computations assume that if a vehicle's estimated repair costs exceeded the maximum, it would not be repaired at all. The data indicate that very little, if any, effectiveness would be lost by imposing maximum repair costs as low as \$90 or \$100 for either regime. Limiting the maximum repair costs to \$50 would diminish the effectiveness of an idle MVIP by about 5-10%, and of a loaded-mode MVIP by about 15-25%.

A study of 33 1975 and 1976 model cars indicated that the emissions reductions due to an inspection and maintenance program might be higher for these cars (50-70% immediate reductions in HC and CO for repaired vehicles), but that repair costs might also be higher (\$30-\$40 average repair cost). Any decision to reduce the maximum repair cost would have to take this factor into account.

These results generally agree with those obtained in other studies performed by and for the U.S. Environmental Protection Agency and the ARB. A study made by the Northrop Corporation for the ARB in 1971 showed emissions reductions comparable to those in this study while using a 50% failure rate. It also indicated no significant difference in HC reductions between the loaded and idle regimes, while the loaded regime resulted in a greater CO reduction and a significant increase in NOx. A report by the EPA in 1975 indicated that the loaded-regime resulted in larger HC and CO reductions than the idle regime when both regimes were evaluated at a 50% failure rate.

The mechanics in the current study seemed to have a more difficult time understanding the loaded-regime diagnostic messages and repair techniques than did the idle-regime mechanics. Before the start of the program, loaded-regime mechanics needed much more training, and more frequent training, in order to understand the repair procedures. This training was both informative and technical in nature, dealing with the objectives and operational details of the MVIP as well as "how to tune a car". Idle-regime mechanics did not appear to need nearly as much training because of the simpler repair procedures used in the idle regime; however, idle regime mechanics were given an equal amount of training in order to balance the experiment. In analyzing the repairs made during the evaluation program, the idle regime mechanics properly followed the idle repair procedures 74% of the time, while loaded regime mechanics followed their more complicated repair procedures only 44% of the time (Table 11). However, the loaded-regime mechanics performed "satisfactory" repairs 55% of the time while idle-regime mechanics performed satisfactory repairs 62% of the time. Determination of satisfactory repairs was based on a subjective judgment made for each vehicle by the ARB contractor, which evaluated whether or not the mechanic repaired those items found in the ARB engine diagnosis.

The confusion of loaded-regime mechanics may also be reflected in the difference in repair costs. Approximately \$4.70 of the total \$23 repair cost for an average loaded-regime vehicle were overcharges for repairs which were not authorized by the loaded-regime repair procedure ("procedural" overcharges). Just over \$2.00 of the total \$21 repair cost for an average idle-regime vehicle were procedural overcharges.

Another way of analyzing the overcharges is to look at the engine diagnoses made by the ARB and determine what repairs were actually needed, rather than what repairs were legally authorized by the repair procedures. In this analysis, these "engineering" overcharges in the idle-regime were only 10% lower than those for the loaded-regime.

These results imply that although loaded-regime mechanics had trouble following their repair procedure, they fell back upon their basic training to correct malfunctions. On the other hand, although idle-regime mechanics understood their instructions quite well, these instructions did not always lead to satisfactory repairs.

What this all seems to indicate is that the repair industry was inadequately trained to handle the extra information from the loaded-mode inspection and maintenance program. The loaded-mode inspection and the idle inspection appear to be equally good in detecting gross emitters which are in need of emissions-related repairs, but the main advantage of the loaded inspection is in the additional diagnostic information it provides. Based on this study, the repair industry does not appear to be able to use this extra information at this time. Not only does the information seem to be unused, but it also seems to generate confusion which can result in slightly higher repair costs. Furthermore, the special training and equipment inspections provided at the beginning of the surveillance program would be needed throughout the repair industry simply to achieve the effectiveness shown in this study. Simplification of the loaded-mode repair procedures, combined with a substantial training program, may improve the performance of a loaded-mode MVIP.

In addition to evaluating the effectiveness of the two programs, an attempt was made to estimate the cost of their implementation. Four scenarios were evaluated for inspection costs (Table 12). Each scenario calls for the implementation of the MVI program for all cars in the South Coast Air Basin on an annual basis. All capital costs are amortized over three years, as required by the Department of Finance. All estimates are in current year dollars, and all estimates include the costs of reinspection for failed vehicles. A failure rate of 35% is assumed for these analyses.

In the first place, the idle inspection regime has no ability to detect malfunctions of NOx control systems. This is because most, if not all, NOx control systems are not designed to operate at idle conditions, and NOx emissions at idle are negligible. In addition, despite instructions to the idle-regime mechanics to inspect all emission control wires, hoses and components (including NOx systems), none of the vehicles in the idle test fleet which had malfunctioning NOx systems was repaired.

Although the Riverside pilot inspection program had a NOx screening standard to signal the need for functional checks of NOx controls at the inspection lane, this standard was not consistently applied and the functional checks were haphazard at best. This was due, primarily, to the confusion normally associated with program start-up and to the low priority placed on detection of NOx malfunctions.

However in a special test program of 33 1975 and 1976 model cars, a loaded-mode NOx inspection standard was able to detect three of the five cars which had either excessive NOx emissions (more than 20% above the certification emission standard) or malfunctioning NOx controls. A fourth car failed the NOx inspection standard, but had a stuck choke instead of a NOx control problem. Inclusion of the NOx inspection standard resulted in an immediate 24% reduction in NOx emissions from failing vehicles, as compared with the 5% reduction obtained when the NOx standard was not applied. In a larger study, a NOx inspection standard was able to detect 45% of the cars which had excessive NOx emissions. These studies indicate that a NOx inspection standard can have a great potential for detecting and pinpointing malfunctioning NOx controls. This potential is simply not available with any idle inspection regime. Assuming that a loaded-mode inspection regime could provide an immediate 24% reduction in NOx emissions for failed vehicles without significantly increasing the average repair cost, the cost/effectiveness for the loaded-mode regime would be about \$1.00 per pound of HC + NOx reduced. Other ARB vehicle emission control programs which are directed at both pollutants are in the range of \$.50 to \$1.50 per pound.

Another problem which arises is the fact that in a few years most of the cars in California will have catalytic converters installed. Catalysts, which control HC and CO emissions, perform at their best when they are fully warmed up, such as would be the case during an MVIP inspection. Thus any inspection regime must have the capability to deal with catalyst vehicles and the special inspection problems they present. The 33 car fleet mentioned above consisted exclusively of catalyst vehicles. Both idle and loaded inspection regimes were capable of detecting gross emitters in the fleet with equivalent success. The 33 car study was not able to determine whether or not accurate diagnoses of catalyst car malfunctions could be provided by either inspection regime, but the fact that catalyst car gross emitters could be detected with about the same ease as non-catalyst car gross emitters suggests that diagnoses of malfunctions are possible as well.

RECOMMENDATIONS

(1) Implement the change-of-ownership phase of an idle-based mandatory vehicle inspection and maintenance program no later than July 1, 1977. All inspection stations built for this phase should be flexible enough to accept expansion to a loaded-mode inspection regime and a safety inspection at a later date. The inspection fee should be \$4.00 per vehicle if the program is to be self-supporting over the long run, but not during the early years. The inspection fee should be \$5.00 during the change-of-ownership phase of the program to offset the inefficiencies of the stations during this phase. Begin a training effort no later than July 1, 1976 to upgrade the service industry to handle the idle MVIP. This effort could be staffed and funded under the currently proposed 1976/77 MVIP budget since the idle MVIP is less expensive to build and operate than the SB 479 program.

(2) Limit the maximum repair cost to \$50 during the first year of the MVIP. The ARB should be given the authority to increase the maximum repair cost to no more than \$75 to take into account changes in the vehicle population and general inflation. These maximum repair costs should reflect only actual charges to the consumer, and should exclude items (like catalyst changes) which are covered by the vehicle manufacturer's warranty.

(3) Require repaired vehicles to be reinspected at the MVIP station, but do not require additional repairs to vehicles failing reinspection if the repairs were performed by a qualified mechanic. Give the ARB and BAR the flexibility to implement a smooth and orderly transition from the current Class A smog station program to an MVIP oriented repair station program.

(4) Begin training the mechanics in a selected geographic area in loaded-mode inspection, diagnostic, and repair techniques beginning July, 1977. Most of the staff used for idle-regime training should be reassigned to this training program, and the remainder should be responsible for routine training and enforcement for the idle MVIP. At the same time, begin to upgrade the MVIP stations in that area to have loaded-mode inspection capabilities. Implement a loaded-mode MVIP in that area as soon as the service industry is trained, but no later than July 1, 1978. Conduct a surveillance program beginning July 1, 1978 to evaluate the fully implemented loaded-mode MVIP and to compare it with the fully implemented idle MVIP, particularly with respect to NOx reduction capabilities. Complete this study by January 1, 1979, and determine which inspection regime should be used. The test fleet used for this study should be selected to be as representative as possible of vehicles which will be on California roads in 1980.

(5) Delay implementation of the annual phase of the MVIP until January 1, 1980. Recommendations as to the final form of the MVIP should be made by January 1, 1979 based on the results of the 1978 surveillance study and on public reaction to the change-of-ownership MVI program. These recommendations should encompass both the mode and extent of testing, and should consider, at a minimum, the following alternatives to the basic annual inspection program:

- Continuation of the program on a change-of-ownership basis only.
- Continuation of the change-of-ownership program with the addition of a random roadside inspection program similar to the former CHP program.

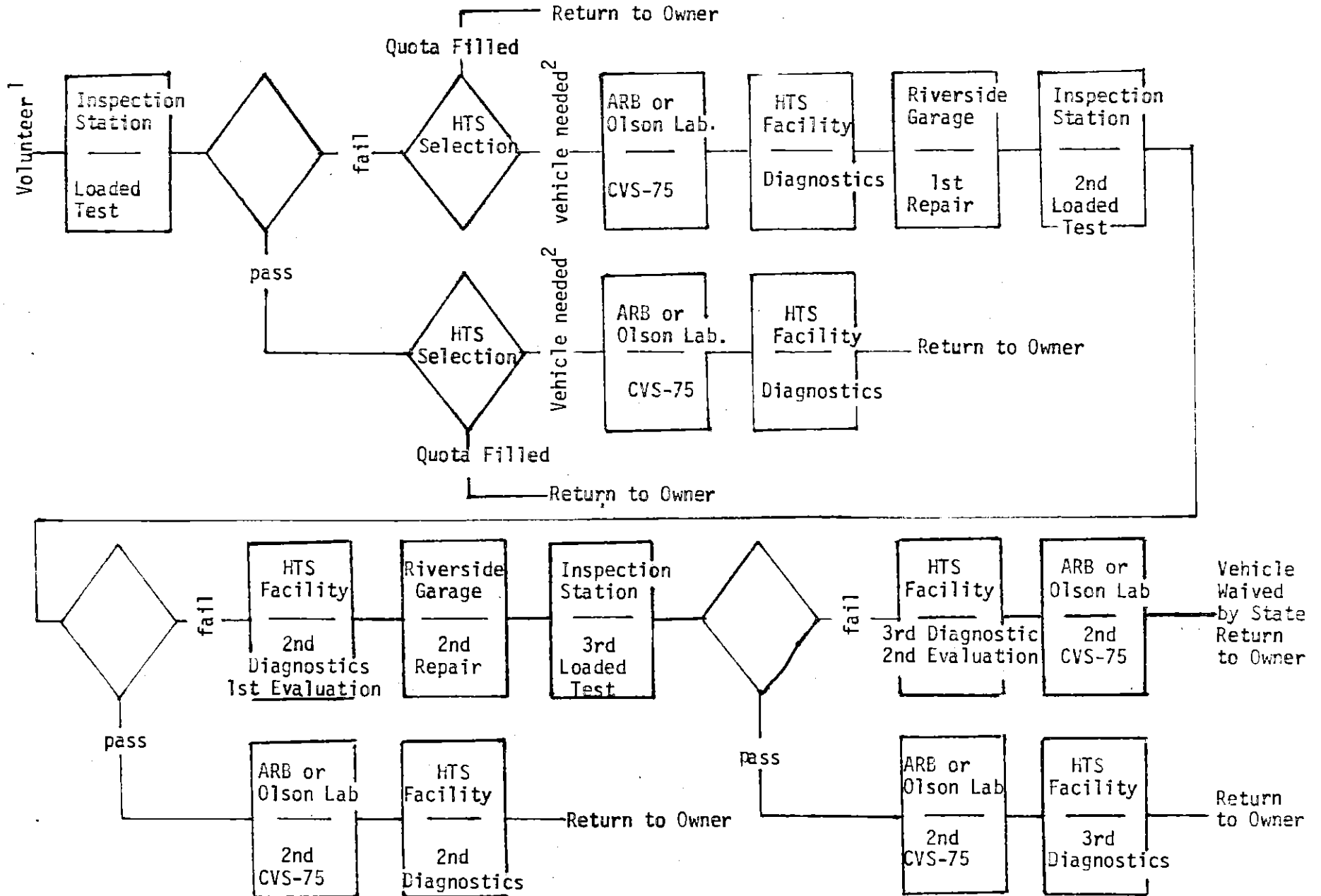
The recommended program should be implemented no later than January 1, 1980. If an idle inspection regime is to be implemented, minimal additional training will be needed, and additional inspection stations will not need the flexibility for expansion to loaded-mode inspection. If a loaded-mode inspection regime is recommended, implementation should proceed as follows:

a) Implement an idle MVIP basin-wide no later than January 1, 1980. All new inspection stations should be adaptable to handle a loaded-mode inspection regime.

b) Train the mechanics for, and implement, a loaded-mode inspection regime. Training could be done by the same staff that conducted the idle training program. Consideration should be given to conducting a basin-wide training program with 12 to 18 months while simultaneously converting the inspection stations to handle loaded-mode testing. If it becomes apparent that a basin-wide training program is not practical within the time available, plans should be made to subdivide the basin by geographic area and to train the mechanics in one area at a time. If the South Coast Air Basin were divided into five or six areas, full implementation of the loaded-mode MVIP should take three or four years.

(6) The above recommendations, combined with a reassessment of program costs and with the assumption that the State will commit itself to ten year firm leases for the inspection sites and buildings, will reduce the projected 1976/77 MVIP budget requirements from \$18.8 million to approximately \$9.0 million. Fiscal requirements for subsequent years will depend on which inspection regime is finally chosen for the mandatory annual inspection phase of the program.

FIGURE I. LOADED REGIME
VEHICLE FLOW DIAGRAM



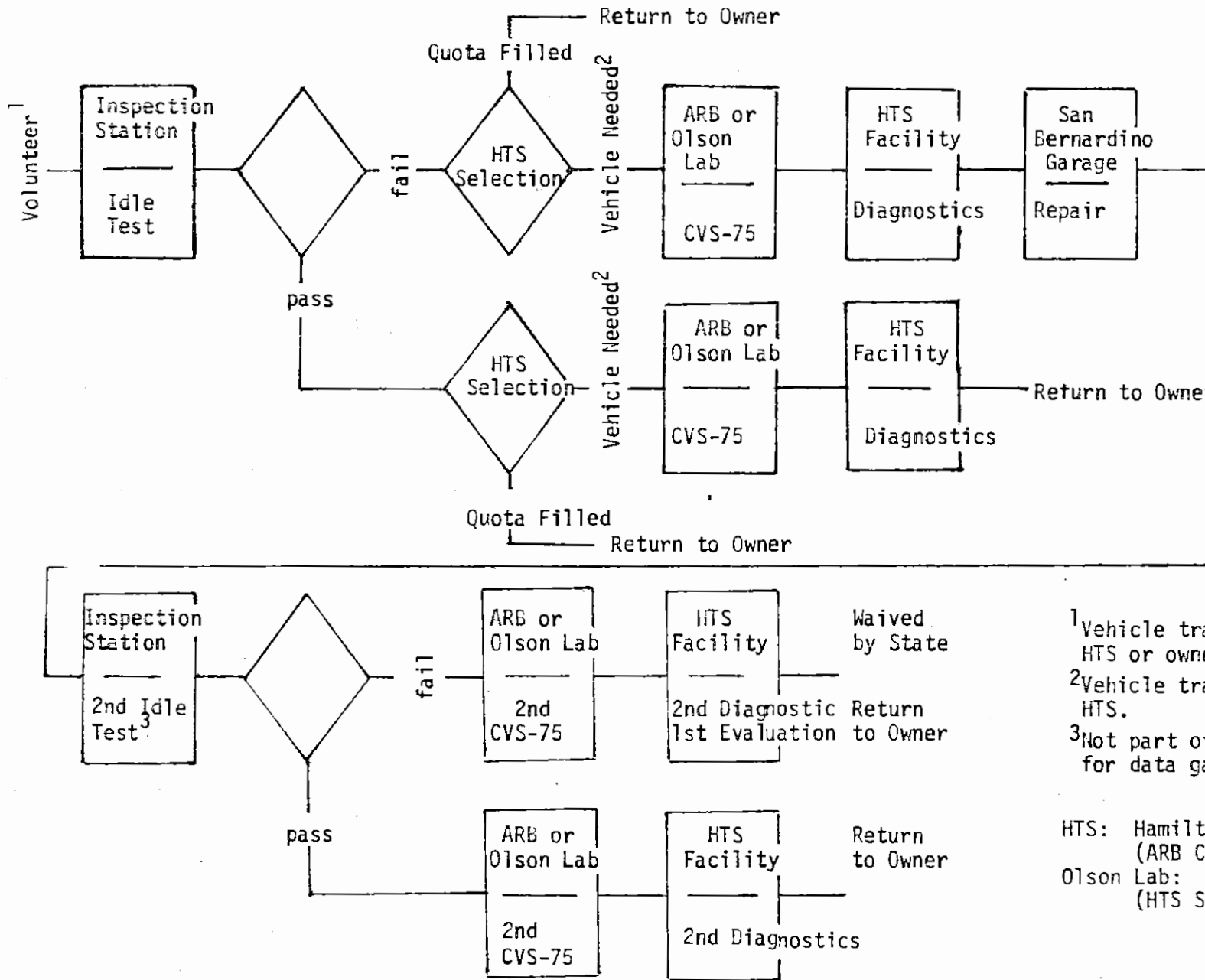
1. Vehicle either transported by HTS or owner.

2. Vehicle transported by HTS.

HTS: Hamilton Test Systems, Inc. (ARB Contractor)

Olson Lab: Olson Laboratories, Inc. (HTS Subcontractor)

FIGURE II. IDLE REGIME
VEHICLE FLOW DIAGRAM



¹Vehicle transported by HTS or owner.
²Vehicle transported by HTS.
³Not part of idle regime; for data gathering only.

HTS: Hamilton Test Systems, Inc.
 (ARB Contractor)
 Olson Lab: Olson Laboratories, Inc
 (HTS Subcontractor)

Table 2

Loaded Regime Standards (Title 13)
for Use in MVIP Surveillance Study

Vehicle Model Year	No. of Cylinders	Idle				Low Cruise			High Cruise	
		HC (ppm)		CO (%)		HC (ppm)	CO (%)	NOx ppm	HC (ppm)	CO (%)
1955-1985 & earlier	4 or less	1900		8.0		1200	7.0	2500	1200	6.5
	6-8-8 5 or more	1200		8.0		1000	6.0	2500	1000	5.5
1966-1967	4 or less	1900		8.0		1200	7.0	2500	1200	6.5
	6-8-8 5 or more	AI	Others	AI	Others					
		400	500	5.5	7.0	500	4.5	2500	500	4.0
1968-1970	4 or less	500	650	5.5	7.0	600	5.0	2500	600	4.5
	6-8-8 5 or more	400	500	5.5	7.0	500	4.5	2500	500	4.0
1971 and later	4 or less	450	600	3.5	5.0	500	4.0	2500	500	3.5
	6-8-8 5 or more	250	350	3.0	4.0	400	3.0	2500	400	2.5

Table 4
 MVIP Evaluation
 Carbon Monoxide Emissions
 (GM/MI)

	<u>Loaded Regime</u>	<u>Idle Regime</u>
A. Without Deterioration:		
Pass *	42.36	41.69
Fail (Before Repair)**	69.69	65.42
Fail (After Repair)**	43.98	43.94
Immediate Reduction	22.71	21.48
% Decrease (Failed Vehicles)	34.06	32.84
Total Population		
Without MVIP	50.88	49.99
With MVIP	42.93	42.47
% Decrease	15.62	15.04
B. With Deterioration:		
Total Population		
Without MVIP	50.88	49.99
With MVIP	46.90	46.23
% Decrease	7.81	7.52

* Passed all Standards

** Failed one or more Standards

Table 5
 MVIP Evaluation
 Oxides of Nitrogen
 (GM/MI)

	<u>Loaded Regime</u>	<u>Idle Regime</u>
A. Without Deterioration		
Pass *	2.97	3.17
Fail (Before Repair)**	2.80	2.91
Fail (After Repair)**	2.92	2.79
Immediate Reduction	-0.12	0.12
% Decrease (Failed Vehicles)	-4.33	4.20
Total Population		
Without MVIP	2.91	3.08
With MVIP	2.96	3.03
% Decrease	-1.46	1.39
B. With Deterioration:		
Total Population		
Without MVIP	2.91	3.08
With MVIP	2.94	3.06
% Decrease	-0.73	0.70

* Passed all Standards

** Failed one or more Standards

Table 6

MVIP Evaluation

Fuel Consumption
(Gallons/100 Miles)

	<u>Loaded Regime</u>	<u>Idle Regime</u>
A. Without Deterioration		
Pass *	7.22	7.31
Fail (Before Repair)**	6.89	7.09
Fail (After Repair)**	6.82	6.82
Immediate Reduction	0.07	0.27
% Decrease (Failed Vehicles)	1.07	3.77
Total Population		
Without MVIP	7.10	7.23
With MVIP	7.08	7.14
% Decrease	0.36	1.29
B. With Deterioration:		
Without MVIP	7.10	7.23
With MVIP	7.09	7.18
% Decrease	0.18	0.65

* Passed all Standards

** Failed one or more Standards

Table 7
 MVIP Evaluation
 Repair Costs
 (Dollars Per Failed Vehicle)

	<u>Loaded Regime</u>	<u>Idle Regime</u>
Total Average Repair Cost	\$22.81	\$20.65
Average "Procedural Overcharge"	4.70	2.12
Average Repair Cost (without "procedural overcharge")	18.11	18.53

"Procedural overcharges" are charges for repairs which were not authorized by MVIP repair procedures.

Table 8. Effect of MVIP on Motor Vehicle Emissions in the South Coast Air Basin (Tons/Day)*

	<u>Exhaust Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Oxides of Nitrogen</u>
<u>1980</u>			
Total Motor Vehicles without MVIP	363	4119	671
Light-Duty Vehicles			
1. Without MVIP	220	2515	408
2. With MVIP	200	2314	384**
Reduction	20	201	24**
<u>1985</u>			
Total Motor Vehicles without MVIP	198	2946	673
Light-Duty Vehicles			
1. Without MVIP	94	1380	377
2. With MVIP	86	1270	354**
Reduction	8	110	23**

* Based on 35% failure rate

**Potential reductions if a loaded-mode NOx inspection program were developed.

Table 9. Summary of Errors of Omission and Commission by MVIP Regimes

<u>Basis</u>	<u>Errors of Omission</u> ¹		<u>Errors of Commission</u> ²	
	<u>Idle</u>	<u>Loaded</u>	<u>Idle</u>	<u>Loaded</u>
Engine Diagnosis ³	54%	51%	0.2%	0.0%
Emissions ⁴ Regression Analysis	58%	48%	0.5%	2.6%

Notes:

1. Vehicles which passed MVIP standards but should have failed. (Percent of total population.)
2. Vehicles which failed MVIP standards but should have passed. (Percent of total population.)
3. Whether or not a vehicle should have failed is based on whether the ARB engine diagnosis detected any emission control components which were malfunctioning or maladjusted, excluding idle speed.
4. Whether or not a vehicle should have failed is based on a statistical analysis of the emissions tests of failed vehicles. The emissions reduction due to repair was compared with the emissions before repair for each vehicle. A "pseudo-standard" was derived for each pollutant, which was the level of emissions before repair at which there was a 50/50 chance that the car's emissions would be increased by repairs. A vehicle whose initial emissions were below the "pseudo-standards" yet which failed the MVIP standards was considered to be an error of commission. A vehicle whose initial emissions were above the "pseudo-standards" yet which passed the MVIP standards was considered to be an error of omission.

Table 10. Effect of Reducing the Maximum Repair Cost

Maximum Repair Cost	Per Cent of Failures Repaired		Average Repair Cost		Average Fuel Economy Improvement		Total Emission HC		Reduction CO	
	Idle	Loaded	Idle	Loaded	Idle	Loaded	Idle	Loaded	Idle	Loaded
\$150	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
\$140	100	100	100	100	100	100	100	100	100	100
\$130	100	100	100	100	100	100	100	100	100	100
\$120	100	100	100	99	100	101	100	100	100	100
\$110	100	99	100	94	100	100	100	99	100	99
\$100	100	98	100	92	100	100	100	98	100	98
\$90	99	97	97	90	99	100	99	97	100	98
\$80	97	96	91	87	96	92	96	93	97	95
\$70	97	94	91	82	96	83	96	90	97	87
\$60	96	92	88	76	93	76	94	87	95	81
\$50	94	88	85	69	91	77	93	83	92	76
\$40	88	84	75	64	85	63	90	78	85	68
\$30	86	77	72	56	85	70	81	65	82	63
\$20	67	69	60	50	51	67	53	49	69	57

Table 11. Quality of Repairs

	<u>Idle Regime</u>	<u>Loaded Regime</u>
<u>Ability to Correct Malfunctions and Maladjustments¹</u>		
Satisfactory Repairs	62%	55%
Unsatisfactory Repairs	38%	45%
<u>Ability to Follow Specified Repair Procedures²</u>		
Followed Procedure	74%	44%
Did not follow procedure	26%	56%

Notes:

1. Based on a subjective analysis for each vehicle by the contractor, evaluating the mechanic's ability to correct those problems found in the ARB engine evaluation.
2. Based on a comparison of the repairs performed on a vehicle with the repairs authorized by the regime repair procedure for that vehicle.

Table 12. MVI Program Costs

<u>Item</u>	<u>Loaded-Mode with Engine Analyzers (Potential for Safety) (a)</u>	<u>Loaded-Mode (b)</u>	<u>Idle (Potential for Loaded-Mode, Engine Analyzers, and Safety)(c)</u>	<u>Idle (d)</u>
<u>I. Capital Investments</u>				
1. Site and Building Acquisition (e)	\$814,000	\$814,000	\$679,000	\$679,000
2. System Hardware and Installation (f)	15,069,000	14,307,000	8,676,000	8,127,000
3. Other Equipment and Start-Up Costs (g)	1,696,000	1,696,000	987,000	987,000
4. Program Design (h)	500,000	500,000	500,000	500,000
5. Program Evaluation (i)	1,000,000	1,000,000	1,000,000	1,000,000
6. Public Information (j)	400,000	400,000	400,000	400,000
7. Training & Enforcement (k)	150,000	150,000	150,000	150,000
Total Capital Investments (l)	\$19,629,000	\$18,867,000	\$12,392,000	\$11,843,000
<u>II. Annual Operating Costs</u>				
1. Building Lease (m)	\$4,740,000	\$4,414,000	\$3,943,000	\$3,343,000
2. Salaries (n)	17,666,000	17,666,000	14,902,000	14,902,000
3. Operating Expenses and Equipment (o)	1,618,000	1,618,000	1,566,000	1,566,000
4. Equipment Amortization and Replacement (p)	4,130,000	3,921,000	2,378,000	2,227,000
5. On-going Program Evaluation (q)	50,000	50,000	50,000	50,000
6. Public Information	20,000	20,000	20,000	20,000
7. Training and Enforcement	50,000	50,000	50,000	50,000
Total Annual Operating Costs	\$28,274,000	\$27,739,000	\$22,909,000	\$22,158,000
<u>III. Inspection Costs per Vehicle</u>				
1. Capital Investments (first 3 years only)	\$1.08	\$1.03	\$.68	\$.65
2. Operating Costs	\$4.04	\$3.96	\$3.27	\$3.17
Total	\$5.12	\$4.99	\$3.95	\$3.82

Table 12. MVI Program Costs (Cont'd)

Notes

- A) Implementation of a loaded-mode MVIP, including the use of engine analyzers and with room to add a safety inspection at a later date.
- B) Implementation of a loaded-mode MVIP, with no engine analyzers and with no room for expansion to include safety.
- C) Implementation of an idle MVIP, but with the capability to expand to a loaded-mode emissions and safety inspection, including the use of engine analyzers, at a later date.
- D) Implementation of an idle MVIP, but with no capabilities for expansion to loaded-mode or safety inspections.
- E) Costs incurred by General Services to locate and procure sites for inspection stations. Based on costs for the Riverside pilot program, confirmed by General Services as typical. Source: ARB Contract 4-855.
- F) Includes all major hardware costs, based on actual expenses for the Riverside pilot program but reduced by 10% to account for volume purchases. Hardware related only to loaded-mode deleted in scenarios (c) and (d). Installation costs are 35% of hardware costs, based on the Riverside pilot program.
- G) Office furniture, administrative supplies, and miscellaneous one-time start-up costs. Source: ARB estimate, conversations with BAR.
- H) Costs of designing and optimizing the stations based on the experience gained in the pilot phase. Source: ARB estimate.
- I) Cost of conducting a surveillance and evaluation program, as discussed in the recommendations. Source: ARB estimate.
- J) Costs of preparing and publishing information pamphlets and of preparing public service television and radio spots to inform the public about the program. Source: ARB estimate.
- K) Costs of procuring automobiles and training and inspection equipment for twenty-five new training and enforcement personnel. Source: ARB estimate.
- L) These costs are funded by a loan from the State Transportation Fund, which must be repaid at 9% interest within 3 years with payments due quarterly. Source: Department of Finance.

Table 12. MVI Program Costs (Cont'd)

- M) Based on discussions with General Services personnel currently involved in site selection and procurement for the change of ownership phase. These leases assume that the State signs a 10-year firm, 15-year lease for all stations. Source: General Services.
- N) Includes personnel for administration, operations, support, public information, data analysis, program evaluation, training, and enforcement. Source: ARB and BAR estimates, based on Olson design study and pilot Riverside program.
- O) General administrative and support operating expenses, including those for inspection facilities. Source: ARB and BAR estimates based on Olson design study and pilot Riverside program.
- P) 37% of system hardware costs. Source: Olson design study, Table 9-1.
- Q) Costs of routine data analysis and studies for the refinement of inspection standards and procedures. Source: ARB estimate.

Other Assumptions

The number and type of facilities is based on output rates which were empirically determined at the Riverside MVIP station, and on an estimated 7 million feepaying vehicles per year with one reinspection required for the 35% failing vehicles.

	<u>2-lane Stations</u>	<u>4-lane Stations</u>	<u>Total Stations</u>	<u>Total Lanes</u>
Loaded-mode	20	58	78	272
Idle	17	48	65	226

Table 13. MVIP Cost/Effectiveness

1. Emissions Reductions (per inspected vehicle)

	<u>HC</u>	<u>CO</u>	<u>NOx</u>
Baseline Emissions: (gm/mi)	4.5	57	3.5
MVIP Reductions: (%)	9%	8%	(6%)*
(gm/mi)	0.40	4.6	(0.21)
(lb/yr)	7.3	84	(3.8)

2. Fuel Consumption (per inspected vehicle)

Baseline: 14 mi/gal = 594 gal/yr
 MVIP Reduction: 0.4% = 2.4 gal/yr
 = \$1.50/yr savings

3. Repair Costs

Per failed vehicle: \$22
 Per inspected vehicle: \$7.75

4. Inspection Costs

	<u>First 3 Years</u>	<u>After 3 Years</u>
Loaded-mode	\$5.00	\$4.00
Idle	\$4.00	\$3.25

5. Total Annual Costs (per inspected vehicle)

	<u>First 3 Years</u>	<u>After 3 Years</u>
Loaded-mode	\$11.25	\$10.25
Idle	\$10.25	\$ 9.50

6. Cost/Effectiveness (dollars per pound of pollutant reduced)

a. All costs attributed solely to HC reductions.

	<u>First 3 Years</u>	<u>After 3 Years</u>
Loaded-mode	\$1.54/lb	\$1.40/lb
Idle	\$1.40/lb.	\$1.30/lb.

b. All costs attributed solely to CO reductions.

	<u>After 3 Years</u>	<u>After 3 Years</u>
Loaded-mode	\$.13/lb.	\$.12/lb.
Idle	\$.12/lb.	\$.11/lb.

c. All costs attributed solely to NOx reductions*

	<u>First 3 Years</u>	<u>After 3 Years</u>
Loaded-mode	\$2.96/lb.	\$2.70/lb.
Idle	—	—

d. All costs attributed to HC + NOx reductions*

	<u>First 3 years</u>	<u>After 3 Years</u>
Loaded-mode	\$1.01/lb.	\$.92/lb.
Idle	\$1.40/lb.	\$1.30/lb.

*NOx reductions reflect potential, and not proven, capabilities of the loaded-mode regime.

Assumptions

- a) Average annual mileage is 8,311 miles per year.
- b) Fuel cost is \$.60 per gallon.
- c) MVIP failure rate is 35%.



STATE OF OREGON
R E C E I V E D

JUN 9 1976

**Dept. of Environmental Quality
Vehicle Inspection Division**

SM-0350

Environmental Activities Staff
General Motors Corporation
General Motors Technical Center
Warren, Michigan 48090

June 3, 1976

Mr. Ron Householder, Administrator
Vehicle Inspection Division
Department of Environmental Quality
1234 S.W. Morrison
Portland, Oregon 97205

Dear Mr. Householder:

This is a follow-up to our conversation concerning vehicle emission inspection standards for vehicles in excess of 6,000 lbs. GVW. As I stated to you, we recently received a copy of the Department of Environmental Quality Information Bulletin 76050 and note some changes in the inspection standards. Unfortunately, some of the changes that we believe should have been made were omitted. We are still concerned about the stringency of the inspection standards and are again requesting that additional changes be made.

Our previous correspondence to you in the past expressed our concern about the stringency of the inspection standards as they apply to 1975 models light duty vehicles equipped with catalytic converters. We still believe standards of .5% CO and 100 ppm HC for catalyst equipped cars are too stringent. Likewise, the HC standard for some vehicles in excess of 6,000 lbs. GVW is too stringent.

Our past audit of the idle emissions from some heavy duty production engines suggests that the HC standard is indeed too stringent. Each engine in the sample tested was required to meet an HC standard of 600 ppm and 2% CO.

The inspection standards are not consistent with the years in which different Federal exhaust emission requirements became effective. As you probably know, prior to 1970 there were no Federal exhaust emission standards for vehicles in excess of 6,000 lbs. GVW. The standards adopted for 1970 heavy duty engines remained in affect for the period 1970 through 1973. The 1974 standards are scheduled to remain in effect until 1978. These three classifications - pre 1970, 1970-73, and 1974-78 - of heavy duty vehicles should be separate with respect to vehicle emission inspection standards, because of obvious design considerations. It seems reasonable to us that the standards should be the same for the model year classification cited.

June 3, 1976

We recommend that the standard for 1974 through 1978 be changed from 300 ppm HC to 600 ppm and the tolerance remain at 200 ppm. The 1975 HC standard of 175 ppm, even with the allowed tolerance of 50 ppm, is too stringent. Therefore, if the changes that we are suggesting are made, they will resolve a similar problem that will exist for 1976 and 1977 models.

The recommended changes are being suggested in an effort to avoid having Oregon residents, our customers, expend large sums of money for repairs that are not needed. Any attempt to repair vehicles because they exceed your 300 ppm HC standards when they were only required to meet a 600 ppm HC standard at the end of the production line will, in our opinion, be a wasteful expenditure.

Should you have any questions concerning this letter, please feel free to contact me. We look forward to receiving your reply.

Very truly yours,



J. C. Calhoun, Manager
State Regulations
Automotive Emission Control

JCC/el

cc: L. Kramer
W. P. Jasper

General Motors Statement
submitted
to the State of Oregon
Environmental Quality Commission
on
Proposed Amendments to Rules Governing
Motor Vehicle Emission Inspection
Applicable to All Gasoline Powered Motor Vehicles

July 16, 1976

Motor Vehicle Inspection Standards

General Motors is aware that air pollution is of prime concern in various states and, for this reason, is determined to remove the automobile from the air pollution problem. Therefore, General Motors supports Oregon's efforts to improve the State's air quality.

General Motors believes that regulations which establish inspection standards, and other criteria for vehicle emission inspection programs should not unjustly penalize the motoring public. The proposed Oregon standards are of special concern and General Motors does not support the regulations as proposed. We are especially concerned about the Carbon Monoxide (CO) and Hydrocarbon (HC) inspection standards for 1975 and later model year catalyst-equipped vehicles and the proposed HC inspection standards for all trucks with a GVW greater than 6000 pounds (Section 24-330, Light Duty Motor Vehicle Emission Control Idle Emission Standards, Pages 8 and 12). The proposed CO and HC inspection standards for 1975 and subsequent model year vehicles are more stringent than those being utilized in any other state inspection program, even though the air pollution problem in Oregon is not as severe as that in some other states.

In order to comply with the stringent federal automotive emission requirements applicable to most 1975 and subsequent model light duty vehicles, the General Motors emission control system includes a catalytic converter. Although the catalytic converter is recognized as an efficient emission control system for carbon monoxide and hydrocarbons, it does not in each case reduce the constituents in the exhaust gases for every production vehicle to the levels that are being proposed for use in the State of Oregon.

Data available from testing 1975 model light duty production catalyst-equipped vehicles show that some new vehicles as they came off the assembly line exceeded the 0.5% CO standard, (Page 8 of Section 24-330) even when the additional 0.5% tolerance is allowed. Likewise, these data also show some of these vehicles exceeded the 125 ppm HC standard after allowing the 50 ppm HC tolerance.

The HC standards of 300 ppm for 1974 and 200 ppm for 1975 model heavy duty vehicles (Page 12 of Section 24-330) are also too stringent. Some new production GM vehicles for these model years also exceeded these standards.

Data relative to the 1975 light duty production vehicles and the test criteria for heavy duty vehicles have already been submitted to the Department of Environmental Quality.

The standards referred to in this statement, if adopted as proposed, will create a problem. This will occur because on the average these vehicles would meet the federal emission standards, but many of them would fail the proposed inspection standards. This means that a large

number of vehicles would be improperly penalized. Attempts to repair these vehicles will probably result in more emissions than were being generated prior to the inspection for some vehicles. This will happen because certain engine parameters that affect emissions and are pre-set at the assembly plant are very sensitive and cannot be adjusted as precisely in a dealer's repair facility. Those vehicles which are maladjusted are usually high emitters.

Experience from emission test programs indicates that idle emissions lack good correlation with those emissions determined by the federal certification test program. This further complicates the problem of trying to establish an idle inspection standard that would not wrongfully identify as a failure a vehicle that has been certified by the Environmental Protection Agency. The federal certification test is designed to represent a wide range of urban driving conditions. Since the idle mode represents only a small portion of this test, the test results from this mode do not give an accurate indication of total emissions. It is for this reason that GM believes the idle test should be used to identify gross emitters. Therefore, only a pass-fail criteria which would reject gross emitters should be used in a vehicle emission inspection program.

Recommendation:

Because the catalytic converter has only recently come into widespread use in the field, the idle and steady state emission characteristics of vehicles so equipped that are now in customer use have not been sufficiently identified, especially at high mileage. Data on this subject are now being accumulated. Until such time as more definitive data are available General Motors recommends that the 1974 inspection standards be carried over to 1975 and later model vehicles. If this is not acceptable the proposed standards and allowable tolerance should be increased to a level such that the probability of a large number of owners being wrongfully penalized is reduced to a minimum.

For 1974 through 1978 model year heavy duty vehicles, GM recommends that the HC standard proposed for 1974 model year vehicles be increased by 300 ppm and no change be made in the allowable tolerance of 200 ppm HC.

Once sufficient field experience is obtained on heavy-duty vehicles and 1975 and 1976 model catalyst and non-catalyst equipped vehicles, appropriate inspection standards can be established for heavy-duty vehicles and 1975 and subsequent model years light-duty vehicles.

We believe that acceptance of our recommendations would permit Oregon to conduct an inspection program without substantial risk of wrongfully penalizing owners of vehicles which are in compliance with federal emission requirements.

RENAULT



RENAULT, INC.
100 Sylvan Avenue, Tel: 201 461-6000
Englewood Cliffs, Cable: AUTORENOS-
New Jersey 07632 ENGLEWOODCLIFFS

661/76-7-82/MM:s

July 12, 1976

STATE OF OREGON
R E C E I V E D

JUL 15 1976

Dept. of Environmental Quality
Vehicle Inspection Division

Department of Environmental Quality
1234 S.W. Morrison Street
Portland, Oregon 97205

Re: Proposed Amendments to OAR Chapter 340

(1) General comments

While we understand the need for a short emissions test for in-use vehicles, we wish to point out the potential problem of establishing retroactive HC and CO idle limits for used vehicles as there is no legal basis for this. These vehicles were designed to meet emissions standards based on a cycle; at the time these vehicles were built, there were no idle limits required.

If idle limits cannot be met, who is responsible? Certainly not the manufacturer, since his vehicles meet the regulations in effect at the time they were built - nor the owner or service station if the vehicle has been correctly maintained.

(2) Proposed CO limits

(Chart based on figures given on page 10 of the proposed amendment DEQ/VIP 76120):

	<u>Proposed Values</u>	<u>Values requested by Renault</u>
1975 and later (fuel inj.)	1.0 + 0.5	1.5 + 0.5
1975 (carburetor)	0.5 + 0.5	OK (catalyst)
1976 (carburetor)	0.5 + 0.5	1.5 + 0.5 (no catalyst)
1971 through 1974	3.0 + 1.0	OK
1958 through 1970	5.0 + 1.0	OK
Pre-1968	5.0 + 0.5	Maximum 8.0

July 12, 1976

(3) Proposed HC limits

(Chart based on figures given on page 12 of the proposed amendment)

	<u>Proposed values</u>	<u>Values requested by Renault</u>
4 or less cylinder engines, pre-1968	1600 + 250	Maximum 1900
1970 through <u>1972</u>	(500 + 200 (400 + 200	600 + 200
Others		OK

Thank you for the opportunity to comment on these proposed idle emissions standards.

Very truly yours,

RENAULT USA, INC.



Marilyn Mehr
Govt. Liaison Coordinator

STATE OF OREGON
R E C E I V E D

JUL 16 1976

Dept. of Environmental Quality
July 15 1976
Vehicle Inspection Division

Department of Environmental Quality
1234 S.W. Morrison
Portland OR 97205

Gentlemen:

In response to your Information Bulletin No. 76175 the following is submitted:

The allowable emission values proposed through June 1977 including tolerances are 2% CO and 175 ppm CH for 1975 and later Chrysler, Ford, and GM vehicles.

My 1966 Ford passed the test at 0.8% CO and 85 ppm CH. A copy of the test is attached. The car has 115,000 miles on it and has never been tuned specifically to be within allowable emission values.

As you can see from the above figures my older car is running clean at less than half the pollution allowed for the latest automobiles with their catalyst equipment. My car has been running clean for years because I keep it tuned by simple hand adjustments, selection of fuel, and selection of motor oil.

In my opinion you are imposing an extra cost and inconvenience upon me by requiring that I go to one of your stations for the test.

The suggestion is made here that motorists obtain a valid test receipt from their gasoline service station. Such test to be based on carbon monoxide only.

Sincerely,

Walter N. Smith

Walter N. Smith 289-9624 week days
5423 S.W. Dolph Drive
Portland OR 97219

S
Attach: Test Copy

TEST DATE	
76	196
Year	Day of Year

DEPARTMENT OF ENVIRONMENTAL QUALITY

PASSED
VOLUNTARY TEST



License	Year	Make	Line	Engine CID/cc
JFF 095	66	FORD	FORD	352

VEHICLE CLASS STANDARDS MAXIMUM ALLOWED AT IDLE	
CO %	6.0 (0.8)
HC ppm	1300 (85)

THIS VEHICLE COMPLIED WITH THE EXHAUST EMISSION STANDARDS SHOWN WHEN TESTED TODAY.

THIS TEST DOES NOT REPLACE A MANDATORY TEST.

Remember, you must obtain a certificate of compliance within a 90 day period before you renew your vehicle license plate if your vehicle is registered within the boundaries of the metropolitan service district around Portland and is not otherwise exempt as listed below.

INSPECTOR

R-H.

DEQ/VID 75319

Some vehicles within the test area do not need a certificate of compliance for registration. If your vehicle (1) is a new vehicle being registered for the first time; (2) was manufactured prior to 1942; (3) has a farm plate; (4) is a motorcycle; or (5) is rated at over 8,400 pounds gross vehicle weight (GVW) you do not need to submit a compliance certificate with your registration.

(Over)

June 29, 1976

Vehicle Inspection Division

Department of Environmental Quality
1234 S. W. Morrison Street
Portland, Oregon 97205

Refer to your bulletin 76175

I am interested and herewith offer comment.

You are greedy to ask for a fee for electric vehicle.

The difference between monoxide out of catalyst and out of non-catalyst is extremely small.

I have a 1950 Chevrolet and it passed test at 1% monoxide. I have a 1966 Ford 352 and it tests at 1%. Both these cars have been running in their same tune for years. I should not have to pay a fee nor should I be required to run further test at your station.

You can sniff the exhaust pipe but that could mean that your instruments do not measure accurately. If your measurement is accurate that does not mean that the emission will remain stable. Some local shops cannot tune up an engine as observed by inexperienced motorists.

DEQ you have a bucket of worms.

EXHAUST EMISSION; The high monoxide figure found in actual off street car is due to improper proportioning of fuel by gasoline producers. They do not prepare fuel which will keep valve stems free and keep valves seated.

STORAGE EMISSION; This is emission of vapor from top of fuel tank; and, emission of vapor from bowl of carburettor; and, is emission of vapor from case vent.

Emission can be serious. If you would check this just try three fulls of Texaco gasoline. Refill you case with Valvoline HD single viscosity, 20 or 30. You could experiencenear paralysis of legs and lungs.

DEQ you are doing a dis-service by alluding to the car.

The oil producers and gasoline producers are faulting.

DEQ your campaign will eventually fail. Give it up.

Walter N. Smith

Walter N. Smith 64 289-9624 wk dy
902 N. Killingsworth 97217
5423 S.W. Dolph Drive 97219

U. S. Technical Representatives of: STATE OF OREGON



AUTOMOBILES
PEUGEOT
Paris, France

R E C E I V E D

JUL 19 1976

Dept. of Environmental Quality
Vehicle Inspection Division

July 15, 1976

D - 5670

Cables: CITECNIC
Telex: RCA 22-3030
(212) 661-0870
(212) 689-0268

Department of Environmental Quality,
Manager,
Vehicle Inspection Program,
1234 S.W. Morrison St.,
Portland, Oregon 97205.

Gentlemen:

Further to a notice concerning the proposal of amendments to rules governing motor vehicle emission inspection to the Environmental Quality Commission, we wish to comment as follows:

As far as the HC limits are concerned, for 1968 vehicles a 1900 PPM upper limit would be much preferred. For 1970 to 1972 models, 600 PPM would be most acceptable (at the very least 500 PPM) notwithstanding the one year 200 PPM tolerance.

We hope these comments will be helpful and we thank you in advance for your consideration of them.

Very truly yours,

M. Grossman,
U.S. Factory Representative
PEUGEOT

MG:tc

TOYOTA MOTOR COMPANY, LTD.

INFORMATION SUBMITTED FOR PUBLIC HEARING
STATE OF OREGON, DEPARTMENT OF ENVIRONMENTAL QUALITY
JULY 16, 1976

Toyota has studied the problems of setting idle HC & CO standards that will reject improperly maintained and tampered vehicles and, correspondingly, pass vehicles that are in proper tune. Since Toyota does not have official tune-up HC/CO specifications (due to the adjustment procedure approved by the U.S. Environmental Protection Agency), we analyzed the idle emission distribution of production vehicles, then applied factors appropriate to an adequately maintained vehicle to determine the probable idle emission performance of such a vehicle over time. Based on this analysis we find the following standards appropriate for 1975 and 1976 model Toyota vehicles.

Toyota models without catalyst	300	Idle HC-ppm	2.5	Idle CO-%
Toyota models with catalyst	50		0.3	

The value for non-catalyst vehicles represents the natural tendency for small displacement engines to have higher percentages of HC and CO at idle due to the low exhaust gas volume, despite being certified well below the 1975 standards in the U.S.E.P.A. certification testing.

For your information we have attached some factory testing data. We appreciate the opportunity to present this information to you.

Attachment

The following represents data collected from a statistically significant sample of 1975 production year Toyotas, as measured at the end of the assembly line. We expect that data from 1976 models would be essentially identical. The figures shown here represent "green" engines with no mileage accumulation, and must be treated as such.

Mean Plus 3 Std. deviations ($\bar{X} + 3 \text{ Sigma}$)

<u>Engine</u> (Vehicle)	<u>Idle HC-PPM</u>	<u>Idle CO - %</u>
4 cyl 2T-C (Corolla)	201	2.2
w/coat 4 cyl 20R (Corona, Celica)	184	1.1
w/o coat 4 cyl 20R (Pick-up truck)	264	2.4
6 cyl 2F (Land Cruiser)	143	1.3

98%

4M engine not mentioned
Mark II & Crown

STATE OF OREGON
R E C E I V E D

JUL 16 1976

Dept. of Environmental Quality
Vehicle Inspection Division

July 13, 1976

Department of Environmental Quality
Manager, Vehicle Inspection Program
1234 S.W. Morrison St.
Portland, Oregon 97205

Dear Sir:

We have reviewed the proposed rules governing motor vehicle emission inspection. Your program can make a contribution to air quality improvement in Oregon if amended as suggested below.

Rather than the detailed listing of vehicles by make and model year, Volkswagenwerk AG and Audi NSU Auto Union suggest the following standard for idle CO: (corrected to sea level)

75 Models	3.0% plus 1% tolerance
74 and Older Models	5.0% plus 1% tolerance

with no standards for HC at idle.

The CO standard must be set at the values suggested because the test procedure proposed by the OAR allows influences stemming from

- differing operation temperature
- oil dilution
- deposits in the combustion chamber
- degree of absorption of hydrocarbon in the charcoal canister evaporative control.

These influences are excluded under the CO idle setting instructions of Volkswagen and Audi. The value allowed under the OAR procedure, therefore, must be set as suggested to achieve reasonable results.

Furthermore, we have not been able to trace the source of the detailed OAR listing which fails anyhow to specify values for 1976 and 1977 models which have CO idle figures which differ remarkably from 1975 models.

Dept. of Environmental Quality
Page Two
July 13, 1976

The standard should be equal for all classes of passenger cars because:

- a. There can be no mixup of classes.
- b. There is a uniform standard of 4.5% CO limit at idle for Europe.
- c. In the EPA driving test all vehicles must meet the same standard by model year
- d. It is also possible to test the conversion behavior of catalyst equipped vehicles by the standards suggested because cars with catalyst malfunction would exceed the standard.
- e. It would not be necessary to set new values for each and every model year.

We also have the following comments to the proposed amendments:

Paragraph 1: The leakage of the exhaust system could be checked more easily by closing the exhaust pipe while the engine is at idle. If the system is tight a closing of the exhaust pipe will result in an easily ascertainable drop of idle speed. It is, therefore, unnecessary to prescribe a regulation which would require expensive additional test equipment for CO₂.

Paragraph 3: The suggested test procedure to determine idle emissions is different from our specifications for VW workshops. This results in the consequences mentioned above. We assume that the proposed state rules do not interfere with the manufacturers' specifications.

Paragraph 4: The use of emission related after-market parts has to be approved by EPA. Therefore, we request to list all those parts for Volkswagen and Audi which EPA has approved. Especially the last sentence of paragraph 4(a) should read as follows:

'The Department will maintain the listing of those parts which have been determined to not adversely affect emission control efficiency.'

Dept. of Environmental Quality
Page Three
July 13, 1976

Paragraph 6: VW exchange engines are equivalent to those of the certified model year. The suggested rule would make it necessary to adjust the vehicle in order to have it in compliance to another model year. Such assimilation cannot be accepted.

Finally, we want to emphasize that all the emission test instruments for idle testing on the market vary to a certain amount. Therefore, we suggest to focus especially at the state-owned test cells on calibration and correlation problems.

Very truly yours,


H. Schlumbohm
Manager
Emissions & Development

HS/pem

APPENDIX C

Manufacturers' Comments from Hearing July 16, 1976

A public hearing was held July 16, 1976, to obtain comments regarding the amendments to the vehicle inspection rules, specifically the updating of the standards. We received comments from the following manufacturers, most in written format only: American Motors, British Leyland, Champion Spark Plug Co., Chrysler Corp., Ford Motor Co., General Motors, Peugeot, Renault, Toyota, and Volkswagen. It should be noted that while the hearing dealt only with the amendments, the majority of comments made at least passing reference to the philosophy of inspection maintenance. A brief summary of the comments might be "We support the concept of inspection maintenance, but ..."

The major points, common to most all of the domestic manufacturers, are that the standards are too strict and restrictive, especially in the area of the hydrocarbon standards. This attitude was not strongly expressed by the responding foreign manufacturers. Several of the manufacturers provided specific recommendations for the standards, and a few provided their first official comments on the Oregon Program.

Another of the major points common to many of the statements was repeated references to the end of the assembly line testing, mandated by California and to the cut points used. Appendix D contains discussion of the significance of those cut points.

Based upon a genuine concern expressed by the manufacturers, and to compensate for the inherent variability which is being observed in the garage industry testing equipment, it is proposed to increase from 50 ppm to 100 ppm the hydrocarbon tolerance level for 1975 and 1976 model year vehicles.

The following is a capsule summary of the manufacturers' comments and provides meaningful discussion or rebuttal of the points raised. Copies of their statements are included in the Hearing Officer's report. To substantiate portions of this discussion, excerpts of our data are presented in Appendix D.

American Motors

American Motors supports the concept of inspection maintenance as they feel that it will re-enforce the maintenance recommendations listed in the owners' manual. Their main concern appears to be that the CO standard for 1975 and later is too stringent, even with the enforcement tolerance. They stated that the engine design should be included in the parameters used to establish any standards. They are concerned about the relationship that exists between an idle test and the Federal certification test.

Regarding their specific comments, an inspection maintenance program relies on vehicle owners performing the maintenance scheduled in the owner's manual, or at the least, maintenance that reasonably resembles that which is outlined. Benefits to the customer include not only a reduction in pollution, but it also provides the framework for a long engine life. The comment that the design relationships be included in the consideration to determine an idle standard is a main element of our methodology used to develop the specific standards. The relationship between Federal testing (CVS) and idle testing was also discussed in our report to the Commission of March 28, 1975, and our supporting public hearing reports. American Motors' concern that our idle standards for their 1975 and later non-catalyst vehicles are too stringent would appear unjustified, based upon their data presented. If there should be technical advances which might occur after the 1976 model year, these will be evaluated in our yearly review and update.

British Leyland

British Leyland presented no written testimony. A Mr. Hoppe, representing British Leyland, did make an oral statement. A summary of his statement was that our standards were too stringent and that we should use values that relate to the manufacturer's recommendations and tune-up procedures. He also stated that our proposed standards were more stringent than the British Leyland idle adjustment values. Under questioning, he did agree that those idle adjustment numbers are to be used when certain specific pollution devices, such as an air pump, are disconnected or inoperative. He then stated that he was not aware that our proposed standards were values for an idle emission inspection and were to be taken at the tailpipe with all pollution control systems operating correctly. He also stated that he would contact the British Leyland headquarters in Leonia, N.J. and that they would submit data documenting their points. To date, we have received no further contact with British Leyland in New Jersey.

Champion

Champion encourages motor vehicle inspection in combination with a safety inspection as being most cost-effective. They predict that savings resulting from decreased fuel consumption would defray much of the cost to the car owner. As Champion recommends, the emissions and safety checks could be done on a yearly basis.

Chrysler Corporation

Chrysler Corporation submitted a statement that supports the concept of inspection - maintenance. They stated that their "vehicles meet Federal emission standards unless they have been tampered with, or their systems have not been properly maintained." Chrysler then discusses the differences between

the idle test and the Federal testing, implying that while Oregon is permitted to conduct an I/M program, wonders if it's improper under the terms of the Federal Clean Air Act. They then mention that the Oregon standards might be too strict, increasing incidents of readjustments. They call for a field test which correlates with the Federal CVS test.

Regarding the specific comments made by Chrysler Corporation, first that the results of a field emissions test must correlate with the Federal Standard - this only applies to the extent if the provisions of 207B of the Federal Clean Air Act are to be invoked. This section applies to warrantee provisions and the manufacturer's liability for repairs. That the Oregon test does not correlate with the Federal Standards is not a proven fact, as was stated by Chrysler. In the Department's report for the public hearings for the adoption of the inspection rules, Appendix C attached, we stated:

"EPA regulations specify the maintenance allowed during Federal certification and also specify that those engine tune-up specifications and adjustments are recommended by the manufacturer be included on a permanent label readily visible in the engine compartment. Additionally, the manufacturers' documents to the Federal Government, under the terms of those regulations, that the maintenance instructions on that label are reasonable and necessary to assure compliance with the Federal emission standards. These maintenance instructions specify the recommended engine tuning parameters. The vehicle owner's manual lists the manufacturers' recommended maintenance and intervals, and these maintenance recommendations include the checking and adjusting of those same engine parameters. The connection between properly maintained vehicles and the ability of a vehicle to pass the Federal emission test is evident since the recommended vehicle maintenance includes those same adjustments and checks which the manufacturers perform during the vehicle certification. These base recommendations are substantially those presented on the engine labels of the vehicles when they are sold. These labels have been on all cars sold in the United States since the 1968 model year and have been permanently affixed and usually include the idle CO setting, since the 1972 model year."

The Department has had various communications with Chrysler Corporation regarding the manufacturers' idle CO tune-up specifications, copies attached, Appendix D, and as can easily be seen, they are in line with our idle emission inspection standards. Chrysler Corporation has not documented any instances of vehicles set out of specifications as passing the Federal Test; quite the contrary, they go to a great degree of effort in their service publications to detail exacting procedures that the service industry should follow to correctly "tune" a vehicle.

Chrysler Corporation suggests that the hydrocarbon standards for all vehicles from 1972 on are too stringent. Our data does not support this point, though we have observed for 1975 and 1976 vehicles a higher than expected idle hydrocarbon level. These, however, have usually been coupled with high CO levels. These, however, have usually been coupled with high CO levels indicating a misadjusted or out of specification vehicle. The proposed increase in the hydrocarbon enforcement tolerance would eliminate some of the variability associated with minor intermittent variations. Chrysler's suggestions on the carbon monoxide and hydrocarbon limits appear inconsistent with the limits indicated by their tune-up specifications, unique servicing feature (catalyst tap), and engineering advances in vehicle design which would allow for precise and accurate manufacture and servicing.

Ford Motor Co.

Ford Motor Company submitted a statement that:

1.) Supports inspection maintenance programs; 2.) Questions the stringency of our idle emissions standards; 3.) Comments upon the over 6,000 GVW classification.

As Ford stated, they are on record as supporting the inspection maintenance concept publicly and before the Oregon House Task Force Committee. They do not, however, necessarily agree with the approach used by the DEQ for establishing the Oregon standards and suggest that they might be too complex and stringent, indicating that a simple approach such as was in use during our voluntary program might be more acceptable. Ford has supplied much data obtained from its California end-of-the-assembly-line testing program and cites that a large percentage of a specific engine family, based upon this testing, would seem to fail the Oregon Standards. They do recognize the differences between California vehicles and 49 state vehicles, and are gathering data on those vehicles now. They comment favorably on certain portions of the regulation dealing with test methods; specifically the underhood inspection; slightly misinterpret the idle specifications; and suggest further expansion of the test procedure to include a timing check. Ford briefly discusses the over 6000 lb. category, and suggests that this area of testing may be premature as currently the Federal definition of light duty vehicles stops at 6000 lbs. gross.

The Department has attempted to incorporate in our idle standards an understanding of the engine system design, so that the standards are reasonable and equitable. Data, such as submitted by Ford, assists greatly in carrying out this goal. When data indicates the possibility of unjust failures to a specific engine family, the Department works with the manufacturer, in this case Ford, to determine the extent of the problem. In this instance, the differences were due to the procedures used, so that the standard remains equitable.

Regarding Ford's comments on the idle speed limit of our regulation, the purpose is to incorporate an upper rpm limit to prevent increasing the engine speed out of a specified range and defeating the purpose of the test. The intent of the section of the regulation dealing with this area is to put an upper limit on engine rpm. If a manufacturer has a design which exceeds the 1250 rpm cut point, his specification becomes the governing limit. The inclusion of a timing check, as suggested by Ford, could be construed as engaging in repair and diagnosis; would necessitate physical connections or disconnections to the customer's vehicle; and would increase test time and costs.

A serious question is raised regarding the category of vehicles above 6000 lbs. GVW. These vehicles are not certified as regular light duty cars, but rather their engines are certified using a heavy duty testing procedure. Nevertheless, the standards being applied are again consistent with the same philosophy used on the light duty vehicles and incorporates consideration to engine design. Currently, there has been no indication in our testing program of serious and substantial problems existing in the testing of these vehicles.

General Motors

General Motors submitted a statement for the public hearing. General Motors supports inspection maintenance, but voiced two major reservations regarding our program.

1. The HC and CO standards for 1975 and later GM vehicles.
2. The HC standards for 1974 and later GM vehicles above 6000 GVW.

Regarding the HC and CO standards for 1975 and later vehicles, GM states that while the catalytic converter is recognized as an efficient emission control system for carbon monoxide and hydrocarbons, it does not in each case reduce the constituents in the exhaust gases for every production vehicle to the levels being proposed. The HC standards for those vehicles above 6000 GVW are objected to because of the differences in certification standard and Federal test procedures.

In response to General Motors' comments, the data presented by GM is limited and inconclusive. Granted there were vehicles that did pass CVS and could have failed a DEQ idle test, but the area of overall improvement after adjustments were made was left unexplored. One is concerned that overall vehicle performance and emissions could be improved further with minor, but correctly administered adjustments. Regarding the question posed

by those vehicles over 6000 GVW, the results of our inspection program do not indicate, at this time, there is a hydrocarbon standard associated with that class of vehicles is inappropriate. The increases proposed in the hydrocarbon standard tolerances should provide more than adequate coverage to account for any variation in test procedure.

Peugeot

Peugeot limited their comments to requesting an increase on the 1972 and earlier hydrocarbon limits. Based upon our experience in the testing program, there would appear to be no justification to increasing those limits for Peugeot.

Renault

The comments from Renault, while recognizing the need for inspection-maintenance, expressed concern over the costs involved in the repair. They suggested changes in the idle CO values for the latest version of their vehicles, which in the light of reevaluation would seem justified. Values were also suggested for 1972 and earlier hydrocarbon standards which are similar to those suggested by Peugeot. Again based upon our experience and the data obtained from the program, a change in these hydrocarbon levels would not appear justified.

Toyota

Toyota submitted a statement supporting inspection maintenance and offering alternative suggestions for the Standards. Toyota also supplied a summary of end-of-the-assembly-line data. Through an oversight, we had omitted references to their Mark II line catalyst equipped vehicles. It is worthy of note that the values suggested by Toyota for their catalyst equipped Corono Mark II, are more strict than any value we have yet proposed not only for CO, but most interestingly for hydrocarbons. A comparison of their proposal with exhaust levels suggested by some of the domestic manufacturers, even when taking into consideration some of the design differences, points this out. The recommendation to the Commission will be amended to reflect that vehicle line. The values submitted for adoption on the non-catalyst vehicles are substantially identical to those values suggested by Toyota.

Volkswagen

Volkswagen of America submitted a statement which outlines various changes which might be incorporated in our program. These suggestions appear to be at the request of the parent companies, Volkswagenwerk AG and Audi NSU Auto Union. These suggestions reflect various European techniques and shop methods which are contrary to the philosophy outlined by the Commissions' adoption of the present rules. Reviewing these suggestions, we find that they would not contribute any constructive benefit to our testing program. The suggested standards would not be appropriate in terms of reducing air pollution nor in terms of our basic philosophy in setting standards.

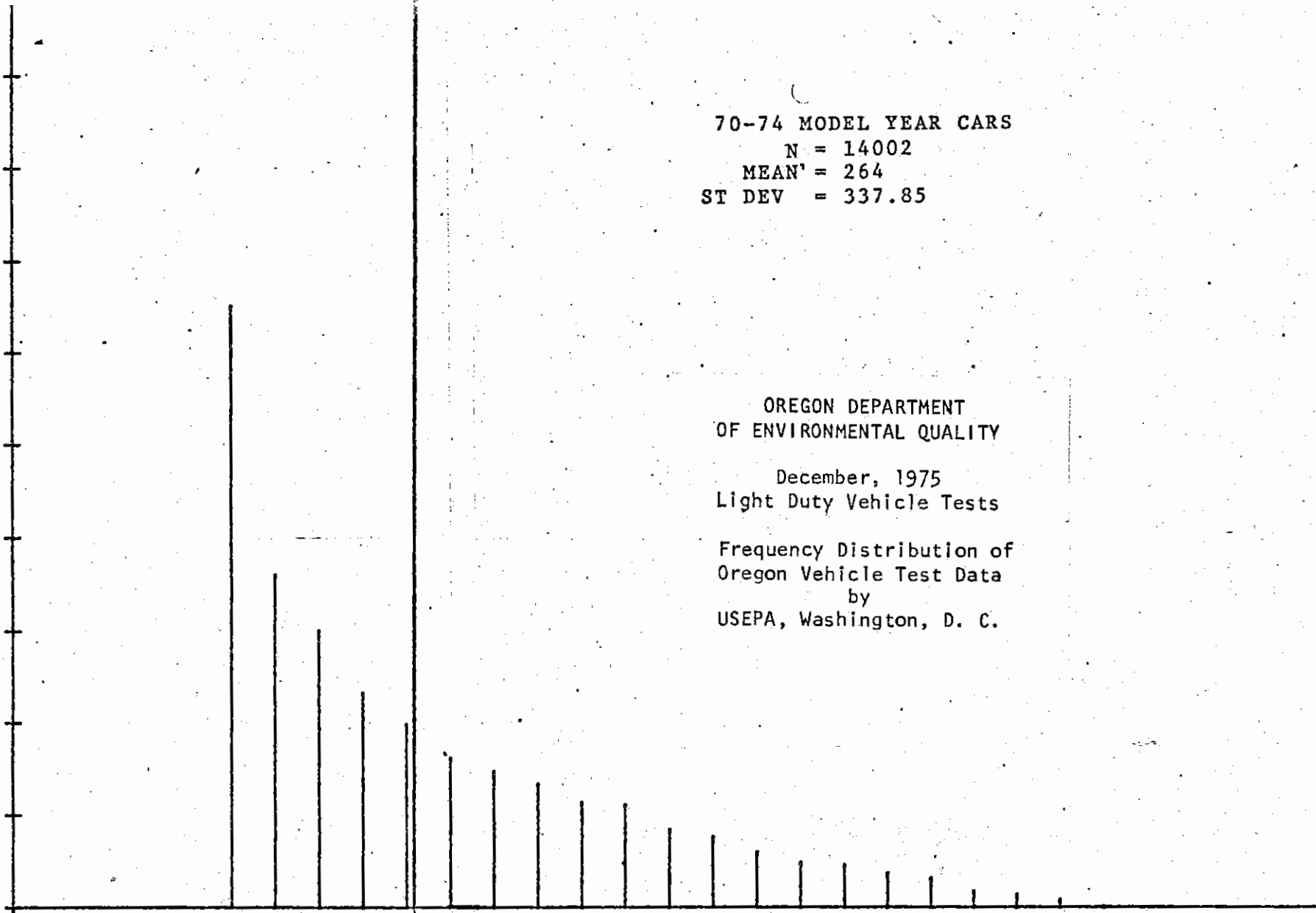
APPENDIX D

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1. Idle distribution curves
2. Memorandum, Fiat Aug. 5, 1976
3. Memorandum, Assembly line testing July 7, 1976
4. Memorandum, Update on Standards May 19, 1976
5. Memorandum, Standards - Justification May 18, 1976
6. Memorandum, Recommendation for Changing Standards Sept. 24, 1976
7. Letter, Chrysler to DEQ June 25, 1976
8. Excerpt - 1975 Toyota Emission Handbook
9. Excerpt - 1972 Pontiac Tune Up Sequences
& Emission Systems
10. Excerpt - 1976 Chrysler Diagnostic Charts and
Idle Emissions Check Procedure

PERCENTAGE OF SAMPLE

0.00 3.53 7.06 10.59 14.12 17.65 21.18 24.71 28.24 31.77



70-74 MODEL YEAR CARS
N = 14002
MEAN = 264
ST DEV = 337.85

OREGON DEPARTMENT
OF ENVIRONMENTAL QUALITY

December, 1975
Light Duty Vehicle Tests

Frequency Distribution of
Oregon Vehicle Test Data
by
USEPA, Washington, D. C.

CUTOFF POINT = 500

HC EMISSIONS [GROUPED]

PERCENTAGE OF SAMPLE

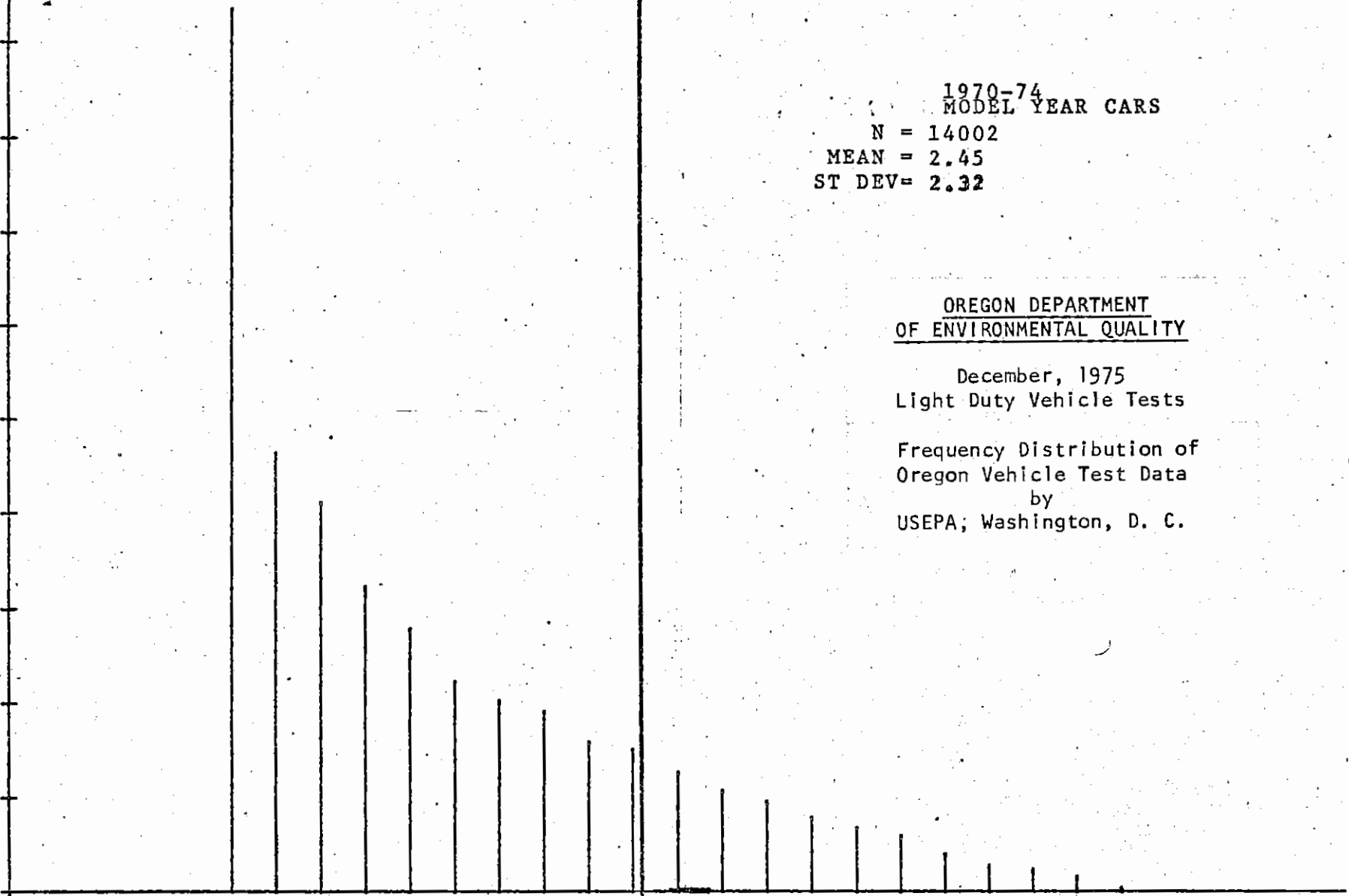
0.0 2.5 5.0 7.5 10.0 12.5 15.0 17.5 20.0 22.5

1970-74
MODEL YEAR CARS
N = 14002
MEAN = 2.45
ST DEV = 2.32

OREGON DEPARTMENT
OF ENVIRONMENTAL QUALITY

December, 1975
Light Duty Vehicle Tests

Frequency Distribution of
Oregon Vehicle Test Data
by
USEPA; Washington, D. C.

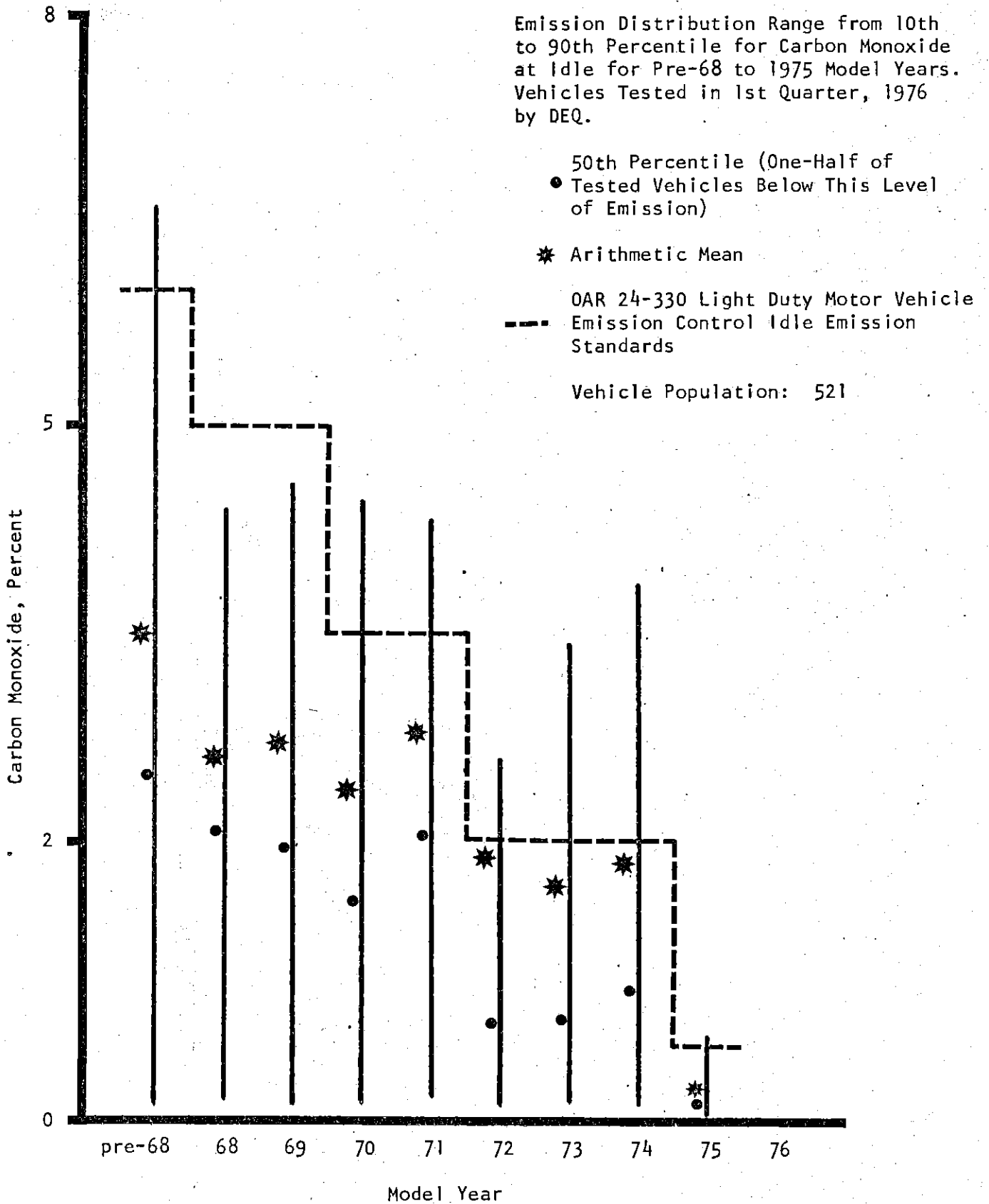


CUTOFF POINT = 5.00

CO EMISSIONS [GROUPED]

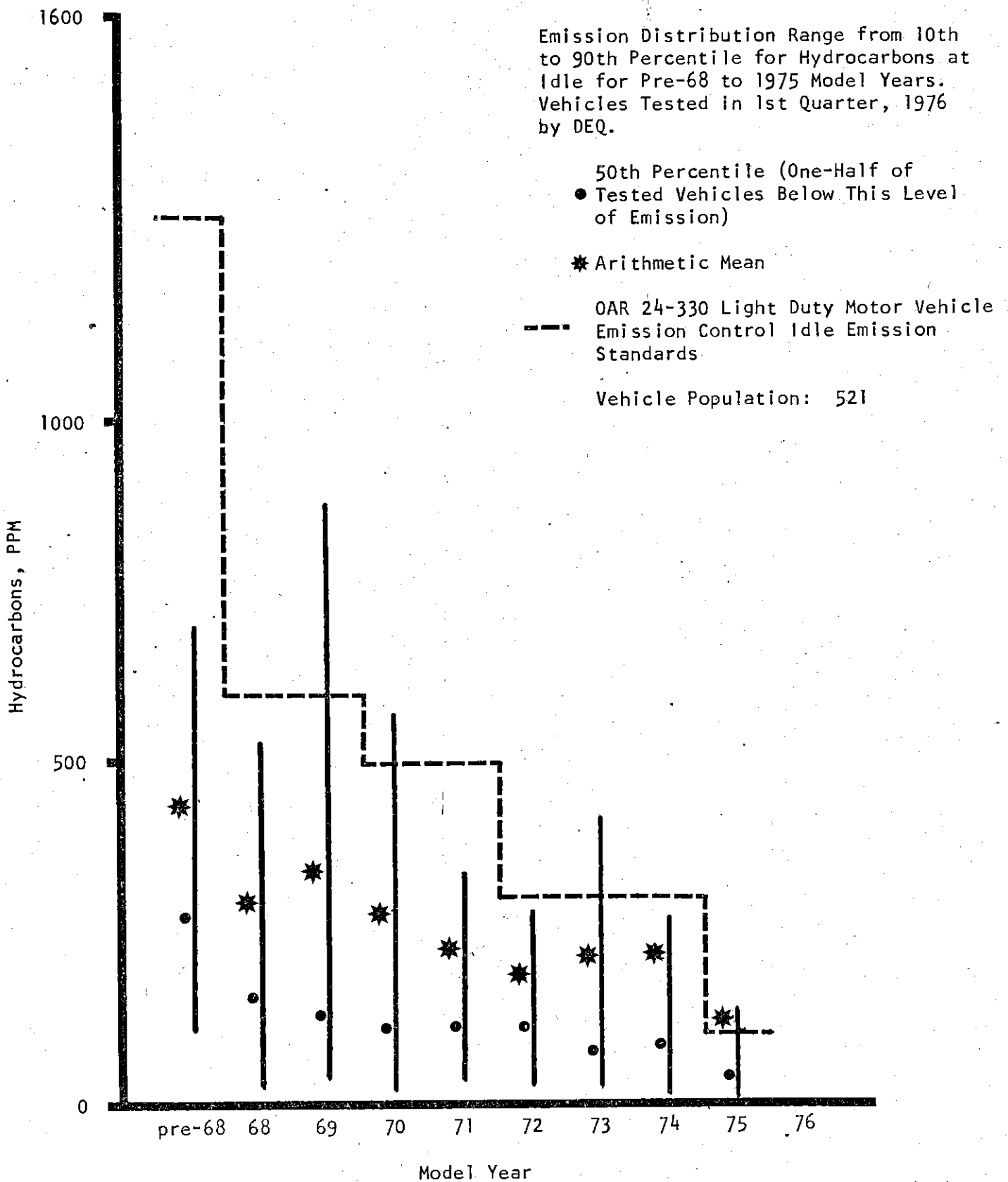
CARBON MONOXIDE DISTRIBUTION AT IDLE

AMERICAN MOTORS CORPORATION



HYDROCARBON DISTRIBUTION AT IDLE

AMERICAN MOTORS CORPORATION



CARBON MONOXIDE DISTRIBUTION AT IDLE

CHRYSLER CORPORATION

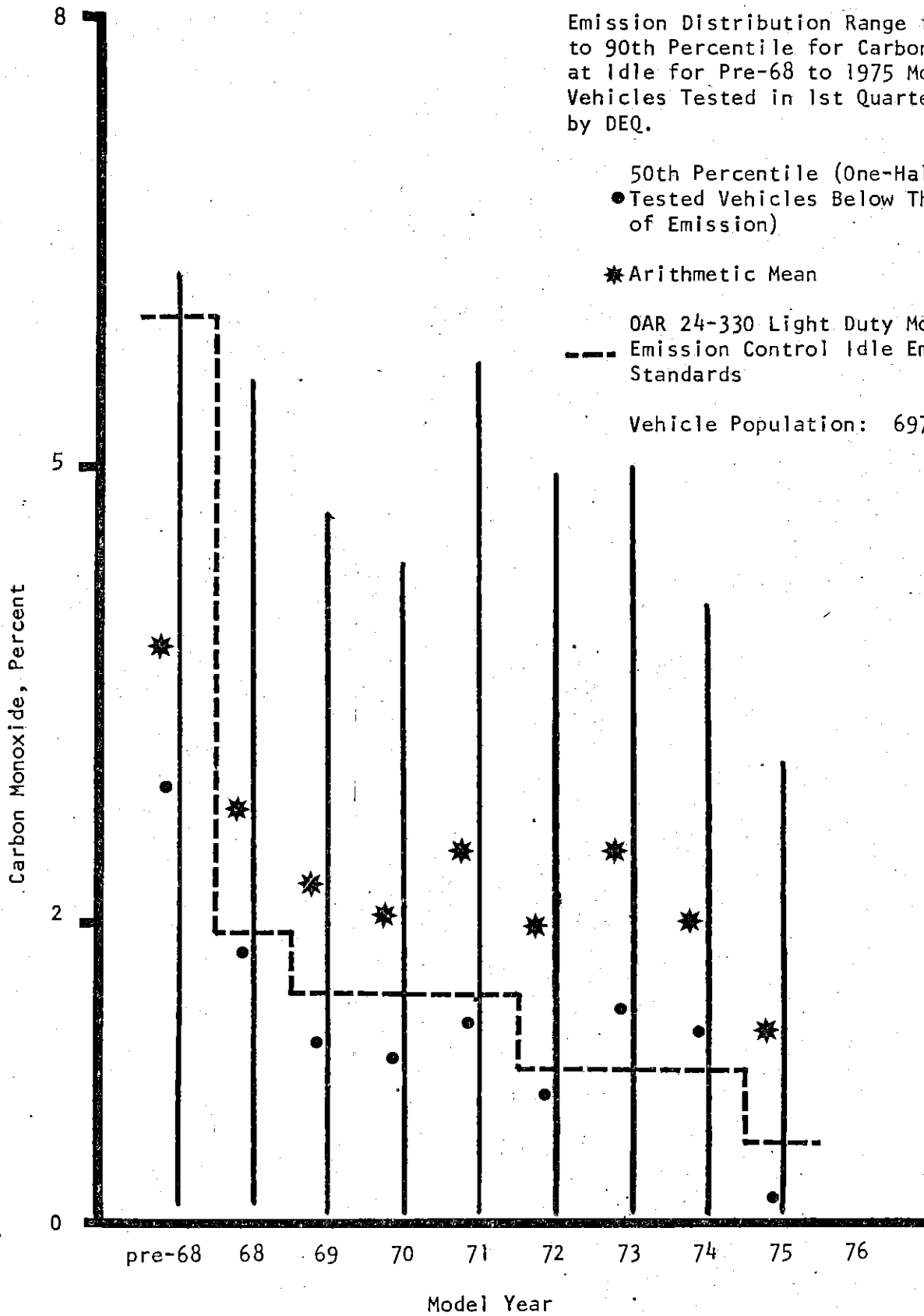
Emission Distribution Range from 10th to 90th Percentile for Carbon Monoxide at Idle for Pre-68 to 1975 Model Years. Vehicles Tested in 1st Quarter, 1976 by DEQ.

50th Percentile (One-Half of Tested Vehicles Below This Level of Emission)

* Arithmetic Mean

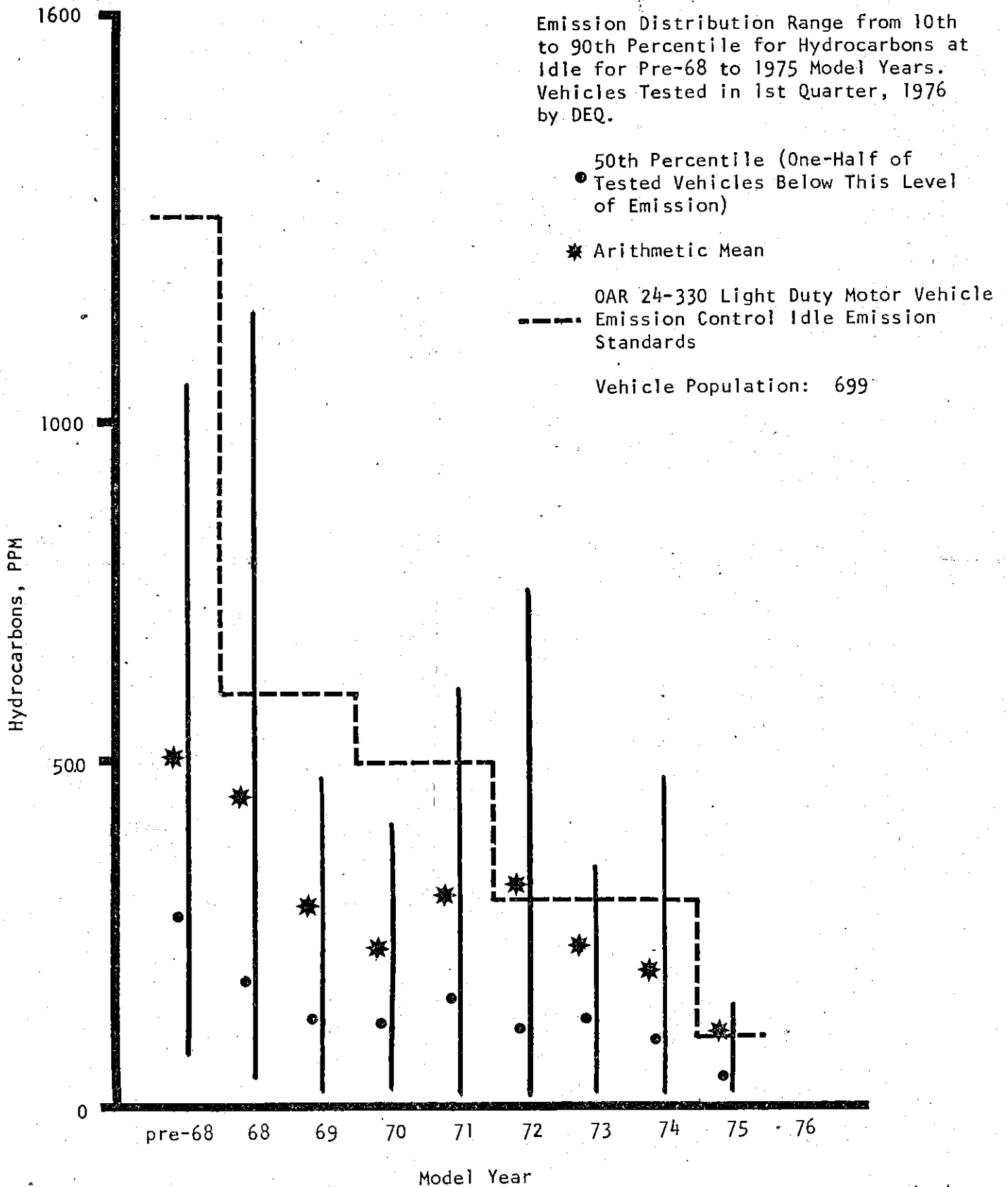
--- OAR 24-330 Light Duty Motor Vehicle Emission Control Idle Emission Standards

Vehicle Population: 697



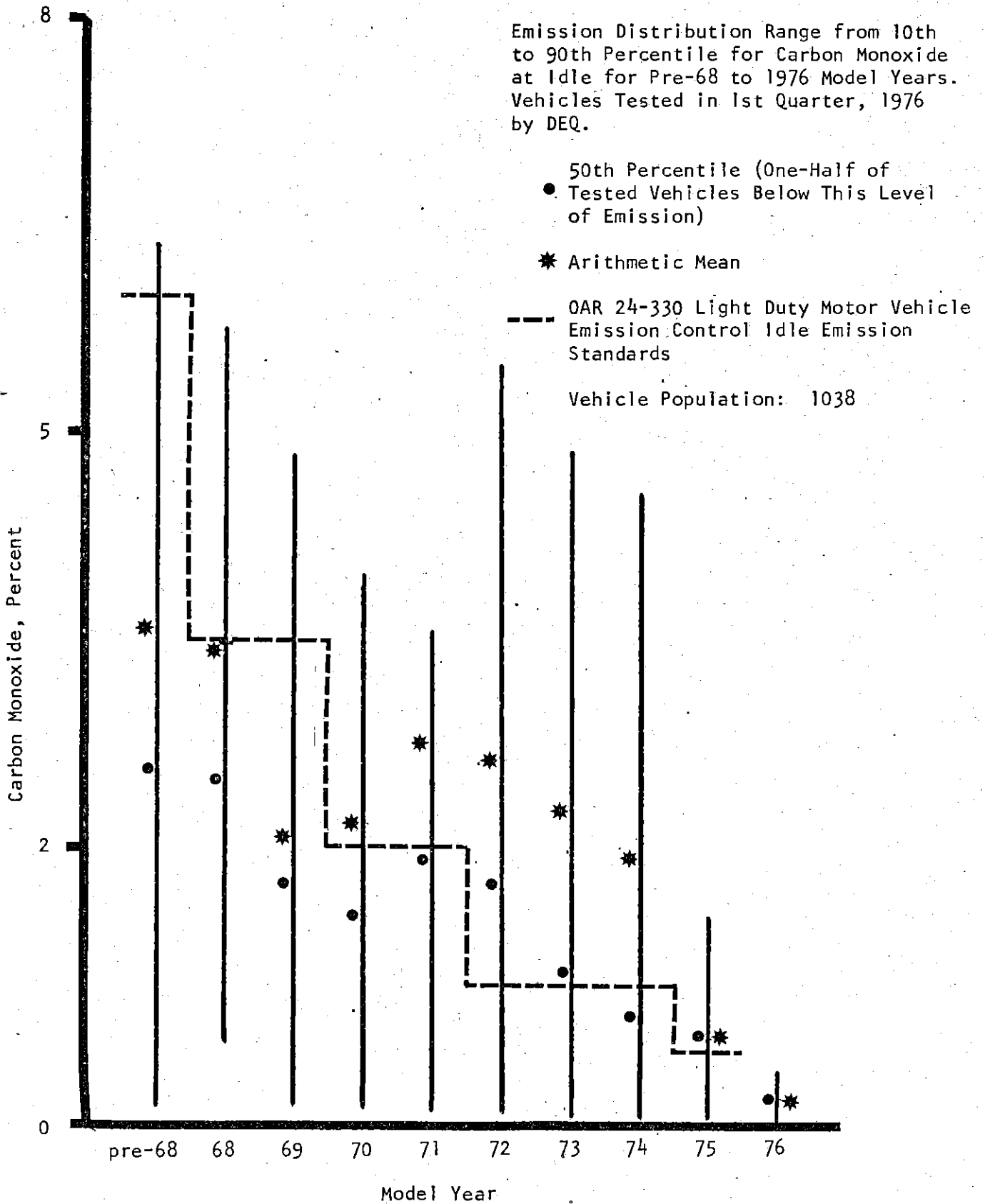
HYDROCARBON DISTRIBUTION AT IDLE

CHRYSLER CORPORATION



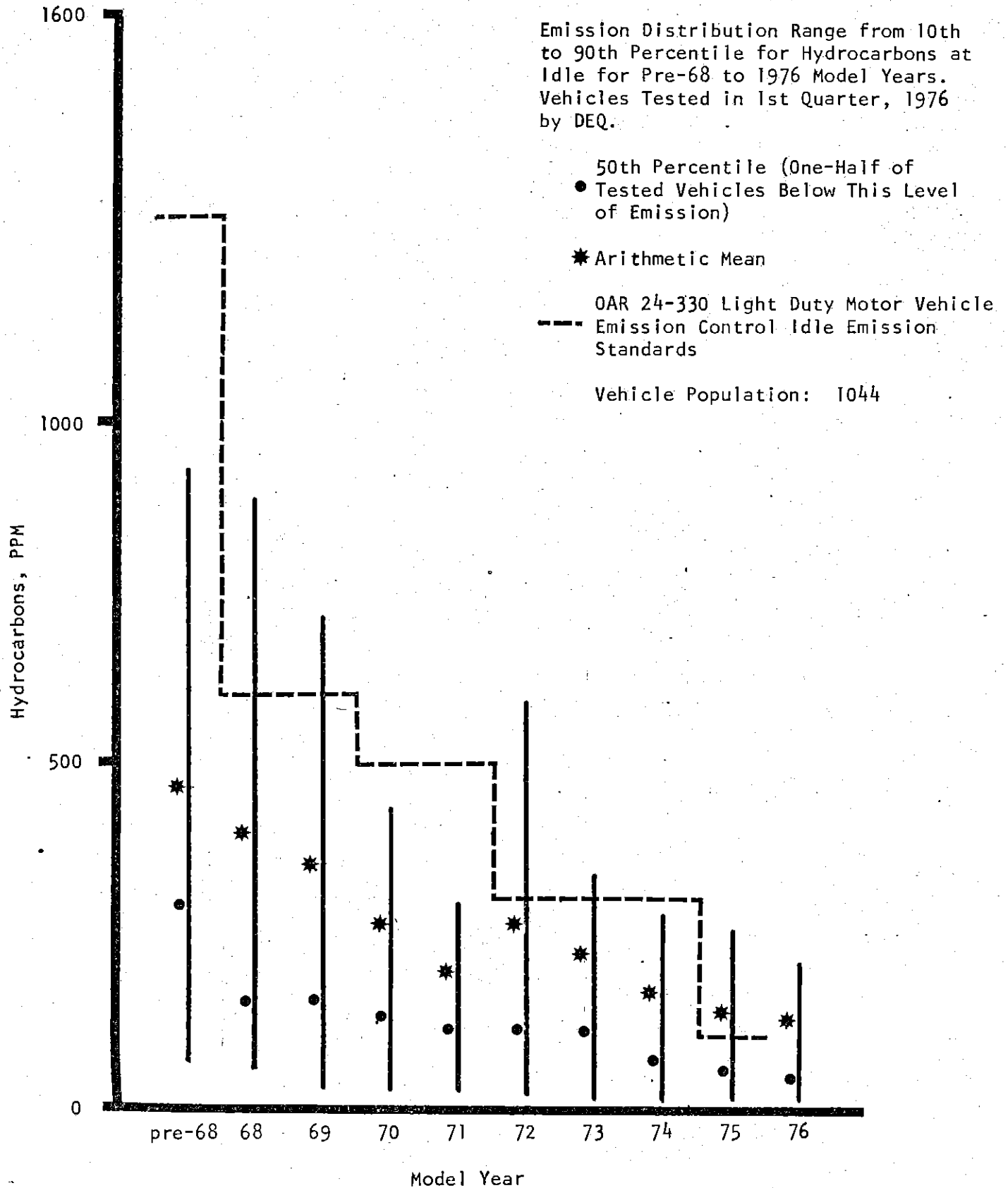
CARBON MONOXIDE DISTRIBUTION AT IDLE

FORD MOTOR COMPANY



HYDROCARBON DISTRIBUTION AT IDLE

FORD MOTOR COMPANY



CARBON MONOXIDE DISTRIBUTION AT IDLE

GENERAL MOTORS CORPORATION

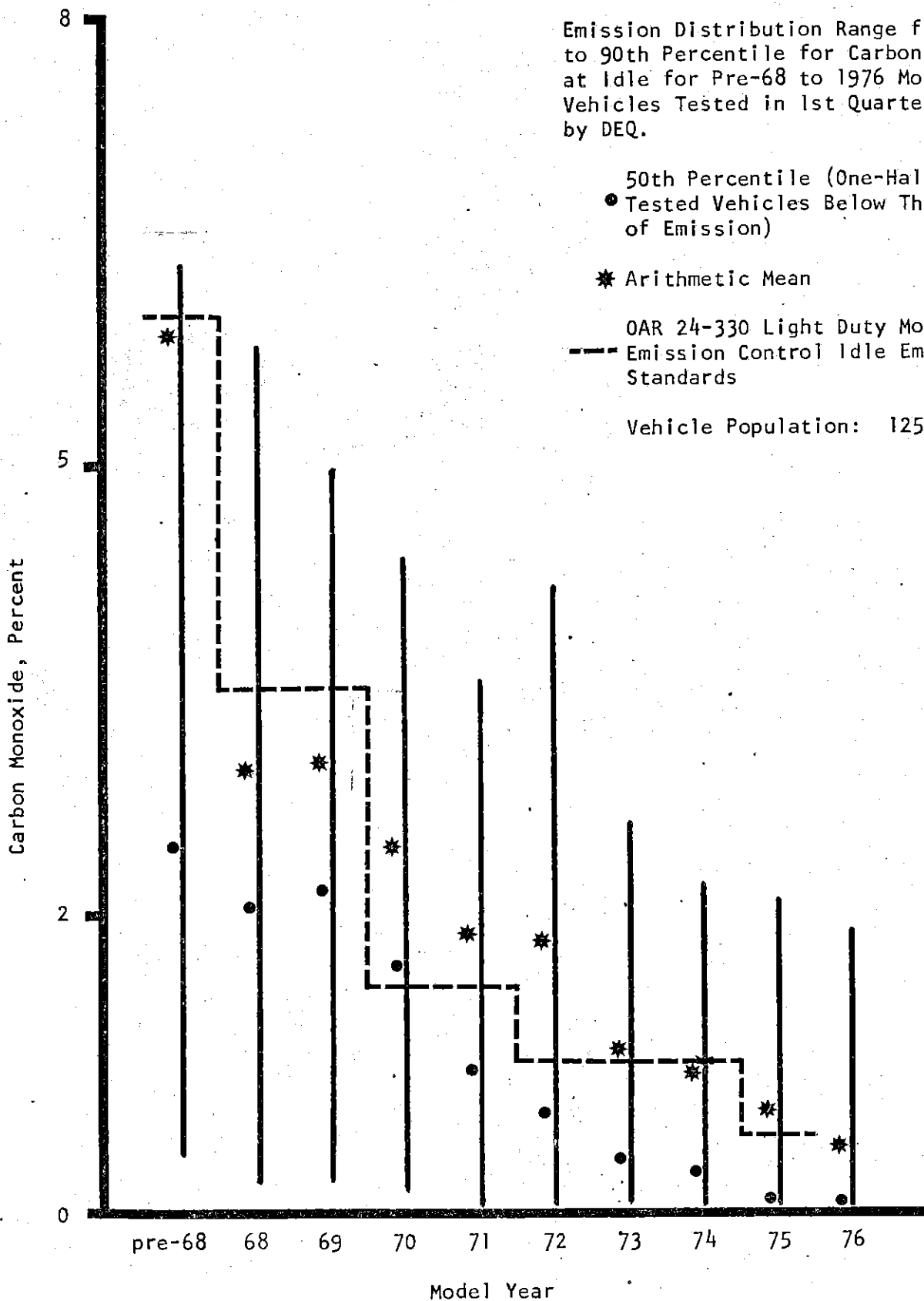
Emission Distribution Range from 10th to 90th Percentile for Carbon Monoxide at Idle for Pre-68 to 1976 Model Years. Vehicles Tested in 1st Quarter, 1976 by DEQ.

● 50th Percentile (One-Half of Tested Vehicles Below This Level of Emission)

* Arithmetic Mean

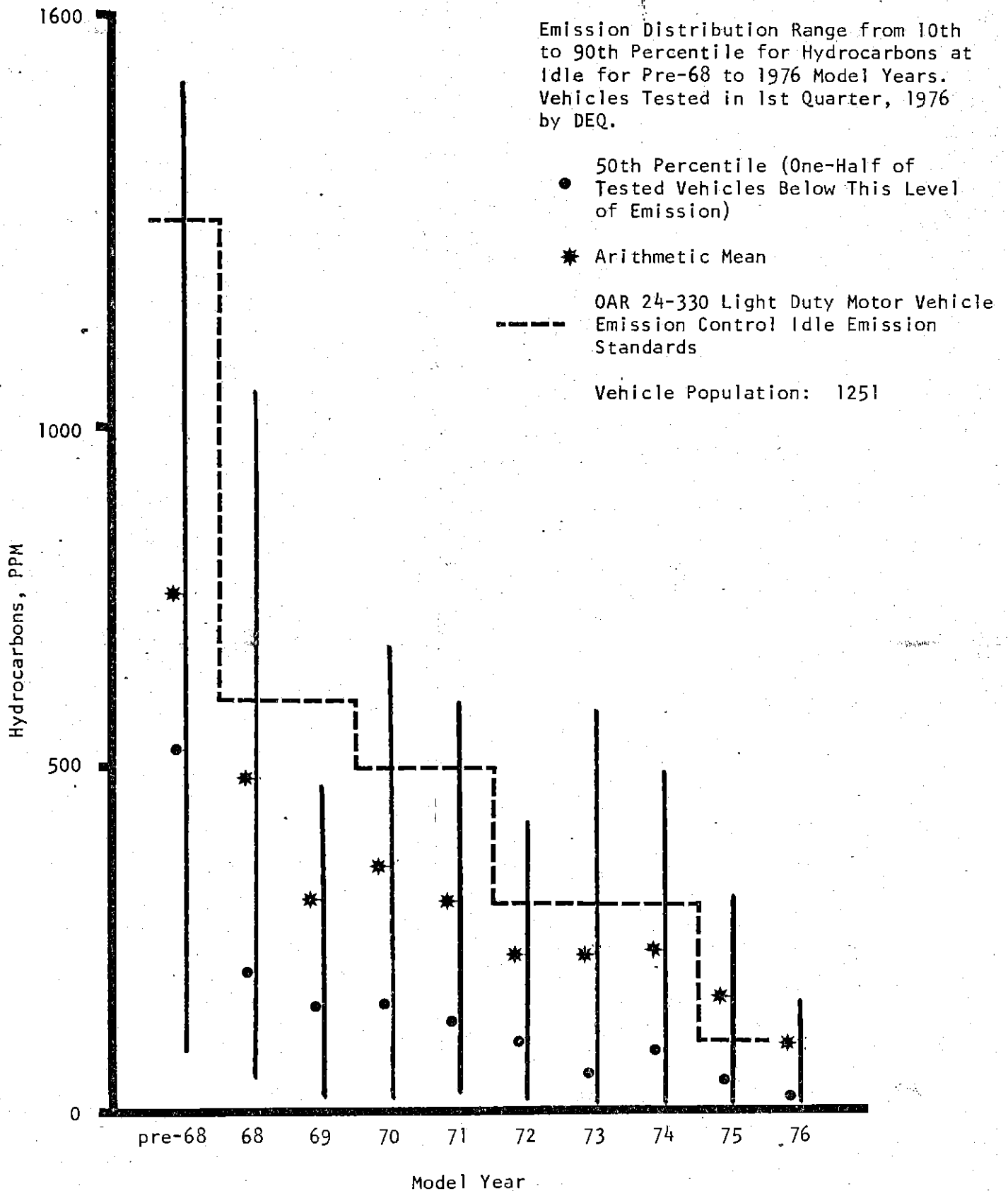
--- OAR 24-330 Light Duty Motor Vehicle Emission Control Idle Emission Standards

Vehicle Population: 1251



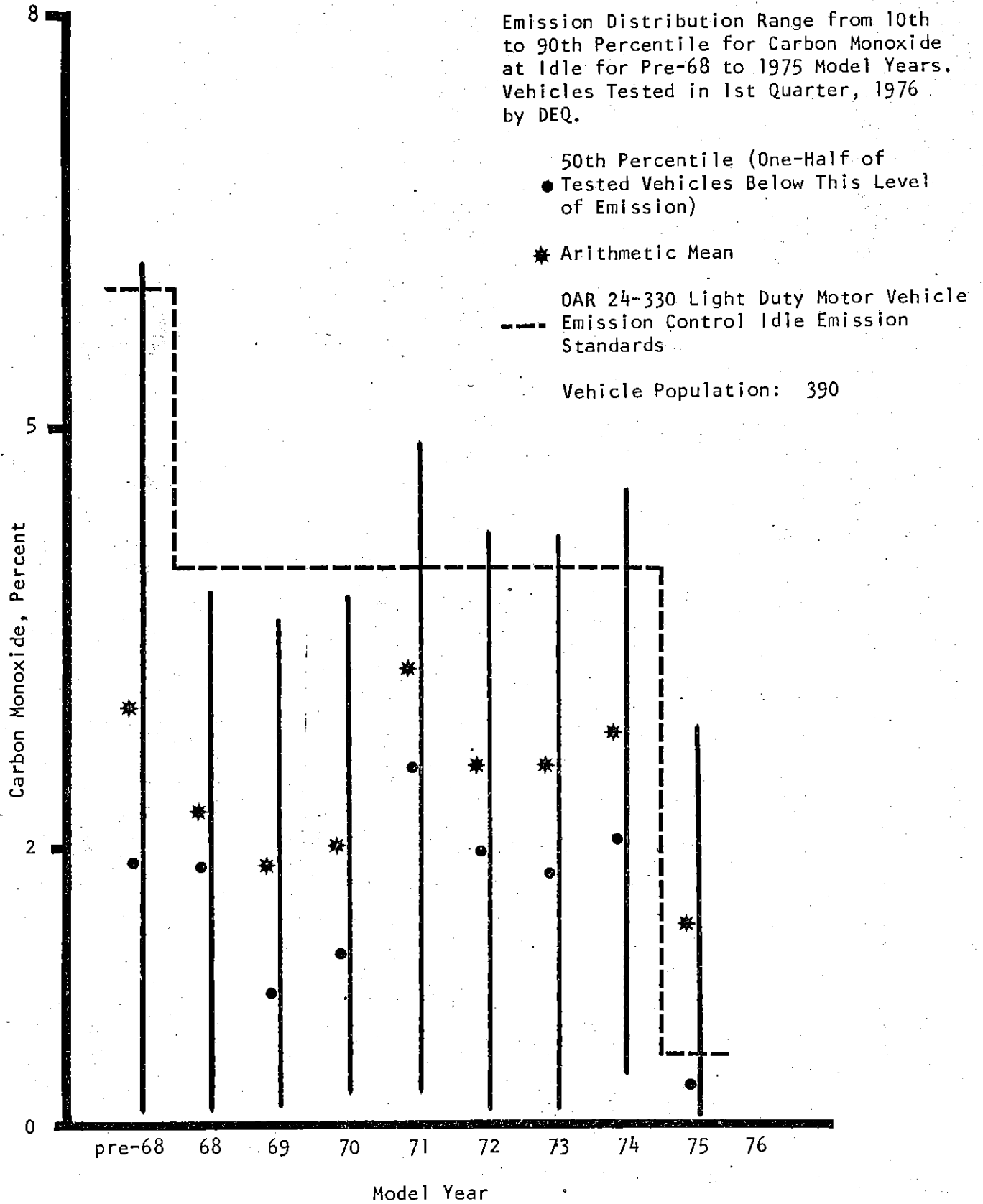
HYDROCARBON DISTRIBUTION AT IDLE

GENERAL MOTORS CORPORATION



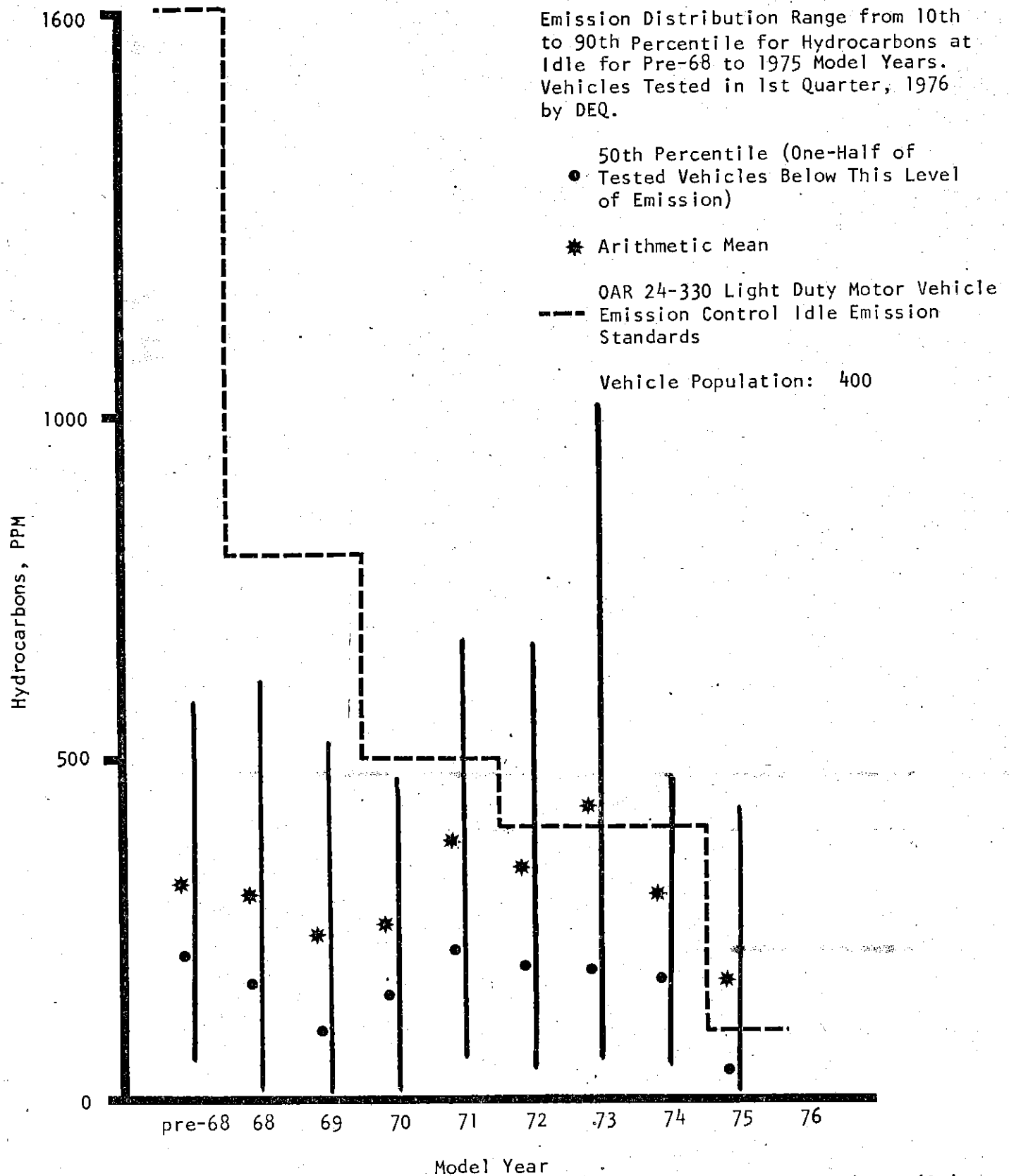
CARBON MONOXIDE DISTRIBUTION AT IDLE

TOYOTA



HYDROCARBON DISTRIBUTION AT IDLE

TOYOTA





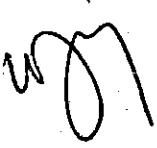
State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: Files

Date: 8-5-76

From: Bill Jasper 

Subject: Fiat

August 5, 1976, Mr. Beppe Foggini of Fiat called regarding our notice of hearing on the motor vehicle inspection standards update. Mr. Foggini was concerned about the proposed standards for Fiat automobiles in that we did not include a category for those Fiats with a catalyst. Mr. Foggini suggested and I would concur that the appropriate value for the standard should be 0.5% CO for Fiats equipped with a catalyst.

WPJ:pf

cc: Peter McSwain

Ron Householder

July 7, 1976

Bill Jasper

Assembly Line Testing and the Two Sigma C.P.


The following provides a clarification of the California assembly line test and the use of the two sigma cut point. This clarification was arrived at during discussions this date with Chuck McKenna of Ford. During a given quarter of auto production, all cars for sale in California receive a final emission check at the end of the assembly line. For a given engine family a mean, \bar{x} , and a deviation, σ , is determined. These numbers \bar{x} and σ are used in following quarter to determine the cut points for the assembly line audit. The cut point is defined as $\bar{x} + 2\sigma$ or a lower limit if the manufacturer so specifies. All vehicles above $\bar{x} + 2\sigma$ are repaired to below $\bar{x} + 2\sigma$. All points above $\bar{x} + 3\sigma$ are deleted from the next quarter calculation arriving at new \bar{x} and σ . Thus, the \bar{x} and the cut point may change from quarter to quarter. What is more important is that a manufacturing gross level has been defined as $\bar{x} + 2\sigma$ or a manufacturer's established lesser number. These definitions and quality control technique were established by CARB and are in use throughout the industry for California cars. It should be noted that the \bar{x} and σ do not necessarily relate to an idle specifications or cvs, but are functions of assembly line quality.

WPJ:pf



State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: Files
From: Bill Jasper 
Subject: Update on Standards

Date: May 19, 1976

The following is an item by item discussion on the proposed changes in the DEQ Emission Standards.

24-320 (1) The change in the carbon monoxide carbon dioxide level is the result of design changes that were incorporated as a result of the catalytic converters. Previously, the combustion theory dictated the lower levels for a carbon balance and was a function of the air-fuel ration. Vehicles that were equipped with A.I.R. systems prior to 1975 model year vehicles did not appreciably deviate from the results predicted by the theory. However, since 1975, A.I.R. systems provided secondary or extra air to the converter to aid in the conversion reactions. On some 49 state cars, catalysts were not required; but the same air pumps were used, providing extra air and thus the need for a modified carbon level. The number selected, 7%, appears justified based upon data submitted by various manufacturers.

All references to the expiration date of the enforcement tolerance have been changed from 1976 to 1977. This is in keeping with the original Commission intent of one inspection cycle of tolerance.

24-320 (3) PVC is changed to PCV to correct a typographical error.

24-330 (1) Alfa Romeo - changes here include the correction in spelling of the vehicle name and the addition of the 1975 and later standard. "And later" is added here as in other title sections to minimize future changes, since federal standards appear fairly static at this time. The 1.5% level was selected after review of the manufacturer's design and specifications in terms of the capability of the vehicle and system design.

American Motors has "and later" added for the same reasons as above. The "and later" is self explanatory and needs no further discussion. The standard for AMC non-catalyst vehicles was changed to 1.5% based upon the high idle CO specification used by AMC on its label, which was not available at the time of original implementation of the standards. The 1.5% provides the same latitude as the original philosophy used in generating the standards last year.

Arrow was added to reflect the new model introduced this year. Its standards, however, are the same as the Dodge Colt, whose engine families are shared.

Audi's idle standard was changed to 1.5% to reflect design and technical information not available at the time of first implementation.

BMW's standards are now being added. The levels chosen are consistent with BMW's design and adjustment techniques.

British Leyland. All changes in this section reflect upon design characteristics of the various models or marketing decisions made by British Leyland (certain models are no longer sold in the USA). Discussions on British Leyland emission systems were also made with EPA, Ann Arbor, since some of the 1976 British Leyland vehicles are just completing federal certification and the results have not been published in the Federal Register.

Checker "and later" is the only addition. It should be noted that all Checker engine families are General Motors families.

Chrysler Corporation. The major addition here is the section for above 6000 GVW vehicles. At the time of original adoption, we had very little data available to us on the light duty trucks. These trucks are manufactured and certified to different standards; hence the idle emission criteria are different. Part of the difference centers around the light duty MV federal standards, expressed in grams per mile driven; while truck standards are expressed in terms of grams per brake horsepower hour, a unit of work performed. It should be noted that these standards are those established by the Director pursuant to OAR 340-24-330(4).

Citroen deletion of the 1975 was based upon no vehicles being imported to the U.S.A.

Colt standards are based upon design and tune specifications in conjunction with adjustment techniques.

Courier standards are based upon design and tune specifications in conjunction with adjustment techniques.

Cricket 1975 was deleted since that model has ceased to be imported.

Datsun standards are based upon design and tune specifications in conjunction with adjustment techniques.

Ferrari standards are based upon design. Ferrari has not yet completed EPA certification for 1976, but the techniques and technology used in the new Ferrari automobiles indicate that there are reasonable standards.

Fiat standards added are based upon design and tune procedures in conjunction with adjustment techniques.

Ford Motor Co. The same discussion under Chrysler Corporation applies here.

General Motors. The same discussion under Chrysler Corporation applies here.

Honda changes and standards reflect a new engine line, the CVCC.

International-Harvester update changes only. It should be noted that all IH vehicles are over 6000 GVW.

LUV changes are minimal. 1974 standards continue to be appropriate, since modifications in 1975 and 1976 do not significantly effect idle emissions.

Mazda's 1975 standards incorporate both rotary and conventional engines. These changes are in line with both engine designs. The 1970 change reflects when these vehicles were initially sold on the west coast, rather than nationwide.

Mercedes Benz changes are in line with their current design parameters and adjustment techniques.

Opel standards are based upon design updates and improvements in their fuel injection system. It may be noted that this is the last year for the Adam Opel Akg. 1976 will see the Opel by Isuzu as the Opel name imported to the U.S.A.

Peugeot standards reflect the update for the 1975 and 1976 model years.

Porsche standards reflect the update for the new model years. The slightly higher levels are in keeping with specific Porsche designs. The addition of the 1974 F.I. standard for the 1.8 l.914 corrects an oversight and confirms the Director's previous action. This standard is necessary because of a specific fuel injection system used by Porsche only on their 1.8 l.914 model.

Renault standards reflect the design changes incorporated in their newer model year vehicles.

Saab standards are based upon design and tune specifications in conjunction with adjustment techniques.

Subaru standards reflect the updates for the new model years.

Toyota standards are based upon design and tune specifications in conjunction with adjustment techniques.

Volkswagen's major change is the confirmation of the Director's action on the Type 4 1.8 l F.I. VW. This VW uses the same fuel injection system as the 1974 Porsche 1.8 l 914.

Volvo standards reflect the necessary updates for the recent model years.

24-302 (2) The two rewordings on the pre-pollution control hydrocarbons are for the purposes of clarification of intent in separating specific engine types.

The modest increases in the 1975 and later HC limits reflect data input from GM and Ford, as well as, our own observations on DEQ data. These levels do allow extra latitude, though we could provide a corresponding increase in the enforcement tolerance. What we do know, is that we have received comments from the various manufacturers that these particular HC limits are too stringent, and we have seen in our own data a higher than predicted HC tail. The slightly increased HC limits for newer cars should decrease fail rate for those categories about 3%. *(from about 11 to 8 1/2)*

WPJ:pf

Ron Householder

5-18-76

Bill Jasper

Standards - Justification

The following are line by line justifications for changes in our test standards, OAR 340-24-320 to 24-330.

13-210 (1) carbon balance limit modified to reflect design changes in air injection systems and catalytic converters. Year change is to extend the tolerance period.

24-320 (2) Year Change is to extend the tolerance period.

24-320 (3) Year Change is to extend the tolerance period. PCV is to correct a typographical error.

24-320 (4) Year Change is to extend the tolerance period.

24-330 page 4. Additions are to reflect new model vehicles not incorporated in Standards and to extend tolerance period.

24-330 (1) page 5. Additions are to reflect new model vehicles not incorporated in Standards. Triumph change is to correct oversight on its standard.

24-330 (1) page 6. Additions are to reflect new model vehicles not incorporated in Standards.

24-330 (1) page 7. Additions are to reflect new model vehicles not incorporated in Standards.

24-330 (1) page 8. Additions are to reflect new model vehicles not incorporated in Standards.

24-330 (1) page 9. Additions are to reflect new model vehicles not incorporated in Standards.

24-330 (1) page 10. Additions are to reflect new model vehicles not incorporated in Standards.

24-330 (1) page 11. Additions are to reflect new model vehicles not incorporated in Standards.

24-330 (1) page 12. Additions are to reflect new model vehicles not incorporated in Standards.

Ron Householder
Bill Jasper
Standards - Justification

5-18-76

24-330 (2) Additions and corrections in this section are to provide clarification of intent and to extend tolerance period. Increase in HC level is due to manufacturers' comments and indications in our data that this level, while being practical, may be unduly restrictive.

WPJ:pf



State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: Ron Householder

Date: September 24, 1975

From: Bill Jasper

Subject: Recommendations for Changing Standards

Listed below are suggested changes for OAR 24-300, the Motor Vehicle Emission Control Inspection Test Criteria, Methods and Standards. Changes and/or additions are underlined.

24-320

(1) No vehicle emission control test shall be considered valid if the vehicle exhaust system leaks in such a manner as to dilute the exhaust gas being sampled by the gas analytical system. For the purpose of emission control tests conducted at state facilities, except for diesel vehicles, tests will not be considered valid if the exhaust gas is diluted to such an extent that the sum of the carbon monoxide and carbon dioxide concentrations recorded for the idle speed reading from an exhaust outlet is 9% or less and on 1975 and later vehicles with air injection systems 7% or less. / For purposes of enforcement through December, 1976, a 1% carbon dioxide tolerance shall be added to the values recorded.

(2) No vehicle emission control test shall be considered valid if the engine idle speed either exceeds the manufacturer's idle speed specifications by over 200 RPM on 1968 and newer model vehicles, or exceeds 1,250 RPM for any age model vehicle. For purposes of enforcement through December, 1976, a 100 RPM tolerance shall be added to the idle speed limits.

(3) No vehicle emission control test conducted after December, 1976, for a 1968 or newer model vehicle shall be considered valid if any element of the following factory-installed motor vehicle pollution control systems have been disconnected, plugged, or otherwise made inoperative in violation of etc.

24-330

	CO %	Tolerance
ALPHA ROMEO		
<u>1975 and later</u>	<u>2.0</u>	<u>1.0</u>
AMERICAN MOTORS CORPORATION		
<u>1975 and later Non-Catalyst</u>	<u>1.5</u>	<u>0.5</u>
<u>1975 and later Catalyst Equipped</u>	<u>0.5</u>	<u>0.5</u>
AUDI		
<u>1975 and later</u>	<u>1.5</u>	<u>0.5</u>

FERRARI

(Remove 1975)
1971 through 1975

FIAT

1975 2.0 0.5

FORD MOTOR COMPANY (Ford, Lincoln,
Mercury, Capri, except Courier)

Above 6000 GVW, 1968 through 1971 4.0 0.5
Above 6000 GVW, 1972 through 1973 3.0 0.5
Above 6000 GVW, 1974 through 1975 2.0 0.5

GENERAL MOTORS (Buick, Cadillac,
Chevrolet, GMC, Oldsmobile, Pontiac)

Above 6000 GVW, 1968 through 1971 4.0 0.5
Above 6000 GVW, 1972 through 1973 3.0 0.5
Above 6000 GVW, 1974 through 1975 2.0 0.5

HONDA AUTOMOBILE

1975 Civic 2.0 0.5
1975 Civic (CVCC) 1.0 0.5

INTERNATIONAL HARVESTER

1972 through 1975 2.5 0.5

L. U. V., Chevrolet

1974 and later 1.5 1.0

MAZDA

1970 through 1973, Rotary Engines 3.0 0.5
1975 Piston 4.0

MERCEDES-BENZ

1975 4 cylinder gasoline 2.0 0.5
1975 Catalyst Equipped 0.5 0.5

OPEL

1973 and later 2.5 0.5

PEUGEOT

1975 2.0 0.5

PORSCHE

<u>1975 6 cylinder</u>	<u>2.5</u>	<u>0.5</u>
<u>1975 4 cylinder</u>	<u>3.0</u>	<u>0.5</u>
<u>1974 Fuel Injection</u>	<u>5.0</u>	<u>0.5</u>

RENAULT

1975	<u>1.0</u>	<u>0.5</u>
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ROLLS ROYCE and BENTLEY

1975	<u>0.5</u>	<u>0.5</u>
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SAAB

<u>1975</u>	<u>2.0</u>	<u>0.5</u>
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SUBARU

1975	<u>2.0</u>	<u>0.5</u>
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TOYOTA

<u>1975 6 cylinder</u>	<u>1.0</u>	<u>0.5</u>
<u>1975 4 cylinder</u>	<u>2.0</u>	<u>0.5</u>

VOLKSWAGEN

<u>1974 Type 4 Fuel Injection</u>	<u>5.0</u>	<u>0.5</u>
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VOLVO

<u>1975 6 cylinder Catalyst Equipped</u>	<u>0.5</u>	<u>0.5</u>
<u>1975 4 cylinder</u>	<u>2.0</u>	<u>0.5</u>

ALL VEHICLES NOT LISTED... etc.

<u>1975 and later Non-Catalyst 4 cyl.</u>	<u>2.0</u>	0.5
<u>1975 and later, Non-Catalyst, except</u> <u>4 cyl.</u>	<u>1.5</u>	0.5
<u>1975 and later Catalyst Equipped</u>	<u>0.5</u>	0.5

HYDROCARBONS-

Pre 1968, 4 cylinder, 2 cylinder (4 stroke cycle) and those non-complying imports through 1972, 4 cylinder only.

Pre 1968, larger than 4 cylinder, and all non-complying imports through 1972 larger than 4 cylinder.



June 25, 1975

STATE OF OREGON
RECEIVED

JUN 30 1975

Dept. of Environmental Quality
Vehicle Inspection Division

Mr. W. Jasper
State of Oregon
Department of Environmental Quality
1234 Southwest Morrison Avenue
Portland, Oregon 97205

Dear Mr. Jasper:

This letter is in response to your recent request for specified idle CO values for light duty trucks and vans up to 8400# GVW.

For GVW up to 6000#

1970-71	14.0 - 14.4 A/F (Approx. 1%) @ tailpipe
1972-73-74	.5% @ tailpipe
1975	.3% @ catalyst tap

For GVW above 6000#

1972	
through	
1975	1% @ tailpipe

I would appreciate receiving copies of any reports that you make available of your program results. Thank you.

Very truly yours,

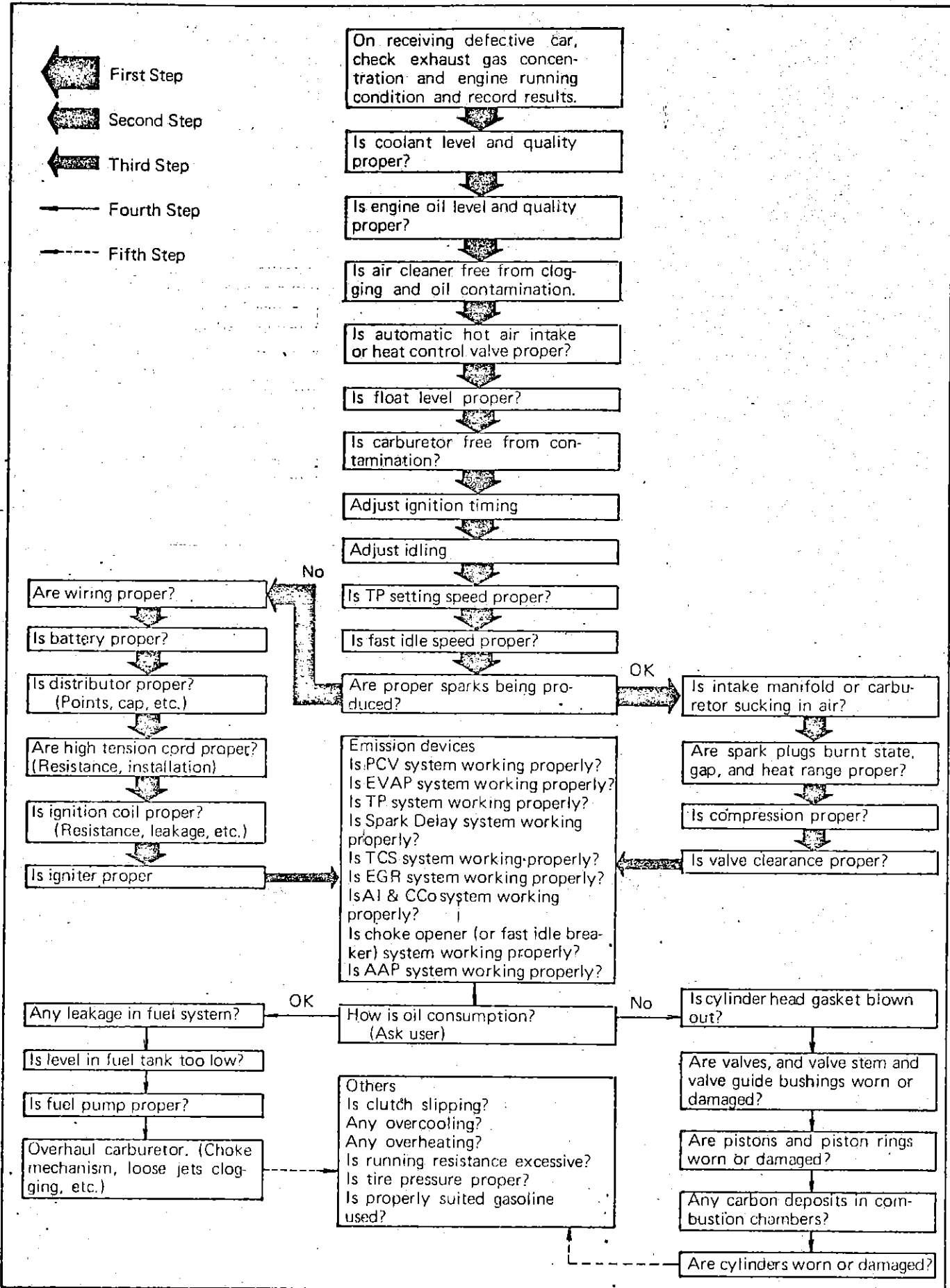
CHRYSLER CORPORATION


R. M. WAGNER
Emissions Planning Office

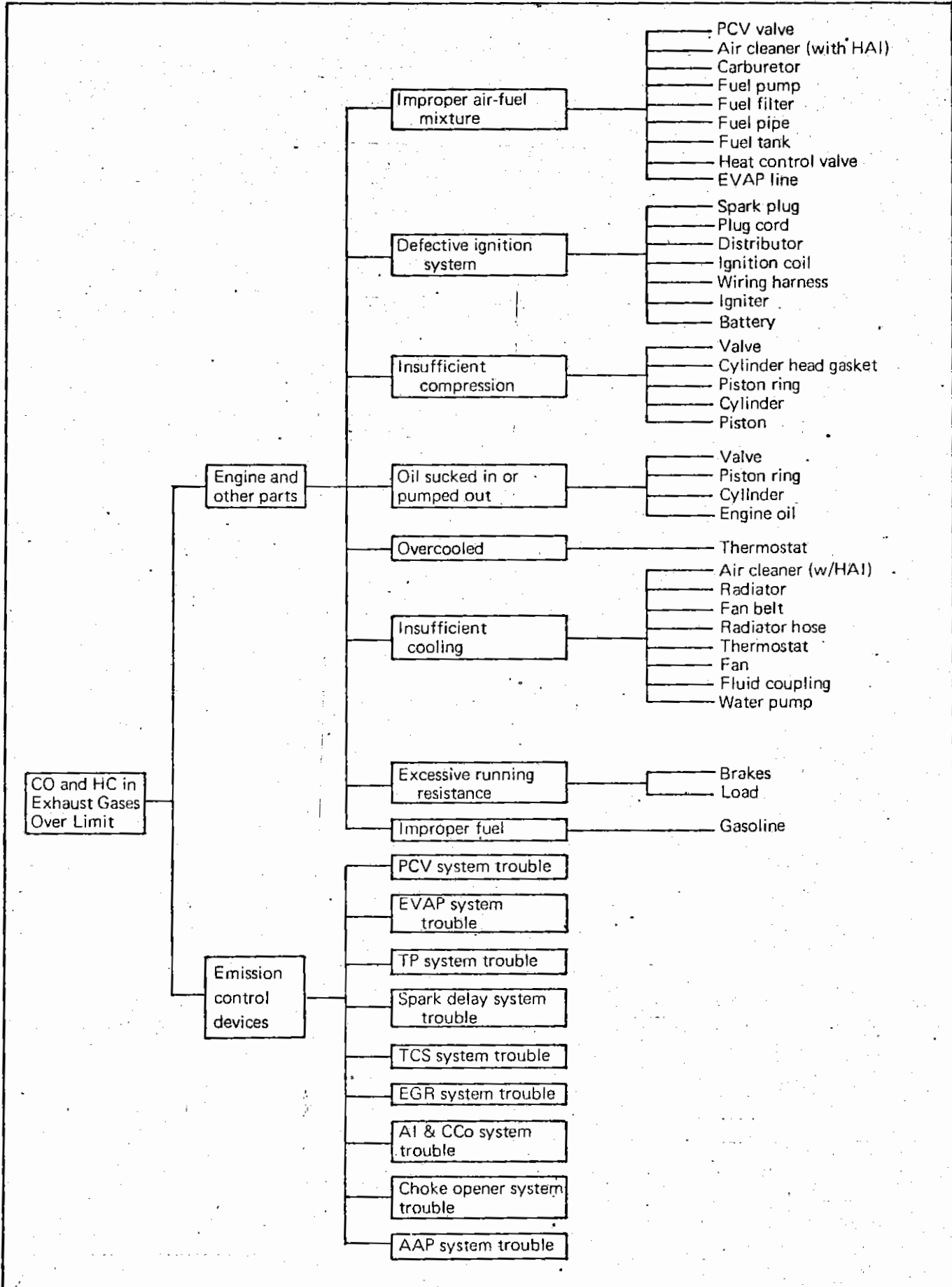
RMW/di

cc: J. D. Davis
M. W. Grice
G. W. Robertson

REPAIR PROCEDURES ON CARS HAVING EXCESSIVE CO AND HC IN EXHAUST GASES



MAIN CAUSES FOR PRODUCTION OF CO AND HC IN EXHAUST GASES



SECTION 6C

ENGINE TUNE-UP

TUNE-UP SEQUENCE INDEX

Spark Plug Removal.....	6C-1	Cooling System-Inspect and Service	6C-5
Compression Test	6C-1	Lubrication System-Inspect	6C-5
Spark Plugs-Clean-Test-Install.....	6C-2	Choke Adjustment	6C-5
Ignition System-Service and Repairs	6C-3	Idle Stop Solenoid.....	6C-5
Battery and Battery Cables-Clean and Test	6C-4	Tune-Up Equipment-Connect	6C-5
Generator	6C-4	Test Dwell.....	6C-5
Fan Belt-Inspect and Adjust	6C-4	Test Ignition Timing and Spark Advance.....	6C-6
Manifold Heat Valve-Check Operation.....	6C-4	Check Idle Speed and Mixture	6C-6
Intake Manifold Bolts-Check.....	6C-4	Positive Crankcase Ventilation.....	6C-6
Air Cleaner-Service.....	6C-5	Road Test	6C-6
Fuel Lines and Filter-Inspect and Service	6C-5		

GENERAL INFORMATION

Engine tune-up can be described as diagnosis and preventative maintenance performed at regular intervals to restore maximum performance and economy in an engine.

It is advisable to follow a definite and thorough procedure of analysis and correction as suggested by the sequence-index above.

IMPORTANT: *A quality tune-up is recommended every 12 months or 12,000 miles in order to assure proper engine performance and complete effectiveness of exhaust emission systems.*

SPARK PLUG REMOVAL

Remove any foreign matter from around spark plugs by blowing out with compressed air, then disconnect wires and remove plugs.

COMPRESSION TEST

Test compression with engine warm, all spark plugs removed and throttle and choke wide open. Crank engine through at least five compression strokes to obtain highest possible reading. No cylinder should be less than 80% of the highest cylinder (see examples). Excessive variation between cylinders, accompanied by low speed missing of the cylinder or cylinders which are low, usually indicates a valve not properly seating, a burned valve or broken

piston ring. Low pressures, even though uniform, may indicate worn rings. This will usually be accompanied by excessive oil consumption.

6 CYL.

Example 1

CYLINDER	PRESSURE
1	139
2	137
3	140
4	131
5	126
6	110

80% of 140 (highest) is 112. Thus cylinder No. 6 is less than 80% of No. 3. This condition, accompanied by low speed missing, indicates a burned valve or broken piston ring.

Example 2

CYLINDER	PRESSURE
1	95
2	106
3	100
4	97
5	95
6	101

80% of 106 is 85. While all cylinders are well above 85, they are all excessively low. This may indicate poor valves in all cylinders or low cranking speed.

If compression is subnormal, tune-up will probably not be satisfactory.

SECTION 6D

EMISSION CONTROL SYSTEMS

CONTENTS OF THIS SECTION

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Auto-Therm Air Cleaner	6D-3	A.I.R. Hoses and Tubes.....	6D-17
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INTRODUCTION

There are two types of emissions to be controlled: crankcase emissions and exhaust emissions. Crankcase emissions are controlled by use of the closed Positive Crankcase Ventilation (P.C.V.) system. Exhaust emissions are controlled by the use of the Engine Controlled Combustion System (C.C.S.).

Federal law requires that the emissions of unburned hydrocarbons and carbon monoxide in motor vehicle exhaust systems be controlled to certain prescribed maximums under specific test conditions. The law further requires that a closed crankcase ventilation system be used.

CLOSED POSITIVE CRANKCASE VENTILATION SYSTEM

The closed P.C.V. system which is standard on all models helps control air pollution caused by crankcase blow-by gases. With this system, blow-by gases are redirected into the engine for reburning.

Periodic inspection and required servicing of the P.C.V. system will assure a cleaner, better performing, longer lasting engine and will assure elimination of crankcase blow-by gases.



Fig. 6D-1 PCV Valve Location (V-8 except 307)

Test Procedure

(1) Check test light by connecting it between the battery terminals of the car battery. Take careful note of the "Intensity" of the bulb.

(2) Before starting the engine, remove the "BAT" electrical connector from the control switch.

(3) Connect test light to the load (small) terminal of the control switch and to ground.

(4) Start engine and allow it to reach normal operating temperature.

(5) Then apply 12 volts to the "BAT" terminal of the control switch and test as follows:

(a) The test light must light and have the same intensity as step (1) above. If not the same intensity (lower), the unit is defective and must be replaced.

(b) The test light must light and if it has the same intensity as step (1) it may remain lit for only a few seconds or it may remain lit for a long duration, but must not remain lit for more than 5 minutes. If it remains lit for longer than 5 minutes, the control switch is defective and must be replaced.

Choke Heating Element Test

(1) Remove the "BAT" electric terminal from the control switch.

(2) Connect an ohm meter lead to the choke housing or choke retainer screw.

(3) Touch the other meter lead to a bare portion of the choke wire connector at the switch (not the "BAT" terminal).

(4) Electrical resistance of 4 to 12 ohms indicates that the heating element is electrically functional. Only meter readings indicating an open or a short circuit are cause for installation of a new choke assembly.

Servicing the Choke Assembly

The electric assist choke system does not change any carburetor or choke system procedures and cannot be adjusted. However, the choke linkage and shaft must move freely hot or cold.

Choke rods must be examined carefully for bending damage. Caution must be taken during installation of carburetors, especially Thermo Quads, to prevent damaging entrapment of the choke rod. If the rod becomes trapped, release it by carburetor removal instead of force. A bent rod will not function properly.

IDLE CHECK AND SET PROCEDURE FOR VEHICLES WITH AIR PUMP ONLY AND CALIFORNIA VEHICLES WITH CATALYST AND AIR PUMP

A basic understanding of HC and CO greatly simplifies the correlation of engine/exhaust problems or tune-up adjustments with the meter indications of an Analyzer. The following definitions may be helpful in this understanding.

Hydrocarbons (HC)—Hydrocarbons are the un-

burned gasoline vapors leaving the engine combustion chamber. A certain amount of HC can be expected. Excessive HC is normally caused by (1) engine misfire, or (2) overly rich or lean mixtures.

Carbon Monoxide (CO)—Carbon Monoxide is the result of incomplete burning of the fuel mixture due to insufficient oxygen. Anything which restricts the air supply or contributes to excessive fuel may cause a high CO reading.

An emission problem is indicated when the CO emissions at normal operating temperatures (choke must be open) exceed specifications shown on the Vehicle Emission Control Information Label provided in the engine compartment of each vehicle. (Fig. 5).

Equipment

A Chrysler Huntsville exhaust emission analyzer or an approved equivalent analyzer is required to make the following adjustments. Connect the analyzer following the manufacturer's instructions. The Vehicle Emission Control Information Label will specify whether the exhaust sample is to be taken in front of the catalytic converter or in the tailpipe. (Use the left exhaust system on vehicles equipped with dual exhaust.)

Procedure

(1) Allow vehicle to soak (sit with engine not running) for a minimum of one hour.

(2) Start engine and run in neutral on step 2 of fast idle cam until the thermostat is open (engine is fully warmed-up) and radiator top tank becomes hot. This will take between five and ten minutes. Proceed promptly to steps 3 and 4. (Time to accomplish step 4 through completion should not exceed approximately 20 minutes to prevent engine from becoming too hot.)

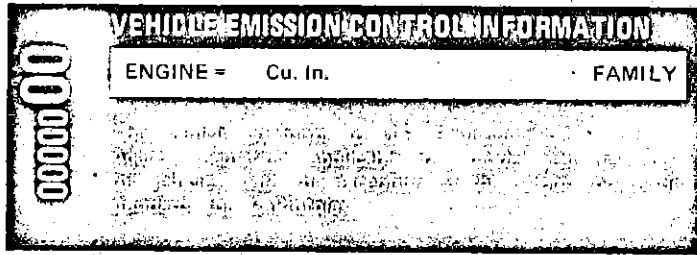
(3) Disconnect and plug the distributor vacuum hose.

(4) Disconnect and plug the engine side of the air pump air supply tube. By means of an engine exhaust analyzer, with the probe inserted into the tailpipe (insert probe ahead of catalyst on California vehicles with catalyst and air pump); adjust the curb idle speed and air fuel mixture screws to yield the specified carbon monoxide percentage, while simultaneously approaching the lowest hydrocarbon level of the smoothest curb idle at specified RPM. Reconnect air supply tube and reset curb idle speed to specified RPM.

The "blow-out" procedure, defined below, should precede all curb idle RPM and/or CO measurements.

Run the engine at approximately 2000 RPM for at least 10 seconds. Return the engine to curb idle and allow the meters to stabilize prior to reading them (at least 30 seconds but not longer than one minute). If meter readings do not stabilize, repeat above. After obtaining stabilized condition, determine if further adjustments are necessary.

All checks and adjustments must be made with the



ATTACHED

<p>IDLE SETTINGS: Timing = RPM = Tolerances:</p> <p>MIXTURE SETTING: Use exhaust analyzer with probe placed in tap in front of catalytic converter. Adjust idle speed screw and mixture screw to give % carbon monoxide at RPM*.</p> <p>Make all adjustments with Engine fully warmed up. Transmission in neutral, Headlights off and Air Conditioning compressor not operating.</p> <p>When checking timing, remove hose at distributor and plug hose. See Service Manual or Operator's Manual for detailed instructions.</p>	<p>RPM = ± 100 Timing = $\pm 2^\circ$ Carbon Monoxide = + % - %</p> <p>NOTE: On a new vehicle (under 300 miles) idle speed setting should be reduced 75 RPM.</p>	
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PN139

Fig. 5—Vehicle Emission Control Information Label (Typical)

engine running at idle in neutral with air conditioning compressor not operating and with headlights off.

(5) Disconnect and plug the EGR vacuum line at the EGR valve. Position the fast idle cam so that the idle stop screw rests on step 2 (the second highest position of cam). Adjust fast idle speed to specified RPM.

(6) Reconnect the distributor and EGR vacuum hose.

IDLE CHECK AND SET PROCEDURE FOR VEHICLES WITH CATALYST ONLY

(1) Allow vehicle to soak (sit with engine not running) for a minimum of one hour.

(2) Start engine and run in neutral on step two of fast idle cam until the thermostat is open (engine is fully warmed-up) and radiator top tank becomes hot. This will take between five and ten minutes. Proceed promptly to steps 3 and 4. (Time to accomplish step 4 through completion should not exceed approximately 20 minutes to prevent the engine from becoming too hot.)

(3) Disconnect and plug the distributor vacuum hose. (Except engine families FD-225-1-5SS and FD-318-2-5SS shown on Emission Control Information Label.)

(4) By means of an engine exhaust analyzer with the probe inserted before the catalyst, adjust the curb idle speed and air fuel mixture screws to yield the appropriate carbon monoxide percentage, while simultaneously approaching the lowest hydrocarbon level or the smoothest curb idle at specified RPM.

The "blow-out" procedure, defined below, should precede all curb idle RPM and/or CO measurements.

Run the engine at approximately 2000 RPM for at least 10 seconds. Return the engine to curb idle and allow the meters to stabilize prior to reading them (at least 30 seconds but not longer than one minute). If meter readings do not stabilize, repeat above. After obtaining stabilized condition, determine if further adjustments are necessary.

All checks and adjustments must be made with the engine running at idle in neutral with air conditioning compressor not operating and with headlights off.

(5) Disconnect and plug the EGR vacuum line at the EGR valve. (For FD-225-1-5SS and FD-318-2-5SS, also disconnect and plug distributor vacuum hose.) Position the fast idle cam so that the idle stop screw rests on step 2, (second highest position of cam). Adjust fast idle speed to specified RPM.

(6) Reconnect the distributor and EGR vacuum hose. If the emissions label requires that exhaust sample be taken ahead of the catalyst, remove access hole plug and install adapter (See Emission Control Systems Group 25).

If the access hole plug is damaged during removal, a new plug must be installed. Be sure to apply an anti-seize compound (FEL-PRO-C100 or equivalent) to the threads of the plug and tighten to 100 to 140 inch pounds.

For reference, the normal tolerances of various idle set specifications are listed below:

- Curb Idle Speed ± 100 RPM
- Idle Mixture for vehicles not equipped with the California Emission Control Package:
- Vehicles equipped with catalytic converter from + .4% CO to - 0.3% CO

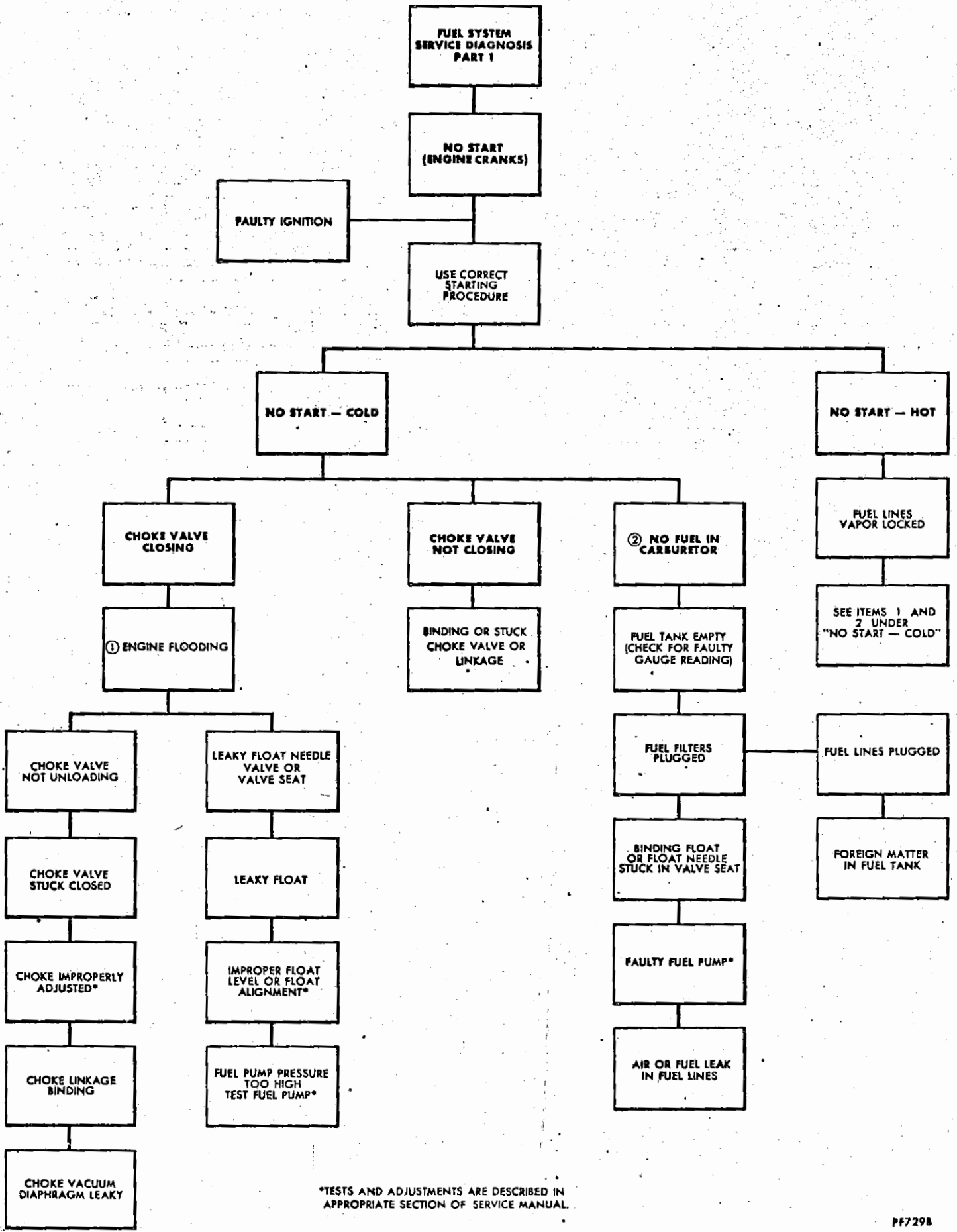
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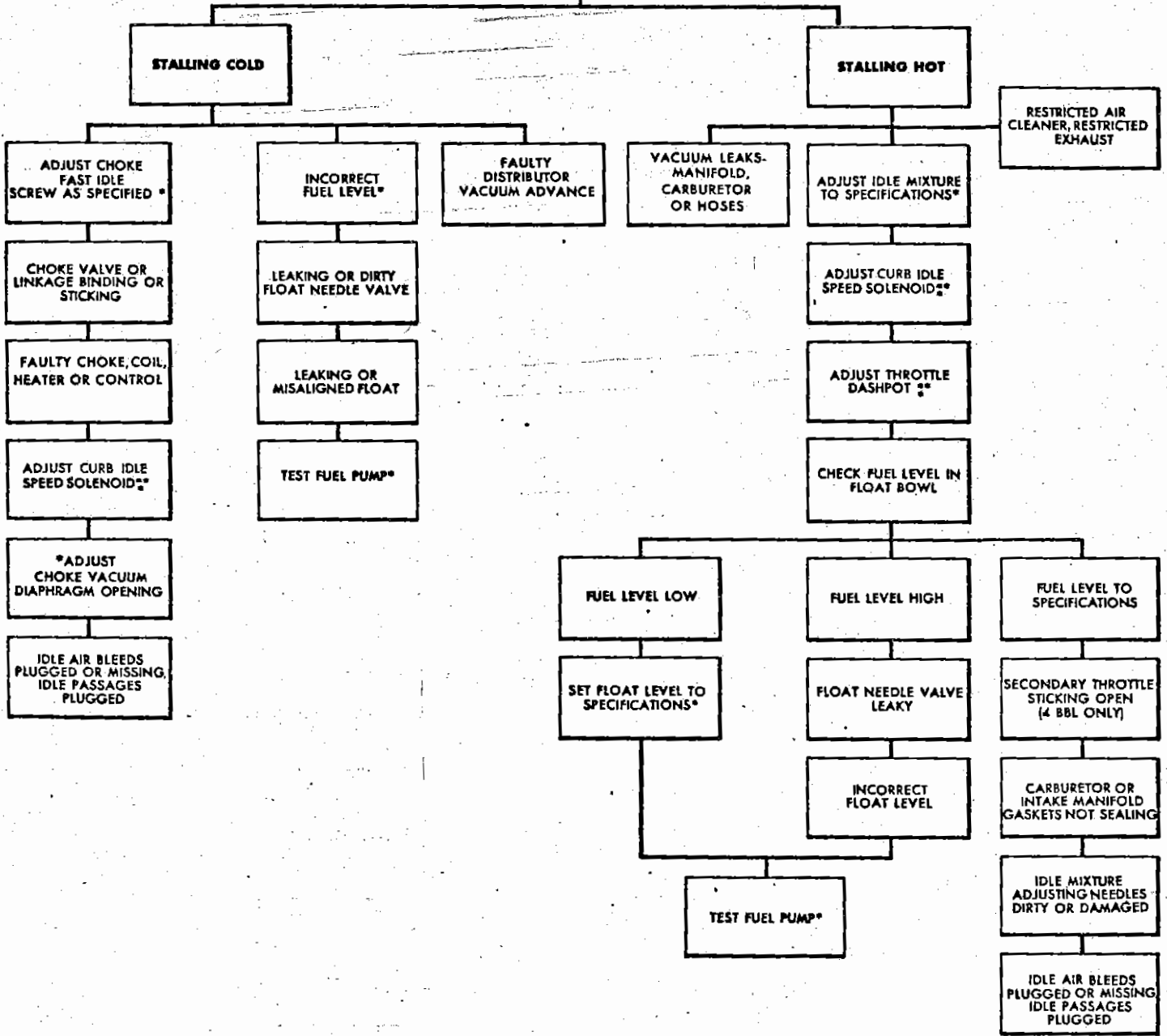
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*TESTS AND ADJUSTMENTS ARE DESCRIBED IN APPROPRIATE SECTION OF SERVICE MANUAL.

FUEL SYSTEM SERVICE
DIAGNOSIS PART 2

ENGINE STALLS



*TESTS AND ADJUSTMENTS ARE DESCRIBED IN APPROPRIATE SECTION OF THE SERVICE MANUAL **WHERE APPLICABLE

**FUEL SYSTEM SERVICE
DIAGNOSIS PART 3**

**ENGINE HESITATES
WHEN ACCELERATING
WARM**

**AIR VALVE STICKING
OR BINDING (488L)****

**FAULTY IGNITION,
RESTRICTED EXHAUST**

**FAULTY AIR VALVE
LOCKOUT (488L)****

**CHECK FOR VACUUM LEAKS,
E.G., LOOSE CARBURETOR OR
MANIFOLD, LEAKY GASKETS,
OR DISCONNECTED HOSES**

**DISTRIBUTOR VACUUM
ADVANCE NOT OPERATING**

**SECONDARY THROTTLE VALVES
BINDING OR STICKING
OPEN (488L ONLY)**

**ACCELERATOR PUMP CIRCUIT
DIRTY, INOPERATIVE, PUMP JETS
MISAIMED, OR LINKAGE
MISADJUSTED***

IDLE TRANSFER SYSTEM DIRTY

**IDLE SPEED LOW OR
INCORRECT MIXTURE**

TEST FUEL PUMP*

**POOR ENGINE RESPONSE,
LACK OF POWER
WHEN ACCELERATING**

**FAULTY IGNITION, RESTRICTED
AIR CLEANER OR RESTRICTED
EXHAUST**

**ACCELERATOR PUMP CIRCUIT
DIRTY,
INOPERATIVE, PUMP JETS
MISAIMED, OR LINKAGE
MISADJUSTED***

POOR ACCELERATION -- COLD

**POOR ACCELERATION --
WARM OR COLD**

ADJUST CHOKE VACUUM KICK

**CARBURETOR FUEL FILTER DIRTY,
FLOAT HANGING UP OR
FLOAT LEVEL LOW***

**SECONDARY VACUUM
DIAPHRAGM NOT OPERATING **
(ENGINE WARM) (488L ONLY)**

**HEAT VALVE STUCK OR
PLUGGED MANIFOLD
HEAT PASSAGES**

FAULTY POWER PISTON

**BINDING AIR VALVE OR
FAULTY SPRING
ADJUSTMENT** (488L ONLY)**

***ADJUST AIR VALVE
LOCKOUT (488L ONLY)****

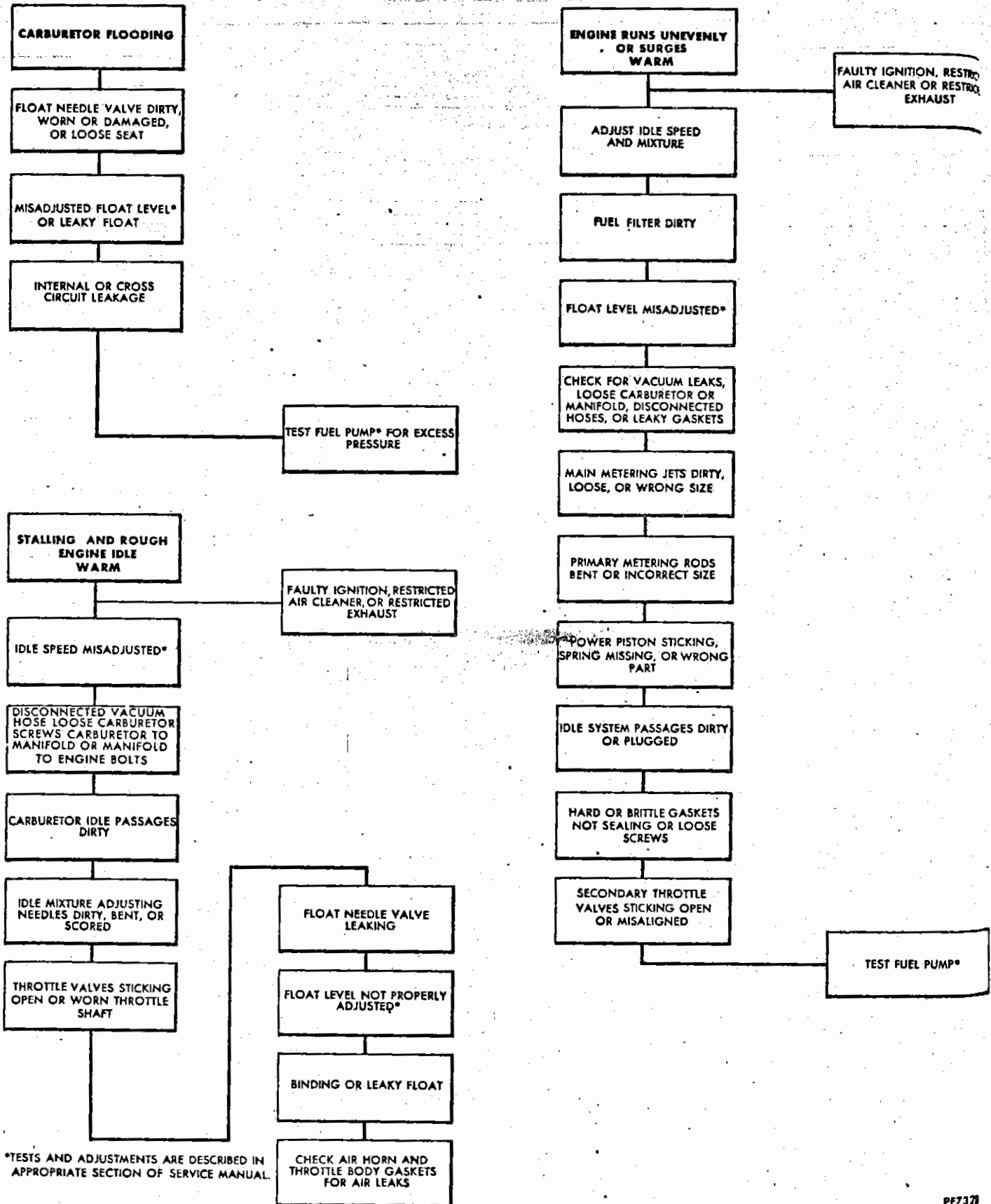
**DIRTY OR INCORRECT SIZE
MAIN METERING JETS OR
MAIN METERING RODS**

**DIRTY SECONDARY MAIN
NOZZLES, SECONDARY
METERING RODS MISALIGNED,
BENT, DIRTY, OR
PLUGGED SECONDARY METERING
JETS (488L ONLY)**

**HEATED INLET AIR SYSTEM
MALFUNCTION**

*TESTS AND ADJUSTMENTS ARE DESCRIBED IN
APPROPRIATE SECTION OF SERVICE MANUAL
**WHERE APPLICABLE

FUEL SYSTEM SERVICE DIAGNOSIS PART 4



*TESTS AND ADJUSTMENTS ARE DESCRIBED IN APPROPRIATE SECTION OF SERVICE MANUAL.

**FUEL SYSTEM SERVICE
DIAGNOSIS PART 3**

LOW FUEL MILEAGE

**TEST MILEAGE —
CHECK DRIVER HABITS**

**HIGH FUEL
CONSUMPTION VERIFIED**

**TIRES UNDERINFLATED,
BRAKES DRAGGING,
FAULTY IGNITION,
RESTRICTED EXHAUST, OR
RESTRICTED AIR CLEANER**

**CHOKE VALVE OR LINKAGE
BINDING, STICKING
OR MISADJUSTED**

**CHECK AND ADJUST IDLE
SPEED AND MIXTURE***

CARBURETOR FLOODING

INCORRECT FLOAT LEVEL*

**FLOAT NEEDLE
VALVE LEAKING,
OR LOOSE SEAT**

**FLOAT LEAKING,
STICKING, OR
MISALIGNED**

**ACCELERATOR PUMP
DISCHARGE BALL
NOT SEATING**

**POWER PISTON
STICKING OR BENT**

**POWER PISTON
SPRING DISTORTED**

**MAIN METERING JETS
PLUGGED, LOOSE OR
INCORRECT SIZE**

**METERING RODS BENT
OR WRONG PART**

**POOR GASKET SEALING
AROUND VACUUM
PASSAGES**

**POOR HIGH SPEED
PERFORMANCE AND
POWER
WARM**

**FAULTY IGNITION,
RESTRICTED EXHAUST,
OR RESTRICTED
AIR CLEANER**

DIRTY FUEL FILTERS

**CHECK FOR
FULL THROTTLE OPENING
AT CARBURETOR**

TEST FUEL PUMP**

**SECONDARY VACUUM
DIAPHRAGM NOT
OPERATING (48BL ONLY)****

**POWER PISTON BINDING
OR SPRING DISTORTED**

INCORRECT FLOAT LEVEL

**AIR VALVE STICKING OR
MISADJUSTED SPRING
TENSION (48BL ONLY)****

**METERING JETS DIRTY
OR INCORRECT SIZE**

**HARD OR BRITTLE GASKETS
NOT SEALING OR
LOOSE SCREWS**

**FLOAT LEAKING,
STICKING,
OR MISALIGNED***

**AIR VALVE NOT
UNLOCKING (48BL ONLY)****

**METERING RODS BENT,
OR WRONG PART**

*TESTS AND ADJUSTMENTS ARE DESCRIBED IN
APPROPRIATE SECTION OF SERVICE MANUAL
**WHERE APPLICABLE

14-10 FUEL SYSTEM

Vehicles equipped with air pump (except 318 CID engines)	$\pm 0.2\%$ CO
Vehicles equipped with air pump and 318 CID engine from $+0.2\%$ CO to -0.5% CO	
Idle Mixture for vehicles equipped with the California Emission Control Package: for nominal mixtures greater than 0.7% CO	$\pm 0.5\%$ CO
for nominal mixtures of 0.7% CO or less	$\pm 0.2\%$ CO
Ignition Timing	$\pm 2^\circ$

SERVICING THE CARBURETOR

A thorough road test and check of minor carburetor adjustments should precede major carburetor service. Specifications for some adjustments are listed on the Vehicle Emission Control Information label found in each engine compartment.

Many performance complaints are directed at the carburetor. Some of these are a result of loose, misadjusted or malfunctioning engine or electrical components. Others develop when vacuum hoses become disconnected or are improperly routed. The proper approach to analyzing carburetor complaints should include a routine check of such areas.

(1) Inspect all vacuum hoses and actuators for leaks. See "Emission Control Systems," Group 25, for proper vacuum hose routing.

(2) Tighten intake manifold bolts and carburetor mounting bolts to specifications.

(3) Perform cylinder compression test.

(4) Clean or replace spark plugs as necessary.

(5) Test resistance of spark plug cables. Refer to "Ignition System Secondary Circuit Inspection," Electrical Section.

(6) Inspect ignition primary wire and vacuum advance operation. Test coil output voltage, primary and secondary resistance. Replace parts as necessary. Refer to "Ignition System" and make necessary adjustment.

(7) Reset ignition timing with vacuum advance line disconnected.

(8) Set carburetor idle mixture adjustment and balance 2 and 4 BBL carburetors. Adjust throttle stop screw to specifications. Perform a combustion analysis.

(9) Test fuel pump for pressure and vacuum.

(10) Inspect manifold heat control valve in exhaust manifold for proper operation.

(11) Remove carburetor air filter element and blow out dirt gently with an air hose. Install a new recommended filter element if necessary.

(12) Inspect crankcase ventilation system.

(13) Road test vehicle as a final test.

CARBURETOR REMOVAL

CAUTION: Do not attempt to remove the carburetor from the engine of a vehicle that has just been road tested. Allow the engine to cool sufficiently to prevent accidental fuel ignition or personal injury.

Disconnect battery ground cable. Remove air cleaner. Remove fuel tank pressure vacuum filler cap. (Fuel tank could be under a small pressure). Place a container under fuel inlet fitting to catch any fuel that may be trapped in fuel line. Disconnect fuel inlet line using two wrenches to avoid twisting line.

Disconnect throttle and choke linkage and all vacuum hoses. Remove carburetor mounting bolts or nuts and carefully remove carburetor from engine compartment. Hold carburetor level to avoid spilling fuel from fuel bowl.

Installation

Inspect the mating surfaces of carburetor and intake manifold. Be sure both surfaces are clean and free of nicks, burrs or other damage.

Place a new flange gasket on manifold surface.

Some flange gaskets can be installed up-side down or backwards. To prevent this, match holes in the flange gasket to holes on bottom of carburetor, then place gasket properly on intake manifold surface.

Carefully place carburetor on manifold without trapping choke rod under carburetor linkage.

Install carburetor mounting bolts or nuts and tighten alternately, a little at a time, to compress flange gasket evenly.

The nuts or bolts must be drawn down tightly to prevent vacuum leakage between carburetor and intake manifold.

Connect throttle and choke linkage and fuel inlet line. Check carefully for worn or loose connections. Refer to the "Emission Control" Section, Group 25 of this manual and install all vacuum hoses accordingly.

Make sure the choke plate opens and closes fully when operated. Check to see that full throttle travel is obtained. The air cleaner should be cleaned or replaced at this time to insure proper carburetor performance. Install air cleaner. Connect battery cable.

CAUTION: The practice of priming an engine by pouring gasoline into the carburetor air horn for starting after servicing the fuel system, should be strictly avoided. Cranking the engine, and then priming by depressing the accelerator pedal several times should be adequate.

Diagnosing carburetor complaints may require that the engine be started and run with the air cleaner removed.

CAUTION: While running the engine in this mode it is possible that the engine could backfire. A backfiring situation is likely to occur if the carburetor is malfunctioning, but removal of the air cleaner alone can lean the air fuel ratio in the carburetor to the point

(8) Position negative heat sink assembly into place in end shield making sure metal straps properly position over studs on terminal block (Fig. 65).

(9) Install negative heat sink mounting screws and tighten securely.

(10) Install insulator on positive heat sink stud, position assembly into place in end shield making sure metal straps properly position over studs on terminal block (Fig. 66).

(11) From inside of end shield install insulator on positive heat sink attaching stud and then install mounting nut and tighten securely.

(12) From outside of end shield install insulator on positive heat sink stud and then install mounting nut and tighten securely.

(13) Position stator over rectifier end shield and install terminals on terminal block, press stator pins into end shield, install and tighten terminal nuts. Route leads so that they cannot contact rotor or sharp edge of negative heat sink.

(14) Position rotor and drive end shield assembly over stator and rectifier end shield assembly. Align

through bolt holes in rectifier end shield and drive end shield.

(15) Compress stator and both end shields manually and install through bolts. Tighten through bolts evenly to 40-60 inch-pounds torque.

(16) Install field brushes into brush holder, long terminal on bottom, short terminal on top and then install insulators and mounting screw (Fig. 67).

(17) Position brush holder assembly to end shield making sure it is properly seated and tighten mounting screw.

(18) Rotate pulley slowly by hand to be sure that rotor poles do not hit stator winding leads.

(19) Install alternator and adjust drive belt to specifications.

CAUTION: DO NOT ADJUST DRIVE BELT WITH ENGINE RUNNING.

(20) Connect alternator output (BAT), two field (FLD), and ground (GRN) leads. Connect battery ground cable.

(21) Start and operate engine. Observe alternator operation.

(22) Test current output.

IGNITION SYSTEM

INDEX

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GENERAL INFORMATION

The Electronic Ignition System (Fig. 1) consists of the Battery, Ignition Switch, Dual Ballast Resistor (Fig. 2), Control Unit (Fig. 3), Coil, Distributor (Fig. 4), Spark Plugs and all their Wiring, Insulators and Connectors.

The primary circuit consists of the battery, ignition switch, compensating (0.5 ohm) side of the ballast resistor, primary windings of the ignition coil, power switching transistor of the control unit, and the vehicle frame.

The secondary circuit consists of the coil secondary windings, distributor cap and rotor, spark plug wires, spark plugs, and vehicle frame.

The compensating resistance maintains constant primary current with variation in engine speed. During starting this resistance is by-passed, applying full battery voltage to the ignition coil.

In addition to the two basic circuits there are three

other circuits. They are the pick up coil circuit, control unit feed circuit, and auxiliary ballast circuit.

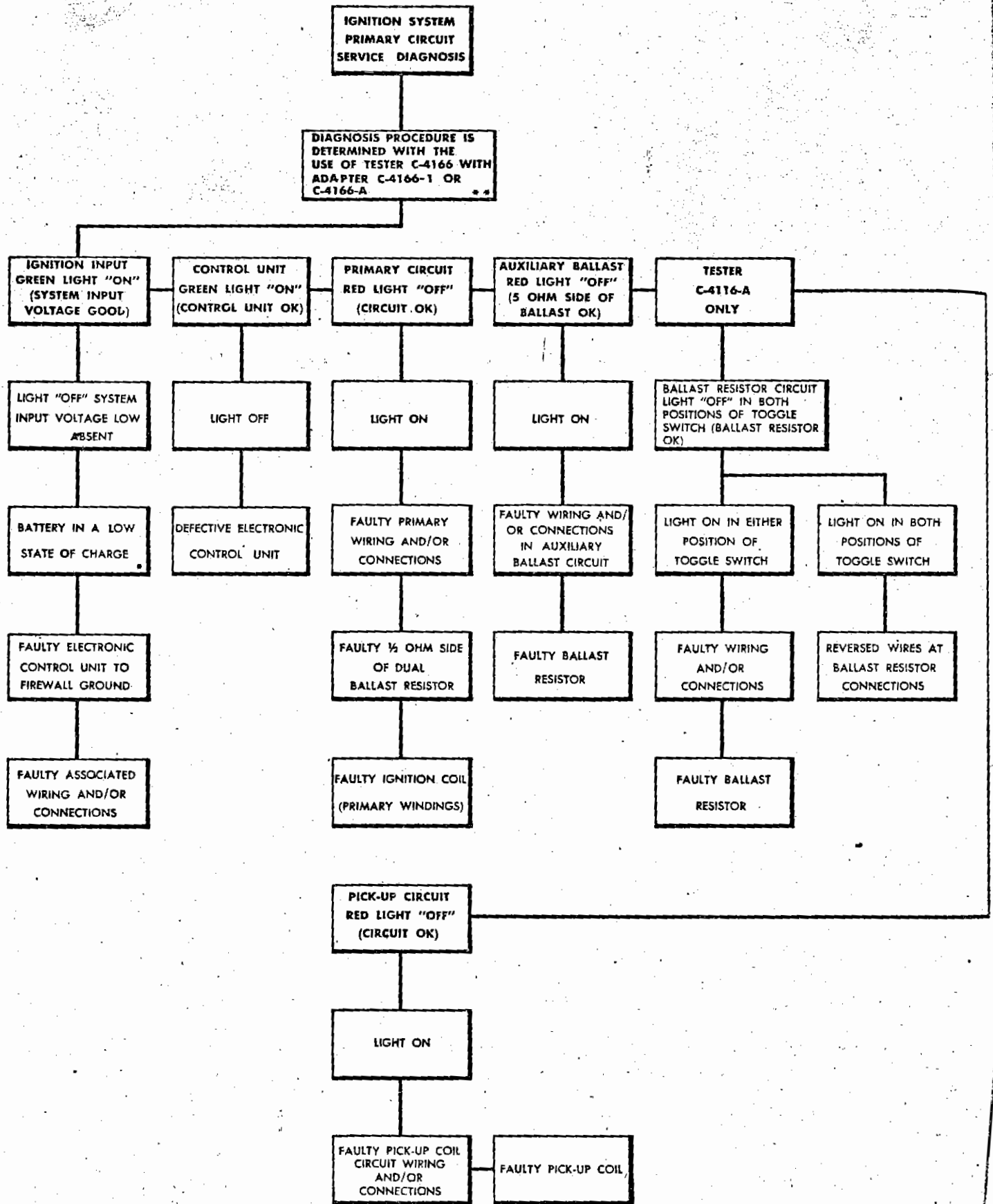
Two circuits are used to operate the circuitry of the control unit. These are the auxiliary ballast circuit which uses the 5 ohm section of the dual ballast resistor and the control unit feed circuit.

The pick up circuit is used to sense the proper timing for the control unit switching transistor.

The reluctor rotating with the distributor shaft produces a voltage pulse in the magnetic pickup each time a spark plug should be fired. This pulse is transmitted through the pickup coil to the power switching transistor in the control unit and causes the transistor to interrupt the current flow through the primary circuit. This break in the primary circuit induces a high voltage in the secondary coil circuit and fires a spark plug.

The length of time that the switching transistor al-

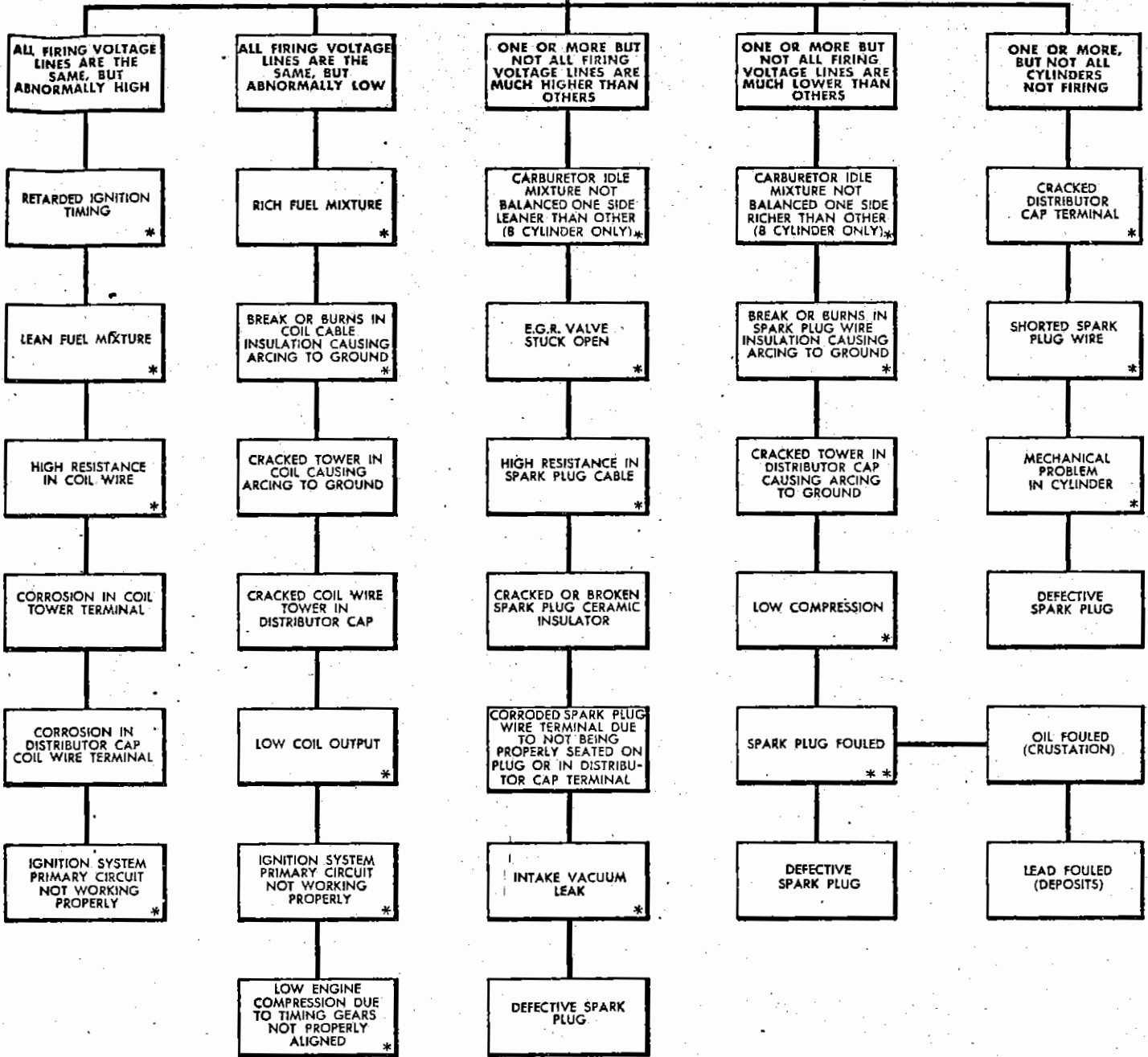
8-46 IGNITION SYSTEM—ELECTRICAL



• ALL TESTS AND REPAIRS ARE DESCRIBED IN APPROPRIATE SECTION OF SERVICE MANUAL
 •• REFER TO "TESTING IGNITION SYSTEM" FOR INSTALLING TESTERS

**IGNITION SYSTEM
SECONDARY CIRCUIT
SERVICE
DIAGNOSIS**

**DIAGNOSIS
PROCEDURE IS
DETERMINED BY A
SCOPE PATTERN OF
AN AUTOMOTIVE
TYPE OSCILLOSCOPE**



* ALL TESTS AND REPAIRS ARE DESCRIBED IN APPROPRIATE SECTION OF SERVICE MANUAL.

* SPARK PLUGS (DO NOT FOUL BY THEMSELVES.) CHECK FOR WHAT CAUSED PLUG TO FOUL. INSTALLING NEW SPARK PLUGS WILL NOT CORRECT FOULING CONDITION.

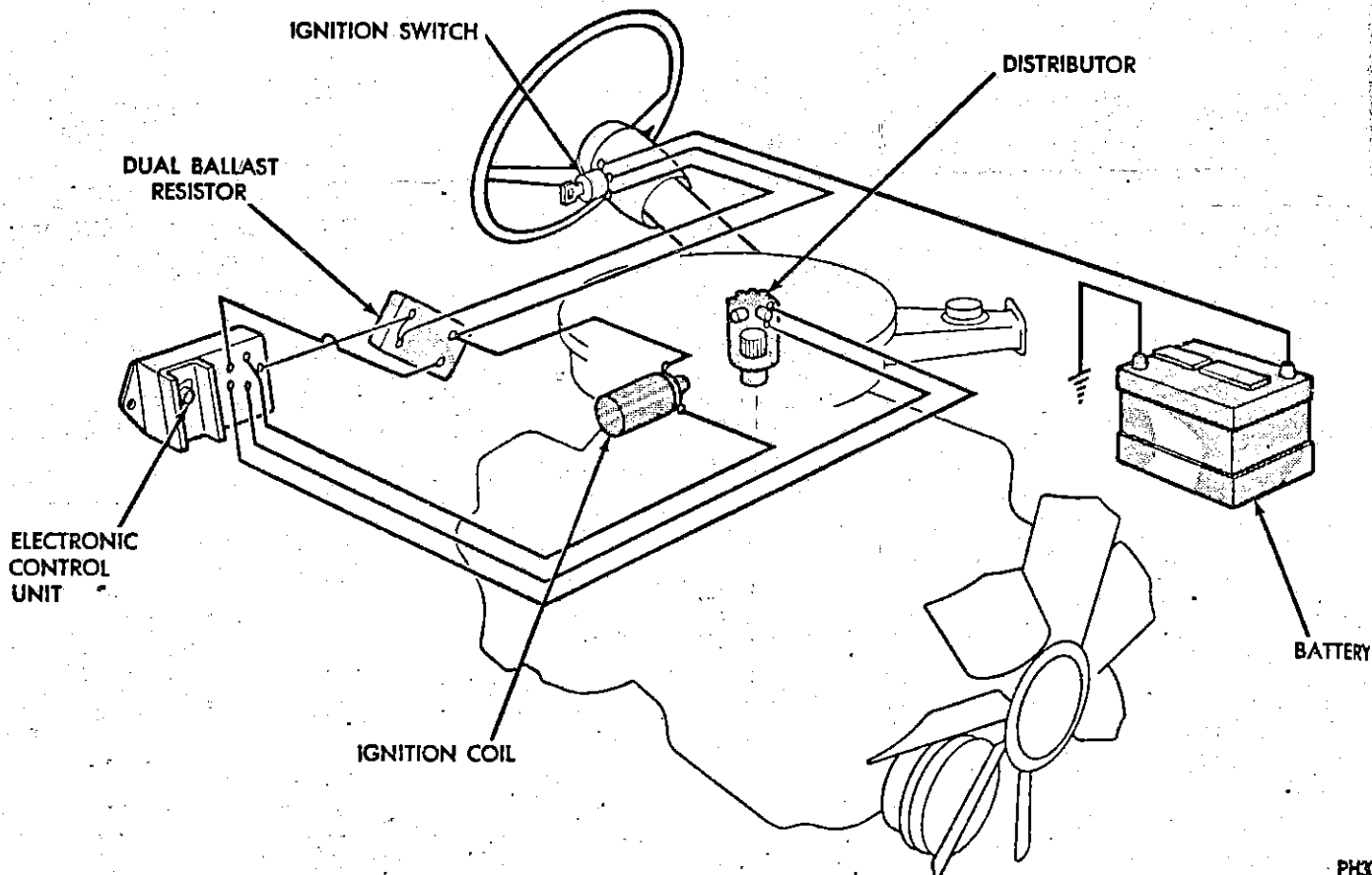


Fig. 1—Electronic Ignition System

lowers the flow of current in the primary circuit is determined by the electronic circuitry in the control unit. THIS DETERMINES "DWELL". DWELL IS NOT ADJUSTABLE. THERE IS NO MEANS PROVIDED TO CHANGE IT BECAUSE CHANGES ARE NOT NECESSARY.

THE READING OBTAINED WITH A DWELL METER HAS NO SIGNIFICANCE IN DIAGNOSING OR SERVICING THE IGNITION SYSTEM. SINCE DWELL AFFECTS IGNITION TIMING, PERIODIC CHECKS OF TIMING BECOME UNNECESSARY AFTER BASIC IGNITION TIMING IS SET.

Ignition maintenance is reduced to inspection of the distributor cap, rotor, wiring, and the cleaning and changing of spark plugs as needed.

**ELECTRONIC IGNITION TESTS
(With Tester Tools)**

The ignition system can be tested with either of the following tester tools:

C-4166 with C-4166-1 (Fig. 5)

When using tester C-4166 the adapter C-4166-1 must be used.

C-4166-A (Fig. 6)

Tester C-4166-A has the adapter circuit built into it. Do not connect adapter C-4166-1 to it. Also this tester

has one additional red light and toggle switch for testing the dual ballast resistor when performing on the vehicle system test. It can not be used for off the vehicle, component test.

On the Vehicle System Test

Test Preparation

Caution: The vehicle must have a fully charged 12 volt battery (minimum specific gravity 1.220 temperature corrected), for the tester to accurately analyze the ignition system. Do not proceed with test unless battery meets specifications.

- (1) With the ignition switch in "OFF" position, re-

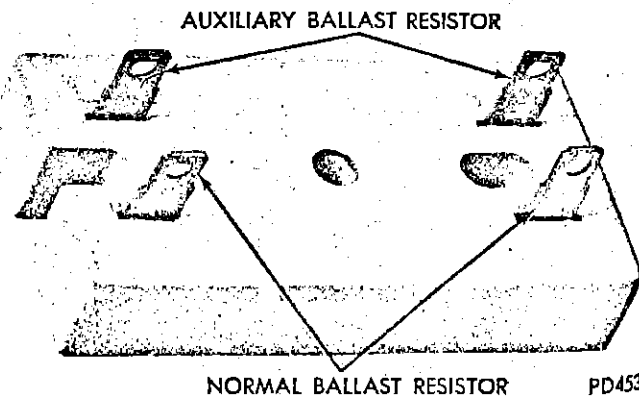


Fig. 2—Dual Ballast Resistor

PH30E

PD453

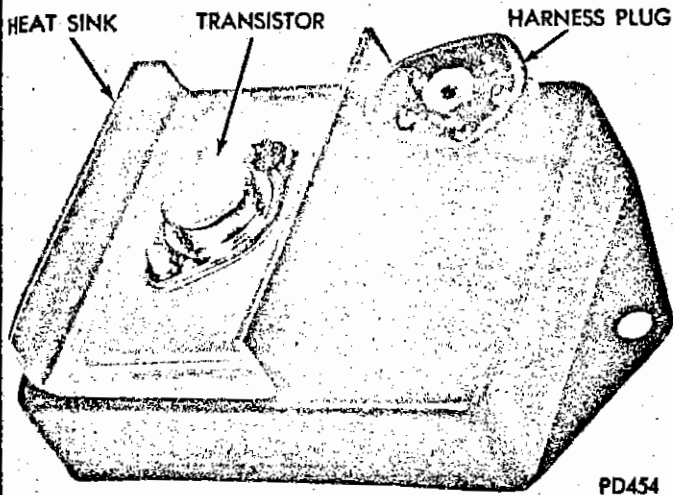


Fig. 3—Electronic Control Unit

move screw attaching wiring harness connector to control unit."

(2) Connect female lead of tester wiring harness to control unit and male lead of tester to disconnected lead from control unit. This puts tester into vehicle ignition system.

CAUTION: DO NOT CONNECT THE BATTERY CLIPS OF TESTER TO VEHICLE OR ANY OTHER BATTERY. DO NOT CONNECT DISTRIBUTOR CONNECTOR OF TESTER TO DISTRIBUTOR LEAD ON VEHICLE. THE BATTERY CLIPS AND DISTRIBUTOR CONNECTOR OF TESTER ARE USED ONLY WHEN TESTING COMPONENTS OFF THE VEHICLE.

(3) Turn ignition switch to "ON" position.

Warning: Do not touch transistor on control unit while ignition switch is on for electrical shock will be obtained.

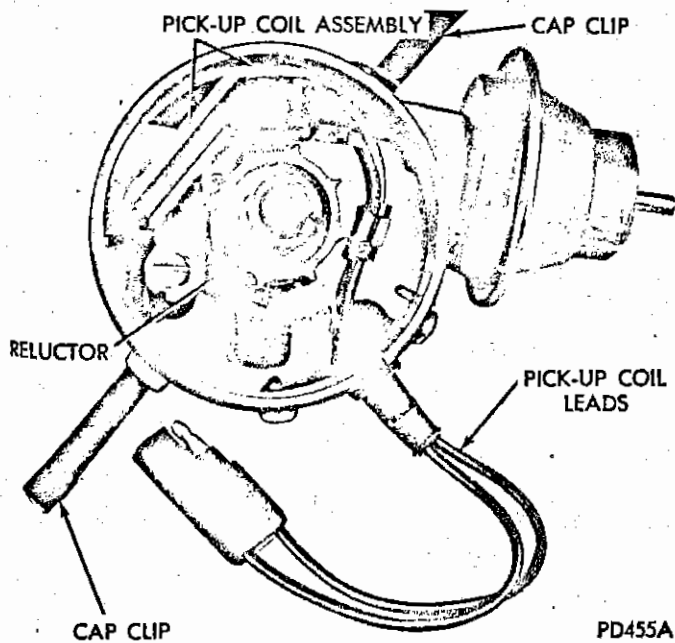


Fig. 4—Electronic Distributor

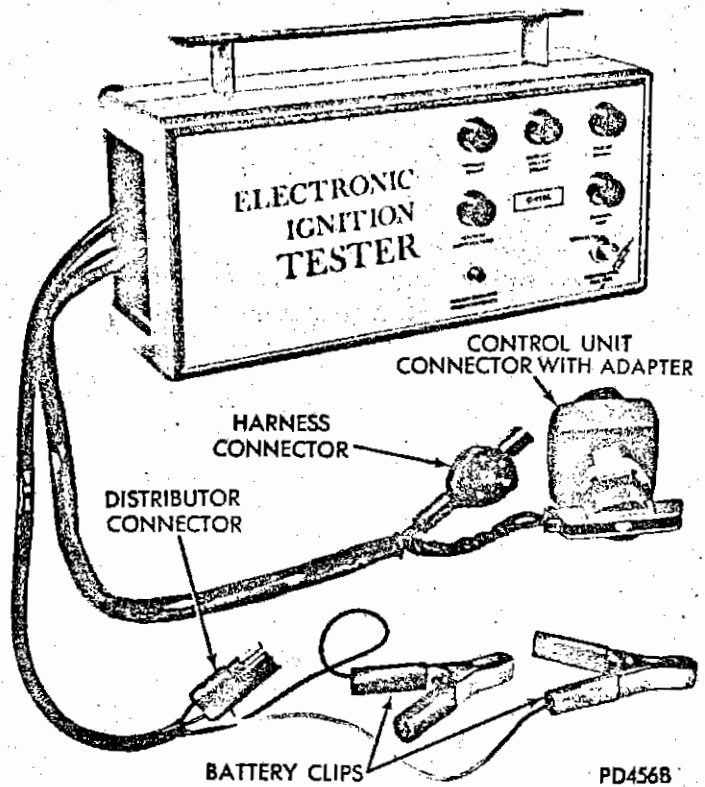


Fig. 5—Tester C-4166 With Adapter C-4166-1

Ignition Input Voltage Light

The green ignition input voltage light **must come on** before any further tests can be made. If the light does not come on the ignition system input voltage is low or absent. Check vehicle battery, ignition switch, the control unit for a good ground, and the associated wiring and connections until the fault is found, corrected, and the green light comes on.

Control Unit Light

The control unit green light must come on to indicate the control unit is functioning properly and that

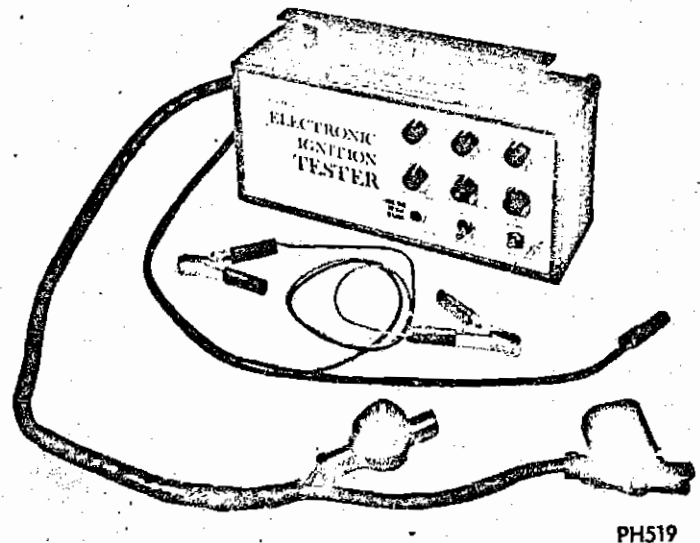


Fig. 6—Tester C-4166-A

it is properly grounded. If the light does not come on, first check the connector pins on control unit for corrosion, or foreign matter. Then check control unit for a poor ground. If none of these conditions exists and the light still remains off, the control unit is malfunctioning and must be replaced.

High Voltage Coil Test

The high voltage coil test must be performed to completely test the ignition system. Proceed only if the ignition input and control unit green lights are both on, and all the red lights are off.

Disconnect ignition coil secondary wire from distributor cap tower. Hold the end of the wire with insulated pliers about 1/4 inch from engine and then actuate the High Voltage Coil Test switch. A good spark should be observed between the wire and the engine. While still holding the coil test switch pull wire away from engine till the spark stops. Closely observe the coil tower during the movement to be sure that no arcing occurs.

Primary Circuit Light

The primary circuit red light must be off to indicate that the primary circuit is functioning properly. If the light is on check coil primary windings for continuity or shorts, suppression capacitor for shorts, dual ballast resistor compensating side (1/2 ohm), wiring, and for open or incorrect connections, until fault is found, corrected, and light goes out.

Auxiliary Ballast Circuit Light

The auxiliary ballast circuit red light must be off to indicate that the auxiliary ballast circuit is functioning properly. If the light is on first check the wiring, and connections for continuity, corrosion, or shorts. If none of these conditions exists and the light is still on, the dual ballast resistor (auxiliary side) is malfunctioning and must be replaced.

Pick Up Circuit Light

The pick up circuit red light must be off to indicate that the pick up circuit is functioning properly. If the light is on first check the wiring and connections for continuity, corrosion, or shorts. If none of the conditions exists and the light is still on, the pick up coil is malfunctioning and must be replaced.

Ballast Resistor Circuit Light (Tester C-4166-A Only)

The ballast resistor circuit red light must be off when the toggle switch is moved to either the 5 ohm or 1/2 ohm position to indicate that the ballast resistor circuit is functioning properly. If the light comes

on in either position, first check wiring and connections for continuity, corrosion or shorts. If none of these conditions exists and the light is still on the dual ballast resistor is malfunctioning and must be replaced. **Note:** If lights come on in both positions, first check for reversed wires at ballast resistor terminals (1/2 ohm connected to 5 ohm or 5 ohm connected to 1/2 ohm) before replacing ballast resistor.

Circuit Breaker Switch

The circuit breaker will protect the tester against damage due to testing a shorted control unit and if the tester is left connected for a period of time in excess of what it takes to test the system. Wait 60 seconds before attempting to reset a popped circuit breaker. Also do not replace control unit unless green control unit light was off **BEFORE** circuit breaker popped.

Component Tests Off the Vehicle

Connect battery clips of tester to a fully charged battery. The green ignition input voltage light will come on if the battery is supplying sufficient voltage for testing. If the light does not come on **DO NOT PROCEED WITH TEST** until battery is charged enough to turn on the light.

Control Unit (Fig. 7)

The control unit should be tested as a component **OFF THE VEHICLE**. However, in the event it is tested as a component on the vehicle, **MAKE SURE THE CORRECT POLARITY IS FOLLOWED WHEN CONNECTING THE BATTERY LEADS OF TESTER TO BATTERY, BLACK TO NEGATIVE, RED TO POSITIVE. REVERSING THE POLARITY WILL DAMAGE THE TESTER AND CONTROL UNIT.**

Only the ignition input voltage and the control unit lights apply on this test. **Disregard any red lights that may light.**

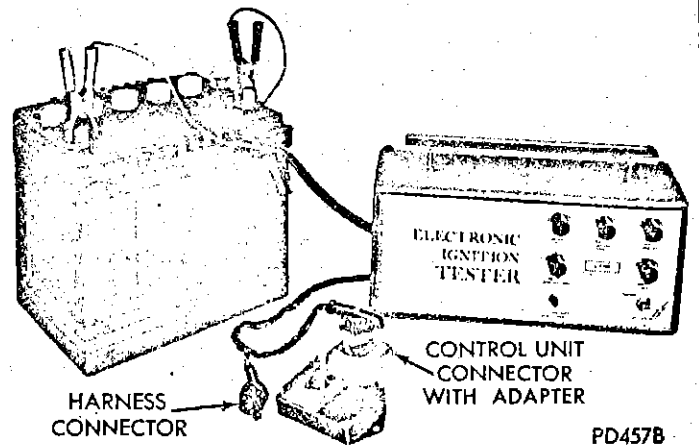


Fig. 7—Testing Control Unit Off Vehicle

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ENVIRONMENTAL QUALITY COMMISSION

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

ROBERT W. STRAUB
GOVERNOR

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item J, August 27, 1976, EQC Meeting

Rule Adoption: Proposed Revision of Rules Governing Administrative Procedures (OAR Chapter 340, Section 11-005 etseq.)

Background

As the Commission will recall, this matter has been the subject of extensive and thorough discussion by staff, Oregon Environmental Council, our own counsel, and the Commission.

Since June 25, staff has discussed differences with Mr. Guilbert of the OEC. Major differences have been resolved, resulting in a changed recommended draft. Where we have agreed to disagree with Mr. Guilbert, the draft sets forth OEC's proposal in different type.

Discussion

Grammar and punctuation

All of the grammatical errors to which OEC has drawn our attention have been corrected.

May to Shall

We have agreed to join OEC in recommending language requiring the presiding officer to state the Director's preliminary estimation of what issues are telling and what facts are apparent. This would be mandatory in hearings which are neither rule-making nor contested-case. We feel it would be helpful to do this and, in the case of public information hearings, the requirement appears to pose no significant invitation to litigation.

A careful drafting of notices of public hearing will continue to be necessary under the present recommendation for the added reason that we have agreed, in sense, with Mr. Guilbert that a requirement of disclosure in the notice (which would reach the public well before the hearing) will insure



Contains
Recycled
Materials

good faith in the area of informing citizens. The proposal will avoid unduly formal "readings" at hearings and avoid any invitation for dissenters to seek court review of the adequacy of the Director's appraisal of the "issues" and "facts" in complex rule-making. Suggested by the staff is language requiring the notice to fairly state "all issues and facts which, in the Director's judgment, will be of significant public interest." (Mr. Guilbert may wish to propose slightly differing language, as this was agreed upon in concept only.)

We agreed with Mr. Guilbert that the Director can delegate this function to staff under his statutory power to delegate "any power, duty, or function of whatever character." OEC is reassured because the proposal would make staff especially answerable to the Director in this regard.

Parades at Public Hearings

We have, as requested by Mr. Guilbert, deleted the provisions for avoiding the occasional "wager of law" circumstances wherein a great number of solicited witnesses are assembled to offer repetitious and/or irrelevant testimony intended to impress the Commission with strength of numbers, rather than reason. The present reservation of power to eliminate irrelevant or repetitious testimony is considered less specific, but adequate.

Declaratory Rulings and Amendment Petitions

We are still of the opinion that the Attorney General's Office is solely authorized to prescribe procedure in these areas. We have agreed and do propose to eliminate language stating our procedures to be "pursuant" to those of the Attorney General. The language was intended to bring attention to our understanding that, where conflict is found, members of the public may assert such options as the Attorney General has provided, notwithstanding our rules. We would retain in our proposals the last paragraph dealing with the prevalence of the Attorney General's rules. We are unable to agree with Mr. Guilbert that the rules should be silent on this technical, potentially important point. We've added an illustrative appendix as suggested by OEC.

Agency v. Commission

We have used "Commission" and "Department" for "agency" in places recommended by Mr. Guilbert.

Standing in Declaratory Matters

"Persons having a special interest" has been substituted for "interested persons" in areas of participation in declaratory rulings.

Action of Commission on Rule Petition

We are still unable to concur in Mr. Guilbert's suggestion that election by the Commission not to amend a rule as requested, when coupled with

instructions to staff to consider possible future amendment to the same rule, should be accompanied by the requirement that the Commission set a timetable. While the Commission often sets a target date on Departmental objectives, the Commission (like the staff) is often without the necessary information to do so. The recent series of hearings on indirect source rule illustrates that rule-making procedures often defy the "best laid plans."

Nevertheless, on page 10 Mr. Guilbert's language will be found in "advocate" type for Commission deliberations.

Requests to Postpone

At present ORS 468.020, on its face, requires a hearing before rule adoption (this requirement may have been repealed by implication when the AOA was modified to permit adoption without hearing where there's no request by 10 or more persons). For this reason we presently hold hearings for each rule-making activity. We propose a requirement that at least 16 days pass from agency notice (see new definition) to hearing.

With this provision, it will be known at the time of hearing whether there are any binding requests to postpone action. Secondly, the agency notice will give persons an opportunity for oral hearing on its face and only strong reason would justify delay of action for more than ten days for additional preparation.

We have deleted Mr. Guilbert's suggested language regarding postponement and hearing request.

NOTE

Section Twenty of the proposal is suggested by counsel to facilitate routine quasi-judicial matters. It is new to the proposals. Also, Section Eighteen was adopted on June 25 and is not part of the present Proposal.

A copy of this agenda item is to be sent to Mr. Guilbert. Since he and staff worked out areas of agreement by informal conversation, there may be some clarification or correction he will wish to make.

Philosophy

Rather than a verbatim repetition in the rules of requirements that are statutory in nature (or originate at a federal level), we prefer to "flag" these requirements in rules. This avoids the misleading impression that the Commission's rules govern and notifies readers of the location of the authority in question. Also, there is no necessity for researchers to tediously compare each line of the rule with the statute to see if there are additional or conflicting provisions.

Agenda Item J
August 27, 1976, EQC Meeting
Page 4

The one advantage to quoting statutory language in rules would seem to be informational. This need can be served by the compilation of a public participation pamphlet which gathers all relevant authorities together, organizes them under topics, and summarizes them for lay persons.

To serve this need, we would recommend that the agency provide such a pamphlet and, from time to time, revise it. The pamphlet should be prefaced with appropriate legal disclaimer language since it will need revision from time to time. The OEC would like requirements of such a pamphlet in the rules. Counsel is reluctant to recommend this.

Remaining Items

Attached behind the Proposed Rule are Mr. Guilbert's suggestions of June 25. A check mark appears next to each suggestion with which we do not concur. All of the serious difficulties have, however, been resolved with OEC.

Recommendations

It is the Director's recommendation that the Commission adopt the proposed Amendments to OAR Chapter 340, sections 11-005 through 11-135 and the proposed new section in Attachment A. In so doing, the Commission should specify any of the language proposed by OEC (or by the Commission) which is preferred to the language set forth in Gothic type. The Director's recommendation includes the recommendation that the proposals, if adopted, should become effective upon their prompt filing with the Secretary of State.



LOREN KRAMER
Director

PWM:ahc
8-20-76

Attachment:
Attachment A

ATTACHMENT A

Proposed Revisions

PROPOSED AMENDMENTS TO OAR CHAPTER 340, SECTIONS 11-005 THROUGH 11-135

(NEW MATTER UNDERLINED, DELETED MATTER IN BRACKETS AND LINED OUT)

SECTION ONE. 11-005 is amended as follows:

11-005 DEFINITIONS. Unless otherwise required by context, as used in this subdivision:

- (1) "Adoption" means the carrying of a motion by the Commission with regard to the subject matter or issues of an intended agency action.
- (2) "Agency Notice" means publication in OAR and mailing to those on the list as required by ORS 183.335(6).
- ~~(1)~~ (3) "Commission" means the Environmental Quality Commission.
- ~~(2)~~ (4) "Department" means the Department of Environmental Quality.
- ~~(3)~~ (5) "Director" means the Director of the Department or any of his authorized delegates.
- (6) "Filing" means the completed mailing to or service upon the Director. Such filing is adequate where filing is required of any document with

regard to any matter before the Commission, Department, or Director except a claim of personal liability.

~~[(4)]~~ (7) "License" [~~includes the whole or part of any Department permit, certificate, approval, registration, or similar form of permission required by law to pursue any commercial activity, trade, occupation, or profession.~~] has the same meaning as given in ORS 183.310.

~~[(5)]~~ (8) "Order" has the same meaning as given in ORS 183.310.

~~[(6)]~~ (9) "Party" has the same meaning as given in ORS 183.310 and includes the Department in all contested case hearings before the Commission [~~and before the~~] or Department or any of their presiding officers.

~~[(7)]~~ (10) "Person" [~~includes individuals, corporations, associations, firms, partnerships, joint stock companies, public and municipal corporations, political subdivision, the state and any agencies thereof, and the Federal Government and any agencies thereof.~~] has the same meaning as given in ORS 183.310.

~~[(11)]~~ (11) "Presiding Officer" means the Commission, its Chairman, the Director, or any individual designated by the Commission or the Director to preside in any contested case, public, or other hearing. Any employee of the Department who actually presides in any such hearing is presumptively designated by the Commission or Director, such presumptive designation to be overcome only by a written statement to the contrary bearing the signature of the Commission Chairman or the Director.

~~[(8)]~~ (12) "Rule" has the same meaning as given in ORS 183.310.

SECTION TWO. 11-007 is amended as follows:

11-007 PUBLIC INFORMATIONAL HEARINGS

- (1) Whenever there is ~~[held]~~ required or permitted a ~~[public]~~ hearing which is ~~[not]~~ neither a contested case hearing ~~[or]~~ nor a rule making hearing ~~as defined in [Chapter 183 of Oregon Revised Statutes,]~~ ORS Chapter 183, [the procedures set forth in section 11-025 and section 11-035-(2) shall be followed.] the presiding officer shall follow any applicable procedural law, including case law and rules and take appropriate procedural steps to accomplish the purpose of the hearing. Interested persons may, on their own motion or that of the presiding officer, submit written briefs or oral argument to assist the presiding officer in his resolution of the procedural matters set forth herein.
- (2) Prior to the submission of testimony by members of the general public the Presiding Officer shall present and offer for the record a summary of the questions the resolution of which, in the Director's preliminary opinion, will determine the matter at issue. He shall also present so many of the facts relevant to the resolution of these questions as he then possesses and which can practicably be presented in that forum.
- (3) Following the public informational hearing, or within a reasonable time after receipt of the report of the Presiding Officer, the Director or Commission shall take action upon the matter. Prior to or at the time of such action, the Commission or Director shall address separately each substantial distinct issue raised in the hearings record. This shall be in writing if taken by the Director or shall be noted in the minutes if taken by the Commission in a public forum.

~~[(4) Each rule-making notice shall contain a description of the Commission's intended action, setting forth the subjects and issues involved in sufficient detail to inform a person that his interest may be affected. Where practicable and appropriate, a copy of the rule proposed to be adopted, amended, or repealed shall be included. If the proposed rule, amendment, or repeal thereof is not set forth verbatim in the notice, the notice shall state the time, place, and manner in which the rule or amendment may be obtained.]~~

~~[(5) When the Commission is required by law to hold a public hearing on the proposed rule-making, or contemplates that a public hearing is necessary or appropriate, the notice shall additionally include:~~

~~(a) -- The time and place of the public hearing.~~

~~(b) -- The manner in which interested parties may present their views at the hearing.~~

~~(c) -- A designation of the person who is expected to preside at and conduct the hearing, if other than the full Commission.~~

~~[(6)] When the Commission is not required to hold a public hearing, and does not contemplate that a hearing is appropriate to the circumstances of the proposed rule-making, the notice shall additionally include:~~

~~(a) -- A statement of the time and place at which data, views, or arguments may be submitted in writing to the Commission.~~

~~(b) -- A statement that any interested person desiring to express or submit his data, views, or arguments at a public hearing must request the opportunity to do so.~~

~~(c) -- A designation of the person to whom a request for public hearing must be submitted and the time and place therefor.~~

~~(d) -- A statement that a public hearing will be held if the Commission receives a request for public hearing within fifteen (15) days after the Commission's notice from ten (10) or more persons or from an association having not less than ten (10) members.]~~

SECTION THREE. 11-008 is hereby repealed.

SECTION FOUR. 11-010 is amended as follows:

11-010 NOTICE OF RULEMAKING. (1) ~~[Except as specifically provided otherwise by statute, the Commission shall give]~~ Notice of [its] intention to adopt, amend, or repeal any rule(s) shall be in compliance with applicable state and federal laws and rules, including ORS Chapter 183 and subsections (2) and (3) of this section. ~~[by publication not less than twenty (20) days prior to the date of the proposed action in the bulletin published by the Secretary of State.]~~

(2) In addition to the news media on the list established pursuant to ORS 183.335 (6), a copy of the notice shall be furnished to such news media as the Director ~~[Commission]~~ may deem appropriate.

(3) ~~[A copy of the notice shall be mailed to persons on the mailing list established pursuant to ORS 183.335(3)]~~ In addition to meeting the requirements of ORS 183.335 (2), the notice shall contain the following:

(a) Where practicable and appropriate, a copy of the rule proposed to be adopted.

(b) Where the proposed rule is not set forth verbatim in the notice, a statement of the time, place, and manner in which a copy of the proposed rule may be obtained. and a description of the subject and issues involved in sufficient detail to inform a person that his interest may be affected.

(c) Whether the presiding officer will be a hearing officer or a member of the Commission.

(d) The manner in which persons not planning to attend the hearing may offer for the record written testimony on the proposed rule.

SECTION FIVE. 11-015 and 11-020 are hereby repealed.

SECTION SIX. 11-025 is amended as follows:

11-025 CONDUCT OF RULE MAKING HEARING. (1) The hearing shall be conducted

before the Commission, with the Chairman as the presiding officer, or before any member of the Commission, [~~the Director,~~] or other [~~person designated by the Commission to be the~~] presiding officer.

(2) At the commencement of the hearing, any person wishing to be heard shall advise the presiding officer of his name[~~,~~] and address [~~Additional persons may be heard at the discretion of the presiding officer. The presiding officer shall provide an appropriate~~] on a provided form for listing witnesses [~~which shall indicate the name of the witness, whether the witness favors or opposes the proposed action,~~] and such other information as the presiding officer may deem appropriate. Additional persons may be heard at the discretion of the presiding officer.

(3) At the opening of the hearing the presiding officer shall state, or have stated, the purpose of the hearing.

~~[(4) At public informational hearings, prior to the submission of testimony by members of the general public, the Director shall present and offer for the record a summary of the questions the resolution of which, in his preliminary opinion, will determine the matter at issue. He shall also present so many of the facts relevant to the resolution of these questions as he then possesses and which can be practicably be presented in that forum.]~~

~~[(5)]~~(4) The presiding officer shall thereupon describe the manner in which ~~[interested-parties]~~ persons may present their views at the hearing.

~~[(6)]~~(5) ~~Subject-to-the-discretion-of-the-Presiding-Officer,-the-order-of presentation-shall-be:~~

~~(a)--Statements-of-proponents-~~

~~(b)--Statements-of-opponents-~~

~~(c)--Statements-of-any-other-witnesses-present-and-wishing-to-be-heard-~~

The Presiding Officer shall order the presentations in such manner as he deems appropriate to the purpose of the hearing.

~~[(7)]~~(6) The Presiding Officer and any member of the Commission shall have the right to question or examine any witness making a statement at the hearing. The Presiding Officer may, at his discretion, permit other persons to examine witnesses.

~~[(8)]~~(7) There shall be no rebuttal or additional statements given by any witness except as requested by the Presiding Officer. However, when such additional statement is given, the Presiding Officer ~~[shall]~~ may allow an equal opportunity for reply by those whose statements were rebutted.

~~[(9)]~~(8) The hearing may be continued with recesses as determined by the presiding officer until all listed witnesses present and wishing to make a statement have had an opportunity to do so.

~~[(10)]~~(9) The Presiding Officer shall, where practicable and appropriate, receive all physical and documentary [evidence] exhibits presented by witnesses. ~~[Exhibits shall be marked and shall identify the witness offering each exhibit.]~~ Unless otherwise required by law or rule, the exhibits shall be preserved by the Department for a period of one year or, at the discretion of the Commission or Presiding Officer, returned to the persons who submitted them.

~~[(11)]~~(10) The Presiding Officer may, at any time during the hearing ~~[set]~~ impose reasonable time limits for oral presentation and may exclude or limit cumulative, repetitious, or immaterial matter. Persons with a concern distinct from those of citizens in general, and those speaking for groups, associations, or governmental entities may be accorded preferential time limitations as may be extended also to any witness who, in the judgment of the Presiding Officer, has such expertise, experience, or other relationship to the subject matter of the hearing as to render his testimony of special interest to the agency.

~~[(12)]~~(11) A verbatim oral, written, or mechanical record shall be made of all the hearing proceedings, or, in the alternative, a record in the form of minutes. Question and answer periods or other informalities before or after the hearing may be excluded from the record. The record shall be preserved for three years, unless otherwise required by law or rule.

SECTION SEVEN. 11-035 is amended as follows:

11-035 ACTION OF THE COMMISSION [OR DIRECTOR. ~~(1)~~] Following the rule making hearing by the Commission, or after receipt of the report of the Presiding Officer, the Commission may adopt, amend, or repeal rules within the scope of the notice of intended action.

~~[(2) Following the public informational hearing by the Director, or within a reasonable time after receipt of the report by the Presiding Officer, the Director shall take action upon the matter. Prior to or at the time of such action, the Director shall issue a written report in which he addresses separately each substantial distinct issue raised in the hearings record.]~~

SECTION EIGHT. 11-040 and 11-045 are hereby repealed. A new section 11-047 is hereby adopted to read as follows:

11-047 PETITION TO PROMULGATE, AMEND, OR REPEAL RULE: CONTENTS OF PETITION, FILING OF PETITION. (1) Any person may petition the Commission requesting the

adoption (promulgation), amendment, or repeal of a rule. The petition shall be in writing, signed by or on behalf of the petitioner, and shall contain a detailed statement of: (a) The rule petitioner requests the Commission to promulgate, amend or repeal. Where amendment of an existing rule is sought, the rule shall be set forth in the petition in full with matter proposed to be deleted therefrom enclosed in brackets and proposed additions thereto shown by underlining or bold face.

(b) Ultimate facts in sufficient detail to show the reasons for adoption, amendment, or repeal of the rule.

(c) All propositions of law to be asserted by petitioner.

(d) Sufficient facts to show how petitioner will be affected by adoption, amendment, or repeal of the rule.

(e) The name and address of petitioner and of any other person known by petitioner to have special interest in the rule sought to be adopted, amended, or repealed.

- (2) If the Department determines that a petition is technically deficient, it shall promptly so inform the petitioner and assist the petitioner in correcting procedural defects in the petition.
- (3) The petition, either in typewritten or printed form, shall be deemed
(2) filed when received in correct form by the Department.
- (4) Upon receipt of the petition,
(3)
 - (a) the Department shall mail a true copy of the petition together with a copy of the applicable rules of practice to all interested persons named in the petition. Such petition shall be deemed served on the date of mailing to the last known address of the person being served.
 - (b) the Department shall advise the petitioner that he has 15 days in which to submit written views.
 - (c) the Department may schedule oral presentation of petitions if the petitioner makes a request therefore and the Commission desires to hear the petitioner orally.
 - (d) the Commission shall, within 30 days after the date of submission of the properly drafted petition, either deny the petition or initiate rule making proceedings in accordance with applicable procedures for Commission rule making.
- (4) In the case of a denial of a petition to adopt, amend, or repeal a rule, the Commission shall issue an order setting forth its reasons in detail for denying the petition. The order shall be mailed to the petitioner and all other persons upon whom a copy of the petition was served.

(5) The Commission shall promptly:

(a) grant the petition and initiate the rule making proceedings petitioned for in accordance with sections 11-005 through 11-035; or

(b) deny the petition and issue an order which sets forth in detail its reasons for denial; or

(c) by order establish a timetable within which it resolves to promulgate or amend rules relating to the substantial subject matter of the petition; such order shall set forth in detail its reasons for declining to initiate rule making on the proposal contained in the petition.

(5) Where procedures set forth in this section are found to conflict with those prescribed by the Attorney General, the latter shall govern upon motion of any party other than the Commission or Department.

SECTION NINE. 11-050 is hereby repealed. A new section 11-052 is hereby adopted to read as follows:

11-052 TEMPORARY RULES. The Commission may adopt temporary rules and file the same, along with supportive findings, pursuant to ORS 183.335(5) and 183.355(2).

SECTION TEN. 11-055, 11-060, 11-065, 11-070, 11-075, 11-080, 11-085, 11-090, and 11-095 are hereby repealed. A new 11-062 is hereby adopted to read as follows:

11-062 DECLARATORY RULINGS: INSTITUTION OF PROCEEDINGS, CONSIDERATION OF PETITION, AND DISPOSITION OF PETITION (1) Pursuant to the provisions of ORS 183.410 and the rules prescribed thereunder by the Attorney General, and upon the petition of any person the Commission may, in its discretion, issue a declaratory ruling with respect to the applicability to any person, property or state of facts of any rule or statute enforceable by the Department or Commission.

- (2) The petition to institute proceedings for a declaratory ruling shall contain:
 - (a) A detailed statement of the facts upon which petitioner requests the Commission to issue its declaratory ruling.
 - (b) The rule or statute for which petitioner seeks a declaratory ruling.
 - (c) Sufficient facts to show how petitioner will be affected by the requested declaratory ruling.
 - (d) All propositions of law or contentions to be asserted by petitioner.
 - (e) The question presented for decision by the Commission.
 - (f) The specific relief requested.
 - (g) The name and address of petitioner and of any other person known by the petitioner to have special interest in the requested declaratory ruling.
- (3) The petition shall be typewritten or printed and in the form provided in Appendix to this section 340-11-062. The Commission may require amendments to petitions under this section but shall not refuse any reasonably understandable petition for lack of form.
- (4) The petition shall be deemed filed when received by the Department.
- (5) The Department shall within 30 days after the petition is filed notify the petitioner of the Commission's decision not to issue a ruling or the Department shall, within the same thirty days, serve all specially interested persons in the petition by mail.
 - (a) A copy of the petition together with a copy of the Commission's rules of practice; and

- (b) A notice of the hearing at which the petition will be considered. This notice shall have the contents set forth in subsection (6) below.
- (6) The notice of hearing at which time the petition will be considered shall set forth:
- (a) A copy of the petition requesting the declaratory ruling.
 - (b) The time and place of hearing.
 - (c) A statement that the Commission will conduct the hearing or a designation of the presiding officer who will preside at and conduct the hearing.
- (7) The hearing shall be conducted by and shall be under the control of the presiding officer. The presiding officer may be the Chairman of the Commission, any Commissioner, the Director or any other person designated by the Commission or its Chairman.
- (8) At the hearing, petitioner and any other party shall have the right to present oral argument. The presiding officer may impose reasonable time limits on the time allowed for oral argument. Petitioner and other parties may file with the agency briefs in support of their respective positions. The presiding officer shall fix the time and order of filing briefs.
- (9) In those instances where the hearing was conducted before someone other than the Commission, the presiding officer shall prepare an opinion in form and in content as set forth in subsection (11) below.
- (10) The Commission is not bound by the opinion of the presiding officer.

(11) The Commission shall issue its declaratory ruling within 60 days of the close of the hearing, or, where briefs are permitted to be filed subsequent to the hearing, within 60 days of the time permitted for the filing of briefs. The ruling shall be in the form of a written opinion and shall set forth:

(a) The facts being alleged by Petitioner.

(b) The statute or rule being applied to those facts.

(c) The Commission's conclusion as to the applicability of the statute or rule to those facts.

(d) The Commission's conclusion as to the legal effect or result of applying the statute or rule to those facts.

(e) The reasons relied upon by the agency to support its conclusions.

(12) A declaratory ruling issued in accordance with this section is binding between the Commission, the Department, and the petitioner on the state of facts alleged, or found to exist, unless set aside by a court.

(13) Where procedures set forth in this section are found to conflict with those prescribed by the Attorney General, the latter shall govern upon motion by any party other than the Commission or Department.

SECTION ELEVEN. 11-097 is amended as follows:

11-097 SERVICE OF WRITTEN NOTICE. (1) Whenever a statute or rule requires that the Commission or Department serve a written notice or final order upon a party other than for purposes of ORS 183.335 or for the purposes of notice to members of the public in general, the notice or final order shall be personally delivered or sent by registered or certified mail.

~~[(2) An employee of the Department or any other competent person over the age of 18 years may serve a written notice.]~~

~~[(3)]~~(2) The Commission or Department perfects service of a written notice when the notice is posted, addressed to, or personally delivered to:

(a) The party, or

(b) Any person designated by law as competent to receive service of a summons or notice for the party; or

(c) Following appearance of Counsel for the party, the party's counsel.

~~[(4)]~~(3) A party holding a license or permit issued by the Department or Commission or an applicant therefor, shall be conclusively presumed able to be served at the address given in his application, as it may be amended from time to time, until the expiration date of the license or permit.

~~[(5)]~~(4) Service of written notice may be proven by a certificate executed by the person effecting service.

~~[(6)]~~(5) In all cases not specifically covered by this section, a rule, or a statute, a writing to a person, if mailed to said person at his last known address, is rebuttably presumed to have reached said person in a timely fashion, notwithstanding lack of certified or registered mailing.

SECTION TWELVE. 11-100 is amended as follows:

11-100 WRITTEN NOTICE OF OPPORTUNITY FOR A HEARING

- (1) Except as otherwise provided in [~~section 11-095~~] ORS 183.430 and ORS 670.285, before the Commission or department shall by order suspend, revoke, refuse to renew, or refuse to issue a license or enter a final order in any other contested case as defined in ORS Chapter 183, it shall afford the licensee, the license applicant or other party to the contested case an opportunity for hearing after reasonable written notice.
- (2) Written notice of opportunity for a hearing, in addition to the requirements of ORS 183.415(2), [~~shall~~] may include:
- ~~[(a)--A statement of the party's right to request a hearing or a designation of the time and place of the hearing.~~
 - ~~(b)--A statement of the authority and jurisdiction under which the hearing would be held.~~
 - ~~(c)--A reference to the particular sections of the statutes and rules involved.~~
 - ~~(d)--A short and plain statement of the matters asserted or charged.~~
 - (e)(a) A statement that an answer will or will not be required if the party requests a hearing, and, if so, the consequence of failure to answer. A statement of the consequence[s] of failure to answer may be satisfied by serving a copy of section 11-107 upon the party.
 - (b) A statement that the party may elect to be represented by legal counsel.
 - (c) A statement of the party or parties who, in the contention of the Department or Commission, would have the burden of coming forward with evidence and the burden of proof in the event of a hearing.

SECTION THIRTEEN. Section 11-107 is hereby amended to read as follows:

11-107 ANSWER REQUIRED: CONSEQUENCES OF FAILURE TO ANSWER. (1) Unless waived

~~[in-writing-by-the-Director]~~ in the notice of opportunity for a hearing and except as otherwise provided by statute or rule, a party who has been served written notice of opportunity for a hearing shall have 20 days from the date of mailing or personal delivery of the notice in which to file with the Director a written answer and application for hearing.

(2) In the answer the party shall admit or deny all factual matters and shall affirmatively allege any and all affirmative claims or defenses the party may have and the reasoning in support thereof. Except for good cause shown:

(a) Factual matters not controverted shall be presumed admitted;

(b) Failure to raise a claim or defense shall be presumed to be denied[;] unless admitted in subsequent pleading or stipulation by the Department or Commission, and

(d) Evidence shall not be taken on any issue not raised in the notice and the answer.

(3) In the absence of a timely answer, the Director on behalf of the Commission or Department may issue a default order and judgment, based upon prima facie case made on the record, for the relief sought in the notice.

SECTION FOURTEEN. 11-115 is hereby repealed and a new section 11-115 is hereby adopted to read:

11-115 SUBPOENAS AND DEPOSITIONS. Subpoenas and Depositions shall be as provided by ORS 183.425, 183.440, and 468.120 and shall be preceded by a showing of good cause, general relevance, and reasonable scope with regard to the evidence sought. Such showing may be by affidavit based on knowledge and belief. Subpoenas and Depositions may be modified or withdrawn for good cause shown.

SECTION FIFTEEN. Section 11-120(3) is amended to read as follows:

(3) At the discretion of the presiding officer, the hearing shall be conducted in the following manner:

(a) Statement and evidence of the [~~Commission-or-Department~~] party with the burden of coming forward with evidence in support of [its] his proposed action

(b) Statement and evidence of [~~affected-persons~~] defending party in support of his alleged position or [in-support-of,-requesting modification-of,-or-disputing-the-Commission's-or-the-Department's proposed-action.]

(c) Rebuttal [~~testimony~~] evidence, if any.

(d) Surrebuttal [~~testimony~~] evidence, if any.

SECTION SIXTEEN. Section 11-120(12) is hereby repealed. A new section 11-121 is hereby adopted to read as follows:

11-121 THE RECORD. The Presiding Officer shall certify such part of the record as defined by ORS 183.415(7) as may be necessary for review of final orders and proposed final orders. The Commission or Director may review tape recordings of proceedings in lieu of a prepared transcript.

SECTION SEVENTEEN. 11-125 is hereby amended as follows:

11-125 EVIDENTIARY RULES. (1) [~~The-rules-of-evidence-as-in-equity-proceedings shall-apply-to-all-hearings-in-contested-cases.~~] In applying the standard of admissibility of evidence set forth in ORS 183.450, the Presiding Officer may refuse to admit hearsay evidence inadmissible in the courts of this state where he is satisfied that the declarant is reasonably available to testify and the declarant's reported statement is significant but would not commonly be found reliable because of its lack of corroboration in the record or its lack of clarity and completeness.

- (2) All offered evidence, not objected to, will be received by the Presiding Officer subject to his power to exclude or limit cumulative, repetitious, irrevelant, or immaterial matter.
- (3) Evidence objected to may be received by the Presiding Officer with rulings on its admissibility or exclusion to be made at the time a final order is issued.

SECTION EIGHTEEN. 11-132 is amended as follows:

11-132 PRESIDING OFFICER'S PROPOSED ORDER IN HEARINGS BEFORE THE COMMISSION.

- (1) In a contested case before the Commission, if a majority of the members of the Commission have not heard the case or considered the record, the Presiding Officer shall prepare a written proposed order [~~and-judgment~~] including findings of fact and conclusions of law. Copies of the proposed order [~~and-judgment~~] shall be filed with the Commission and parties in accordance with section 11-097 (regarding service of written notice).
- (2) The parties shall have fourteen (14) days from the date of mailing or personal service in which to file with the Commission and serve upon the other parties a request that the Commission review the proposed order [~~and-judgment~~].
- (3) Unless a timely request for Commission review is filed with the Commission, or unless within the same time limit the Commission, upon the motion of its Chairman or a majority of the members, decides to review it, the proposed order [~~and-judgment~~] of the Presiding Officer shall become the final order [~~and-judgment~~] of the Commission.
- (4) If the Commission review is invoked, then the parties shall be given thirty [~~{30}~~] days from the date of mailing or personal service of the Presiding Officer's proposed order [~~and-judgment~~], or such further time as the

Director or Commission may allow, to file with the Commission and serve upon the other parties written exceptions and arguments to the proposed order [~~and judgment~~]. Such exceptions and arguments shall include proposed alternative findings of fact, conclusions of law, and order [~~and judgment~~] and shall include specific references to those portions of the record upon which the party relies. As to any finding of fact made by the Presiding Officer, [~~to which no exception, or an inadequate exception, is taken,~~] the Commission may make an identical finding without any further consideration of the record.

Further the Commission may make a finding identical to that proposed by all parties other than the agency without any further consideration of the record.

- (5) Following the expiration of the time allowed the parties to present exceptions and arguments, the Chairman may at his discretion schedule the matter for oral argument before the Commission.
- (6) Notwithstanding whether the procedures set out in subsection (1) through (5) of this section have been completed, a majority of the members of the Commission may at any time personally consider the whole record or appropriate portions thereof and issue a final order [~~and judgment~~] based thereon.
- (7) In reviewing a proposed order [~~and judgment~~] prepared by a Presiding Officer, the Commission may, based upon the record made before the Presiding Officer or appropriate portions thereof, substitute its judgment for that of the Presiding Officer in making any particular finding of fact, conclusion of law or order. [~~or judgment~~]

(8) In reviewing a proposed order [~~and judgment~~] prepared by a Presiding Officer, the Commission [~~shall not~~] may take [any] additional evidence. [~~unless it is shown to the satisfaction of the Commission that the additional evidence is material and that there were good and substantial reasons for failure to present it in the hearing before the Presiding Officer.~~] Requests to present additional evidence shall be submitted by motion and shall be supported by an affidavit specifying the reasons for the failure to present it at the hearing before the Presiding Officer. If the Commission grants the motion, or so decides of its own motion, it may hear the additional evidence itself or remand to a Presiding Officer upon such conditions as it deems just.

SECTION NINETEEN. 11-133 is hereby repealed. A new section 11-134 is hereby adopted to read as follows:

11-134 PRESIDING OFFICER'S PROPOSED ORDER IN HEARING BEFORE THE DEPARTMENT.

- (1) In a contested case before the Department, the Director shall exercise powers and have duties in every respect identical to those of the Commission in contested cases before the Commission.
- (2) Notwithstanding subsection (1) of this section, the Commission may, as to any contested case over which it has final administrative jurisdiction, upon motion of its Chairman or a majority of its members, remove to the Commission any contested case before the Department at any time during the proceedings in a manner consistent with ORS Chapter 183.

SECTION TWENTY. A new section 11-136 is hereby adopted to read as follows:

11-136 POWERS OF THE DIRECTOR (1) Except as provided by section 12-075, the Director, on behalf of the Commission, may execute any written order which has been consented to in writing by the parties adversely affected thereby.

- (2) The Director, on behalf of the Commission, may prepare and execute written orders implementing any action taken by the Commission on any matter.
- (3) The Director, on behalf of the Commission, may prepare and execute orders upon default where
 - (a) the adversely affected parties have been properly notified of the time and manner in which to request a hearing and have failed to file a proper, timely request for a hearing or
 - (b) having requested a hearing, the adversely affected party has failed to appear at the hearing or at any duly scheduled prehearing conference.
- (4) Default orders based upon failure to appear shall issue only upon the making of a prima facie case on the record.

SECTION TWENTY ONE. A new section 11-140 is hereby adopted to read as follows:

11-140 MISCELLANEOUS PROVISIONS. OAR Chapter 340, sections 11-010 to 11-140, as amended and adopted June 25, 1976, shall take effect upon prompt filing with the Secretary of State. They shall govern all further administrative proceedings then pending before the Commission or Department except to the extent that, in the opinion of the Presiding Officer, their application in a particular action would not be feasible or would work an injustice, in which event, the procedure in former rules designated by the Presiding Officer shall apply.

OAR Chapter 340, section 35-015(9) defines a Farm Tractor as being:

"... any Motor Vehicle designed primarily for use in agricultural operations for drawing or operating plows, mowing machines, or other implements of husbandry."

(emphasis supplied).

OAR Chapter 340, section 35-025 so far as pertinent provides:

"... 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 A ..."

4. Petitioner contends that the above administrative rules do not apply to its two wheeled vehicles so as to require them not to exceed the propulsion levels specified in Table A because (1) the two wheeled vehicles are equipped with 6.70 by 15 tractor-treaded tires, drive chains to both wheels, low gear ratios, power take offs, tow bars, and are sold with optional equipment including trailers, plows, harrows, spraying equipment, and blades which are used and useful in agricultural operations including hauling fertilizers and crops, plowing fields, spraying crops, and irrigating fields and (2) the two wheeled vehicles are equipped with low gear ratios, tractor-treaded tires, a maximum speed capability of 45 miles per hour, no mirrors, no headlights, no tail lights, no passenger seat, an engine of only ten horsepower, and other features which render them relatively unuseful for purposes other than agricultural operations such as hauling fertilizers and crops, plowing fields, spraying crops, and irrigating fields.
5. The question presented for declaratory ruling by the Commission is whether the above administrative rules require petitioner's two wheeled vehicles not to be sold in the state of Oregon unless they produce no propulsion noise exceeding the noise limits specified in the above-mentioned Table A.

6. Petitioner requests that the Commission rule that Petitioner's two wheeled vehicles are Farm Tractors and are not required to be withheld from sale in the state of Oregon for exceeding the propulsion noise limits specified in the above-mentioned Table A.
7. Petitioner alleges that the DFG Company, a California corporation located at 4200 Shioog Street, Los Angeles, has a problem similar to Petitioner's and would be affected by this Commission's ruling in this matter.

Dated September 15, 1976

William Worthy
President

OEC PROPOSED CHANGES TO AMENDMENTS
TO OAR 340-11-005 through 340-11-140
June 25, 1976

Change Section

- ✓ A. 11-007(1): After "ORS Chapter 183," change comma to period and delete remainder of subsection.
- B. 11-007(2): Change "may" to "shall" in lines 2 and 4, and change "his" to "the Director's" in line 3.
- C. 11-007(3): Change "may" to "shall" in line 4.
- ✓ D. 11-010(3)(b): Delete the period after "obtained" and add "and a description of the subject and issues involved in sufficient detail to inform a person that his interest may be affected."
- E. 11-025(2): In line 2, delete the comma and substitute "and."
- F. 11-025(3): Delete "In his discretion"; after "officer," change "may" to "shall"; in subsection (a), change "his" to "the Director's"; in subsection (b), change "he" to "the Director" and "agency" to "Commission."
- G. 11-025(10): Delete final sentence, which begins, "If the Presiding ***."
- H. 11-047(1): Delete first 15 words, through "General." Capitalize the "A" in "Any."
- I. 11-047(1)(a): In line 1, change "agency" to "Commission."
- J. 11-047(1)(b): Insert comma after "amendment."
- K. 11-047(1)(c): Insert "law" between "of" and "to."
- L. 11-047(1)(e): Delete the words "be interested" and substitute the words "have a special interest" in their place.
- ✓ M. 11-047(4) and (5): Delete. (See Change Q below)
- ✓ N. 11-047(2) and (3): Delete subsection (3)(d) and renumber the remainder as subsections (3) and (4) respectively. (See Change Q below)

✓ O. Add new
11-047(2): "If the Department determines that a petition is technically deficient, it shall promptly so inform the petitioner and assist the petitioner in correcting procedural defects in the petition."

P. 11-047(3) (as
renumbered by
Change N): After "received" add "in correct form."

✓ Q. (New sub-
section): Insert new subsection 11-047(5) to read
as follows:

"(5) The Commission shall promptly:

"(a) grant the petition and initiate the rule-making proceedings petitioned for in accordance with sections 11-005 through 11-035; or

"(b) deny the petition and issue an order which sets forth in detail its reasons for denial; or

"(c) by order establish a timetable within which it resolves to promulgate or amend rules relating to the substantial subject matter of the petition; such order shall set forth in detail its reasons for declining to initiate rule making on the proposal contained in the petition."

R. 11-062(1): Delete first two lines through "General, and" and capitalize the "U" in "Upon"; substitute "Department or Commission" for "agency."

S. 11-062(2) (a): Delete "agency" and substitute "Commission."

T. 11-062(3): Change the period after "printed" to a comma, and add: "and in the form provided in the appendix to this section OAR 340-11-062."

- ✓ U. 11-062(6)(c): Delete, and substitute: "(c) A statement that the Commission will conduct the hearing or a designation of the presiding officer who will preside at and conduct the hearing."
- ✓ V. 11-062(13): Delete.
- W. (New addition): Insert as appendix to 11-062 a reproduction, "customized" to the uses of the Commission, of Appendix E of the Attorney General's Model Rules.
- X. 11-097(3): Delete commas following "Department" and "Commission."
- Y. 11-097(5): Delete "rebutably" and substitute "rebuttably."
- Z. 11-107(1): Delete comma after "waived."
- A.A. 11-121(1): Delete "his out of court" and substitute "declarant's"; after "statement," insert "as reported to the presiding officer."
- ✓ B.B. 11-134: Delete.
- C.C. (New section): Add a new §11-016 to read as follows:
- "11-016 Form of Request for Public Hearing. Ten persons or an association of more than ten members may request a public hearing pursuant to ORS 183.335(3) by filing, as defined in OAR 340-11-005(5), a request in writing, which is signed by the ten persons or which contains an allegation that the association making the request has more than ten members."
- D.D. (New section): Add a new §11-021 to read as follows:
- "11-021 Form of Request for Postponement of Action. An interested person may request the Department or Commission to postpone intended action pursuant to ORS 183.335(4) by filing, as defined in OAR 340-11-005(5), a request in which the person alleges his interest."

183.010 [Repealed by 1971 c.734 §21]

183.020 [Repealed by 1971 c.734 §21]

183.030 [Repealed by 1971 c.734 §21]

83.040 [Repealed by 1971 c.734 §21]

183.050 [Repealed by 1971 c.734 §21]

183.060 [1957 c.147 §1; repealed by 1969 c.292 §3]

183.310 Definitions for ORS 183.310 to 183.500. As used in ORS 183.310 to 183.500:

(1) "Agency" means any state board, commission, department, or division thereof, or officer authorized by law to make rules or to issue orders, except those in the legislative and judicial branches.

(2) "Contested case" means a proceeding before an agency:

(a) In which the individual legal rights, duties or privileges of specific parties are required by statute or Constitution to be determined only after an agency hearing at which such specific parties are entitled to appear and be heard; or

(b) Where the agency has discretion to suspend or revoke a right or privilege of a person; or

(c) For the suspension, revocation or refusal to renew or issue a license required to pursue any commercial activity, trade, occupation or profession where the licensee or applicant for a license demands such hearing; or

(d) Where the agency by rule or order provides for hearings substantially of the character required by ORS 183.415, 183.425 and 183.450 to 183.470.

(3) "License" includes the whole or part of any agency permit, certificate, approval, registration or similar form of permission required by law to pursue any commercial activity, trade, occupation or profession.

(4) "Order" means any agency action expressed verbally or in writing directed to a named person or named persons, other than employes, officers or members of an agency, but including agency action under ORS chapter 657 making determination for purposes of unemployment compensation of employes of the state and agency action under ORS chapter 240 which grants, denies, modifies, suspends or revokes any right or privilege of such person.

(5) "Party" means each person or agency entitled as of right to a hearing before the agency, or named or admitted as a party.

(6) "Person" means any individual,

partnership, corporation, association, governmental subdivision or public or private organization of any character other than an agency.

(7) "Rule" means any agency directive, regulation or statement of general applicability that implements, interprets or prescribes law or policy, or describes the procedure or practice requirements of any agency. The term includes the amendment or repeal of a prior rule, but does not include:

(a) Internal management directives, regulations or statements between agencies, or their officers or their employes, or within an agency, between its officers or between employes, unless hearing is required by statute, or action by agencies directed to other agencies or other units of government.

(b) Declaratory rulings issued pursuant to ORS 183.410 or 305.105.

(c) Intra-agency memoranda.

(d) Executive orders of the Governor.

(e) Rules of conduct for persons committed to the physical and legal custody of the Corrections Division of the Department of Human Resources, the violation of which will not result in:

(A) Placement in segregation or isolation status in excess of seven days.

(B) Institutional transfer or other transfer to secure confinement status for disciplinary reasons.

(C) Noncertification to the Governor of a deduction from the term of his sentence under ORS 421.120.

(D) Disciplinary procedures adopted pursuant to ORS 421.180.

[1957 c.717 §1; 1965 c.285 §78a; 1967 c.419 §32; 1969 c.80 §37a; 1971 c.734 §1; 1973 c.386 §4; 1973 c.621 §1a]

183.315 Application of ORS 183.310 to 183.500 to certain agencies; exemptions granted by Governor; duration of exemption.

(1) The provisions of ORS 183.340, 183.410, 183.415, 183.425, 183.440, 183.450, 183.460, 183.470 and 183.480 do not apply to the Department of Revenue, State Accident Insurance Fund, Public Utility Commissioner, Workmen's Compensation Board, or State Board of Parole.

(2) Notwithstanding ORS 183.310 to 183.500, except as provided in this section, ORS 183.310 to 183.500 does not apply with respect to actions of the Governor authorized under ORS chapter 240.

(3) The provisions of ORS 183.415, 183.425, 183.440, 183.450 and 183.460 do not

apply to the Employment Division, ORS 183.470 does not apply to the Public Utility Commissioner, and ORS 183.410 does not apply to the Employment Division.

(4) The provisions of ORS 183.415 to 183.500 do not apply to orders issued to persons who have been committed pursuant to ORS 137.124 to the custody of the Corrections Division.

(5) Upon application of any agency, the Governor may exempt any agency rule or order or class of rules or orders from a requirement of ORS 183.310 to 183.500, when:

(a) The Attorney General has certified that such requirement would conflict with any provisions of federal law or rules with which the agency must comply as a condition to the receipt of federal funds, or in order to permit employers or other persons in the state to receive tax credits or other benefits under any federal law; or

(b) The Governor has found that conformity with such requirements of ORS 183.310 to 183.500 would be so inconvenient or impracticable as to defeat the purpose of the rule or order, and is not in the public interest, in light of the nature of the rule or order and in light of the enabling act or other laws affecting the agency.

(6) When the Governor exempts an agency from a requirement of ORS 183.310 to 183.500 pursuant to subsection (5) of this section, he shall establish alternative procedures for the agency action consistent, in so far as possible, with the intent and purpose of ORS 183.310 to 183.500.

(a) Prior to the granting of any exemption authorized by this section the Governor shall, after notice, hold a public hearing after notice as provided by ORS 183.335, or he may designate the Attorney General to hold the required hearing.

(b) An exemption, and any alternative procedure prescribed shall terminate upon the adjournment of the next regular legislative session after issuance of the exemption. [1971 c.734 §19; 1973 c.612 §3; 1973 c.621 §2; 1973 c.694 §1]

183.317 Exemption of Employment Division. Notwithstanding ORS 183.315, the Employment Division shall be exempt from the provisions of ORS 183.310 to 183.500 to the extent that a formal finding of the United States Secretary of Labor is made that such provision conflicts with the terms of the federal law, acceptance of which by the state is a condition precedent to continued certifica-

tion by the United States Secretary of Labor of the state's law.

[1971 c.734 §187].

Note: ORS 183.317 was not added to and made a part of ORS 183.310 to 183.500 by legislative action.

183.320 [1957 c.717 §15; repealed by 1971 c.734 §21]

183.330 General requirements for rule-making agencies; service of orders. (1) In addition to other rulemaking requirements imposed by law, each agency shall:

(a) Publish and file with the Secretary of State a description of its organization and the methods whereby the public may obtain information or make submissions or requests.

(b) Adopt rules of practice setting forth the nature and requirements of all formal and informal procedures available.

(c) Make available for public inspection all rules, final orders, decisions and opinions. No matter prohibited from public disclosure by ORS 314.835, 657.665, 657.670, or similar statutes, shall be required to be made available for public inspection by this subsection.

(2) An order shall not be effective as to any person or party unless it is served upon him either personally or by mail. This subsection is not applicable in favor of any person or party who has actual knowledge of the order.

[1957 c.717 §2; 1971 c.734 §4]

183.335 Prerequisites to adoption of rules; emergency adoption of temporary rule; application; substantial compliance required.

(1) Prior to the adoption, amendment or repeal of any rule, the agency shall:

(a) Give notice of its intended action not less than 20 days prior thereto by publication in the bulletin referred to in ORS 183.360 and to persons who have requested notice pursuant to subsection (3) of this section. The notice shall state the subject matter and purpose of the intended action in sufficient detail to inform a person that his interests may be affected, and the time, place and manner in which interested persons may present their views on the intended action. If a proposed rule or an amendment to an existing rule has been prepared, the notice also shall state the time, place and manner in which such rule or amendment may be obtained.

(b) Afford all interested persons reasonable opportunity to submit data, views or arguments, either orally or in writing. Opportunity for oral hearing shall be granted

upon request received from 10 persons or from an association having not less than 10 members within 15 days after agency notice of intended action pursuant to paragraph (a) of this subsection. The agency shall consider fully any such written or oral submission.

(c) Upon request of an interested person received within 15 days after agency notice of intended action pursuant to paragraph (a) of this subsection, postpone the date of its intended action no less than 10 nor more than 90 days in order to allow the requesting person an opportunity to submit data, views or arguments concerning the proposed action. Nothing in this paragraph shall preclude an agency from adopting a temporary rule pursuant to subsection (2) of this section.

(2) If an agency finds that its failure to act promptly will result in serious prejudice to the public interest or the interest of the parties concerned, and sets forth the specific reasons for its finding, it may proceed without prior notice or hearing or upon any abbreviated notice and hearing that it finds practicable, to adopt a rule without notice. Such rule is temporary and may be effective upon filing with the Secretary of State pursuant to ORS 183.355 for a period of not longer than 120 days, but the adoption of an identical rule under subsection (1) of this section is not precluded.

(3) Any person may request in writing that an agency mail him copies of its notices of intended action given pursuant to paragraph (a) of subsection (1) of this section and filed in the office of the Secretary of State pursuant to subsection (1) of ORS 183.355. Upon receipt of any request the agency shall acknowledge the request, establish a mailing list and maintain a record of all mailings made pursuant to the request. Agencies may establish procedures for establishing and maintaining the mailing lists current and, by rule, establish fees necessary to defray the costs of mailings and maintenance of the lists.

(4) This section does not apply to rules establishing an effective date for a previously effective rule or establishing a period during which a provision of a previously effective rule will apply.

(5) This section does not apply to ORS chapter 279.

(6) No rule adopted after October 5,

1973, is valid unless adopted in substantial compliance with this section.

[1971 c.734 §3; 1973 c.612 §1]

183.340 Model rules of procedure to be published; adoption by reference of model rules permitted. The Attorney General shall prepare model rules of procedure appropriate for use by as many agencies as possible. Any agency may adopt all or part of the model rules by reference. Notice of such adoption shall be filed with the Secretary of State in the manner provided by ORS 183.355 for the filing of rules. The compilation of the model rules shall include a reference to the agencies which have adopted all or part of such rules, and in the case of partial adoption by an agency, to the specific rules or parts thereof adopted. Neither the Attorney General nor any agency shall adopt, amend or repeal the model rules or any part thereof unless he or it otherwise complies with the provisions of ORS 183.310 to 183.500 relating to adoption, amendment and repeal of rules. [1957 c.717 §3 (3); 1971 c.734 §6]

183.350 [1957 c.717 §3 (1), (2); repealed by 1971 c.734 §21]

183.355 Filing and taking effect of rules; filing of executive orders; copies. (1) Each agency shall file in the office of the Secretary of State a certified copy of each rule adopted by it, including all rules in effect on September 9, 1971, and not previously filed as provided by law. The Secretary of State shall keep a permanent register of the rules open to public inspection.

(2) Each rule adopted after September 9, 1971, other than a temporary rule adopted pursuant to subsection (2) of ORS 183.335 is effective 10 days after publication in the bulletin provided in ORS 183.360, except that:

(a) If a later effective date is required by statute or specified in the rule, the later date is the effective date.

(b) Subject to applicable constitutional or statutory provisions, a temporary rule becomes effective immediately upon filing with the Secretary of State, or at a designated later date prior to publication if the agency finds that the designated date is necessary for the public interest or the interest of the parties concerned. The agency finding and a statement of the reasons therefor shall be filed with the rule. The agency shall take appropriate measures to make temporary rules

known to the persons who may be affected by them.

(3) When a rule is amended or vacated, rescinded or otherwise repealed by an agency, the agency shall forthwith certify that fact to the Secretary of State who shall enter that fact on the certified copy of the rule.

(4) A certified copy of each executive order issued, prescribed or promulgated by the Governor shall be filed in the office of the Secretary of State.

(5) No rule of which a certified copy is required to be filed, and no rule of which a duplicate original or authenticated copy before September 9, 1971, was required to be filed shall be valid or effective against any person or party, nor may it be invoked by the issuer thereof for any purpose, unless a duplicate original or authenticated copy was filed or until a certified copy is filed in accordance with this section. However, if an agency, in disposing of a contested case, announces in its decision the adoption of a general policy applicable to such case and subsequent cases of like nature the agency may rely upon such decision in disposition of later cases.

(6) The Secretary of State shall, upon request, supply copies of rules, or orders or designated parts of rules or orders, making and collecting therefor fees prescribed by ORS 177.130. All receipts from the sale of copies shall be deposited in the State Treasury to the credit of the General Fund.
[1971 c.734 §5; 1973 c.612 §2]

183.360 Publication of rules and orders; exceptions; judicial notice; citation. (1) The Secretary of State shall compile, index and publish all rules adopted by each agency pursuant to ORS 183.330 and 183.340 or filed with him pursuant to law prior to September 9, 1971, or pursuant to ORS 183.355 and remaining in effect. Compilations shall be supplemented or revised as often as necessary and at least once every two years. Such compilations may be adopted by agencies as a code of regulations, superseding all previous rules of such agency. The Secretary of State may make such compilations of other material published in the bulletin as he deems desirable.

(2) The Secretary of State may, in his discretion, omit from the compilation rules the publication of which would be unduly cumbersome or expensive if the rule in printed or processed form is made available on application to the adopting agency, and if the compilation contains a notice summar-

izing the omitted rule and stating how a copy thereof may be obtained.

(3) The Secretary of State shall publish at at least monthly intervals a bulletin in which he may, in his discretion, publish the text of any agency rule or order filed since the preceding issue and any other administrative or executive document of public interest.

(4) If the Secretary of State does not publish in the bulletin the text of any rule or executive order filed since the preceding issue, he shall publish in the bulletin a notice summarizing each rule and order the text of which is not published in full, and stating that a copy thereof may be obtained by application to the adopting agency. Such notice shall constitute publication for the purposes of subsection (2) of ORS 183.355.

(5) Courts shall take judicial notice of rules and executive orders filed with the Secretary of State and published pursuant to this section. Material so published may be cited as OAR, followed by the chapter and section numbers designated in the publication.

[1957 c.717 §4 (1), (2), (3); 1961 c.464 §1; 1971 c.734 §7; 1973 c.612 §4]

183.370 Distribution of published rules. The Secretary of State shall forward free of charge one copy of the bulletins and compilations to each district attorney and county clerk. The county clerk's copy shall be maintained in the county law library, or if the county has no law library, in his office available for inspection by the public. In addition, bulletins and compilations may be distributed by the Secretary of State free of charge as provided for the distribution of legislative materials referred to in ORS 171.225. Further distribution of the bulletins or compilations shall be made as directed by the Department of General Services. Other copies of the bulletins and compilations shall be distributed by the Secretary of State at a cost determined in the manner provided in ORS 2.160 for the distribution of copies of Supreme Court Reports. Any agency may compile and publish its rules or all or part of its rules for purpose of distribution outside of the agency only after it proves to the satisfaction of the Department of General Services that agency publication is necessary in addition to the publications required to be made by the Secretary of State under ORS 183.360.

[1957 c.717 §4 (4); 1959 c.260 §1; 1969 c.174 §4]

183.380 [1957 c.717 §4 (5); repealed by 1971 c.734 §21]

183.390 Petitions requesting adoption of rules. An interested person may petition an agency requesting the promulgation, amendment or repeal of a rule. The Attorney General shall prescribe by rule the form for such petitions and the procedure for their submission, consideration and disposition. Not later than 30 days after the date of submission of a petition, the agency either shall deny the petition in writing or shall initiate rulemaking proceedings in accordance with ORS 183.335. [1957 c.717 §5; 1971 c.734 §8]

183.400 Judicial determination of validity of rule. (1) The validity of any rule may be determined upon a petition for a declaratory judgment thereon filed as provided by ORS chapter 28 if the rule, or its threatened application, interferes with or impairs, or threatens to interfere with or impair, the rights, privileges or substantial interests of the petitioner. The agency shall be made a party to the proceeding. The declaratory judgment may be rendered whether or not the petitioner has first requested the agency to pass upon the validity of the rule in question, but not when the petitioner is a party to an order or a contested case in which the validity of the rule may be determined by a court.

(2) The validity of any applicable rule may also be determined by a court, upon review of an order in any manner provided by law or pursuant to ORS 183.480 or upon enforcement of such rule or order in the manner provided by law.

(3) The court shall declare the rule invalid only if it finds that it violates constitutional provisions or exceeds the statutory authority of the agency or was adopted without compliance with statutory rulemaking procedures.

[1957 c.717 §6; 1971 c.734 §9]

183.410 Agency determination of applicability of rule or statute to petitioner; effect; judicial review. On petition of any interested person, any agency may in its discretion issue a declaratory ruling with respect to the applicability to any person, property, or state of facts of any rule or statute enforceable by it. A declaratory ruling is binding between the agency and the petitioner on the state of facts alleged, unless it is altered or set aside by a court. However, the agency may, where the ruling is adverse to the petitioner, review

the ruling and alter it if requested by the petitioner. Binding rulings provided by this section are subject to review in the Court of Appeals in the manner provided in ORS 183.480 for the review of orders in contested cases. The Attorney General shall prescribe by rule the form for such petitions and the procedure for their submission, consideration and disposition. The petitioner shall have the right to submit briefs and present oral argument at any declaratory ruling proceeding held pursuant to this section.

[1957 c.717 §7; 1971 c.734 §10; 1973 c.612 §5]

183.415 Notice, hearing and record in contested cases. (1) In a contested case, all parties shall be afforded an opportunity for hearing after reasonable notice, served personally or by registered or certified mail.

(2) The notice shall include:

(a) A statement of the party's right to hearing, or a statement of the time and place of the hearing;

(b) A statement of the authority and jurisdiction under which the hearing is to be held;

(c) A reference to the particular sections of the statutes and rules involved; and

(d) A short and plain statement of the matters asserted or charged.

(3) Parties may elect to be represented by counsel and to respond and present evidence and argument on all issues involved.

(4) Unless precluded by law, informal disposition may be made of any contested case by stipulation, agreed settlement, consent order or default.

(5) An order adverse to a party may be issued upon default only upon prima facie case made on the record of the agency. When an order is effective only if a request for hearing is not made by the party, the record may be made at the time of issuance of the order, and if the order is based only on material included in the application or other submissions of the party, the agency may so certify and so notify the party, and such material shall constitute the evidentiary record of the proceeding if hearing is not requested.

(6) Testimony shall be taken upon oath or affirmation of the witness from whom received. The officer presiding at the hearing shall administer oaths or affirmations to witnesses.

(7) The record in a contested case shall include:

(a) All pleadings, motions and intermediate rulings.

- (b) Evidence received or considered.
- (c) Stipulations.
- (d) A statement of matters officially noticed.
- (e) Questions and offers of proof, objections and rulings thereon.
- (f) Proposed findings and exceptions.
- (g) Any proposed, intermediate or final order.

(8) A verbatim oral, written or mechanical record shall be made of all motions, rulings and testimony. The record need not be transcribed unless requested for purposes of rehearing or court review. The agency may charge the party requesting transcription the cost of a copy of transcription, unless the party files an appropriate affidavit of indigency. However, upon petition, a court having jurisdiction to review under ORS 183.480 may reduce or eliminate the charge upon finding that it is equitable to do so, or that matters of general interest would be determined by review of the order of the agency. [1971 c.734 §13]

183.418 Interpreter for handicapped person in contested case. (1) When a handicapped person is a party to a contested case, he is entitled to a qualified interpreter to interpret the proceedings to the handicapped person and to interpret the testimony of the handicapped person to the agency.

(2) (a) Except as provided in paragraph (b) of this subsection, the agency shall appoint the qualified interpreter for the handicapped person; and the agency shall fix and pay the fees and expenses of the qualified interpreter if:

(A) The handicapped person makes a verified statement and provides other information in writing under oath showing his inability to obtain a qualified interpreter, and provides any other information required by the agency concerning his inability to obtain such an interpreter; and

(B) It appears to the agency that the handicapped person is without means and is unable to obtain a qualified interpreter.

(b) If the handicapped person knowingly and voluntarily files with the agency a written statement that he does not desire a qualified interpreter to be appointed for him, the agency shall not appoint such an interpreter for the handicapped person.

(3) As used in this section:

(a) "Handicapped person" means a person who cannot readily understand or communicate the English language, or cannot

understand the proceedings or a charge made against him, or is incapable of presenting or assisting in the presentation of his defense, because he is deaf, or because he has a physical hearing impairment or physical speaking impairment.

(b) "Qualified interpreter" means a person who is readily able to communicate with the handicapped person, translate the proceedings for him, and accurately repeat and translate the statements of the handicapped person to the agency.

[1973 c.386 §6]

Note: (1) ORS 183.418 was not added to and made a part of ORS 183.310 to 183.500.

(2) Section 7, chapter 386, Oregon Laws 1973, provides:

"Sec. 7. This Act does not apply to arrests made or actions, suits or proceedings commenced before the effective date of this Act [October 5, 1973]."

183.420 [1957 c.717 §8 (1); repealed by 1971 c.734 §21]

183.425 Depositions or subpoena of material witness. On petition of any party to a contested case, the agency may order that the testimony of any material witness may be taken by deposition in the manner prescribed by law for depositions in civil actions. The petition shall set forth the name and address of the witness whose testimony is desired, a showing of the materiality of his testimony, a showing that the witness will be unable or cannot be compelled to attend, and a request for an order that the testimony of such witness be taken before an officer named in the petition for that purpose. If the witness resides in this state and is unwilling to appear, the agency may issue a subpoena as provided in ORS 183.440, requiring his appearance before such officer.

[1971 c.734 §14]

183.430 Hearing on refusal to renew license; exceptions. (1) In the case of any license which must be periodically renewed, where the licensee has made timely application for renewal in accordance with the rules of the agency, such license shall not be deemed to expire, despite any stated expiration date thereon, until the agency concerned has issued a formal order of grant or denial of such renewal. In case an agency proposes to refuse to renew such license, upon demand of the licensee, the agency must grant hearing as provided by ORS 183.310 to 183.500 before issuance of order of refusal to renew. This subsection does not apply to any emergency or temporary permit or license.

(2) In any case where the agency finds a serious danger to the public health or safety and sets forth specific reasons for such findings, the agency may suspend or refuse to renew a license without hearing, but if the licensee demands a hearing within 90 days after the date of notice to the licensee of such suspension or refusal to renew, then a hearing must be granted to the licensee as soon as practicable after such demand, and the agency shall issue an order pursuant to such hearing as required by ORS 183.310 to 183.500 confirming, altering or revoking its earlier order. Such a hearing need not be held where the order of suspension or refusal to renew is accompanied by or is pursuant to, a citation for violation which is subject to judicial determination in any court of this state, and the order by its terms will terminate in case of final judgment in favor of the licensee. [1957 c.717 §8 (3), (4); 1965 c.212 §1; 1971 c.734 §11]

183.440 Subpenas in contested cases.

(1) The agency shall issue subpenas to any party to a contested case upon request on good cause being shown and, to the extent required by agency rule, upon a statement or showing of general relevance and reasonable scope of the evidence sought. Witnesses appearing pursuant to subpoena, other than the parties or officers or employes of the agency, shall receive fees and mileage as prescribed by law for witnesses in civil actions.

(2) If any person fails to comply with any subpoena so issued or any party or witness refuses to testify on any matters on which he may be lawfully interrogated, the judge of the circuit court of any county, on the application of the agency or of a designated representative of the agency or of the party requesting the issuance of the subpoena, shall compel obedience by proceedings for contempt as in the case of disobedience of the requirements of a subpoena issued from such court or a refusal to testify therein. [1957 c.717 §8 (2); 1971 c.734 §12]

183.450 Evidence in contested cases. In contested cases:

(1) The rules of evidence as applied in equity cases in the circuit courts of this state shall be followed. Every agency shall provide for the exclusion of irrelevant, immaterial or unduly repetitious evidence, but erroneous admission of evidence shall not preclude agency action on the record unless shown to have substantially prejudiced the rights of a party. Agencies shall give effect to the rules

of privilege recognized by law. Objections to evidentiary offers may be made and shall be noted in the record. When a hearing will be expedited, any part of the evidence may be received in written form.

(2) All evidence shall be offered and made a part of the record in the case, and except for matters stipulated to and except as provided in subsection (4) of this section no other factual information or evidence shall be considered in the determination of the case. Documentary evidence may be received in the form of copies or excerpts, or by incorporation by reference.

(3) Every party shall have the right of cross-examination of witnesses who testify and shall have the right to submit rebuttal evidence. Participants permitted to intervene by the agency shall have such rights as determined by the agency by rule or otherwise.

(4) Agencies may take notice of judicially cognizable facts, and they may take notice of general, technical or scientific facts within their specialized knowledge. Parties shall be notified at any time during the proceeding but in any event prior to the final decision of the material so noticed and they shall be afforded an opportunity to contest the facts so noticed. Agencies may utilize their experience, technical competence and specialized knowledge in the evaluation of the evidence presented to them.

(5) No sanction shall be imposed or order be issued except upon consideration of the whole record or such portions thereof as may be cited by any party, and as supported by, and in accordance with, reliable, probative and substantial evidence.

(6) Agencies may, at their discretion, be represented at hearings by the Attorney General. [1957 c.717 §9; 1971 c.734 §15]

183.460 Examination of evidence by agency in contested cases. Whenever in a contested case a majority of the officials of the agency who are to render the final order have not heard the case or considered the record, the order, if adverse to a party, but not including the agency itself, shall not be made until a proposed order, including findings of fact and conclusions of law, has been served upon the parties and an opportunity has been afforded to each party adversely affected to file exceptions and present argument to the officials who are to render the decision, who shall in such case personally

consider the whole record or such portions thereof as may be cited by the parties.
[1957 c.717 §10; 1971 c.734 §16]

183.470 Orders in contested cases. Every order adverse to a party to the proceeding, rendered by an agency in a contested case, shall be in writing or stated in the record, may be accompanied by an opinion, and a final order shall be accompanied by findings of fact and conclusions of law. The findings of fact shall consist of a concise statement of the underlying facts supporting the findings as to each contested issue of fact and as to each ultimate fact required to support the agency's order. Parties to the proceeding shall be notified of a final order by delivering or mailing a copy of the order or accompanying findings and conclusions to each party or, if applicable, his attorney of record.
[1957 c.717 §11; 1971 c.734 §17]

183.480 Judicial review of contested cases. (1) (a) Any person adversely affected or aggrieved by an order or any party to an agency proceeding is entitled to judicial review of a final order, whether such order is affirmative or negative in form, under ORS 183.480, 183.490 and 183.500. A petition for rehearing or reconsideration need not be filed as a condition of judicial review unless specifically otherwise provided by statute or agency rule.

(b) Judicial review of final orders of agencies shall be solely as provided by ORS 183.480, 183.490 and 183.500.

(c) Except as provided in ORS 183.400, no action or suit shall be maintained as to the validity of any agency order except a final order as provided in ORS 183.480, 183.490 and 183.500 or except upon showing that the agency is proceeding without probable cause, or that the party will suffer substantial and irreparable harm if interlocutory relief is not granted.

(d) Judicial review of orders issued pursuant to ORS 482.550 shall be as provided by ORS 482.560.

(2) Jurisdiction for judicial review of contested cases is conferred upon the Court of Appeals, and the jurisdiction for judicial review of orders other than contested cases is conferred upon the Circuit Court for Marion County and upon the circuit court for the county in which the petitioner resides or has his principal business office. Proceedings for review shall be instituted by filing a petition in the case of contested cases in the Court of

Appeals, and in the case of other orders at the election of the petitioner in the Circuit Court for Marion County, the circuit court for the county in which the petitioner resides, or the circuit court for the county in which the petitioner has his principal business office. The petition shall be filed within 60 days only following the date the order is served, or if a petition for reconsideration or rehearing has been filed, then within 60 days only following the date the order denying such petition is served. If the agency does not otherwise act, a petition for rehearing or reconsideration shall be deemed denied the 60th day following the date the petition was filed, and in such case petition for judicial review shall be filed within 60 days only following such date. Date of service shall be the date on which the agency delivered or mailed its order in accordance with ORS 183.470. The petition shall state the nature of the petitioner's interest, the facts showing how the petitioner is adversely affected or aggrieved by the agency order, and the ground or grounds upon which the petitioner contends the order should be reversed or remanded. True copies of the petition shall be served by registered or certified mail upon the agency and all other parties of record in the agency proceeding. No responsive pleading shall be required of the agency. The court, in its discretion, may permit other interested persons to intervene. However, this section does not authorize the court to grant any privilege, license, permit or right to such intervening parties where agency action is required by law for such grant.

(3) The filing of the petition shall not stay enforcement of the agency order, but the agency may do so, or the reviewing court may order a stay upon the giving of a bond or other undertaking or upon such other terms as it deems proper. All proceedings for review shall be given precedence on the docket over all other civil cases except those given equal status by statute. Any bond or other undertaking executed pursuant to this subsection shall be in favor of the State of Oregon for its benefit and for the benefit of whom it may concern and may be enforced by the agency or any other persons concerned in an appropriate proceeding as their interests may appear.

(4) Within 30 days after service of the petition, or within such further time as the court may allow, the agency shall transmit

to the reviewing court the original or a certified copy of the entire record of the proceeding under review, but, by stipulation of a parties to the review proceeding, the record may be shortened. Any party unreasonably refusing to stipulate to limit the record may be taxed by the court for the additional costs. The court may require or permit subsequent corrections or additions to the record when deemed desirable. Except as specifically provided in this subsection, the cost of the record shall not be taxed to the petitioner or any intervening party. However, the court may tax such costs and the cost of agency transcription of record to a party filing a frivolous petition for review.

(5) If, on review of a contested case, before the date set for hearing, application is made to the court for leave to present additional evidence, and it is shown to the satisfaction of the court that the additional evidence is material and that there were good and substantial reasons for failure to present it in the proceeding before the agency, the court may order that the additional evidence be taken before the agency upon such conditions as the court deems proper. The agency may modify its findings and order by reason of the additional evidence and shall, within a time to be fixed by the court, file with the reviewing court, to become a part of the record, the additional evidence, together with any modifications or new findings or orders, or its certificate that it elects to stand on its original findings and order, as the case may be.

(6) Review of orders other than a contested case shall be conducted by the court without a jury as a suit in equity. Review of a contested case shall be confined to the record, the court shall not substitute its judgment for that of the agency as to any issue of fact, and no additional evidence shall be received, except that in the case of disputed allegations of irregularities in procedure before the agency not shown in the record which, if proved, would warrant reversal or remand, the Court of Appeals may refer the allegations to a Master appointed by the court to take evidence and make findings of fact upon them.

(7) The court may affirm, reverse or remand the order. The court shall reverse or remand the order only if it finds:

(a) The order to be unlawful in substance or procedure, but error in procedure shall not be cause for reversal or remand unless the

court shall find that substantial rights of the petitioner were prejudiced thereby and defects in the content of the notice required by ORS 183.415 not asserted at or prior to the commencement of the hearing before the agency shall not be cause for reversal or remand; or

(b) The statute, rule or order to be unconstitutional; or

(c) The rule which the order enforces or upon which the order is based or dependent, is invalid under the provisions of subsection (3) of ORS 183.400; or

(d) On review of a contested case, the order is not supported by reliable, probative and substantial evidence in the whole record; or

(e) On review of orders in other than contested cases, the facts do not support the order.

(8) In the case of reversal the court shall make special findings of fact based upon evidence in the record and conclusions of law indicating clearly all respects in which the agency's order is erroneous.

[1957 c.717 §12; 1963 c.449 §1; 1971 c.734 §18]

183.485 Mandate of court on review of contested case. (1) The court having jurisdiction for judicial review of contested cases shall direct its mandate to the agency issuing the order being reviewed and may direct its mandate to the circuit court of any county designated by the prevailing party.

(2) Upon receipt of the court's mandate, the clerk of the circuit court shall enter a judgment or decree in the journal and docket it pursuant to the direction of the court to which the appeal is made.

[1973 c.812 §7]

Note: ORS 183.485 was not added to and made a part of ORS 183.310 to 183.500 by legislative action.

183.490. Agency may be compelled to act. The court may, upon petition as described in ORS 183.480, compel an agency to act where it has unlawfully refused to act, or unreasonably delayed action.

[1957 c.717 §13]

183.500 Appeals. Any party to the proceedings before the circuit court may appeal from the decree of that court to the Court of Appeals. Such appeal shall be taken in the manner provided by law for appeals from the circuit court in suits in equity.

[1957 c.717 §14; 1969 c.198 §76]

183.510 [1957 c.717 §16; repealed by 1971 c.734 §21]



ENVIRONMENTAL QUALITY COMMISSION

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

ROBERT W. STRAUB
GOVERNOR

MEMORANDUM

To: Environmental Quality Commission
From: Director
Subject: Agenda Item K, August 27, 1976, EQC Meeting
Contested Case Review - DEQ vs. R. Randall Taylor

The above item to be heard at 10:30 a.m. on August 27, 1976 as per attached materials.

LOREN KRAMER
Director

PWM:vt
8/16/76



Contains
Recycled
Materials

August 16, 1976

CERTIFIED MAIL
Return Receipt Requested

Mr. R. Randall Taylor
Attorney at Law
P.O. Box 247
Veneta, Oregon 97487

Re: DEQ v. R. Randall Taylor
Proposed Final Order of July 2, 1976

Dear Mr. Taylor:

Please refer to our letter of August 12, 1976 in which we state that oral argument on the review of the proposed order upon default issued July 2, 1976 is to commence at 11:30 a.m. on Friday, August 27, 1976. The time has now been changed to 10:30 a.m. on Friday, August 27, 1976 per attached copy of agenda.

Sincerely,

Peter W. McSwain
Hearing Officer

PWM:vt

Enc.

cc: Joe B. Richards
Larry Schurr
Robert Haskins

August 12, 1976

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. R. Randall Taylor
Attorney at Law
P. O. Box 247
Veneta, Oregon 97487

Re: DEQ v. R. Randall Taylor
Proposed Final Order of July 2, 1976

Dear Mr. Taylor:

Oral argument on the review of the proposed order upon default issued July 2, 1976 is to commence at 11:30 a.m. on Friday, August 27, 1976. You may appear before the Environmental Quality Commission at that time in Room 602 of the Multnomah County Courthouse. The Courthouse is located at 1021 S.W. Fourth Street in Portland, Oregon (97201).

Contemplated is the opportunity for both Department and Respondent to present oral argument lasting for five minutes.

We have received neither your written exceptions and argument pursuant to OAR Chapter 340, section 11-132(4) nor a request for additional time to file the same. Do we correctly assume you have elected to file none?

Please inform this office promptly of any objections, questions, or scheduling conflicts regarding the arrangements set forth above.

Sincerely,

Peter W. McSwain
Hearing Officer

PWM:lb

cc: Joe B. Richards
cc: Larry Schurr
cc: Robert Haskins

change to 10:30 AM

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Before the Environmental Quality Commission

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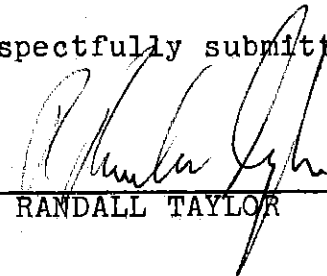
State of Oregon

Department of Environmental Quality,
Department,
vs.
R. Randall Taylor,
Respondent

NOTICE OF APPEAL

COMES NOW the Respondent and hereby notifies the Department that the Respondent requests the Commission to review the above entitled matter.

Respectfully submitted,


R. RANDALL TAYLOR

TAYLOR AND TAYLOR
ATTORNEYS AT LAW
P. O. BOX 247
VENETA, OREGON 97487
935-2246

RECEIVED
JUL 11 1966

THIRD DAY MONDAY 30 1966

STATE OF OREGON }
County of _____ } ss.

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

Subscribed on oath or affirmation before me this
_____ day of _____, 19____.

(SEAL)

Notary Public for State of Oregon
My Commission Expires: _____

I certify that the foregoing _____ is a true,
exact and full copy of the original.

Dated: _____, 19____.

Attorney for _____

I certify that on _____, 19____, I personally served a true, exact and full
copy of the within _____, on _____, Attorney
of record for the _____ by leaving the copy with his clerk in his absence
at his office at _____, Oregon.

Attorney for _____

I certify that on _____, 19____, I personally served a true, exact and full
copy of the within _____, on _____, Attorney
of record for the _____.


Attorney for _____

I certify that I served the foregoing Notice of Appeal
on David W. O'Guinn by depositing a true, full and exact copy thereof in
the United States Post Office at Veneta, Oregon on July 15, 1976,
enclosed in a sealed envelope, with postage paid, addressed to:

David W. O'Guinn
Dept. of Environmental Quality
1234 S.W. Morrison St.
Portland, OR 97205

Attorney(s) of record for the Department.

TAYLOR AND TAYLOR
ATTORNEYS AT LAW
25038 MCCUTCHEON AVENUE
MAILING ADDRESS: P. O. BOX 247
VENETA, OREGON 97487
PHONE 935-2246


Attorney for Respondent.

Before the Environmental Quality Commission

of the

State of Oregon

Department of Environmental)	
Quality,)	Proposed Findings of Fact,
Department)	Conclusions of Law, and
)	Final Order
v.)	
)	
R. Randall Taylor,)	
Respondent)	

Summary

On or about May 28, 1976, Respondent was served with an amended Notice of Violation and Required Remedial Action over the signature of Mr. D. W. O'Guinn who was acting for the Director. This amended order was in response to Respondent's complaining of a lack of definiteness and certainty with regard to the original order (of May 3) to which Respondent had filed an answer and request for hearing. Both the amended and original orders required that repairs be undertaken to correct a subsurface sewage disposal system allegedly under Respondent's operation and control.

On May 26, 1976 the hearing officer gave Department five days leave to amend its order and Respondent fifteen days in which to amend his answer. Also on May 26, 1976 the hearing officer scheduled a hearing to commence at 10:30 a.m. on Wednesday, June 23, in Eugene, Oregon. He requested the parties to inform his office "promptly" of any objections, questions, or conflicts regarding the arrangements made.

By letter of June 18, Respondent informed Mr. O'Guinn that he had scheduled his vacation for the week of the Olympic Trials in Eugene, that due to the amended notice filed by Department, he had been unable to contact witnesses whom he intended to call, that he would have the hearing postponed until July, and that he would not attend on June 23 unless "notified otherwise."

On June 23 the hearing was convened and Respondent failed to appear. Department offered documents and testimony to the record consisting primarily of Mr. Daryl Johnson's testimony that, as a registered sanitarian in the employ of the Department, he was generally familiar with the matters

alleged in Department's amended order and had visited the site of the allegedly failing system on numerous occasions to find what he concluded to be sewage from the system surfacing upon the ground and running into a nearby intermittent tributary to the headwaters of the Long Tom River. It was Mr. Johnson's testimony that the system had been failing for at least one year.

Issues

Respondent is entitled to a ruling as to whether he is entitled to a continuance.

Finally, if held in default, Respondent is entitled to a ruling as to whether prima facie case has been made on the record for purpose of ORS 183.415.

PROPOSED FINDINGS OF FACT

1. At all times herein material Respondent, Mr. R. Randall Taylor, has operated and maintained a septic tank and drainfield serving a dwelling on Tax Lot #2108, Section 6, Township 17S, Range 5W, Willamette Meridian, in Lane County, Oregon. The above said Property has been and is owned by Respondent at all times herein material.
2. During a period of at least one year prior to the time of hearing the above-mentioned drainfield has occasionally discharged sewage onto the surface of the ground and released sewage which was carried into a small intermittent stream which is a tributary to Fern Ridge Reservoir.
3. On or about June 3, 1976, Respondent was given notice of the time and place of hearing (June 23, 1976 in Eugene) and requested to notify the office of the Commission's hearing officer promptly of any conflicts or objections regarding the time and place of hearing. Respondent failed to appear in person or by attorney at the time and place of hearing.
4. By letter of June 18 to Department's Mr. Dave O'Guinn, Respondent moved to have the hearing rescheduled until July. In support of said motion, Respondent cited an inability to contact his intended witnesses and a conflict with his vacation schedule. Further, Respondent informed Mr. O'Guinn that "unless notified otherwise," he would not be present at the time and place set for hearing on June 23. Also contained in Respondent's letter of June 18, 1976, was a motion to abate the proceedings until the parties determine what the required remedial action would consist of.
5. At the time and place of hearing Department, through its representative, Mr. Larry Schurr, resisted Respondent's motion to continue, arguing the same to have been taken for purpose of delay. Department alleged the existence of a health hazard as reason to avoid delay.

PROPOSED CONCLUSIONS OF LAW

1. Respondent is in default herein.
2. Respondent's failure to appear was without good cause and his answer is deemed withdrawn.
3. Respondent was not entitled to presume his motion for continuance would be granted unless he was otherwise informed and, having failed to appear for a ruling thereon, Respondent has forfeited any substantive right to a continuance he may have had. Consequently his motion to continue is denied.
4. Department has made such prima facie case on the record as will support the findings entered herein.
5. Department's order should be modified to read as set forth in the PROPOSED FINAL ORDER.

Department's order requires Respondent, in an unduly short period of time, to accomplish an act dependent on the cooperation of third parties beyond Respondent's control (i.e. the Department or its agents) and which may not be capable of accomplishment. (There is no evidence to support the inference that Respondent's system can lawfully be repaired.)

PROPOSED FINAL ORDER

Pursuant to ORS 454.635, the Commission hereby modifies Department's Remedial Action Order to read as follows:

Respondent, R. Randall Taylor, is hereby ordered to take the following remedial action with regard to the subsurface sewage disposal system serving the dwelling on Tax Lot 2108 in Section 6, Township 17 South, Range 5 West, Willamette Meridian, Lane County Oregon.

- 1) Disconnect said system from any building or structure.
- 2) Unless otherwise authorized by Department, have all sludge in the septic tank removed by one licensed to do so.
- 3) Fill the septic tank with clean, bank run gravel or such other material as is approved by the Department.
- 4) Refrain from discharging sewage or wastewater from the building or structure through fixtures not connected to a disposal system approved by Department.

It is further Ordered that Respondent shall complete the above mentioned remedial action on or before July 31, 1976, or such reasonable later date as the Department may approve in writing.

It is further ordered that Respondent leave his subsurface sewage disposal system in an abandoned condition as above set forth until such time as he has obtained a permit to repair the system, a certificate of satisfactory completion of any permitted repair, and a permit to connect said system to a building or structure.

The above-said requirements are to be deemed waived if, within the prescribed time, respondent obtains a permit to repair said subsurface sewage disposal system and a certification of having satisfactorily completed repair as permitted.

It is further ordered that Department may waive the requirements set forth herein upon such conditions as the Department finds will adequately protect the public interest until such time as hookup to an approved sewerage system is available.

So ORDERED this 2nd day of July, 1976.

Respectfully Submitted,

Peter W. McSwain

Hearing Officer

NOTE:

OAR Chapter 340, section 11-132(a) provides the parties fourteen days from the date of mailing hereof in which to file with the Commission and serve upon the other party a request for Commission review of this PROPOSED FINAL ORDER. Completed mailing to the Commission at 1234 S.W. Morrison Street, Portland, Oregon 97205, is deemed an acceptable manner of filing with the Commission. Failure to seek review by both parties and the Commission will result in this Proposal's becoming a Final Order.

OPINION

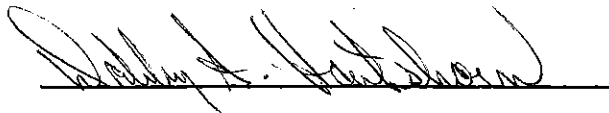
1. Respondent's motion for a continuance based on a conflict with his vacation is not well taken. If, on June 3, Respondent's vacation was scheduled, he should have informed this office sooner than did his letter of June 18. If, on June 3, his vacation was not scheduled, the hearing schedule should have preempted unless Department agreed to a continuance.
2. Respondent's motion for a continuance based on his inability to contact witnesses is not well taken. Respondent fails to state what new matter, if any, in Department's Amended Notice would require examination of witnesses in addition to those whose appearance should have previously been arranged or made the subject of an earlier motion to continue. We find on the face of the Amended Notice no support for Respondent's proposition.
3. Respondent's motion to abate the proceedings while a determination is made regarding the action necessary to comply with Department's order is of some merit.

Department's order requires Respondent to obtain a permit from Department to repair his system, repair his system in accord with the permit conditions, and, after repair and inspection, obtain a certificate of satisfactory completion. Inherent in the order is a requirement that Respondent obtain license from Department to repair and approval after repair. We do not conclude that Department is binding itself to the granting of a repair permit regardless of whether application for the same is in conformance with the statutes and rules governing subsurface sewage disposal. Hence, the order leaves undetermined what conditions Respondent must meet to comply. That is, the possibility remains that a lawful repair of Respondent system may be so difficult of undertaking as to render it less desirable than abandonment of the system. Should Respondent apply for a permit and be denied or receive a permit with conditions unacceptable to him, he would be entitled to contest such action. We cannot recommend an order which tends to deny Respondent procedural rights or which requires action by a third party out of Respondent's control.

However, Respondent's motion for abatement is denied. An Amended order as set forth herein will address the unresolved issues by leaving Respondent to his option. It is to be noted that Department owes Respondent a duty with regard to attempts to abate the existing subsurface sewage disposal problem on Respondent's property. The degree of informal assistance Department may render, however, ameliorates in no way Respondent's duty to abate the water pollution and health hazard being caused. ORS 454.635 specifically requires Department to order remedial action. In this instance the remedial action is based upon OAR 71-011(1), 71-012(1) and 71-020(1)(c). Taken together, they require Respondent either to repair his system in a lawful fashion or abandon it. This second option should be left among those open to Respondent.

CERTIFICATE OF SERVICE

I hereby certify that on July 2, 1976, I served the foregoing Proposed Findings of Fact, Conclusions of Law, and Final Order on each of the parties and on the Environmental Quality Commission by mailing a true and correct copy thereof, postage prepaid and correctly addressed to Mr. R. Randall Taylor, Respondent, at P. O. Box 247, Veneta, Oregon 97487, Mr. Larry M. Schurr, Department's Representative, and Mr. Joe B. Richards, Commission Chairman, at 777 High Street in Eugene, Oregon.

A handwritten signature in cursive script, appearing to read "Debby A. Hartshorn", is written over a solid horizontal line.

Debby A. Hartshorn



ENVIRONMENTAL QUALITY COMMISSION

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

ROBERT W. STRAUB
GOVERNOR

MEMORANDUM

TO: Environmental Quality Commission

FROM: Director

SUBJECT: Agenda Item L, August 27, 1976, EQC Meeting
Staff Report - Noise Control Program - Current and Projected Status

Background

In 1971, the Legislative Assembly made a finding that the occurrence of excessive noise in Oregon had increased to the point that it presented a threat to the environment as serious as pollution of the air and water. As a result, the Assembly authorized the EQC to implement and enforce noise control standards which would prevent deterioration of the environment and protect the health, safety, and welfare of the citizens of the state.

To carry out this task, the Department of Environmental Quality conducted a study of the public's primary noise concerns. Information obtained from 13 public meetings held throughout the state, returned newspaper questionnaires, and specific citizen complaints filed with the Department was evaluated. Finally on October 25, 1972, after much consideration, the Director of the Department recommended to the EQC that several specific areas of responsibility be included in a state-wide noise control program designed to fulfill the legislative mandate.

These areas of responsibility included: 1) regulation of motor vehicle noise, 2) regulation of highway noise, 3) regulation of industrial and commercial noise, 4) regulation of airport noise, 5) regulation of racing event noise, 6) drafting of a model comprehensive city/county noise ordinance, 7) coordination of policy with other federal, state, and local agencies, and 8) carrying out special technical projects which would assist in the ongoing development of effective noise regulations.

Program Progress

1) Motor Vehicle Regulation

a) New vehicles: Regulations controlling the sale of new automobiles, trucks, buses, motorcycles, and snowmobiles in Oregon were



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adopted in July, 1974. Under these regulations, manufacturers are required to certify that each vehicle sold or offered for sale in the state does not exceed specific decibel limits set by the Commission. Shipment of non-certified vehicles into the state must also be restricted by the manufacturer. Compliance with the new vehicle standards has been and should continue to be successfully maintained through the certification process.

b) In-use vehicles: Other regulations, also adopted in July, 1974, set (i) maximum allowable noise levels for vehicles once they have been sold and put into operation, and (ii) ambient noise levels which cannot be exceeded by vehicles operating for recreational purposes on private property near other noise sensitive property. Enforcement of these regulations has been limited because of lack of approved budget and staff.

The Department receives approximately 300 complaints per year concerning noisy vehicles operating on public roads in the Portland area. In addition the Department has developed information indicating that approximately 15% of the total in-use road vehicle population exceeds the appropriate noise standards. However, at the present time, there is no viable means of enforcement available which would bring these sources into compliance. With the resources now available, the Department is able only to send an advisory letter to the registered owner of an alleged noisy vehicle informing him of the complaint received and asking him to correct whatever mechanical problems exist causing the problem. No investigation or follow-up action is possible.

The Department is able at the present time to investigate and follow up on most complaints received concerning vehicles operating on private property. However, because of limited resources, results of these efforts have not been completely satisfactory.

2) Highway Noise Regulation

Noise from public roads and highways is one of the most pervasive of all environmental noises. Major new highway projects and significant modification projects of existing facilities consistently result in citizen concern over increased noise levels adjacent to their homes and businesses, and the need for quiet roadways is a frequently expressed public demand. The Department, however, has not yet adopted regulations which would address this problem.

In September, 1973, public hearings were held on the Department's first proposed highway noise regulation. This would have set a standard of 55 dBA for all new roads in the state, and required all others to be put on a Departmentally approved compliance schedule. However, because of its wide scope and identification of a standard 15 dBA more restrictive than federal guidelines, much opposition to it was registered by public officials.

A second proposed regulation presented in early 1974 was limited to major roadways and recommended an immediate standard of 63 dBA. It was believed that as new motor vehicle controls took effect, facilities would be able to achieve a level of 55 dBA by 1986. The regulation therefore set essentially the same standard as the first proposal, but was less restrictive to the "road builder." Both proposals were ultimately withdrawn in the face of strong opposition, primarily from the State Highway Division and local government officials.

Since then, the EPA has identified 55 dBA as an equivalent day-night noise level, measured outside residential property, requisite to protect the public health and welfare. This level has been incorporated in recent staff efforts, currently being studied by a 12-member Technical Advisory Committee, to draft a new public road rule proposal. The committee studying the proposal is made up of both technical people involved in the design and construction of roads, and representatives from all levels of local government involved with the potential economic impact of any new road regulation. It is hoped that the work of the committee will be concluded by the end of this year so that the Department will be able to go before the Commission with a rule proposal by January, 1977. The League of Oregon Cities has expressed continued concern by letter of July 2, 1976, that public road noise standards would impose a severe economic burden on local governments. This concern remains to be resolved.

3) Industrial and Commercial Noise Regulation

Regulations setting noise standards for virtually all industrial and commercial source operations were adopted in September, 1974. Included in the regulations was an interim standard for existing facilities which was 5 dBA less restrictive than the more adequately protective standard specified for new facilities. This more stringent standard will become effective for all sources in 1978.

Presently, these regulations are being enforced on an after-the-fact complaint basis only. Lack of field personnel in many of the Regional and Branch offices has put severe constraints on the program's effectiveness. In those situations where the Department is able to respond, violations are generally solved through reasonable and cooperative corrective measures. In addition, it has been found that most violators are using the 1978 standards as a guide to their corrective measures so as to avoid the necessity of further noise reduction modifications in the future.

4) Airport Noise Regulation

The Department has recommended that regulation of airport noise at the State level be postponed two years, pending the development of effective federal control in this area.

State regulation of aircraft noise is currently pre-empted by the Federal Aviation Administration. The FAA is presently studying the possibility of adopting either 1) two retrofit programs for older commercial jet aircraft, or 2) an aircraft replacement program, using federal assistance, designed to phase out noisy B-707's and DC-8's. A decision between the two programs is expected in the near future. EPA Administrator Russell Train has also stated that his agency will recommend to the FAA that its program of airport noise regulation include the use of a planning process in the development of comprehensive noise abatement plans that should be required at all the nation's airports.

If these federal attempts at airport noise abatement do not prove to be successful, the Department feels that implementation of the following state measures may be necessary:

- a) Limiting the use of some airports to specific aircraft types;
- b) Requiring establishment of approach and departure flight paths and procedures to optimize noise abatement;
- c) Requiring planning of runway utilization schedules;
- d) Requiring reduction of flight frequency of noisy aircraft at noise sensitive times; and
- e) Development of compatible land use and buffer zones within the noise impact zones.

5) Racing Event Noise Regulation

Noise from racing events was identified by the original Statewide survey as a severe noise problem category. Regulations covering racing event noise were proposed in September, 1973. Because of the strong opposition from racing enthusiasts however, these regulations were not adopted. The Department has subsequently conducted several racing noise studies, consulted with a Technical Advisory Committee, and suggested a voluntary noise control program that has been implemented by several tracks. This voluntary program, which has met with some success, calls for the use of mufflers on competing vehicles. Most "stock car" circle tracks now require mufflers at all events as do most motorcycle tracks, which also set a maximum allowable decibel limit for any one vehicle. In addition, one of the two sports car sanctioning bodies in Oregon has set a maximum allowable decibel limit for all vehicles competing in its events.

These measures have reduced race track noise somewhat, but continuing complaints indicate that a comprehensive rule must still be adopted to more effectively control existing problems and insure that new facilities will not create future problems. A goal of July, 1977, has therefore been set for bringing another proposed rule before the Commission.

6) Drafting Model City/County Noise Ordinance

It is believed that noise regulation at the State level cannot and perhaps should not ever be totally comprehensive. Many noise problems are strictly local, or unique to one regional area. The Department therefore feels that local governments should be encouraged to implement and enforce noise ordinances, consistent with state regulations, reflecting their own special concerns.

To assist in this task, the Department's noise staff has recently drafted a model noise ordinance which it considers to be both comprehensive and consistent with state regulations. After this draft has been reviewed by an appropriate Technical Advisory Committee and approved by the Commission, the Department would encourage and assist local units of government to adopt community noise ordinances using the model as a guide to their efforts.

In addition, the Department will continue to offer technical assistance to local governments, as it has in the past. Although this assistance has usually been in the form of personnel training, it is hoped that in the future, it will also be possible to make sound measuring equipment available to local programs, as well as services to calibrate and maintain such equipment since it may not be practical for local programs to acquire such services on an individual basis initially.

7) Coordination with Other Governmental Agencies

Many significant gains in the Noise Control program are made possible by coordinating the efforts of the Department with those of other governmental agencies.

At the federal level, the EPA is primarily involved in setting noise standards for manufacturers of new equipment such as trucks, air compressors, and some railroad equipment. However, to date they have also adopted regulations setting standards for in-use trucks and some types of in-use railroad equipment. In addition, they have identified many other noise sources in need of regulation. The Department has and will continue to comment on these federal actions and will maintain close contact with appropriate federal agencies regarding future program developments.

At the state level, the Department is coordinating its efforts with those of other state agencies which exercise control over noise problems incidental to their particular areas of regulation. For example, the Department has worked with the Marine Board concerning boat noise, the Liquor Control Commission concerning tavern noise from loud music and the Department of Land Conservation and Development concerning land use controls. In the future, we expect to continue working with these agencies, as well as with other agencies which might be involved in noise problems.

At the local level, the Department is working with both enforcement and planning agencies. As cities and counties adopt noise ordinances, the Department attempts to coordinate local efforts with its own as much as possible. For example, the Department has worked with the City of Portland on its recently passed noise ordinance, and anticipates assisting the city with many of the enforcement phases of the new regulation.

The Department has also worked with several county planning agencies in evaluating the appropriateness of activities for which conditional use permits are required. This helps prevent activities from being developed which would be incompatible with the existing land use in the area, hopefully solving problems in the early stages of development before they become too complex.

8) Special Technical Projects

Projects of this nature are conducted in order to insure that regulations which are developed and adopted are effective. The Department has conducted several special technical projects in the past and anticipates conducting more in the future. Examples of past projects include:

- a) Field measurements of various types of racing motor vehicles;
- b) Field measurement of over 30 categories of farm related machinery in cooperation with the Oregon Farm Bureau; and
- c) Noise testing of over 1500 automobiles at the motor vehicle emission stations to determine whether testing procedures were adequate.

In summary, the eight areas of responsibility developed in October, 1972, and outlined above, are still relevant to the continued effectiveness of the noise control program in Oregon. However, several areas need to be given additional attention, and rules need to be developed in specific categories which are presently left unregulated.

Regional Enforcement

The present noise regulations have proven to be effective in dealing with most of the problems created by industrial and commercial sources. However, lack of available personnel in the various regions has hindered enforcement in several parts of the state. Although the Noise Control staff has provided equipment and training to all the Department's Regional and Branch offices, regional managers are not able to schedule noise complaint investigations on a regular basis because of lack of staff.

We believe that the enforcement of these regulations throughout the state can best be administered by regional personnel because of their proximity to and familiarity with local sources. This familiarity, which often includes a personal knowledge of source operation, equipment, and personnel, is extremely valuable in developing compliance schedules for a particular source found to be in violation of the standards.

It is therefore recommended that three additional full time people be added to the program for purposes of regional noise enforcement. We feel that this would allow the Department to respond with reasonable adequacy to citizen industrial and commercial complaints registered throughout the state. If the Environmental Quality Commission agrees, it is presently the intention of the Department to ask the 1977-1978 Legislature for an enforcement budget reflecting this need. This would increase the total regional noise staff from its present level of approximately 1.1 FTE positions to 4.3 FTE positions.

Motor Vehicle Enforcement

At the present time, enforcement of the in-use motor vehicle standards is virtually non-existent. Unlike a police agency, the Department does not have the ability to monitor a roadway and cite those in violation of its regulations. Compliance must therefore be gained on a strictly voluntary basis. This means that for all practical purposes, the large number of citizen complaints received by the Department concerning noisy motor vehicles will go unremedied.

Various solutions to this problem have been examined. The Noise Control staff recently concluded a special technical study of in-use motor vehicles. According to the results of this study, which was conducted at the Department's vehicle emission test stations in the Portland MSD area, approximately 15% of the vehicles participating failed to meet appropriate DEQ noise standards. Data further indicated that there was a failure rate of 70% for all vehicles with "modified" exhaust systems, but only 5% for vehicles with "stock" systems. While this indicates that vehicles with modified exhaust systems are responsible for a substantial part of the noise problem, many such vehicles are able to meet the desired standards. The idea of a regulation prohibiting modified exhaust systems would appear to be beneficial, however, such program has not been implemented because of the extreme complexity of the "after-market" parts industry and the difficulty of assuring an equitable solution.

The new noise ordinance of the City of Portland contains a special provision for motor vehicle enforcement which might provide relief within the city's limits. Under the new law, police officers are authorized to cite drivers of vehicles operating in excess of standards referenced to the Department's in-use motor vehicle regulations.

The driver then has a certain number of days in which to repair the vehicle and present it for a compliance check. If the vehicle is certified as complying with the standards, the citation will be dismissed. To put this program into operation, facilities are needed to conduct the compliance tests. Although the Department does not routinely conduct noise tests at its vehicle inspection stations, it is technically possible for such tests to be included in station procedures. This would provide the means to begin enforcing the new city ordinance.

State legislation exists which could provide for broader enforcement efforts. ORS, Chapter 468 enables the EQC to include noise standards in the motor vehicle certification program within the metropolitan service district. The addition of a noise test to the program would not be difficult. Inspectors have already been given initial training in the use of sound equipment, and the noise division has budgeted equipment that would be required to implement the additional procedure. Estimates and actual experience also show that there is only a small increase in the average times a vehicle would spend in a station because of the noise test if an initial subjective screening is conducted.

A program incorporating both the Portland noise ordinance and the testing of vehicles within the metropolitan service district at the department's inspection stations could provide an effective solution to present enforcement problems. Excessively loud vehicles operated in such a manner as to attract the attention of police officers could be dealt with promptly in the manner outlined by the Portland ordinance. Other loud vehicles, the majority of which would not be stopped, would then be identified during the periodic inspection each vehicle would receive as part of the emission test required in the metropolitan service district.

Plan Review

Noise regulations exist for new industrial and commercial sources, but there is no requirement that prior to construction these sources must submit proposed plans and specifications to the Department for a noise review. Although noise elements are occasionally considered as part of the review required by the Air Quality Division, most sources are generally constructed without prior analysis of possible noise impacts. As a result these sources often become the basis for citizen complaints, and corrective measures which may be required become much more difficult and expensive to perform than if they had been programmed prior to construction.

While there appears to be no compelling reason to modify the policy of investigating noise sources based on citizen complaints, it would be a valuable addition to the noise program to develop a notification and review procedure for specific classes of proposed industrial and commercial sources. In this manner, potential noise problems could be corrected at an early stage before serious problems are created.

Legislation

The present authority granted to the Commission under the Noise Control Act, ORS Chapter 467, is very broad. However, some minor amendments to this Chapter could improve the Department's ability to control environmental noise problems.

We have experienced several problems, that in addition to the resulting noise, the major complaint was ground motion or vibration. Several other state agencies have set vibration standards within their noise rules. It has been determined that vibration standards are not within the scope of Chapter 467 thus, we believe an amendment to include vibration as well as noise should be drafted.

Chapter 467 is not specific as to whether the Department can issue permits for noise sources. In the past some permits have included noise conditions; however, this authority has been questioned. Thus a small amendment to ORS 467 could correct this oversight.

The 1975 Legislature considered a bill that, among other things, defined the relationship between the State and any local noise ordinance finance program. This bill resolved conflicts of joint geographical jurisdiction, unidentical decibel standards, and variance provisions. We believe local noise control programs should be adopted and enforced; however, some amendments to ORS 467 could resolve any inconsistencies between State and local programs.

Conclusions and Recommendations

1. Effective enforcement of the noise regulations requires prompt response to citizen complaints. Presently, regional staff is only able to respond to these complaints on an "as time allows" basis. It is recommended that three additional personnel be requested from the legislature, in order to help solve this enforcement problem in the regions.
2. Motor vehicles are responsible for most of the major noise problems in Oregon, and should be effectively controlled. However, present enforcement of in-use noise regulations for these sources is almost non-existent. We believe, however, that for the present, enforcement of in-use motor vehicle noise programs should be initiated by local governments through adoption and enforcement of local ordinances with technical assistance by the Department. An additional position is being requested for the noise program staff to assist in implementing local programs.
3. The present goal of the Department is to propose two new noise rules for adoption by July 1977. One rule would set noise standards for new and existing motor vehicle racing facilities, the second would require that new high volume public roads be designed to meet protective noise standards at adjacent noise sensitive property. In addition, we propose to encourage all Oregon cities with a population greater than 30,000 to initiate their own noise control program. Our goal is to have at least three local programs established by January 30, 1979.

4. Review of plans and specifications prior to construction could provide an effective method for controlling noise problems from new industrial and commercial sources by correcting the problems before they leave the design stage. Because this would be both efficient and economical, we recommend that specific classes of industrial and commercial sources be required to submit plans and specifications for Departmental review demonstrating their ability to comply with applicable noise standards. It is further recommended that an additional PHE 2 position be requested in the next biennial budget to implement this program.

5. The Department recognizes that several legislative revisions would improve the noise program. These amendments will be drafted in readiness for the 1977 legislative session and the Department will seek these revisions to ORS Chapter 467.

Director's Recommendation

It is the Director's recommendation that the Commission re-affirm the responsibilities of the noise program as approved in October, 1972, and approve the program development and enforcement strategies outlined in this report.

A handwritten signature in black ink, appearing to read 'Loren Kramer', with a long horizontal line extending to the right.

LOREN KRAMER
Director



State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: Bud Kramer

cc: E.J. Weathersbee

Date: August 20, 1976

From: John Hector *JH*

Subject: Agenda Item L
Noise Program Status Report

Attached is the noise program status report (Item L) for the EQC meeting on August 27th.

I have reviewed the report with Jack Weathersbee up through the Plan Review section. I have added a section on legislation (page 9), with Jack's instruction and wrote the Conclusion and Recommendation section (page 10).

I know that Jack wanted to review this report with you before it's distribution. However, there are some constraints:

- a) You will not be able to meet with Jack until Tuesday, August 24th.
- b) You have written to the League of Oregon Cities (Steve Bauer) that we would give them a chance to review and comment on the report (road rule status) before it goes to the EQC.

If the report needs modifications, please indicate such. I would imagine the possible sensitive areas could be:

Highway Noise Regulation, page 2
Regional Enforcement, page 6
Motor Vehicle Enforcement, page 7
Legislation, page 9
Conclusion and Recommendation, page 10

Also attached is a letter for your signature to the League of Oregon Cities sending them a copy of the report and asking for their comments as we promised.

Attachments (2)



ENVIRONMENTAL QUALITY COMMISSION

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ROBERT W. STRAUB
GOVERNOR

To: Environmental Quality Commission
From: Director
Subject: Agenda Item No. M, August 27, 1976, EQC Meeting
Cost Limitations of Indirect Source Emissions Control Program

Introduction

At the July 30, 1976 EQC Meeting, a considerable amount of discussion transpired over the open-endedness and possible high costs involved in conditions included in Indirect Source Permits. Particularly, concern was expressed about the problem of a developer being "at the mercy" of whoever is administering the Indirect Source Program. After this discussion, the EQC adopted a new Indirect Source Rule, which in the opinion of the staff would eliminate these past problems. However, the EQC still felt that specific cost limitation wording might be needed.

In light of the foregoing, DEQ staff was instructed to present alternative means on limiting the costs of Indirect Source Control Programs. The following represents three alternative discussions dealing with the problem under the new Indirect Source Rule.

Discussion #1

Proposal: Set an upper limit to costs of an Indirect Source Control Program which cannot be exceeded unless expressly agreed to by the applicant. The upper limit could be based upon a percentage of total cost of the project, the number of spaces approved, the quantity of emissions produced or a similar indicator.

Advantages: This proposal allows the applicant to calculate the maximum expected costs attributable to an Indirect Source Control Program before applying for a permit.

The costs are easily calculable.

The Department cannot require unreasonable costs.



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Disadvantages: The dollar amount generated for a control program may not be enough to bring the source in compliance with air quality standards.

If the Department cannot get the applicant to agree to increased costs necessary to comply with air quality standards, the Department would have to recommend denial of the permit.

Discussion #2

Proposal: Set a minimum time limit over which a permit condition cannot change.

Advantages: Permit conditions would not be open-ended and added costs could not be imposed at a later date.

Disadvantages: The Department would initially have to be very conservative in determining the air impact of a facility and the need for emission control programs. Consequently, the Department would have to deny a permit or issue a permit with stricter conditions because of unknowns and impact projection errors associated with ensuring compliance with air quality standards. This in itself could result in unreasonable and unnecessary costs--considerably higher than those incurred by issuing a permit with a "wait and see" philosophy (monitor actual air impact and develop further emission reduction programs if needed). This approach has been used to approve projects such as I-205 and Clackamas Town Center.

Discussion #3

Proposal: Administer the rule as promulgated at the last meeting.

Advantages: Permits would be denied only if the proposed project caused or contributed to a violation of standards and the applicant could not propose an economically viable Emission Source Control Program to bring the source into compliance. The applicant would determine his own costs.

If accuracy of air impact projections is questionable, permits could be approved contingent upon air quality monitoring results and the subsequent submission of an Emission Control Program to achieve compliance with standards. The applicant could determine whether or not it was worth the risk to obtain an approval today and deal with a potential problem later.

There is a built-in economic incentive to redesign or modify a proposed facility achieving compliance with standards rather than just adding on fixed cost transit incentive measures.

The Department cannot require open-ended or economically unreasonable conditions since the applicant is responsible for developing a control program.

The proposals contained in Discussions #1 and #2 could be implemented at a later date should the current rule prove to still be a significant problem to developers.

Disadvantages: The applicant may incur greater (but predictable) costs in those instances where a full emission control program must be developed. Consultant assistance is usually required in these instances.

Unfamiliarity with the operation and administration of the new rule may still concern individuals dissatisfied with the old rule.

Summary

The issue of limiting costs of indirect source control programs has been reviewed and alternatives discussed. The past examples used in citing open-ended and unreasonable costs cannot occur under the present rule. This opinion was also reinforced by recent contact with the Oregon State Homebuilders Association. However, other problems which have magnified the indirect source cost problems by aggravating and frustrating applicants can still exist. These problems, such as delays caused by changes in personnel or requests for data that the applicant didn't know was needed because it was "hidden" in the rule, are being addressed through administrative remedies. The hiring of a full-time program administrator will in itself go a long way towards eliminating delays and maintaining time schedules. Also, the Department is striving to make the rule more understandable by updating forms and preparing simplified instruction packets (example attached). Clearly, it is the belief of the Department that most of the old problems will disappear as we begin to administer the new rule.

Director's Recommendation

The Director believes the present rule to be responsive to the concerns of the Commission as it allows the applicant to dictate the cost of an Indirect Source Control Program. Therefore, the Director recommends that the present rule be administered as promulgated until such time as a significant problem with the Indirect Source Rule is identified. A progress and performance report on the rule could be prepared for the Commission after a six month review period, if desired.



LOREN KRAMER

AJG:cs
8/23/76
Attachment (1)

**SUMMARY OF PARKING LOT APPLICATION INFORMATION
REQUIREMENTS**

150-1000 spaces

(Pursuant to OAR 340-20-100 to 340-20-135)

Department of Environmental Quality

1234 SW Morrison

Portland, Oregon

Phone: 229-6086

8/18/76

SUMMARY KEY

	<u>Requirement Number</u>	<u>OAR 340-20-100 to 135 Reference (Indirect Source Rule)</u>
General Required	-	340-20-125 (2) and (3)
	1	340-20-125 (1) (a) (A)
	2	340-20-125 (1) (a) (B)
	3	340-20-125 (1) (a) (C)
	4	340-20-125 (1) (a) (D)
	5	340-20-125 (1) (a) (E)
	6	340-20-129 (1) (a) (c) (ii)
	7	340-20-129 (1) (a) (D)
Optional	8	340-20-129 (1) (a) (E) and 340-20-130 (5) (a) (b) (c)
	9	340-20-129 (1) (a) (F)
	10	340-20-129 (1) (a) (G)
	11	340-20-129 (1) (a) (H)
	12	340-20-129 (1) (a) (I)
	13	340-20-129 (1) (a) (J)

APPLICATION INFORMATION

General Information

Within 15 days after the receipt of an application for a permit or additions thereto, the Department or Regional Authority having jurisdiction shall advise the owner or operator of the Indirect Source of any additional information required as a condition precedent to issuance of a permit.

An application shall not be considered complete until the required information is received by the Department or Regional Authority having jurisdiction.

Required Information

- (1) A completed application form.
- (2) A map showing the location of the site.
- (3) A description of the proposed and prior use of the site.
- (4) A site plan showing the location and quantity of Parking Spaces at the Indirect Source and from the site and Associated Parking.
- (5) A ventilation plan for subsurface and enclosed parking.
- (6) An estimate of the average and maximum daily vehicle trips detailed in one and eight hour periods, generated by the movement of mobile sources to and from the Parking Facility and/or Associated Parking Facility for the first and fifth years after completion of each planned incremental phase of the Indirect Source.
- (7) A description of the availability and type of mass transit presently serving or projected to serve the proposed Indirect Source. This description shall only include mass transit operating within 1/4 mile of the boundary of the Indirect Source.
- (8) A description of the Indirect Source Emission Control Program if such program is necessary in order to be in compliance with State Ambient Air Quality Standards (OAR 340-20-130 (5) (a), (b) and (c)). This will not be required unless the required or optional information submitted by the applicant reasonably demonstrates that standards will be violated.

Optional Information (additional information which may be requested by the Department if the above information is not adequate to assess air quality impact)

- (9) An estimate of the Average Daily Traffic, peak hour and peak eight hour traffic volumes for all roads, streets, and arterials within 1/4 mile of the Indirect Source and for all Freeways and Expressways within 1/2 mile of the nearest boundary of the Indirect Source for the time periods as stated in requirement #6 or #9.
- (10) An estimate of the gross emissions of carbon monoxide, lead, reactive hydrocarbons and oxides of nitrogen based on the analysis performed in requirement #6 or #9.

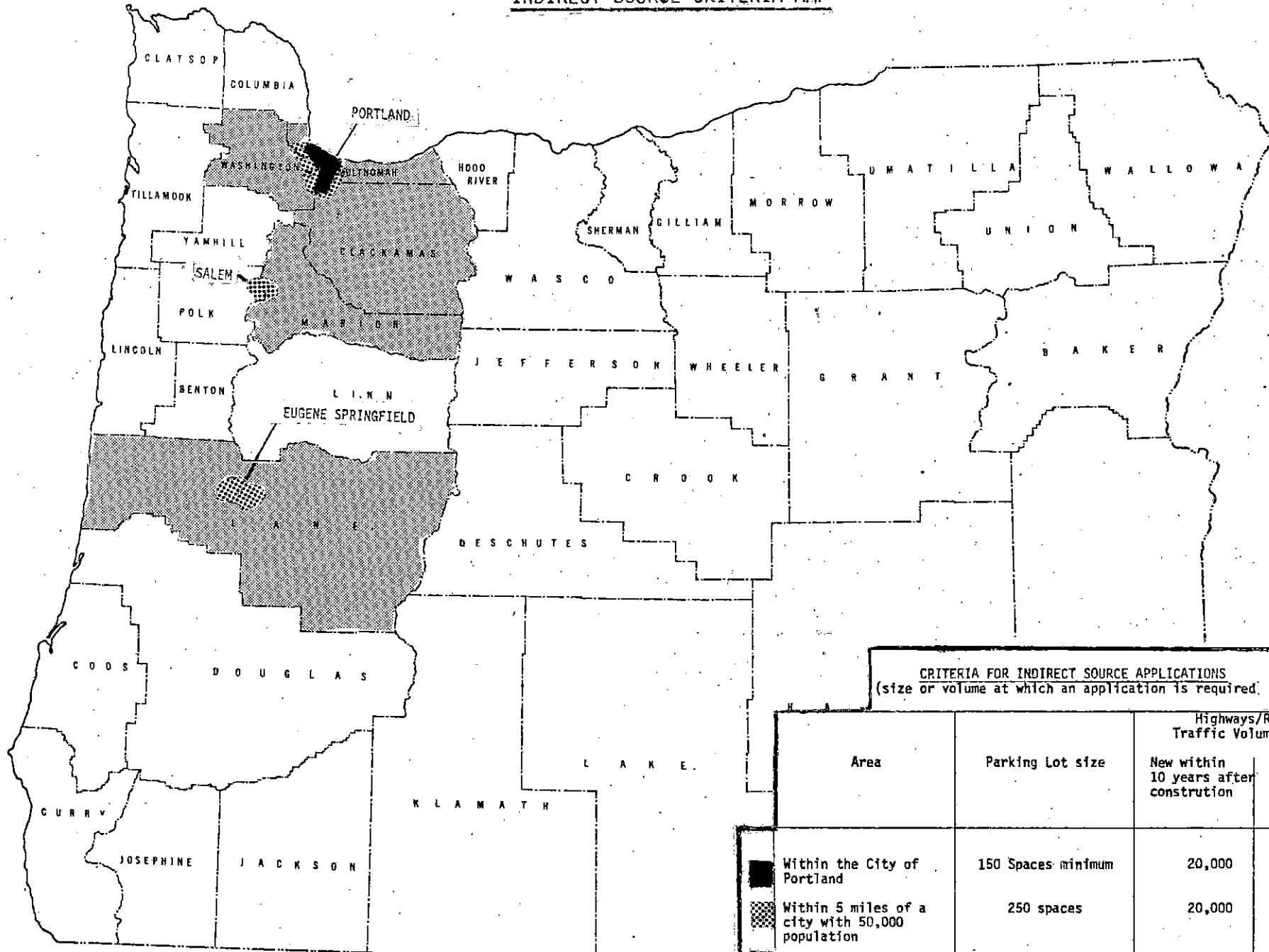
Optional Information-con-

(11) Measured or estimated carbon monoxide and lead concentrations at Reasonable Receptor and Exposure sites. Measurements shall be made prior to construction and estimates shall be made for the first, fifth and tenth years the Indirect Source and Associated Parking are completed or fully operational. Such estimated shall be made for the average and peak operating conditions.

(12) Evidence of the Compatibility of the Indirect Source with any adopted transportation plan for the area.

(13) An estimate of the additional residential, commercial, and industrial developments which may occur concurrent with or as the result of the construction and use of the Indirect Source. This shall also include an air quality impact assessment of such development.

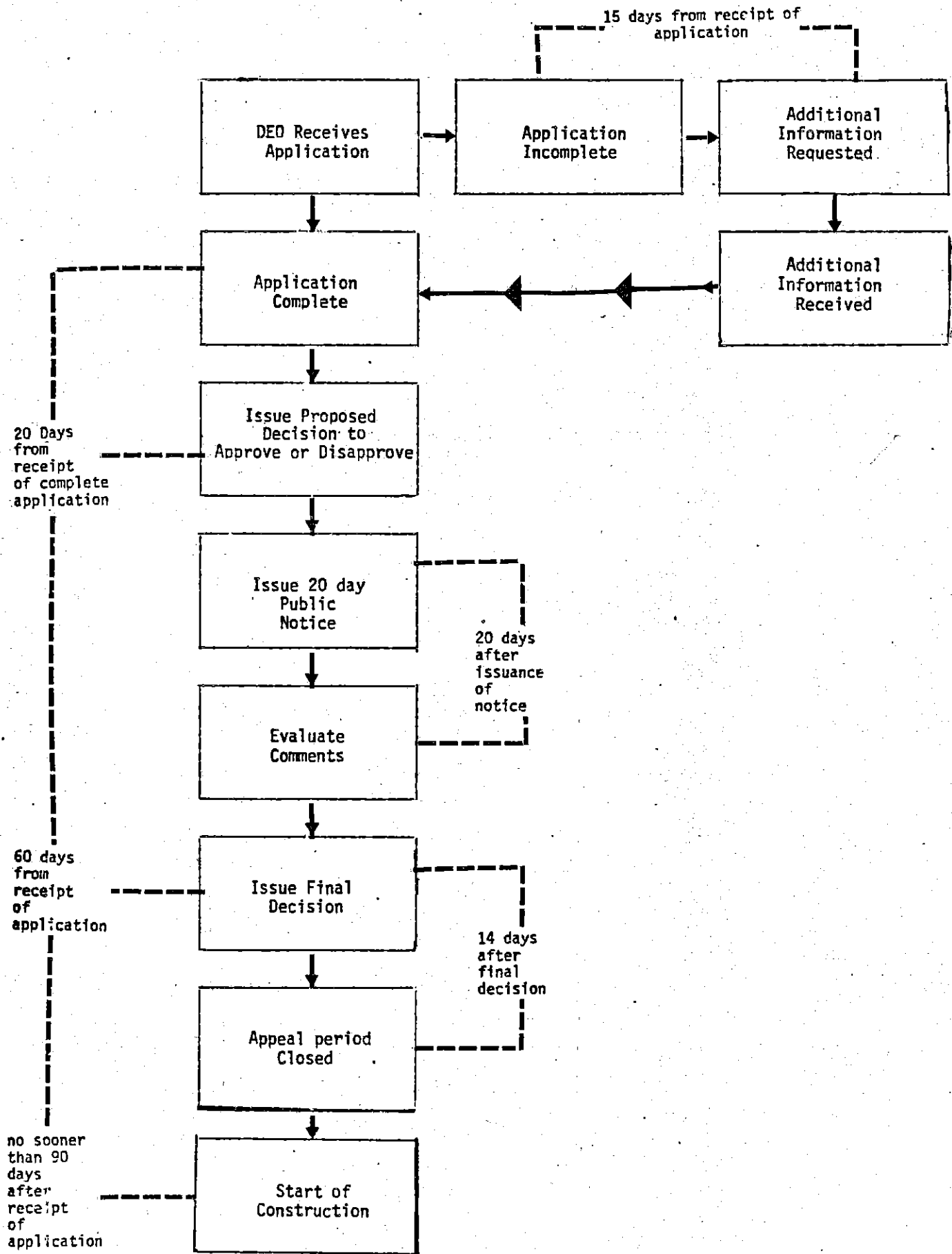
INDIRECT SOURCE CRITERIA MAP



CRITERIA FOR INDIRECT SOURCE APPLICATIONS
(size or volume at which an application is required)

Area	Parking Lot size	Highways/Roads Traffic Volumes (ADT)	
		New within 10 years after construction	Expected Increase after modification
Within the City of Portland	150 Spaces minimum	20,000	10,000
Within 5 miles of a city with 50,000 population	250 spaces	20,000	10,000
Within these Counties	500 spaces	20,000	10,000
Within all other Counties	1000 spaces	50,000	25,000

**SCHEMATIC FLOW DIAGRAM
PROCESSING AN INDIRECT SOURCE CONSTRUCTION PERMIT APPLICATION**





INTERNATIONAL HARVESTER

August 25, 1976

RECEIVED
AUG 30 1976

DEPT. OF ENVIRONMENTAL QUALITY

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

Dear Mr. Kramer:

Regarding the United States Environmental Protection Agency (US EPA) Region X remarks on the August 6, 1976 Oregon Department of Environmental Quality (DEQ) hearing, IH would like to offer the following comments: In view of the fact that the US EPA remarks were written after the closing date of the hearing, IH feels that our remarks addressing that statement must also be considered.

The US EPA statement was in error in stating that three (3) major vehicle manufacturers testified as to the absence of cost/benefit in the 75 dB(A) noise level limit. All four of the automotive manufacturers present (International Harvester, General Motors, Ford and Chrysler) brought out that essentially no benefit to the community exists in reducing the light duty noise level limit from 80 dB(A) to 75 dB(A).

The "chase car" statement must be clarified. The General Motors Chase Car Study consisted of data taken from more than 2500 vehicles and included 11,000 test miles in 12 regions of the United States from coast to coast. This is the only study of such magnitude that has been undertaken by anyone. The validity of this study has not been questioned; and in fact, MVMA, SAE and EPA contractors have been using this information to develop new light duty noise test procedures. The questions raised at the EPA hearing were ones which dealt with acceleration rates and weighting of vehicle operational modes as test criteria but did not question the accuracy of the data obtained in the study.

Referencing the Noise Regulation Reporter, EPA is quick to bring out Florida's retention of the 75 dB(A) standard; but in their haste neglected to mention that that standard was delayed until 1981. Quoting from the same July 19, 1976, issue of the Noise Regulation Reporter (NRR), a Florida spokesman reported that, "...the demonstration and motor company influence contributed to Florida's delay of its 75 dB(A) requirement from January 1979 to January 1981, but other Florida concerns were major factors in the decision to delay. One reason for the decision was the state's concern with preemptive EPA regulations which seem likely to be issued in the early 1980's, resulting in requirements which may 'not pay' for the state if EPA decides to forego a strict standard." In this same NRR issue

August 25, 1976

In an article addressing the EPA Light Duty Methodology hearing, the following paragraph appeared: "Wyle (Laboratories), under contract with EPA, found that current test methodologies did not meet criteria set up by the firm for an acceptable test method. The J986a full throttle test does not measure noise levels typical of highway operations, provides incorrect ranking of autos, and provides unrealistic values for noise reduction." The report goes on to say that multi-modal testing is the best method for describing light vehicle noise, which is the same conclusion expressed by GM at the EPA hearing. As mentioned before, there is some discussion as to the acceleration rates and weights given to each mode.

The statement that "the city of Chicago...has decided to keep the 75 dB(A)" is false. Careful reading of Mr. Poston's letter reveals that the Chicago Department of Environmental Control has decided not to recommend a change, but the issue has not been addressed by the City Council. The Chicago DEQ position surely considers the present negotiations for funds from US EPA.

In addition to the state and local noise regulation information presented by EPA, it must be brought out that California dropped the 75 dB(A) requirement in their regulation as did Grand Rapids. In addition, Maryland is considering the same action.

In quoting prices for noise regulation, EPA listed only the figures for cars. Since light trucks are included in the Oregon regulation, they cannot be ignored. These costs are considerably higher at \$123 - \$175 per vehicle. In addition, both the NRR and EPA failed to mention that the cost data is based on nation-wide distribution. If Oregon retains their 75 dB(A) level with the present schedule, they will likely be the only state in the union with such a requirement. Obviously, the pricing schedule for 2% (Oregon new car registrations for 1975) of the new vehicles would be considerably higher than it would be if the other 49 states required the same equipment. Without question, IH would have to severely limit the model choices available in Oregon; in fact, some whole models might be eliminated.

IH feels that the information presented by US EPA misinterprets the available information and thus fails to justify retention of the 75 dB(A) standard in Oregon. IH stands on its recommendation to have the 75 dB(A) standard removed. In addition, it has recommended that a representative of the automotive industry be allowed to address these issues at the August 27th Commission meeting.

IH would again like to express appreciation for the opportunity to testify at the August 6th hearing and to address these points; we further appreciate this fine working relationship with the State of Oregon.

Very truly yours,



N. A. Miller (219/461-5211)
Staff Engineer - Sound & Energy

cc: P. McSwain - DEQ D. Dubois - EPA
 J. Hector - DEQ C. Elkins - EPA

11-010(3)

- (e) A statement of relevant facts which the Director possesses, and issues which, in his preliminary opinion, the Director believes will have a substantial bearing on the rule-making proceeding.

11-010(3)

- (e) A statement of relevant facts which the Director possesses, and issues which, in his preliminary opinion, the Director believes will have a substantial bearing on the rule-making proceeding.

redundant?

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL)
QUALITY,)
)
Department,) REVIEW OF
) PROPOSED ORDER
vs.)
)
R. RANDALL TAYLOR,)
)
Respondent.)

STATEMENT OF FACTS:

- May 11, 1976 -- Received Notice of Violation
Alleged violation occurred on or before
April 16, 1975.
- May 18, 1976 -- Mailed Answer
Defense of compliance.
- June 4, 1976 -- Received ruling on preliminary motions
Hearing set for June 23, 1976.
- June 10, 1976 -- Received Amended Notice of Violation
Alleged violation February 6, 1976 to
present.
- June 18, 1976 -- Amended Answer with Affirmative Defense
- June 18, 1976 -- Telephone Daryl Johnson at Mid-West
Regional office in Eugene at 686-7601.
No response.

ISSUES:

I

Opportunity for hearing - Was Respondent given
adequate notice of the issues to be presented prior to the hearing
date?

II

Amend proposed order to allow Respondent sixty (60) days in which to hookup to City sewer facilities.

OBJECTIONS TO PROPOSED FINDINGS OF FACT:

I

Referring to hearing officer's summary, page 1, Respondent was served on June 10, 1976 with an Amended Notice of Violation and not May 28, 1976.

II

On June 4, 1976, the hearing officer gave Department five (5) days in which to file its Amended Order and the Respondent fifteen (15) days in which to amend his Answer.

III

Refer to page 3 of the hearing officer's proposed conclusion of law, paragraph 2: Respondent has demonstrated good cause for his failure to appear.

STATEMENT OF POSITION:

In the Department's notice dated May 3, 1976 and served May 11, 1976, the Department alleged that Respondent operated a subsurface sewage system which (1) failed onto the surface, (2) on or before April 16, 1975.

May 18, 1976 Answer contains an affirmative defense of completed repairs and compliance with the Order of the Department to have the septic tank pumped. Respondent raised preliminary questions regarding adequacy of the notice.

By letter dated May 26, 1976 and received June 4, 1976, the hearing officer ruled the Department may have five (5) days in which to provide Respondent with additional information and allowed Respondent fifteen (15) days thereafter to amend his pleadings.

On June 10, 1976, respondent received Department's Amended Notice of Violation. Department alleged (1) a failing septic system and (2) the violation occurred on or about February 6, 1976 through present.

It is Respondent's position that Department had substantially changed it's position with regard to the alleged violation. Furthermore, it proposed Order no longer contains a condition that the septic tank be pumped. The Department changed it's position from a past violation to one of a present and continuing violation.

The Department's Notice of Violation allowed ten (10) days in which to file an Amended Answer and the hearings officer's prior Order allowed fifteen (15) days in which to file their reply. Respondent's Answer was timely filed on June 18,

1976, and notified the Department and the hearing office that the Respondent would not appear and requested a continuance until the following week.

On June 18, 1976 Respondent called Daryl Johnson in Eugene to determine whether or not the Department of opposed to the continuance. No one in the Mid-West Regional Office had knowledge of the situation and Mr. Johnson did not return the telephone call.

Respondent learned that the Amended Answer was not received by the Department or the hearing office until on or about June 21, just two (2) days before the hearing. By this time it was too late to notify the Respondent that the hearing would be continued.

Concerning the merits of the case, Respondent asserts that the alleged violation is non-existent during the summer months. Respondent believes that the public interest will be adequately protected if Respondent is allowed sixty (60) days in which to hookup to the City sewer facilities. Respondent would move the Commission to hold this matter in abeyance for sixty (60) days to allow Respondent sufficient time to hookup to the city sewer facilities. Respondent relies upon the last paragraph of the proposed Order of the hearing officer for this position.

Statement of John Walsh, Suzuki Motor Company - 27 August 1976

Suzuki Motor Company is very concerned that the Oregon Environmental Quality Commission has not been made fully aware of the issues involved in the question of revising OAR Chapter 340 as applicable to motorcycle sound level limits. The Staff Report presented to the EQC by the Department of Environmental Quality failed to discuss the two major issues raised at the DEQ public hearing on August 6 on the subject of motor vehicle noise limits. We feel that the EQC needs to be aware of these issues before they can make an informed decision on motorcycle sound level limits.

First, it was shown that lowering of sound level limits of new motorcycles is not an efficient noise control strategy. Stock motorcycles in use in Portland are as quiet in normal operation as stock automobiles. The non-stock motorcycles, and non-stock automobiles, are considerably noisier. Significant sound level reduction is possible for these vehicles by refitting them with exhaust systems comparable in noise control effectiveness with the original equipment systems. Until the EQC and DEQ take action on this problem, excessive noise from automobiles and motorcycles will continue to be a problem for Oregon citizens. Warren Heath, Commander of the Engineering Section, California Highway Patrol, has expressed this quite succinctly:

"Without strong local enforcement, there is continual clamor for lower limits to solve the {noise} problem, despite the findings that the vehicles most complained about already violate the present laws."¹

EQC and DEQ action is necessary to control these sources of excessive noise. If EQC and DEQ continue to concentrate their noise control

effort on new motor vehicle sound level limits only and neglect the need for active enforcement, this program is both misdirected as public policy, akin to trying to reach the North Pole by traveling east or west, and in conflict with the legislative mandate of ORS 467.010, "...to implement and enforce compliance with... reasonable statewide standards for noise emissions..." (emphasis added).

In addition, testimony concerning the technical differences between on-road and off-road motorcycles and additional difficulties involved in reducing sound levels of off-road motorcycles was presented at the August 6 hearing, and was not discussed in the Staff Report. There are important technical difficulties involved, as described in the testimony presented, and our engineers cannot neglect these problems. As a consequence of the engineering problems involved, different sound level limits are appropriate for off-road motorcycles, as outlined in the MIC petition and supporting documentation.

In summary, Suzuki agrees with Oregon's desire to control excessive environmental noise. We have taken steps to insure that our products are as quiet as possible, consistent with safety and market demands. Many of our motorcycle models have sound levels considerably below the allowable limit. In an attempt to help the EQC and DEQ to better understand the problem of motorcycle noise, we participated in recent field monitoring in Portland as described in the report released today. We have always offered to work with the DEQ and other environmental agencies to achieve environmental goals in an equitable, effective, and efficient matter.

Suzuki urges the EQC to ammend Chapter 340 as related to motorcycle sound level limits as outlined in the Motorcycle Industry Council petition. The program proposed by the DEQ is supported only by broad generalizations, "opinions", and "beliefs". Public complaints about motorcycle noise are very compelling, but arise because of motorcycles which have been modified to produce excessive noise or which are being operated illegally.

In summary, until the EQC and DEQ take effective steps to bring the excessively noisy modified motorcycles into compliance, Suzuki cannot support any efforts to reduce new motorcycle sound level limits because of the inconsistency with public policy and legislative mandate.

Reference

¹Warren Heath, "California's Experience in Vehicle Noise Enforcement", 22 December 1975.

Motorcycle Industry Council Technical Committee Report
Sound Level Monitoring - Portland, Oregon - 28 July 1976

Introduction

On 28 July 1976, a Motorcycle Industry Council (MIC) committee task force conducted a field survey of operational motorcycle sound levels in Portland, Oregon. The purpose of the project was to determine the passby sound levels of a random sample of motorcycles as they are used on surface streets. Several studies (1, 2, 3, 4) have assessed near-maximum motorcycle sound levels using standardized engineering test procedures; only a few attempts (5, 6) have been made to assess the on-street passby levels to which the public is exposed. The MIC recognized that information on actual in-use motorcycle operation and sound levels is basic knowledge needed to assess the impact of motorcycle noise on the public, and to indicate areas in which noise control efforts could be most effective.

Findings

Sound level monitoring was conducted at two test sites in Portland. The sites were on level streets between traffic signals, so that the most frequent operational mode observed was constant speed cruise. Some vehicles were still accelerating past the monitoring positions, while others were coasting as they approached the upcoming traffic signal. Despite extensive monitoring, only 35 motorcycle passbys were noted. Of these, 13 passes resulted in non-usable data because the motorcycle sound was partially masked by noise from other traffic. This leaves 22 usable data points on motorcycle passby sound levels; 14 of these are for stock motorcycles and 8 for non-stock motorcycles (i.e. modified or equipped with aftermarket exhaust systems). This is a small data base from which to draw any firm conclusions, but the data does indicate some definite trends. Sound level data were also recorded for a random sample of 9 stock automobiles, 12 non-stock automobiles, 8 medium and heavy duty trucks, and 4 public transit buses. This data suggests the following:

1. Stock motorcycles are as quiet as stock automobiles in urban street cruise situations.
2. Stock motorcycles are considerably quieter than non-stock motorcycles, non-stock autos, and trucks and buses.
3. Non-stock motorcycles and autos are considerably noisier than their stock counterparts.
4. Because of the small number of motorcycles in-use and the relatively low sound levels they produce, public annoyance with motorcycle noise does not correspond directly with the sound levels produced, but is probably a multiple factor phenomenon.

Test Program

The test program was conducted with the cooperation and assistance of the Oregon Department of Environmental Quality (DEQ). Mr. Jerry Wilson of the DEQ Noise Control Division worked with Roger Hagie and John Walsh, the MIC task force, throughout the monitoring. Mr. John Hector, Noise Pollution Supervisor with the DEQ, participated in the monitoring in the afternoon.

The test site used during the morning was on N. Lombard Street; a site at N. E. Sandy Boulevard at 68th Street was used in the afternoon. Both of these sites consisted of level road in a 35 mph speed zone. The observed traffic volume at Lombard Street, a two lane arterial with small businesses, was 660 vehicles per hour; the observed volume at the Sandy Blvd. site, a four lane arterial with small businesses, was 1075 vehicles per hour. Traffic volume monitoring times were between 10:37 and 11:18 a.m. at N. Lombard, 2:00 and 4:04 p.m. at N. E. Sandy. Both sites were relatively free of sound reflective surfaces so no reflective correction factors had to be applied to the observed passby levels. For each motorcycle passby, a picture was taken of the motorcycle to support the identification of the type of bike and exhaust system, and the following information was recorded:

- Type of motorcycle (manufacturer and model)
- Type of exhaust system (stock, modified, aftermarket)
- Passby sound level
- Distance from microphone
- Mode of operation
- Time of day
- Approximate speed
- Number of vehicles since last motorcycle passby (when available)

In addition, some comments were recorded on the observers' subjective judgment of the sound of the bikes and other relevant information.

The instrumentation at each site was set up with the microphones 50 feet from the center of the road. A Bruel and Kjaer (B&K) Model 2206 sound level meter and B&K 4230 calibrator were used by the MIC group. A B&K Model 2205 sound level meter and B&K 4230 calibrator were used by the DEQ personnel. At the Lombard site, tape recordings of some vehicle passbys were made using the DEQ equipment. About 25-30 feet of dry grass was between the sound level meters and the edge of the road at Lombard.

All motorcycle passbys were noted during the monitoring periods, which were from 9:50 to 11:50 a.m. and 2:00 to 4:05 p.m. Because of other traffic noises, some of these passbys did not yield usable sound level data. The sampling for other vehicles was not so complete. The DEQ personnel did most of the sound level monitoring of these other sources on an approximately random basis, or at least without any explicit bias. It should be noted, however, that the non-stock autos were identified as such by their sound, and not by visual identification of the exhaust system, which was not possible for the cars. As such, it may be that quiet non-stock cars may not have been sampled, or may have been included in the stock auto classification.

The sound levels were normalized to 50 feet using the distance correction factors listed in the DEQ procedures manual NPC-21.

Results

The results of the monitoring are summarized in Table I for motorcycles and Table II for other vehicles. This data is plotted in Figure 1. While the data sample is not large enough to lead to a full explanation of motorcycle noise impact on the Portland community, it is useful to discuss the trends indicated in the data.

1. Stock motorcycles are as quiet as stock automobiles in urban street cruise situations.

For 14 stock motorcycle passbys, the average 50 foot passby level was 69.4 dB. Compared to an average 68.5 dB passby level for stock automobile passbys, these levels are virtually the same. 14 motorcycle passbys and 9 automobile passbys do not concretely depict the urban noise situation, but show that in typical urban vehicle operation, stock motorcycles are as quiet as cars.

This statement may seem contrary to common experience. It is commonly accepted that stock automobiles are fairly quiet, and also commonly believed that motorcycles are noisy. The data gathered in Portland shows that sound levels for stock motorcycles and stock cars are similar, but it was observed that the vehicle sounds were different. Because of the significantly different sound, motorcycles could be aurally identified as motorcycles and could not be confused with automobile passbys. This was true of the other classes of vehicles, all of which had a unique sound. As such, a 69 dB motorcycle passby sounded differently than a 69 dB automobile passby, and this difference can easily lead to personal reactions from bystanders which do not directly relate to the observed sound level. This point will be discussed more completely in part 4.

2. Stock motorcycles are considerably quieter than non-stock motorcycles, non-stock autos, and trucks and buses.

Figure 1 shows the sound level data collected in Portland which supports this statement. It should be noted that all of the other noise source groups were significantly louder than stock motorcycles and stock automobiles. Approximately 25% of the motorcycles recorded had modified or aftermarket exhaust systems, a fairly high proportion. The proportion of non-stock automobiles was not as high, but because of the much greater number of automobiles, many more non-stock automobiles passed by than non-stock motorcycles. It was subjectively observed that the number of non-stock automobiles was about the same as the total number of motorcycles, but no specific data was gathered on this point.

The significantly higher sound levels measured from non-stock exhaust systems, and the notable extent of modification would indicate that significant sound level reductions could occur by equipping non-stock cars and bikes with exhaust systems comparable in sound level control to the original equipment.

Another point worthy of explanation is the data observed in bus passbys. The four buses were visually similar Portland Tri-Met public transportation buses. The loudest bus passby, at 84 dB, was from a bus which sounded as if its exhaust system was defective. DEQ made a note of this with the intention of contacting Tri-Met. Among the other three buses, however, there was still considerable data spread, probably due to variations between buses and differing modes of operation.

The data from truck passbys, consisting mostly of heavy duty diesels, shows the least data scatter of any group. These trucks were noticeably louder than stock motorcycles as Figure I reflects.

3. Non-stock motorcycles and autos are considerably noisier than their stock counterparts.

Figure 1 shows that non-stock motorcycles are about 7 dB louder than stock motorcycles and that non-stock automobiles are about 10 dB louder than stock autos. The implication of this data for community noise control, as mentioned in point 2 above, is that noise from these subgroups of motor vehicles can be considerably reduced by refitting them with exhaust systems which control exhaust noise about as well as original equipment. Active enforcement and inspection activity will be necessary to accomplish this noise reduction, but no reduction will be realized unless these steps are taken and a resource commitment made to reduce community noise.

4. Because of the small number of motorcycles in-use and the relatively low sound levels they produce, public annoyance with motorcycle noise does not correspond directly with the sound levels produced, but is probably a multiple factor phenomenon.

During the sound level monitoring, only 32 motorcycle passbys were noted out of 2900 total vehicle passbys. As such, motorcycles represent only 1.1% of all vehicle passbys. Of these motorcycle passbys, 75% were stock bikes and 25% were non-stock. The stock bikes produced about the same sound level as stock automobiles and the non-stock motorcycles were about 7 dB louder than stock motorcycles.

Previous studies (7, 8, 9) have shown high sensitivity by the public concerning motorcycle noise. These studies show that the people surveyed expressed great concern about motorcycle noise despite the fact that motorcycle passbys occur infrequently and at low to moderate sound levels under cruise conditions. Public reaction to motorcycle noise, therefore, does not correspond directly with passby sound levels compared with other

vehicle sound levels. Some possible explanations of this phenomenon are:

- A. People have different responses to noise from motorcycles.
- B. Motorcycles can be easily identified, both visually and aurally, triggering a different motor vehicle noise response set.
- C. Motorcycles generally have different sound characteristics than automobiles, attributable to the automobile's higher tire noise levels and more noticeable mechanical and propulsion noises from motorcycles. Motorcycles can thus easily be distinguished from automobiles operating at the same A-weighted sound level. This may lead the average person, either consciously or subconsciously, to believe that this ease of distinguishing between cars and motorcycles is because motorcycles are louder, and not because the difference in spectral content of the sources enables identification by ear.
- D. Public response to motorcycle noise cannot be directly predicted simply by comparing A-weighted sound levels of motorcycle passbys with A-weighted sound levels of passbys of other vehicles.

All of these possible explanations merit further analysis and discussion. Because of the relatively small data base of this study, however, detailed conclusions should be held off until more data is collected. Some brief discussion follows to highlight additional aspects of this problem.

Figures 2, 3, and 4 attempt to illustrate one potential response model for motor vehicle noise. Figure 2 shows statistical distributions of the expected number of vehicle passbys for each motor vehicle group and the expected sound level envelope of each passby. The vehicle mix in Table III was determined partly from observations made in Portland (for stock and non-stock motorcycles and non-stock cars) and partly from data of other investigators (10, 11). The same mix was used in the Figure 2-4 analysis.

Figure 2 shows that all motorcycles and non-stock autos make infrequent appearances in roadside monitoring. Autos form the large bulk of traffic; trucks and buses account for about 10 percent of the passbys. Figure 2 does not show why motorcycle noise should be even noticeable in urban traffic.

Figure 3 is a plot of a sound level distribution for all motor vehicle noise using the vehicle mix and sound levels from Table III. This ignores the bimodal distribution shown in Figure 2 and averages all passbys together assuming a normal distribution. Figure 4 combines Figures 2 and 3. The suggestion here is that if we assume that people average all vehicle passby levels together and expect to hear sound levels within the "overall" distribution, then sound levels which fall outside this distribution, or at least near the edges, are more noticeable. This would predict that people are more likely to notice truck and bus passbys, and non-stock automobile and motorcycle passbys. In reality, this is partially true, but does not predict the vehement outcries about motorcycle noise and

the much less vehement complaints about truck noise. Indeed, the model would predict that almost all complaints would be concerned with trucks, but this is not so.

Table III shows the relative energy contribution of the different motor vehicle classes. Trucks and buses were combined as 10% of the total vehicle mix because no finer breakdown was available. Non-stock automobiles were judged as comprising about 1% of the total vehicle mix as a subjective result of the Portland monitoring. Stock motorcycles contribute only 0.4% of the total vehicle noise energy and non-stock bikes only about 1%. Again, it seems that public reaction to motorcycle noise is far out of proportion to their noise energy contribution.

From the above discussion, it is apparent that a prediction of public reaction to motorcycle noise cannot be done in ways comparable to their reactions to other motor vehicle noise sources. More research needs to be done in this area, both to more fully establish the position of motorcycle noise within total motor vehicle noise, and to better define the causes of public reaction to motorcycle noise. This knowledge is absolutely necessary before any meaningful steps to reduce motorcycle noise impact can be effected.

Conclusion

The data gathered in Portland showed that stock motorcycles are insignificant contributors to urban motor vehicle noise under cruise conditions. Non-stock motorcycles are proportionately greater contributors to urban noise but are a very small part of the total vehicle population. Since non-stock bikes have significantly higher sound levels than stock motorcycles, special efforts should be taken to quiet these bikes in harmony with public concern about motorcycle noise. From the data gathered in Portland, there seems to be no reason to quiet stock motorcycles further until other noise sources are significantly quieted.

These conclusions need the support of more study to more fully characterize motorcycle operational sound levels. The Motorcycle Industry Council intends to perform more testing as time allows. A larger data base and differing modes of operation would supplement the data of this report. The MIC would also like to hear from other groups who have done or are planning to conduct similar testing. The MIC team has some practical advice for such projects:

At least two people are needed to conduct the survey. Three would be better. The tasks required are:

- a) monitor sound level meter during vehicle passby
- b) photograph each motorcycle during passby for documentation and identification
- c) record the number of vehicles between motorcycle passbys (record the type of vehicle if possible)

- d) record the pertinent information about the motorcycle passby immediately

Additional equipment, such as a graphic level recorder and tape recorder, would help to reduce the demand on the personnel and help in data analysis after the field monitoring.

Two lane roads are better for monitoring because there is reduced likelihood of interference of other traffic noise with individual motorcycle passby sound levels.

It is possible that one way streets would aid such projects by making it easier to prepare for upcoming motorcycle passbys.

Try to pick sites which are reasonably open without many reflective surfaces around so that reflective surface correction factors need not be subtracted from the observed levels; this just helps to avoid a possible source of error.

Try to camouflage the monitoring team; easy visibility can lead drivers to drive less aggressively, possibly affecting the results.

This type of work is boring, so bring a comfortable chair and try not to get discouraged at the small number of motorcycles which pass by.

The Motorcycle Industry Council would like to receive comments, corrections, and suggestions from readers so that we can all more fully understand the problem of motorcycle noise.

Footnotes

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⁴ R. A. Little, "Motorcycle Noise Test Procedure Evaluation: SAE XJ331a and XJ47," SAE Paper 740686, September 1974.

⁵ Chicago Urban Noise Study, Phase I, Bolt Beranek and Newman Inc. Report 1411, November 1970.

⁶ Noise Survey of Vehicles Operating on California Highways, Department of the California Highway Patrol, July 1971.

⁷ A Survey of Annoyance from Motor Vehicle Noise, Bolt Beranek and Newman Inc. Report 2112, June 1971.

⁸ Motor Vehicle Noise: Identification and Analysis of Situations Contributing to Annoyance, Bolt Beranek and Newman Inc. Report 2082, June 1971.

⁹ J. E. K. Foreman, M. A. Emmerson, and S. M. Dickinson, "Noise Level/Attitudinal Surveys of London & Woodstock, Ontario," Sound and Vibration, December 1974.

¹⁰ Background Document for Medium and Heavy Truck Noise Emission Regulations, USEPA, March 1976.

¹¹ Robert Rackl, Louis Sutherland, Jack Swing, Community Noise Countermeasures Cost-Effectiveness Analysis, Wyle Research Report WCR75-2, July 1975.

TABLE I

PORTLAND, OREGON

MOTORCYCLE SOUND LEVELS

MOTORCYCLE	EXHAUST	OPERATION & SPEED	50' SOUND MIC	LEVEL DEQ
650 Triumph	Aftermarket	Rapid Accel. 0-20	92	92
		Deceleration 20-15	75	78
Honda CB750K	Stock	Cruise 30	64	-
Honda CB750K	Stock	Cruise 30	64	-
Harley FLH1200	Aftermarket	Cruise 30	68	-
Honda CB450	Stock	Cruise 30	67	-
Yamaha R5 (350)	Stock	Cruise-Coast 30-25	65	67
Yamaha TX500	Stock	Cruise 30-35	69	69
Harley-Davidson	Aftermarket	Light Accel. 30	75	75
Honda CB450	Stock	Cruise-Coast 30	70	-
Kawasaki F-7 (175)	Stock	Cruise 30	65	67
Honda GL1000	Stock	Cruise 30	-	-
Harley-Davidson FX1200	Aftermarket	Cruise 30	73	73
Yamaha TX650	Stock	Cruise 30	70.5	72
Honda CB450	Stock	Light Accel. 35	74	73
Honda CL175	Stock	Cruise 35	72	-
Honda SL350	Mod. Stock	Accel/Decel 30	-	79
Honda SL350	Stock	Moderate Accel.	76	76
Honda CL350	Stock	Cruise 35	74	75
Honda CL450	Stock	Coast/Decel. 30	66	67
Harley-Davidson	Aftermarket	Cruise-Coast 30	77	77
Suzuki T500	Stock	Moderate Accel. 0-15	76	-
BMW R75/6 (750)	Stock	Light Accel. 25-30	71	71
BMW R75/5 (750)	Stock	Coast 30	67	68

PORTLAND, OREGON
 MOTORCYCLE SOUND LEVELS
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Honda SL350	Stock	Cruise 35	75	-
Honda GL1000	Stock	Cruise 30	69	70
		Cruise-Coast	70	70
Harley Sportster (1000)	Aftermarket	Cruise 30	74	75
Vespa Scooter	Stock	Cruise 30	71	72
		Decel. 20-15	74	-
Honda SL175	Stock	Cruise 35	71.5	71
Suzuki GT750	Stock	Coast-Cruise 35	69	-
Yamaha DT250	Stock	Light Accel. 30	81 ⁺	-
Honda XL250	Stock	Cruise 35	70	70
BSA 650	Aftermarket	Moderate Accel. 10-15	78.5	80

NOTE: Numbers enclosed in squares □ indicate the motorcycle sound level mixed with other traffic noises. These data were not included in the analysis.

TABLE II

PORTLAND, OREGON

OTHER VEHICLE SOUND LEVELS

VEHICLE	EXHAUST	OPERATION & SPEED	50' SOUND LEVEL
Volkswagen	Aftermarket	Moderate Accel. 0-20	79
Ford Fairlane	Aftermarket	Light Accel. 0-20	76
Tri-Met Bus	Stock	Moderate Accel. 15-30	84
Dodge Diesel Truck	Stacks	Cruise 35	82
Toyota	Stock	Cruise	64
Freightliner Semi	-	Cruise	75
Dodge Pickup	Modified	Light Accel.	67
I. Harvester Semi	-	Cruise	77
Medium Duty Diesel	-	Cruise	78
Freightliner Semi	-	Cruise	79
Medium Duty Gas	-	-	80
Freightliner Semi	-	Cruise	79
I. Harvester Semi	-	-	80
Pontiac GTO	Modified	Cruise	81
Barracuda	Modified	Cruise	76
Volkswagen	Stock	Cruise 30	66
Ford Fairlane	Modified	Accel. 30	84
Bus	-	Accel. 30	78
Alfa Romeo	Stock	Cruise 30	73
Bus	-	Cruise 30	73.5
Ford	Modified	Cruise 25	74
Chev. El Camino	-	Cruise 25	63
American Matador	-	Cruise 30	71
Dodge Colt	-	Cruise 30	70

PORTLAND, OREGON
OTHER VEHICLE SOUND LEVELS
Page 2

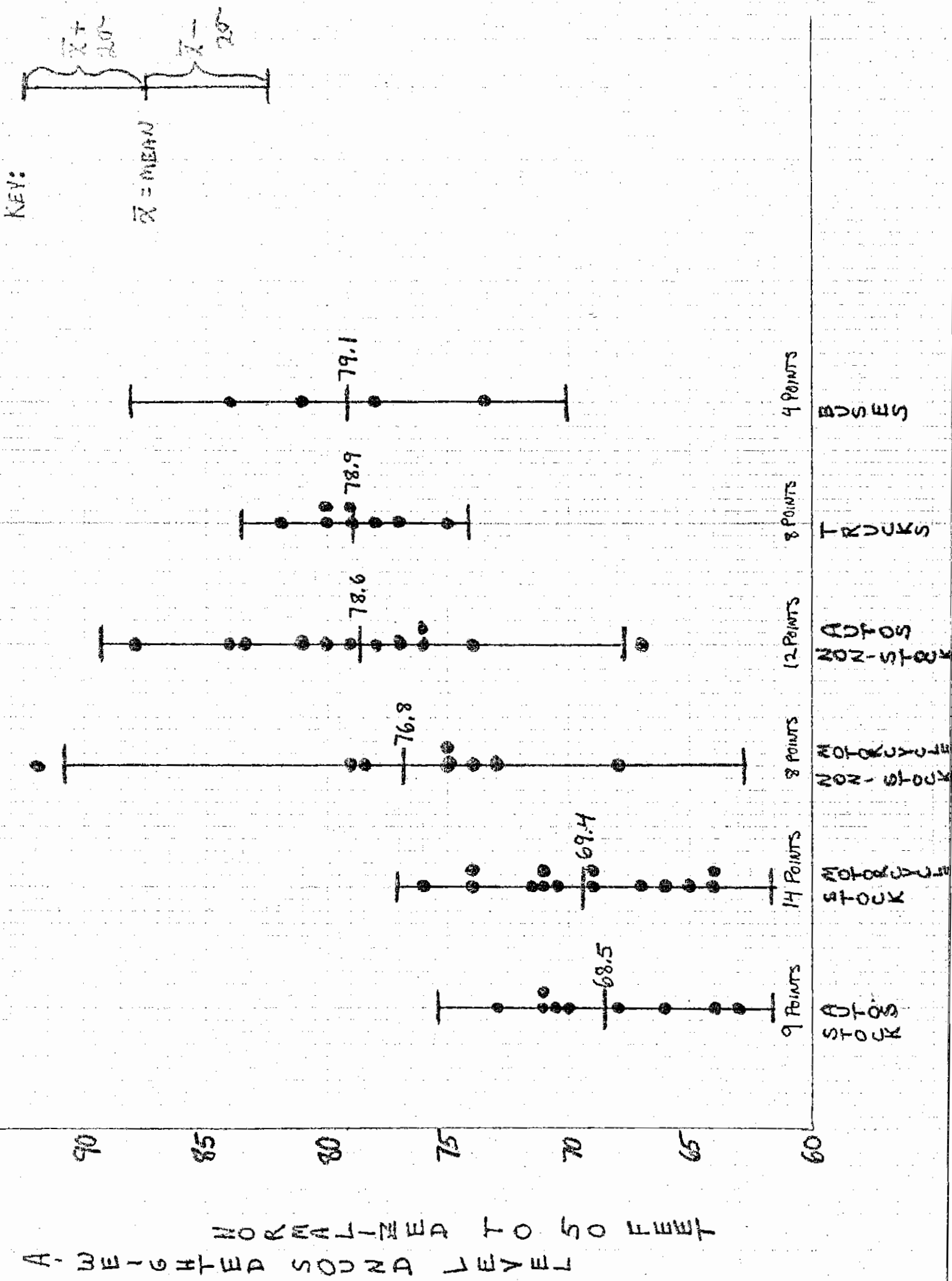
A-H Sprite	Modified	Cruise 35	78
Volkswagen	Stock	-	70.5
Karman Ghia	-	Cruise 30	71
Porsche 914	Modified	Accel. 25	88
Bus	-	Cruise 30	81
Mercedes 220D	Stock	Cruise 30	68
A-H Sprite	Modified	Cruise 30	80
Dodge Charger	Modified	Accel. 35	77
Plymouth	Modified	Accel.	83.5

TABLE III

RELATIVE CONTRIBUTION OF SOUND ENERGY

CATEGORY	PERCENTAGE OF TRAFFIC MIX	AVERAGE SOUND LEVEL	PERCENTAGE OF TOTAL ENERGY
Stock automobiles	88	68	38%
Stock motorcycles	0.8	69	0.4%
Non-stock motorcycles	0.3	77	1%
Non-stock autos	1	79	5%
Trucks & buses	10	79	55%

FIGURE 1



NORMALIZED TO 50 FEET

A-WEIGHTED SOUND LEVEL

FIGURE 2

ANTICIPATED SOUND LEVELS BY CATEGORY

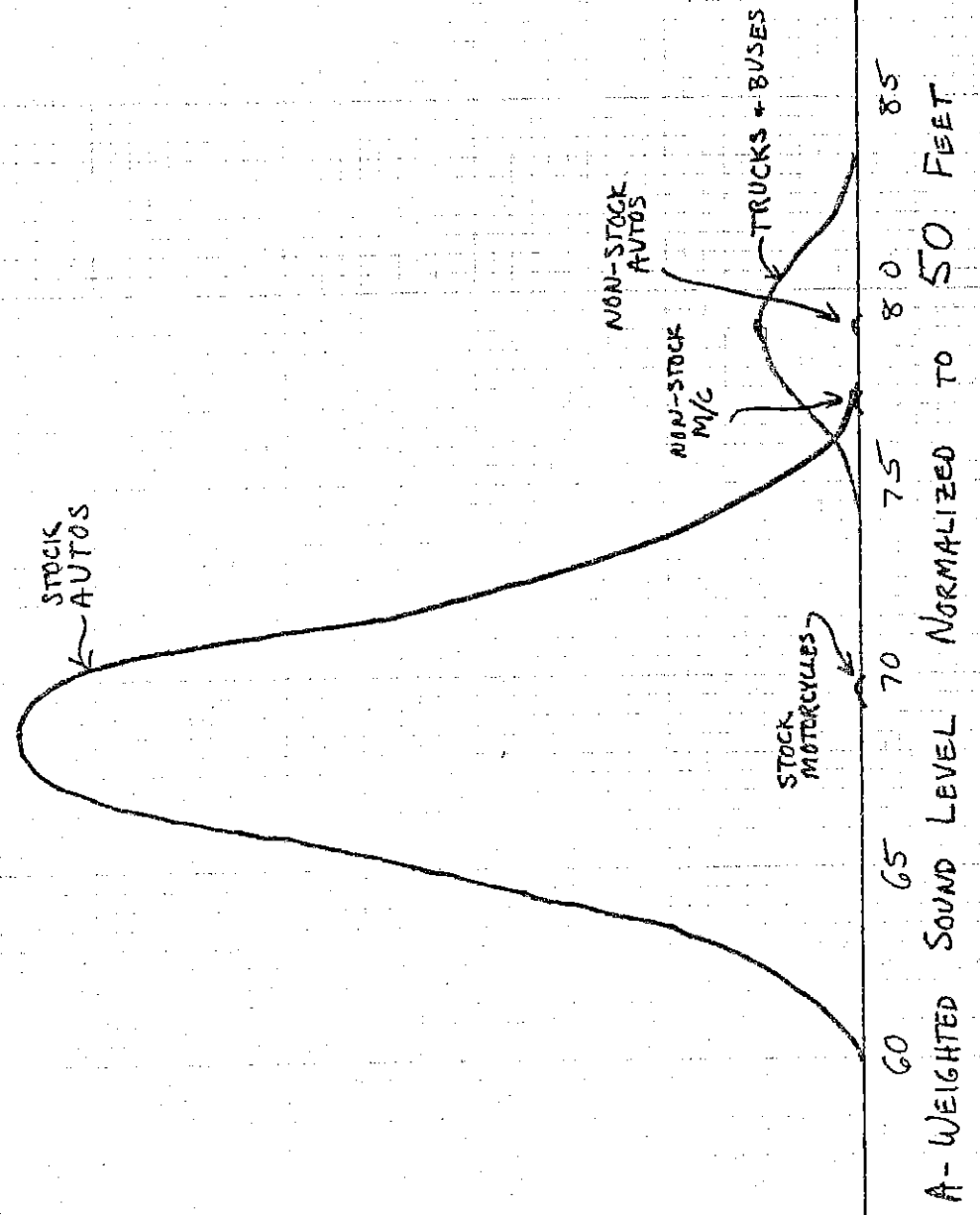


FIGURE 3

ANTICIPATED OVERALL SOUND LEVEL DISTRIBUTION

STREAM TO MINE

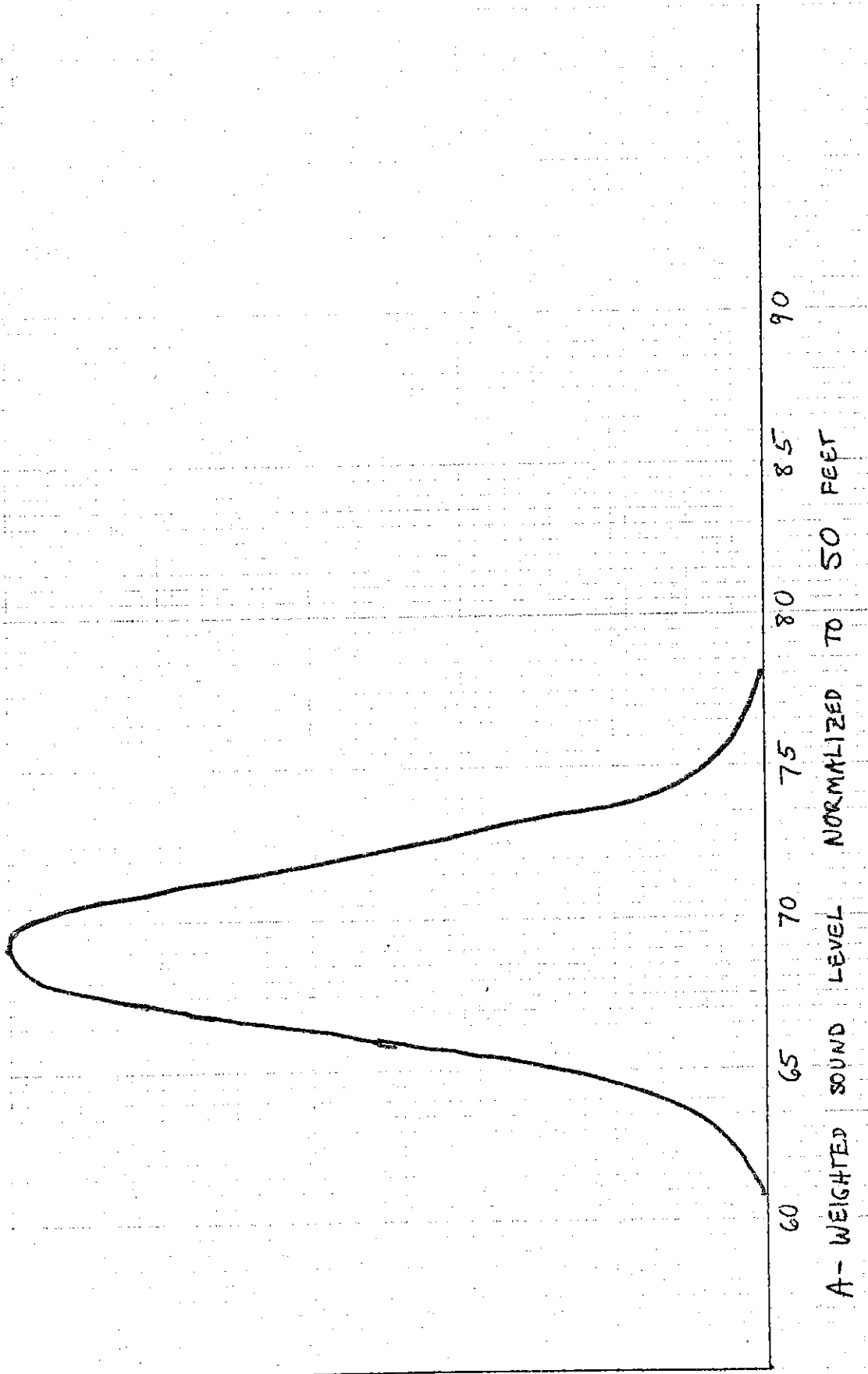
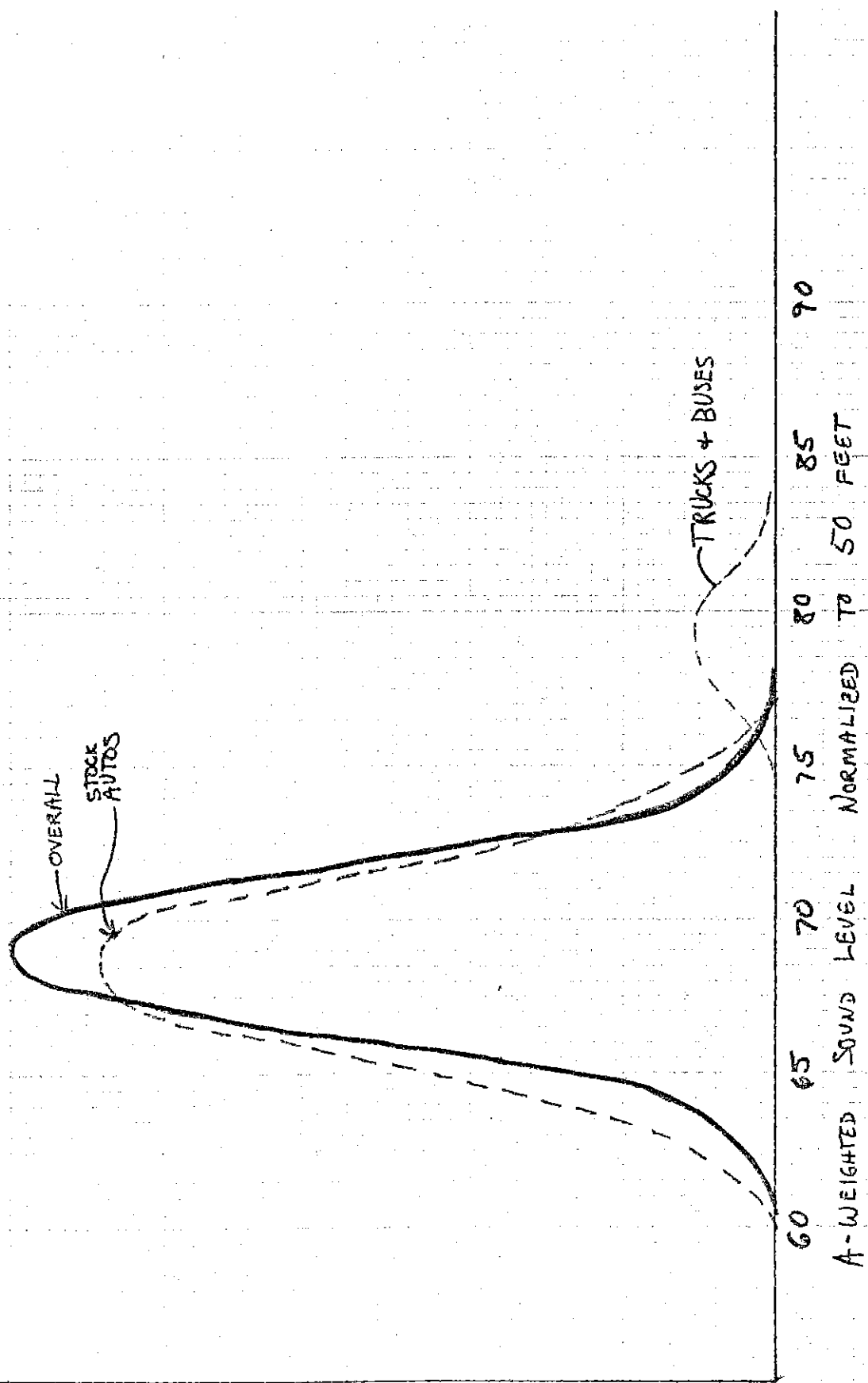
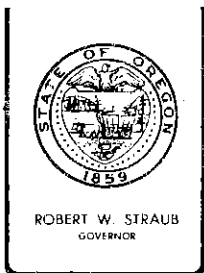


FIGURE 4
COMPARISON OF OVERALL AND VEHICLE TYPE
SOUND LEVEL DISTRIBUTIONS



NUMBER OF EVENTS



DEPARTMENT OF ENVIRONMENTAL QUALITY

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

MEMORANDUM

To: Environmental Quality Commission

From: Hearing Officer

Subject: Hearing Report: August 6, 1976, Public Hearing on Proposed Amendments to the Rules Governing Motorcycle and Motor Vehicle Noise Emissions (Housekeeping Amendments were included also)

BACKGROUND

The hearing convened on August 6, 1976, in Room 602 of the Multnomah County Courthouse in Portland, Oregon. Present to represent the agency were the undersigned and Mr. John Hector of the Department's Noise Control Program. Approximately 38 persons attended and 20 persons offered testimony. Additional written testimony was offered to the record by mail both before and after the hearing. A summary of the testimony follows.

GENERAL TESTIMONY

Jane Underhill: Please continue to adopt and enforce standards higher than manufacturers are accustomed to in other states.

John Broome: Hold the line on noise standards. There is no reason why motorcycles and cars cannot be as quiet as they are in Europe. The manufacturers can meet the standards and, like other industry, will brag about it when they do.

Mr. Vencel V. Hamsik: The rules should be made more stringent. The Motorcycle Industry Council which petitions relaxation represents only a small portion of the public. The automobile industry should have a reduction in noise of 5 additional decibels in 1982. The automobile makers have done nothing for two years to meet the new standard and now should not expect a reward for their lack of diligence. "Jake Brakes" on trucks should be prohibited.

Thomas C. Mathews: The noise in the Portland residential areas is too high. Either enforcement of existing standards or tighter standards must be accomplished. This is particularly true with regard to garbage trucks.

Mrs. Helen Sturdivan: The noise regulations should not be relaxed. Mr. Frank Forster of the Oregon Motorcycle Dealers Association and the Oregon Motorcycle Riders Association concedes (as quoted in the newspapers) that most parents will not go along with the law and will assist their children in violating them (referring to Portland's off-road vehicle ordinance). Also, it is untoward that the motorcycle industry which

has already escaped emission standards for air pollution should now seek regulations for noise that are less stringent than those being met by automobiles.

Professor Louise Felman of Pacific University has discovered significant high frequency hearing loss among students. One distinct differentiation was that experienced by a student who suffered hearing loss in excess of that suffered by a fellow motorcyclist who, unlike the student in question, wore earmuffs while riding his motorcycle.

Representative Pat Whiting (District 7): As previous Vice Chairperson to the Environment Committee of the House and one having had four years of extensive involvement in the writing of regulations for environmental, land use, and health care areas, Representative Whiting was opposed to any relaxation in existing noise standards. Representative Whiting questioned the justification for a differing standard for off-road motorcycles than that standard imposed on street bikes. Further, it was her position that the industry, if unable to meet present standards, had failed to sufficiently document this fact in its testimony.

Dr. Paul Herman of the City of Portland: Amendment to the heavy truck standard is necessary due to EPA pre-emption of this area of regulation.

The proposal to amend the off-road motorcycle use violation to include the operator as well as the property owner is very necessary from the standpoints of equity and enforcement.

The revision in the test procedures is needed to supplement present stationary testing procedures which prove unworkable due to the lack of voluntary submission of many operators to the test procedure. The "near field" test procedure should be implemented with regard to all classes of vehicles as soon as possible.

Reference to date of manufacture rather than model year (as proposed by General Motors) presents difficulty of identification and, therefore, enforcement. It should not be passed unless this difficulty is overcome.

The GM recommendation with regard to the definition of "truck" should be accepted because it is aligned with current EPA regulations.

Buses, which have differing noise problems compared to trucks, should be made a separate category. However, the 1979 standards imposed by present rules should not be relaxed for buses because buses have met this standard in 1974.

The proposal that off-road motorcycles be permitted more noise than others defies logic. Other users of off-road areas expect and deserve more quiet than usual, not less. The industry is trying to sell more high performance vehicles for non-racing purposes. Off-road bikes can be muffled as effectively as others and should be.

Similar reasoning refutes the proposals of the motorcycle industry and the automobile industry that the program's noise reduction in future vehicles should be recinded. First, the existing reductions are obtainable. Second, the cost of such reduction should be charged to the users in lieu of imposing the latent cost of frayed

nerves and hyper-tension now imposed on captive listeners. Roadway noise is now too high and is increasing. No relief will come under existing rules until we await the natural attrition in the rate of "in use" older vehicles. To adopt the proposed regulations may mean an infinite wait for reduction in the auto-caused ambient noise and an eight year wait for relief from motorcycle noise.

Industry argument that after-market modification, rather than manufacture - design is the right focal point must bow to the facts that many motorcyclists run original equipment and the motorcycle industry can sell "quiet" in the future as well as it has sold noise in the past.

Noise, as much as other aspects of motorized transport, is a cost which should be charged to motorists.

MOTORCYCLE NOISE TESTIMONY

Mr. Roger Hagie, Kawasaki: Kawasaki supports the proposals of the Motorcycle Industry Council. The proposal to designate calendar year instead of model year is more appropriate for the motorcycle industry. The proposals, including the off-road motorcycle category with lighter standards, will retain a strong noise regulatory scheme without sacrificing dealerships in Oregon.

The present 83dba standard in Oregon is based on worst-case operation which is not representative of general use.

Acknowledged existence of loud motorcycles is not attributable to newly sold motorcycles which have not been altered by their owners. Exhaust modification is a primary reason for owner-perpetuated noise increase.

Focus on exhaust-related noise has been shifted under ever-tightening standards to the costly focus on intake and mechanical noise sources on motorcycles whose result is often translated into higher cost and lower performance. The benefit has grown beyond cost-benefit justification.

Reductions in noise as required under current regulations would result in the possible elimination of many motorcycle models on the market, the elimination of existing, quiet models from a class containing many loud, older models, and an insignificant reduction of sound in normal operational modes. Further, no solution to the predominant problems of after-market modification would result.

It is often found that those models which "test" loudest are quietest in normal operation (particularly the larger, touring bikes whose sale constitutes a substantial part of dealer profit).

Oregon should be in step with virtually all other jurisdictions which base regulations on calendar year instead of model year. Calendar year designation facilitates enforcement because the date of manufacture is stamped on the frame of each vehicle.

The purposes served by off-road motorcycles required design within a more taxing parameter than street machines require. Dictated are more severe technological

barriers. Present regulations would forbid the sale of many off-road models in Oregon, despite their acceptance elsewhere. The Motorcycle Industry Council proposals would maintain noise control and allow presently forbidden recreation and revenue to Oregon's people.

No benefit in ambient noise levels will be served by focus on new motorcycles as is set forth in the current regulation. The culprit to be addressed is the user of the old or modified motorcycle.

Mr. Allan Isley, Motorcycle Industry Council: Most larger motorcycles (over 170 cc) are not capable of meeting the existing dba standard for 1977. By specifying 80dba for 1977 Oregon motorcycles, Oregon is alone with the most stringent requirement of any state. To effectuate the standard, even if such were possible for all motorcycles, the cost of an Oregon-only configuration would be prohibitive.

The muffling of exhaust and air intake which, in the main, have resulted in 83dba motorcycles will have to be supplemented by costly, dynamic, integral design changes in order to increase noise reduction. These changes must compete with other, stringent requirements being placed on an industry with moderate resources. Exemplary is the requirement for major new innovations to reduce exhaust emissions, an effort whose technology sometimes runs directly counter to noise reduction efforts. The mid-1974 adoption of the Oregon standards occurred only one year prior to the finalization of design for the 1977 industry model year, an insufficient amount of time for preparation by the industry.

The 1979 increment to 75dba is unworkable with any known technology for all but a few motorcycles. The quietest, large motorcycle in production today, a large touring bike, incorporates extensive intake and exhaust muffling, water cooling, shaft-drive, and other devices which contribute to the bike's 650 weight and \$3,000 plus cost. This bike will not meet the 75 dba standard. The 75dba goal, laudable though it is, cannot be implemented in Oregon in the near future.

The present standard for off-road bikes has resulted in a sufficiently quiet bike. Moreover, the design options to further reduce noise on this type of vehicle are more limited than with street bikes. The nature of its use dictates agility for the off-road bike. Increased width, and weight (results of noise-reduction add-ons) are particularly detrimental to the design of off-road bikes. These bikes employ the lighter, louder single cylinder engines and are in need of various innovations, including high clearance exhaust systems to insure lightness and low gravity. Without such features, the bike would not serve its off-road rider with appropriate reaction to steering input, drive-wheel acceleration, shifting of the body weight, or other handling aspects. Further, the knobby tires which optimize off-road use without contributing to off-road noise cause increased noise on pavement. Pavement is called for by the test conditions. (The Motorcycle Industry Council submitted additional materials, including a digest of current noise regulation in other jurisdictions.)

Finally, provisions should be made for practicing with racing vehicles as well as for their use in sanctioned events.

Mr. John Walsh, Suzuki: Excessive noise emissions as addressed in this statute

are primarily due to older motorcycles and those whose noise control devices have been tampered with at the operator-level. This contention is borne out by some 92% of the enforcement activities of the California Highway Patrol. Experiences in Lakewood, Colorado, and on the New Jersey Turnpike have been reported as similar. It is inferrable that Oregon's problem is much the same.

Studies show a 13-15 decibel increase in noise attends the average modification of stock motorcycles. Hence, the most efficient focal point for noise control efforts is not the reduction of noise limits for manufacturers, but is the enforcement of anti-tampering laws for in-use motorcycles.

A survey conducted by the Motorcycle Industry Council in Portland indicates that, under cruise conditions between 25-35 miles per hour, stock motorcycles make no more noise than automobiles which are stock. Standard trucks and buses were found significantly louder, even louder than modified motorcycles.

Suzuki is willing to help Oregon in its endeavor to enforce existing standards.

The use of the Motorcycle Industry Council's certified exhaust system program would be a step toward efficient enforcement.

The retention of the present rules will leave Oregon substantially out of alignment with regulatory schemes of several states, making necessary a loss of revenue from sales of motorcycles and its attendant economic hardships. For Suzuki dealers, this loss is projected to be \$500 to 900,000 in retail sales (from 30% to 60% of the total Suzuki market). Suzuki concurs with the statements of the Motorcycle Industry Council pointing out the limited engineering characteristics inherent to motorcycles (lack of space, lack of shrouding, etc.). These make it more difficult to reduce motorcycle noise than to reduce auto noise.

Suzuki urges the Commission to grant the petition of the Motorcycle Industry Council.

Mr. Ray Tarter, Apache-Yamaha Sales of Ontario: The current standard for motorcycles is sufficiently quiet. The proposed increment is too severe. The affidavit by buyers of intent to race is abused by many who simply sign the affidavit and then use the vehicle for off-road recreation in general.

Mr. J. L. Heisfeld: (Mr. Heisfeld lives at S. E. Yamhill and 30 Avenue in Portland, Oregon.) The noise problem is serious and is aggravated by a nearby motorcycle gang. This noise is very disturbing to older people who are unable to get a night's sleep because of it. Why is it that rich organizations like General Motors are always able to get a postponement of rules intended for the health and welfare of the people?

Mr. P. H. Lynch: Motorcycles should be governed as strictly as autos. The levels of noise emitted by motorcycles now constitute both a health hazard and a nuisance.

Mrs. Ina C. Hamsik: There are two categories of motorcycle uses: the quiet ones and the ones who enjoy the noise. The noise suggests power to the second kind of

rider, causing him to feel exhilaration. The basic issue is whether the manufacturers will be permitted to sell loud bikes to the second category of user at the expense of the general public.

Mr. William F. Fry: The noise of motorcycles interrupts peace and quiet in the wilderness. The off-road bikes, if they are to have a different standard, should have a stricter standard. The DEQ should be given the necessary funding to enforce the present standards by writing citations for violators.

Mr. Michael L. Rackham: A hiking trip in Mt. Hood National Forest this summer brought only constant sound of motorcycles from several miles away. The noise is not absorbed by brush and trees. Please impose tighter controls.

Mr. Russell Jura: The Motorcycle Industry Council petition will fully protect the health and welfare of Oregon citizens and will avoid severe, unnecessary hardship to the motorcycle industry. It should be granted.

Mr. Ray Miennert, for Harley-Davidson Motor Company, Inc.: Mr. Miennert introduced a telegram from Mr. Jeffrey Bleustein into the record. The telegram said Harley-Davidson could not meet the standards other than the present 83 dba standard. The telegram added that the most cost-effective way to improve noise levels is enforcement of existing standards. It was contended that failure to change the current rules would cause many Harley-Davidson motorcycles not to be sold in Oregon. Mr. Miennert supported the Motorcycle Industry Council's petition and called for an 83 dba standard until at least 1981. Strong enforcement was urged. Presently, there is no technology to meet the standard.

Mr. Harold Moore, motorcycle dealer: The current increment will cost Mr. Moore his business. Mr. Moore asked for reasonable standards and invites persons in government to listen to the new products which he now sells at his dealership. The noise levels of new motorcycles are not objectionable now. Enforcement against modification of the quiet motorcycles is the key.

Mr. Frank Forster, member and Vice President of the Oregon Motorcycle Dealers Association and Director of the Oregon Motorcycle Riders Association: The users in organized groups take steps to quiet their motorcycles. The Motorcycle Industry Council's petition deserves support.

There are safety reasons which would argue for a certain level of noise: the motorcycle is not sufficiently visible to auto drivers and, if made too quiet, will not be sufficiently heard by auto drivers.

The noise levels from larger, four cycle motorcycles, while greater, are more harmonious than noise created by smaller engines. Attention should be paid to the quality as well as the quantity of sound.

Mr. Gene F. Walker, Harley-Davidson dealer: If the 80 dba standard is invoked, Mr. Walker's dealership will fail because Harley-Davidson needs two to three years to meet the standard. He could last for a year or so selling repairs and accessories. The 83 dba standard should be retained for the present.

Mr. Richard Martin, motorcycle dealer in the Phoenix-Medford area: Mr. Martin wishes to stay in business and would support reasonable noise rules that will allow his continued dealership.

Mr. Ed Lemppo, Albany motorcycle dealer: Mr. Lemppo is the immediate past president of the Oregon Motorcycle Dealers Association and Director of the National Motorcycle Dealers Association. Dealers are not adversaries of environmentalists. It would be instructive if Representative Whiting, the Environmental Quality Commission, and any other interested person in the agency would visit a dealership and hear how unoffensive the sound from new motorcycles is. There is a lack of understanding as to how quiet 83 dba actually is.

Standards quieter than 83 dba would result in one of two things: the motorcycle will not be offered in the 2% of the market represented by Oregon, or there will be a "Mickey Mouse" add-on such as is done now with the Honda C-250 whose crate muffler is immediately discarded by new owners with the result of more noise.

Mr. Wiley Livesay, Klamath Falls dealer of Harley-Davidson motorcycles: Mr. Livesay has been around motorcycles for 40 years and attests that they are quieter today than ever. The only remaining problem is the problem caused by illegally modified bikes. Riders frequently ask Mr. Livesay to modify their motorcycles (and receive his refusal to do so). The quieter the motorcycles are made, the more riders wish to illegally modify them.

Mr. Kenneth Carlson, Mt. Scott Motorcycle Club, Inc.: The Motorcycle Industry Council petition should be granted.

New motorcycles are often quieter than automobiles. The problems are the older ones and those that have been modified.

The Hearing Officer's questioning whether off-road motorcycles should be quieter than street motorcycles is out of point because, as a member of a club that uses off-road motorcycles, Mr. Carlson finds that there are areas that are suitable primarily for motorcycles and there is little conflict with other users. Also, there are a lot of areas where motorcycles are not allowed.

Noise levels are decreasing as the standards come into effect on newer motorcycles. Standards should be slightly higher for off-road motorcycles than for those used on the street. There is no conflict with other user groups. For example, the Mt. Scott Motorcycle Club operates in the Tillamook Burn area which is not suitable for hiking. Also, the Bureau of Land Management and the Forest Service have granted approval for the Mt. Scott Motorcycle Club to use desert areas for a benefit race which occurred recently.

In helping to identify off-road motorcycles, it is feasible to use a sticker, or label. Removal could be a problem but few riders would remove the label. Fixture to the frame would be the most durable location for the identification tag.

Mr. Jack Allen, Harley-Davidson motorcycle dealer from Myrtle Creek: Harley-Davidson of Douglas County in Roseburg doesn't want to be put out of business.

Mr. Ed Hughes, Oregon Motorcycle Dealers Association: Oregon Motorcycle Dealers Association has 75 members at present. OMDA concurs wholeheartedly with the proposals of the Motorcycle Industry Council.

In addition, with regard to Oregon Administrative Rules Chapter 340, Section 35-025 (5)(a): Delete "notarized" and insert "certified." Make the same correction in other parts of the rule. These changes are consonant with ORS 483.448 and will avoid needless inconvenience and notarial fees.

Mr. Russell Juror, of Yamaha: Yamaha supports the petition and the testimony of the Motorcycle Industry Council.

TESTIMONY REGARDING AUTOMOBILE NOISE REGULATIONS

American Motors: Under the present Oregon regulations calling for a standard of 75 dba for 1979 and new cars, American Motors would be required to engage in development, testing, and certification of new exhaust, induction, and cooling systems whose cost would be distributed to the Oregon consumer as an option for Oregon-only buyers. This constitutes a measure which is not cost-effective and which should be avoided by deleting the 5 dba incremental reduction in noise for 1979 cars.

Ms. Gayle Shaffer, representing General Motors: Ms. Shaffer addressed and supported the general statement of General Motors as entered into the record in written form. She commented specifically on General Motors' position regarding the 75 dba limit for 1979 cars and the need for a separate set of regulations for busses.

A summary of General Motors' written statement follows: The 1979 model limit of 75 dba for cars and light trucks should be rescinded. The current test procedure is at wide open throttle in low gear. This mode of driving constitutes less than half of 1% of the 15% acceleration time which is normal to urban drivers. Further, current vehicles designed to meet the 80 dba standard test out lower than 80 dba and are, at normal acceleration and cruise modes, productive of noise in the mid to low 60 dba range. Florida's experience was that even older models, built to reach 84 or 86 dba in a test, rarely exceed 70 to 72 dba in normal use.

At 35 miles per hour and above, tires are the controlling source of noise in urban driving.

Industry-wide, it would cost \$30 per car and \$123 per truck to meet the 75 dba standard. The cost of an "Oregon-only" model would be even higher. It would, based on the figures above, cost 7.2 million dollars annually to Oregon car buyers. This figure would apply even if the 75 dba costs were a nation-wide expense of doing business.

There is no significant correlation between reduction in sound during wide-open throttle and reduction of noise at other, more typical modes.

The 80 dba level for medium and heavy-duty trucks should be postponed until January 1, 1982, to coincide with EPA standards. As it is now, trucks sold in Oregon must be equipped with an optional package to meet the 1976 standard of 83 dba. This package ranges from \$50 to \$750, depending on the truck model.

The arrangements cited above put Oregon dealers at a competitive disadvantage. Purchases from dealers in other states will increase with the inception of the new 80 dba for 1979 models.

Piecemeal regulation by applying the 80 dba standard to trucks and buses ranging between 4 and 10 tons is inappropriate. This category of vehicle is not subject to the pre-emptive EPA regulations.

Buses should not be subject to the proposed 80 dba standard. They should be a separate category whose further regulations should await the outcome of a May, 1977 EPA regulation. In addition, significant efforts to control the noise of motor coaches has largely failed, pointing out the need for extensive new study which General Motors hopes to have available in late 1976. The Commission's standard will only be pre-empted by the EPA standard and Commission action should await this study.

General Motors concurs in the use of a 10,000 pound threshold to distinguish between light vehicles and heavy vehicles. General Motors also concurs in the specification of date of manufacture, rather than model year, as a designation of applicability of these regulations. Such provisions would be in uniformity with other jurisdictions and other areas of regulation, such as safety standards.

The category "buses" will ultimately be further subdivided if the Environmental Protection Agency accepts the suggestions of General Motors.

ORS 467.010 empowers the Commission to adopt "reasonable" noise standards. The legal definition of "reasonable" means "customary," "moderate," "usual," "average," "ordinary," and so on. This does not empower the Commission to adopt standards that would force manufacturers to go to extraordinary efforts to meet them.

Also, the 80 dba truck standard will not result in any appreciable state-wide reduction in noise levels and will be outside the intent of the enabling statute.

The 75 dba standard suffers from the same defects mentioned above.

Imposition of the present 1979 standards will create severe marketing difficulties in Oregon and will prevent the sale of many General Motors model-year vehicles in Oregon in 1979 because, where re-tooling is needed to meet the standard, it is too late to retool. Also unreasonable additional expense will make some models practically unmarketable.

Mr. John Damian, for Ford Motor Company: While acceptable at higher decibel levels to identify cars with defective exhaust systems and so-called "muscle" cars, the present wide open throttle at low gear which the Department imposes should not be used to identify autos exceeding 80 dba standard. Operation at wide open throttle in low gear is a rare mode of urban travel which is not representative of vehicular noise in a typical urban environment. Reduction of noise levels below 80 dba in low gear at wide-open throttle would not translate into any meaningful reduction in community noise.

The Department's staff, on April 4, 1976, was given a drive-by demonstration of cars and light trucks to compare those meeting the 80 dba with those modified to meet the new 75 dba standard. Most observers of this multi-mode, drive-by test agreed

that, in modes more typical to urban driving than the current test mode, the difference between 80 and 75 dba vehicles was very minor in terms of perceived noise levels.

Jurisdictions such as California, Grand Rapids, Michigan, Florida, and Maryland have either abandoned or deferred requirements that vehicles pass a test more stringent than the 80 dba level. Others, including Cook County, Des Plains and Chicago, are considering postponement.

The price tag for a 75 dba car would be \$70 per car in 1979 dollars. Light trucks would cost \$185 per vehicle. These prices are based on an Oregon-only projection.

Many of the engineering decisions for the 1979 models (such as the engineering for certification of federal air pollution standards) have been made and there remains little flexibility of design to meet the new noise standard imposed by Oregon.

Ford recommends retention of the present 80 dba standard and a deletion of the increment to 75 dba. By way of information, EPA and others are now in the process of attempting to determine a test more reflective of actual urban noise from vehicular sources than is the current test. Part of this effort is Ford's search for representative, simple stationary tests.

Change to a calendar year, as opposed to a model year, would align Oregon with all other regulatory jurisdictions. It would make enforcement simple due to the presence of the manufacture date on the vehicle's certification label.

Busses, inherently different from trucks in terms of their sound configuration, should be separated from trucks in any regulatory scheme. The standard for busses should remain at 83 dba pending the outcome of the EPA regulatory activities.

The gross vehicle-weight classification for trucks should be changed from 8,000 to 10,000 pounds to achieve alignment with other jurisdictions in other areas of regulation, such as that of safety standards.

The staff-proposed adoption of an exemption for the sale of "racing" motor vehicles should be adopted.

The amendment of Oregon's heavy-truck regulations to conform to the pre-emptive EPA regulations should not be done. Chrysler and four other companies have initiated judicial review of EPA regulations based on many allegedly unlawful provisions contained therein.

Pending adoption by the Society of Automotive Engineers of new stationary test procedure for front-engine, light-duty vehicles, the Department should not revise its rules.

For the sake of uniformity, the Commission's regulations should conform to those of EPA-ONAC, and DOT-BMCS for heavy duty trucks required to undergo stationary testing. The federal noise act requires any state regulations to be uniform as applied to

interstate motor carriers unless the EPA Administrator permits deviation.

Mr. Nick Miller, representing International Harvester: International Harvester enjoys 20% of the sport-utility market in Oregon and 26% to 58% of the "truck and bus" market. IH supports the maximum use of available technology to make quiet vehicles and IH has pioneered in this field.

IH joins others who support the removal of the 80 dba limit on trucks until 1982. IH feels this would conform to EPA requirements and bring about the uniformity intended by the Noise Control Act of 1972.

The Commission should change its rule to designate trucks by year of manufacture instead of model year. Trucks should be defined as vehicles weighing over 10,000 pounds (GVW). In addition to uniformity with EPA, this change would more accurately reflect the average breaking point (in weight) between recreational-private vehicles and those used strictly in commerce.

The Commission should adopt the suggestions of other car makers to rescind the 75 dba for passenger cars and light trucks.

A study Bolt, Deranek, and Newman which concluded that the most annoying noises related to vehicles are those associated with "hot rodding" reinforces the contention that the use of stricter enforcement of existing levels would be more cost-effective than imposing the 75 dba standard in a tough procedure that has little correlation with actual driving habits.

The level of noise for buses should be a separate category of regulation with an 86 dba standard (rescinding the future increments to 83 and 86 dba). EPA regulations will soon preempt this field.

The Commission should adopt a standard for in-use vehicles of 95 dba using the MVMA test procedure (8 inch high microphone at 20 inches from tailpipe of stationary vehicle and 45 degrees away from outlet axis). Such a method would readily identify gross offenders.

The EPA regulations for inter-state motor carriers should be adopted as part of the Oregon regulations.

Objectionable are the stationary test standards for "all other trucks" as defined in ORS 481.035. This leaves a separate standard for trucks not engaged in inter-state commerce. These trucks, too, should be subjected to the same standard as has been adopted by the EPA.

There should be imposed a stationary test with measurements taken at 50 feet. Levels of 88 dba for in-use vehicles made before 1976, 86 dba for newer vehicles made before 1982, and 83 dba for still newer vehicles would agree with the recommended addition of 3 dba over the drive-by limits from manufacturers and 1 dba deterioration. These figures would provide a real improvement in community noise levels and are realistically achievable.

The standards for vehicles of all kinds in the over-35-mile category should be set aside. At these speeds, tire noises are the major component whose improvement is beyond present technology.

It is impossible for enforcement personnel to determine the model year, interstate commerce involvement, and noise level as a traveling vehicle passes. Hence, the levels (except the 86 dba level) for trucks going less than 35 miles per hour should be set aside as impractical of enforcement.

Mr. Don DuBois, representing the Environmental Protection Agency: (The Environmental Protection Agency whose representatives were present at the hearing was asked to state its position regarding the proposed rule changes.) The automobile manufacturers can produce vehicles which will reach the 75 dba limit at a cost of \$30 to \$75 per vehicle. Florida and Chicago has retained 75 dba standard and so should Oregon, at least until the completion of EPA studies in early 1977. These studies include studies on the "Chase car" experiment of General Motors. Interpretation of this study is still open to question.

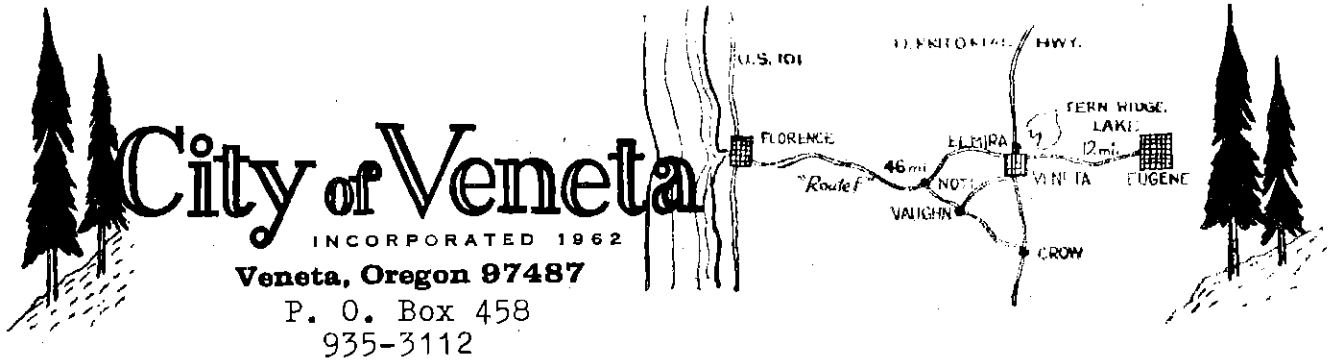
Pierre's Motors Racing: The "racing vehicle" definition is too wide in scope. The affidavit-procedure for buyers of single-seat racing vehicles should be revised.

RECOMMENDATION

Your Hearing Officer makes no recommendation in this matter.

Respectfully submitted,

Peter W. McSwain, Hearing Officer



August 26, 1976

TO WHOM IT MAY CONCERN:

This letter is to inform you that the projected completion date of the current construction project providing sewer to the First Addition to Blek Homes Subdivision on Oak Island Drive is the latter part of September. Hookups to the sewer will be available approximately October 1, 1976.

CITY OF VENETA

Brian D. Sheffield
City Recorder



DEPARTMENT OF ENVIRONMENTAL QUALITY

JUN. 24 REC'D

1234 S.W. MORRISON STREET • PORTLAND, ORE. 97205 • Telephone (503) 229- 5372

ROBERT W. STRAUB
GOVERNOR

June 23, 1976

Mr. R. Randall Taylor
Attorney at Law
25038 McCutcheon Avenue
Post Office Box 247
Veneta, Oregon 97487

Re: DEQ vs. Taylor
(LQ-MWR-76-91)
(LQ-MWR-76-117)

Dear Mr. Taylor:

I have forwarded to the Hearing Officer, Peter McSwain a copy of your "Answer" to the Department's May 28, 1976 Amended Notice of Violation and Required Remedial Action (LQ-MWR-76-91). Your "Answer" which came through our regular mail was received by me on June 21, 1976 just two days before the scheduled hearing. On June 22, 1976, I attempted to contact you by phone and you were reportedly on vacation and unavailable. I left word with your secretary that I had made a motion to the Hearing Officer requesting that the hearing be held on June 23, 1976 as scheduled.

The Department has spent money and time preparing for the hearing offered to you and we had personnel from Portland in Eugene ready for the hearing. The matters you raised in your "Answer" are "issues of fact" that could be argued in the hearing. I informed your secretary that the Department would attend the hearing as scheduled and would present our prima facie case to the Hearing Officer. It is the Department's position that your failure to attend the hearing constitutes default on your part pursuant to Oregon Administrative Rules, section 340-11-120(2). The Department intends to proceed immediately with the assessment of civil penalties pursuant to an affirmed Order or pursuant to the Notice of Violation and Intent to Assess Civil Penalty (LQ-MWR-76-117) dated May 28, 1976. Your violations constitute a serious danger to public health.

If you have any questions, please feel free to call me.

Sincerely,

LOREN KRAMER
Director

David W. O'Guinn, Supervisor
Investigation & Compliance



June 18, 1976

David W. O'Guinn
Dept. of Environmental Quality
1234 S.W. Morrison St.
Portland, OR 97205

Re: Department of Environmental
Quality v. R. Randall Taylor
Amended Notice of Violation and
Required Remedial Action

Dear Sir:

I hereby request the opportunity for a hearing. I deny each and every material matter contained in the Amended Notice of Violation and the whole thereof.

As I read the Amended Notice of Violation, the Department has changed position substantially. The date of the alleged violation has been changed from April 16, 1975 to February 6, 1976 and continuing through the present. Furthermore, I understand the nature of the violation to be a subsurface sewage disposal system failure.

I would move the Department to provide me with a more detailed statement of how the system, in the Department's contention, has failed and what specific ground and water areas were or are the subject of discharging sewage, the amount thereof, and the damage caused thereby.

I move that this matter be abated until the Department and myself may determine what the required remedial action is. In support of my position I am enclosing a letter dated November 7, 1975 from the Midwest Region. It is my position that the Department may determine that the system is not repairable and the system shall be abandoned pursuant to Section 71.018. It is my position that the department should aid in a solution to the problem as indicated in their letter of November 7, 1975.

David W. O'Guinn
Dept. of Environmental Quality
June 18, 1976

- Page 2 -

Regarding the hearing date set for June 23, 1976, be advised that I have scheduled my vacation for the week of the Olympic Trials in Eugene. I intend to call witnesses on my behalf and due to the Amended Notice filed by the Department, I have not had sufficient time in which to contact these witnesses. Furthermore, I would request a ruling on the questions raised in this letter. I do not plan to attend the hearing on the scheduled date unless notified otherwise. My calendar is filled for only four (4) days during the month of July and I should make myself available during that month.

By way of answer and affirmative defense I would allege as follows:

1. The requirements of Lane County Sanitation Department have been completed to their satisfaction and the Department has estopped extending, modifying or altering the completed system. I would incorporate the Exhibits already submitted and incorporated in your file.

2. I have taken all feasible steps and procedures necessary and appropriate to correct any alleged violation.

3. The gravity and magnitude of the alleged violation is de minimus.

4. I have no control of the surrounding property between the alleged failing system and the unnamed creek.

5. The degree of difficulty to correct the alleged violation is economically prohibitive.

6. City sewer facilities are scheduled to be completed in August, 1976.

I shall contact my office during my week of vacation to see if you have replied to my letter.

Very truly yours,

R. Randall Taylor

RRT/jo

rec'd June 10, 76



DEPARTMENT OF ENVIRONMENTAL QUALITY

1234 S.W. MORRISON STREET • PORTLAND, ORE. 97205 • Telephone (503) 229- 5372

ROBERT W. STRAUB
GOVERNOR

May 28, 1976

H A N D D E L I V E R Y

Mr. Randall Taylor
87698 Oak Island Drive
Veneta, Oregon 97487

Re: Amended Notice of Violation and
Required Remedial Action
LQ-MWR-76-91
Lane County

Dear Mr. Taylor:

Based upon a prima facie case made on the record before me:

I. Pursuant to Oregon Revised Statutes (hereinafter referred to as "ORS") 454.635(1), (2), and (3), you are hereby notified that the Department of Environmental Quality (hereinafter referred to as "DEQ") finds that it has reasonable grounds to believe that from on or about February 6, 1976 through present, you have operated and maintained a sub-surface sewage disposal system under your control, located at Tax Lot #2108 Section 6, T17S, R5W, W.M., Lane County, Oregon, in violation of Oregon Administrative Rules (hereinafter referred to as "OAR"), Chapter 340, Sections 71-011(1), 71-012(1), and 71-020(1)(c), in that your system failed and thereby caused sewage from your system to discharge into an intermittent unnamed creek, tributary to Fern Ridge Reservoir, headwaters of the Long Tom River (Waters of the State).

II. Pursuant to ORS 454.635(3), OAR Chapter 340, Section 71-020(1), and in order to obtain compliance with the Rules (OAR Chapter 340), I hereby order you to within ten (10) days from receipt of this notice, (1) obtain a permit to repair from the DEQ or its authorized representative, (2) make all corrections necessary to bring your subsurface sewage disposal system into compliance with the rules, statutes, and conditions of your permit, (3) have your system inspected, prior to backfilling any excavations, by the DEQ or its authorized representative, and (4) obtain a "Certificate of Satisfactory Completion" from the DEQ or its authorized representative. All work shall be done personally by you or by a person holding a valid sewage disposal service license issued by the DEQ.

Mr. Randall Taylor
May 28, 1976
Page Two

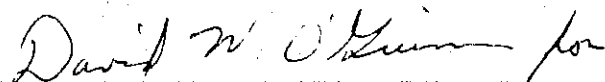
III. For your information, attached hereto are copies of ORS 454.635, 454.655, 454.695, and OAR, Chapter 340, Sections 71-011, 71-012 and 71-020.

IV. You have the right, if you so request, to have a formal contested case hearing before the Environmental Quality Commission or its hearing officer regarding the matters set out above, pursuant to ORS 454.635(3) - (5), ORS Chapter 183, and OAR, Chapter 340, Division 11, at which time you may be represented by an attorney and subpoena and cross-examine witnesses. Such a request must be made in writing to the Director of the DEQ and must be received by him within ten (10) days of receipt of mailing or personal delivery of this notice and must be accompanied by a written "Answer" to the charges contained in this letter. In the written "Answer" you shall admit or deny each allegation of fact contained in this letter and you shall affirmatively allege any and all affirmative defenses you may have to this order and the reasoning in support thereof. The consequences of a failure to answer are outlined in OAR, Chapter 340, Section 11-107, a copy of which is enclosed herein. Following receipt of such request, you will be informed of the date, time and place of the hearing. If no such request is received by the Director within ten (10) days of the mailing of this notice, the order contained in Paragraph II above shall become a final and enforceable order of the Environmental Quality Commission without any further proceedings.

V. Questions you may have regarding this matter may be directed to the Lane County Department of Environmental Management or to Mr. Daryl Johnson of our Midwest Regional Office in Eugene at 686-7601.

Sincerely,

LOREN KRAMER
Director



Fred M. Bolton
Administrator
Regional Operations

LMS:bw

Enclosures

cc: Daryl Johnson, Midwest Region, DEQ
Roy Burns, Lane County Department of Environmental Management
Land Quality Control, DEQ
John Vlastelicia, Oregon Operations, EPA
Raymond P. Underwood, Legal Counsel, Department of Justice
Peter McSwain - Hearings Officer, EQC



CERTIFIED MAIL
Return Receipt Requested

ENVIRONMENTAL QUALITY COMMISSION

JUN 8 REC'D

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

ROBERT W. STRAUB
GOVERNOR

May 26, 1976

Mr. Dave O'Guinn
Department of Environmental Quality
1234 S. W. Morrison Street
Portland, Oregon 97205

Mr. R. Randall Taylor
Taylor and Taylor
Attorneys at Law
P. O. Box 247
Veneta, Oregon 97487

Re: Department of Environmental Quality
v. R. Randall Taylor. (Notice of
Violation and Required Remedial
Action. LQ-MWR-76-91)

Gentlemen:

ORS 183.415 requires that Respondent, Mr. Taylor, be provided a "short and plain statement of the matters asserted or charged." Arguably, the entire context of Department's Notice of Violation and Required Remedial Action would support the inference that the alleged failing system caused sewage to discharge into waters of the state in the vicinity of Tax Lot #2108.

It would seem improper for Respondent to be required to prepare his case in the hope that such inference is correct and without more precise knowledge of where Department contends the discharge took place.

We infer that ORS 468.770 is intended instead of ORS 467.770 in Department's Notice.

Dave O'Guinn
Randall Taylor
Page 2
May 26, 1976

However, the issue of whether "you have discharged sewage (a polluting substance) into an unnamed creek..." is too "short and plain" a statement would go to the adequacy of its "specifying the violation" for purpose of ORS 468.125. Such an issue might arise if there were assessed a civil penalty based on the statement (as opposed to any actual notice Department might allege).

The issue at present is whether the Commission should affirm or deny the remedial action order. For such purpose, the statement serves adequately in describing the "extent" of the alleged violation, such violation being the alleged operation or maintenance of a disposal system in violation of OAR Chapter 340, sections 71-011(1), 71-012(1), and 71-020(1)(c). See ORS 454.635(2)(b). As to this latter issue, Department's statement apprizes Respondent adequately. Taken together, the allegations pertaining to the discharge of sewage on the ground surface and into public waters inform of the extent of the violation alleged.

While the statement contains conclusions of law (as it must under ORS 183.415) it also sets forth ultimate facts which, if proven, would constitute grounds for affirmation of Department's order.

We do not find the Department obliged to allege the specific physical cause of the violation or that the alleged violation was negligent or intentional.

It appears Department has set forth the manner of its claimed violation in that Department alleges failure of the system.

However, Department may have five days from the date hereof in which to provide this office and Respondent with a more detailed statement of how the system, in Department's contention, has failed and what specific ground and water areas were or are the subject of discharging sewage.

Should Department decline to do so, we will hear any motion Respondent may care to make after Department rests its case, such motion to be with regard to whether Respondent should have additional time in which to meet the agency's case, including any additional or amended pleadings sought to be filed.

Respondent may, within fifteen days hereafter, file such additional or amended pleadings as he elects. This arrangement is deemed substantially to comply with Respondent's request and protect his right to prepare his defense.

Dave O'Guinn
Randall Taylor
Page 3
May 26, 1976

NOTICE is hereby given that hearing on this matter will commence at 10:30 a.m. on Wednesday June 23, 1976 in the Conference Room of Department's Regional Office at 16 Oakway Mall, Eugene, Oregon.

Please inform this office promptly of any objections, questions, or conflicts regarding the above arrangements.

Sincerely,



Peter W. McSwain
Hearing Officer

PWS:1b

cc: Robert Haskins
cc: Midwest Region, DEQ
Terry Sylvester

May 18, 1976

Loren Kramer
Director of D.E.Q.
1234 S.W. Morrison Street
Portland, Oregon 97205

Re: Answer and Application for
Hearing of R. Randall Taylor

Dear Mr. Kramer:

I acknowledge receipt of your notice of violation by personal delivery on May 11, 1976. Please be advised that I deny each and every material matter contained in the notice and the whole thereof. Furthermore, I request the opportunity for a hearing.

When I refer to your first paragraph regarding the nature of the violation, your allegations are so indefinite or uncertain that the precise nature of the violation or the number of defenses available are not apparent. Your notice contains allegations of general conclusions.

Your notice refers to a prima facie case made on the record before you. I must conclude that you have knowledge and are in possession of these facts. I request that you affirmatively allege all material facts of the alleged violation with specific reference to the cause of the violation, nature and extent of the violation, dates of violation, and the manner, location and intent of the violation of ORS 467.770 and 164.785.

Without waiving any rights to plead further or to object to the pleadings of the director, and based upon paragraph IV of the Notice of Violation, I shall allege the following facts not inconsistent with my position set forth above.

Loren Kramer
May 18, 1976

- Page 2 -

1. The cause of the alleged violation was unavoidable, not negligent or intentional.
2. I have complied with and satisfied the requirements of the Lane County Sanitation Department. See, attached exhibits incorporated herein.
3. My economic and financial condition will not allow the imposition of a civil penalty.
4. City sewer hook-ups are scheduled to be completed in August, 1976.

Please refer to paragraph II of the Notice of Violation. I have complied with the first sentence of your order. Copies of these documents are included herein. Also, a copy of the receipt for pumping the septic tank is enclosed.

A conflict between ORS 454.635 (3) and DEQ 340-11-107 (1) should be resolved to allow me twenty (20) days to answer, not simply ten (10) days. Accordingly, I request an extension of ten (10) days in which to answer the notice or any supplemental notices filed herein. Please reply to this letter so that I shall know your position and how I am to proceed.

Very truly yours,

R. Randall Taylor

RRT/jo

Enclosures

PROPOSED SEWAGE DISPOSAL SYSTEM RECORD

INSTALLER: Complete top part of form to signature and submit both copies with application. PERMIT NO. 1725-75

INSTALLER'S NAME: Cecil Hood
 PROPERTY ADDRESS: 87698 OAK ISLAND VENETA

No. Living Units: _____ Bedrooms: (3) Baths: _____ Basement: Yes (NO) Water Supply: Public (X) Other-List: _____

Septic Tank: Ft. from well: _____ Steel Concrete No. Compartments: _____ Gal. Capacity: _____

Inside Dimensions: Ft. Length: _____ Width: _____ Diameter: _____ Depth: _____
 Tile Disposal Field: Distribution Box: Yes _____ No _____

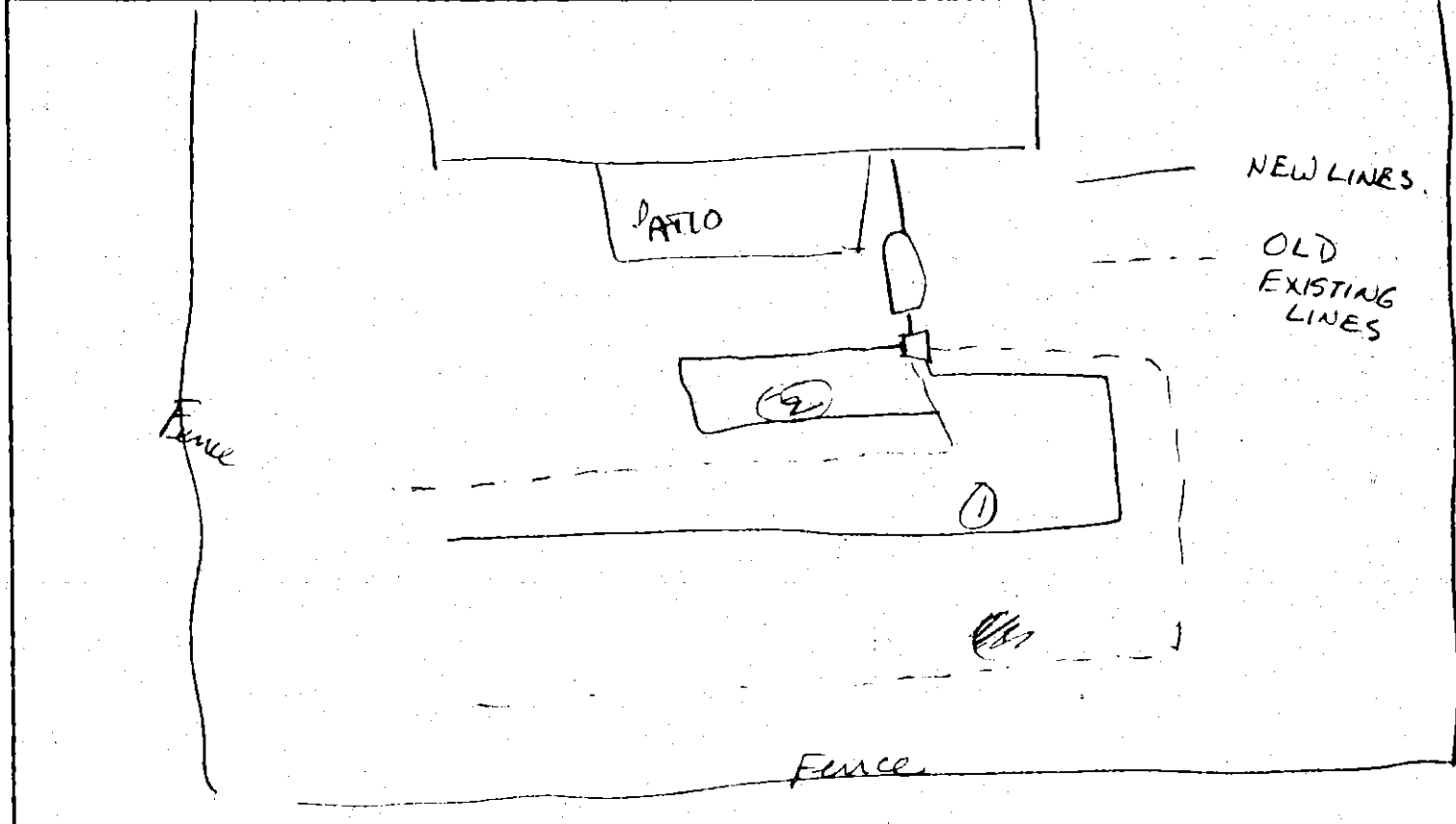
OWNER NAME: RANDY TAYLOR
 Other Distribution-Type: _____

MAILING ADDRESS: 87698 OAK ISLAND
 FEET FROM WELL: _____ FOUNDATION: _____

VENETA, ORE
 Lot Line: Front _____ Side _____ Rear _____

Length of Lines-Ft.			Trench	Total Sq.	Ft. Between	Filler	Filler Depth	Filler Below
1902-48.	4.	5.	6.	Width	Lines	Type	Above Tile	In. Tile

Plot Plan (see instructions):



Date: _____ Signature: _____

CERTIFICATE OF SATISFACTORY COMPLETION

For Sanitarian Use Only: In accordance with 1973 Oregon Laws Chapter 835, Section 214 this certificate is issued as evidence of satisfactory completion of a subsurface sewage disposal system at the above location. Date: 5-17-76

- Approved: System Installation conforms to current standards
- Disapproved: Does not conform to current standards

Remarks: THIS IS A REPAIR OF A FAILING S.D.S. THE MECHANICS OF THIS INSTALLATION WERE CORRECT. THE JOB WAS DONE ABOUT JUNE 1975.

C55-11 Sanitarian's Signature: [Signature] LANE COUNTY



DEPARTMENT OF ENVIRONMENTAL QUALITY

1234 S.W. MORRISON STREET • PORTLAND, ORE. 97205 • Telephone (503) 229-5372

ROBERT W. STRAUJ
GOVERNOR

May 3, 1976

H A N D D E L I V E R Y

Mr. Randall Taylor
87698 Oak Island Drive
Veneta, Oregon 97487

Re: Notice of Violation and
Required Remedial Action
LQ-MWR-76-91
Lane County

Dear Mr. Taylor:

Based upon a prima facie case made on the record before me:

I. Pursuant to Oregon Revised Statutes (hereinafter referred to as "ORS") 454.635(1), (2), and (3), you are hereby notified that the Department of Environmental Quality (hereinafter referred to as "DEQ") finds that it has reasonable grounds to believe that from on or before April 16, 1975, you have operated and maintained a subsurface sewage disposal system under your control, located at Tax Lot #2108, Section 6, T17S, R5W, W.M., Lane County, Oregon, in violation of Oregon Administrative Rules (hereinafter referred to as "OAR"), Chapter 340, Sections 71-011(1); 71-012(1), and 71-020(1)(c), in that your system failed and thereby caused sewage from your system to discharge onto the surface of the ground which created a public health hazard. In addition, you have discharged sewage, a polluting substance, into an unnamed creek (waters of the State) in violation of ORS 467.770 and 164.785.

II. Pursuant to ORS 454.635(3) and OAR, Chapter 340, Section 71-020(1)(d), I hereby order you to repair such system and have such repaired system inspected and approved within ten days from receipt hereof. A "Permit to Repair" must be obtained from the Lane County Department of Environmental Management. All additional repairs requiring a permit must be made personally by you, or by a subsurface system installer who is licensed by the DEQ to perform such work. In addition, you shall pump your septic tank, and clean up all sewage that spilled onto the ground and dispose of it in such a manner so as not to create another health hazard.

Mr. Randall Taylor
May 3, 1976
Page Two

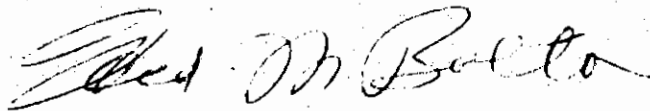
III. For your information, attached hereto are copies of ORS 454.635, 164.785, 468.770, 454.655, 454.695, and OAR, Chapter 340, Sections 71-011, 71-012 and 71-020.

IV. You have the right, if you so request, to have a formal contested case hearing before the Environmental Quality Commission or its hearing officer regarding the matters set out above, pursuant to ORS 454.635(3) - (5), ORS Chapter 183, and OAR, Chapter 340, Division 11, at which time you may be represented by an attorney and subpoena and cross-examine witnesses. Such a request must be made in writing to the Director of the DEQ and must be received by him within ten (10) days of receipt of mailing or personal delivery of this notice and must be accompanied by a written "Answer" to the charges contained in this letter. In the written "Answer" you shall admit or deny each allegation of fact contained in this letter and you shall affirmatively allege any and all affirmative defenses you may have to this order and the reasoning in support thereof. The consequences of a failure to answer are outlined in OAR, Chapter 340, Section 11-107, a copy of which is enclosed herein. Following receipt of such request, you will be informed of the date, time and place of the hearing. If no such request is received by the Director within ten (10) days of the mailing of this notice, the order contained in Paragraph II above shall become a final and enforceable order of the Environmental Quality Commission without any further proceedings.

V. Oregon Law provides for civil penalties of up to \$500 for each and every day of each and every violation cited herein except for violation of ORS 164.785 and 468.770 which carry fines of up to \$10,000 for each day of each violation.

Sincerely,

LOREN KRAMER
Director



Fred M. Bolton
Administrator
Regional Operations

LMS:gcd
Enclosures

cc: Daryl Johnson, Midwest Region, DEQ
Roy Burns, Lane County Department of Environmental Management
Land Quality Control, DEQ
John Vlastelicia, Oregon Operations, EPA
Raymond P. Underwood, Legal Counsel, Department of Justice

CHRYSLER - TELCOM 416-15-03
P. O. BOX 1919
DETROIT, MI 48231

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00025 MLIN VA 08/24/76

▶ ****CERTIFIED B 60****DT11060-B 6237-00002****
1100 416-14-31

****CERTIFIED****

MR. JOE B RICHARDS, CHMN
ENVIR. QUAL. COMM.
777 HIGH ST. P O BOX 1047
EUGENE, OREGON 97401

COPIES ALSO SENT TO-
MESSRS. JOHN HEDTOR, PETER W. MCSWAIN, HOWARD STIEB, DONALD C.
DUBOIS
JOE B. RICHARDS, M. K. CROTHERS, R. M. SOMERS, G.S. PHINNEY, AND
MRS.
JACKLYN L. HALLOCK, LOREN KRAMER.

DEAR MR. KRAMER-

ON FRIDAY, AUGUST 20TH, CHRYSLER CORPORATION RECEIVED A COPY OF
THE LETTER SENT TO YOU BY MR. DONALD C. DUBOIS, REGIONAL
ADMINISTRATOR,
REGION X, U.S. ENVIRONMENTAL PROTECTION AGENCY. WE BELIEVE THE
LETTERS
USE OF PARTICULAR PHRASEOLOGY AND THE OMISSION OF CERTAIN PERTINENT
FACTS, WOULD LEAD TO ERRONEIOUS CONCLUSIONS. FOR THESE REASONS,
CHRYSLER CORPORATION FEELS MOST STRONGLY COMPELLED TO SUBMIT THESE
COMMENTS AND TO MAKE KNOWN OUR POSITION.

IN HIS SECOND PARAGRAPH, MR. DUBOIS SAYS THE DATA PRESENTED BY THE
MANUFACTURERS ARE BASED ON ONE "CHASE CAR" STUDY CONDUCTED BY
GENERAL
MOTORS. THE PHRASE "ONE CHASE CAR STUDY" CERTAINLY CREATES THE
IMAGE
OF A VERY MINIMAL PROGRAM. IN POINT OF FACT, THE STUDY INVOLVED
2500
DRIVERS OVER 11,000 TEST MILES, IN 12 REGIONS THROUGHOUT THE UNITED
STATES, INCLUDING SUCH MAJOR CITIES AS ATLANTA, CHICAGO, DENVER,
DETROIT, NEW YORK, LOS ANGELES, PHOENIX AND SAN FRANCISCO; HARDLY
A MINIMAL PROGRAM.

MOREOVER, HE STATES THAT SEVERAL QUESTIONS ON THE INTERPRETATION OF
THE DATA WERE RAISED AT AN EPA HEARING AND HAVE YET TO BE RESOLVED.
HE DID NOT, HOWEVER, ADVISE THAT AT THAT SAME HEARING THAT THE
SAE J986A WIDE-OPEN THROTTLE TEST PROCEDURE IS INADEQUATE AS AN
EFFECTIVE MEANS OF MEASURING URBAN TRAFFIC NOISE LEVELS.

IN THE THIRD PARAGRAPH, MR. DUBOIS STATES "AFTER EVALUATING THE RAW


 western union Mailgram®


TEST DATA...THE STATE OF FLORIDA DECIDED TO MAINTAIN THE 75 DBA GOAL.

▶ WHILE THE STATEMENT IS TRUE AS FAR AS IT GOES, MR. DUBOIS NEGLECTED TO POINT OUT THAT THE STATE DID DEFER THE EFFECTIVE DATE FROM 1979 UNTIL JANUARY 1, 1981.

FURTHER, HE DID NOT ADVISE THAT THE DEPARTMENT OF ENVIRONMENTAL REGULATION FOR FLORIDA CONCLUDED THAT THE SOLUTION TO THE NOISE PROBLEM, IN THEIR OPINION, IS TO REQUIRE A NEW TEST PROCEDURE THAT MEASURES URBAN ACCELERATION NOISE LEVELS. FLORIDA CURRENTLY UTILIZES

— THE SAE J986A TEST PROCEDURE.

IN HIS FIFTH PARAGRAPH, MR. DUBOIS QUOTES A SOURCE THAT SAYS "THE AUTOMOBILE MANUFACTURERS RIGHT NOW CAN PRODUCE A 75 DBA CAR FOR 30-75 DLRS PER VEHICLE." AGAIN MR. DUBOIS NEGLECTS TO POINT OUT THAT

THIS ESTIMATE ASSUMES ALL CARS, NATIONWIDE, ARE SO MODIFIED. AS WE TRIED TO POINT OUT, AND AS MR. DUBOIS SHOULD REALIZE, ON A "ONE STATE" BASIS THESE COSTS WOULD PROBABLY BE APPRECIABLY HIGHER. MORE ESPECIALLY WOULD THIS TEND TO BE TRUE WHERE, AS IN OREGON, PASSENGER CAR SALES AMOUNT TO LESS THAN 1 PERCENT OF THE INDUSTRY'S TOTAL.

FURTHER, MR. DUBOIS SAYS THAT THERE IS A "POSSIBILITY" THAT EPA STUDIES "MAY" INDICATE A 75 DBA GOAL IS "REASONABLE" TO ACHIEVE. AGAIN, INDUSTRY HAS NOT SAID THAT A 75 DBA LEVEL CANNOT BE ACHIEVED. WE HAVE SAID THAT THERE IS NO DEMONSTRATED COST/BENEFIT RELATIONSHIP WHEN CURRENTLY ACCEPTED TEST PROCEDURES ARE UTILIZED. IN CALIFORNIA WHERE THE 75 DBA LEVEL WAS RESCINDED, AND IN MARYLAND, WHERE A RECISSION IS CURRENTLY PROPOSED, RESPONSIBLE STATE AGENCIES REACHED SIMILAR CONCLUSIONS. THE CALIFORNIA AGENCIES CONCLUDED "THERE PRESENTLY IS NO COST-EFFECTIVE WAY OF FURTHER REDUCING THE NOISE ON FREEWAYS PRODUCED BY NEW PASSENGER VEHICLES WHICH MEET THE PRESENT 80 DBA LIMIT." MARYLAND CONCLUDED "IT APPEARS UNREASONABLE TO IMPOSE FURTHER REDUCTIONS AT THE MANUFACTURING LEVEL, PARTICULARLY SO WHEN COST/EFFECTIVENESS IS UNKNOWN."

WE WOULD ALSO LIKE TO POINT OUT THAT, ALTHOUGH PRESENT, EPA WAS NOT PREPARED AND DID NOT SUBMIT TESTIMONY AT THE PUBLIC HEARING CONDUCTED

BY DEQ ON AUGUST 6, 1976. AT LEAST TENTATIVELY THE HEARING RECORD WAS TO BE CLOSED AS OF AUGUST 10TH. MR. DUBOIS LETTER IS DATED AUGUST 13TH AND WAS NOT RECEIVED BY US UNTIL AUGUST 20TH. WE HAVE HAD

A MINIMUM AMOUNT OF TIME TO STUDY THE LETTER AND DIGEST ITS CONTENT. IN OUR OPINION, HOWEVER, IT WAS MISLEADING AND WE FELT OBLIGED TO MAKE

THIS RESPONSE TO CORRECT SUCH MISCONCEPTIONS AS MAY HAVE COME TO EXIST.

SINCERELY JAMES H KILROY MGR STATE REL. CHRYSLER CORP HIGHLANDPARK MI

WU TXA PTL *

WU AGENT EUG

828P AUG 25

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ICS IPMRNCZ CSP

7145229194 TDRN BUENA PARK CA (08-25 0646P EST) 08-25 0901P EST

PMS JOE B RICHARDS, DUPLICATE OF TELEGRAM TELEPHONED, DLR

777 HIGH ST

EUGENE OR 97401

WE HAVE SERIOUS DIFFICULTIES WITH THE DEQ STAFF REPORT REGARDING MOTORCYCLE NOISE REGULATIONS. THE DEQ STAFF HAS IGNORED TECHNOLOGICAL TESTIMONY RECOGNIZED BY OTHER STATES, MIS-STATED THE EFFECT OF LOWER OFF-ROAD VEHICLE NOISE LEVELS, AND IGNORED VERY SEVERE ECONOMIC HARDSHIP THAT WILL RESULT FROM DEQ RECOMMENDATIONS. TECHNICAL TESTIMONY INDICATES SERIOUS PROBLEMS IN FURTHER REDUCING OFF-ROAD MOTORCYCLE SOUND LEVELS FROM LATEST DBA REDUCTION OF TWENTY MONTHS AGO. WEIGHT, STRUCTURE AND OTHER FACTORS MUST BE CONSIDERED IN DESIGN. DEQ STAFF DOES NOT DISCUSS THESE PROBLEMS, EVEN TO STATE THEY FEEL THEY CAN BE SOLVED IMMEDIATELY.

DEQ INSTEAD DISCUSSES ONLY THE CITIZEN COMPLAINTS BUT THESE COMPLAINTS ARE MAINLY FOR VIOLATIONS THAT DO NOT REFLECT THE NORMAL USAGE OF OFF-ROAD VEHICLES, ARE ALREADY PROHIBITED, AND WILL NOT BE EFFECTED BY REDUCING NEW OFF-ROAD VEHICLE SOUND LEVELS.

DEQ STATES THERE WILL BE LITTLE ECONOMIC HARDSHIP FROM ITS RECOMMENDATIONS. OUR FIGURES INDICATE SOME DEALERS WILL LOSE 35-40 PERCENT OF SALES. AVERAGE SALES LOSS WILL BE 20-25 PERCENT. THIS OBVIOUSLY WILL RESULT IN SEVERE HARDSHIP ON OREGON MOTORCYCLE DEALERS.

WE KINDLY REQUEST THE OPPORTUNITY TO BRIEFLY ADDRESS THE FULL EQC ON AUGUST 27 ON THESE MATTERS.

RUSS JURA YAMAHA INTERNATIONAL CORPORATION ENGINEERING DIVISION

NNNN



Since 1887

YAMAHA INTERNATIONAL CORPORATION

6600 ORANGETHORPE AVENUE • BUENA PARK, CALIFORNIA

MAIL ADDRESS: P.O. BOX 6600, BUENA PARK, CALIFORNIA 90622

PHONE: (714) 522-9011

August 25, 1976

Mr. Joe B. Richards
Chairman
Environmental Quality Commission
1234 S.W. Morrison
Portland, Oregon 97205

Dear Mr. Richards:

As you suggested in our telephone conversation I am sending you a copy of the testimony we would like to present at the August 27 EQC meeting. This testimony is very brief but we feel it is very important to illustrate the severe difficulties we have with the DEQ staff report.

We would very much appreciate the opportunity to present this brief testimony to the full EQC.

Sincerely,

Russ Jura
Engineering Division

RJ:jg

STATEMENT BY YAMAHA INTERNATIONAL CORPORATION
TO THE OREGON ENVIRONMENTAL QUALITY COMMISSION

AUGUST 27, 1976

Yamaha International Corporation distributes a full line of motorcycles to retail dealers in Oregon. As such we are extremely concerned with the Oregon motorcycle noise regulations.

Today we come forth to comment upon the staff report by the DEQ, and its recommendations to the Environmental Quality Commission. We disagree in many respects with the DEQ findings. Some of these disagreements deal with the overbroad, ill-informed generalizations to the entire motorcycle industry of factually unsubstantiated allegations.

Such generalizations, while incorrect, are not today the main cause of our concern. Instead we would like to discuss the glaring failure of the DEQ to even discuss the reasons for splitting off-road motorcycle noise levels from on-road motorcycle noise levels.

We feel that, based upon the testimony presented to the DEQ, the DEQ report should have recommended adoption of such a split. Instead, DEQ recommends rejection of such a split, despite the lack of one shred of substantive evidence to support the DEQ position.

In the testimony presented by the industry serious technological difficulties for further reducing off-road sound levels were raised. The problems of weight, structure, reduced space into which to place silencers, knobby tires, and other requirements were discussed.

These difficulties are not imaginary and are not just made up to justify higher sound levels for off-road motorcycles. They are real criteria that our engineers must face if the off-road machine is to perform the purpose for which it was intended. Other states have recognized these differences. But DEQ totally ignored these problems in spite of the fact that no evidence was presented to DEQ to contradict these technological facts.

Instead of dealing with technological issues DEQ bases its entire reasoning on citizen complaints about off-road vehicle noise. This is indeed a valid consideration.

However, in DEQ's staff report DEQ fails to recognize that the off-road noise problem most cited according to DEQ, that of, "...operations of motorcycles for several hours in one location, which is in close proximity to a complainant's house" results from the mis-use of off-road motorcycles, is already illegal, is not characteristic of general off-road vehicle use, and in no way will be affected by lowering new off-road sound levels.

We also question the DEQ's assessment of the economic impact of your actions. Under 1976 model noise limits the DEQ is correct; there is minimal hardship. However, under the 1977 model year reductions there will be severe hardships, a future ignored by the DEQ.

Over 20% of Yamaha sales last year were non-competition, off-road machines with sound levels such that they could not be sold as 1977 models. For individual dealers this figure is well over 33%. Adoption of the DEQ staff report would stop these sales.

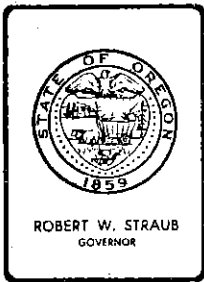
Yamaha, of course, will lose sales. But our dealers will be hurt even more -- some or many will go out of business, and they and their employees will be forced into unemployment.

This unemployment will be all the crueller because in a few years the EPA will establish regulations that will pre-empt the Oregon regulations. Those dealers left will sell those vehicles that meet EPA regulations, while those that were driven from business will be gone because they were in the wrong state one or two years too early.

And what, we question, will the citizens of Oregon gain? The DEQ argues peace and quiet. But this is not true. The noisy illegally used bikes will still be out there.

The noise problems that exists exists because of the lack of enforcement of current EQC regulations. The solution Oregon needs to control unreasonable motorcycle noise lies in DEQ enforcement of current regulations against illegal use. It does not lie in depriving honest workers of their employment and honest citizens of their leisure pursuits.

Such a price is a high price; a very high price indeed when the cause of the problem and the technological factors are considered. We believe that the EQC should not force such a price. It is not supported by the facts and it is not supported by need.



DEPARTMENT OF ENVIRONMENTAL QUALITY

1234 S.W. MORRISON STREET • PORTLAND, ORE. 97205 • Telephone (503) 229-5395

August 26, 1976

Mr. Fred VanNatta
Oregon State Homebuilders Association
565 Union Street
Salem, Oregon 97301

Dear Fred:

This is in response to your August 3, 1976 letter and in confirmation of your telephone discussion with Mr. Tony George on August 17, 1976. My staff advises me that residentially related parking can contribute as much to an air pollution problem as a commercially oriented lot. The reason is simple and not discriminatory -- it is that residences are the source of auto-person-trips in much the same proportion that commercial or business related parking lots are the destination. The impact of these indirect sources depends not on the type of development, but on the number of auto trips generated by the development and the propensity of these auto trips to cause or add to existing pollution problems on roads and highways. This is precisely why we call them "indirect sources." We have not, therefore, made a study or assembled data specific to residential structures except in connection with individual applications.

As to your advising your members to avoid projects in Portland, you may be advising them to forego increased profits with little or no risk of running afoul of our indirect source rule. Your advice to avoid major thoroughfares may be more appropriate. However, these decisions should be made in a prudent case by case basis. Our future administration of the new Indirect Source Rule should be very responsive to this point.

In addition we plan to have an Air Quality Maintenance Analysis for the Portland metro area complete this coming October or November. This analysis will delineate major air quality problem areas including areas with high CO levels. This information should be helpful relative to potential locations of indirect sources.



CONTAINS
RECYCLED PAPER

Mr. Fred VanNatta
Page 2
August 26, 1976

A copy of the standards you requested is attached.

If you have any additional questions or need more detailed information, please let me know or contact Mr. Anthony J. George, our Transportation Program Coordinator directly.

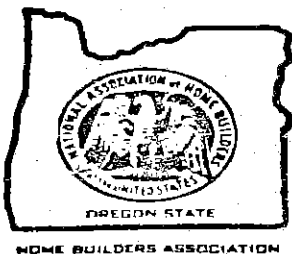
Sincerely,

A handwritten signature in black ink, appearing to read "Loren", with a long horizontal flourish extending to the right.

I OREN KRAMER
Director

AJG:1b

Attachment



OREGON STATE HOME BUILDERS ASSOCIATION

565 UNION STREET/SALEM, OREGON 97301

TELEPHONE 378-9066

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED

AUG 5 1976

1976 OFFICERS

WILLIAM COOLEY
President
2511 N.E. 132nd
Portland, Oregon 97230
256-3360

JIMMIE TAYLOR
Vice President
1100 S. Jackson St.
Albany, Oregon 97321
926-2275

DALE DEHARPPORT
Treasurer
9185 S.W. Oleson Road
Tigard, Oregon 97223
620-2234

DAN PLATZ
Secretary
23 Oakway Mall
Eugene, Oregon 97401
345-4347

HAROLD DUNCAN
Sergeant at Arms
6355 Mustang Court S.E.
Salem, Oregon 97301
749-2185

JAMES NISTLER
National Representative
406 West Main Street
Medford, Oregon 97501
773-7543

FRED VAN NATTA
Executive Officer

DAVID A. HAUG
Director of Field Services
and HOW

AFFILIATE ASSOCIATIONS

HBA of METRO PORTLAND
HBA of LANE COUNTY
HBA of SALEM
HBA of CORVALLIS
HBA of JACKSON COUNTY
HBA of JOSEPHINE COUNTY
HBA of ALBANY
HBA of KLAMATH BASIN
CENTRAL OREGON BUILDERS
HBA of SOUTHWEST OREGON
LINCOLN COUNTY BUILDERS
HBA of CLATSOP COUNTY
HBA of DOUGLAS COUNTY
NORTHEAST OREGON BUILDERS

August 3, 1976

Mr. Bud Kramer, Director
Department of Environmental Quality
1234 S.W. Morrison
Portland, Oregon 97205

OFFICE OF THE DIRECTOR

Dear Bud:

As a follow-up to my testimony before the Commission and in light of their action on the rules, I would request the following:

(1) Either copies of--or references to--all articles and studies with information about the impact of parking lots related to residential structures on air pollution. This information is very important to our industry, particularly in the early planning stages of future projects. I will make this information available to our members.

On the face of it, it appears I should advise my members to avoid apartment projects within the Portland city limits and along major thoroughfares.

(2) Please send me copies of the "Plans" and "Standards" referred to in 20-130 (5). I understand the Clean Air Implementation Plan is voluminous, but perhaps people knowledgeable with its detail can pinpoint sections pertinent to our problem.

Please bill the Oregon State Home Builders Association for the costs of any copies of either the studies or the rules.

Thank you for your attention to this request.

Sincerely,

Fred VanNatta
Fred VanNatta
Executive Officer

FVN:dg

ccs: DEQ Commissioners

SALEM: Local Government Center
1201 Court Street N.E.

P.O. Box 928, Salem 97308

Telephone: (503) 588-6466

EUGENE: Hendricks Hall
University of Oregon

P.O. Box 3177, Eugene 97403

Telephone: (503) 686-5232

League of Oregon Cities

Salem, Oregon
August 26, 1976

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

Dear Mr. Kramer:

I have received a copy of the staff report outlining the current and projected status of the department's noise program. Thank you for making the copy available and for extending the offer of a joint meeting to discuss some League concerns in this area. While I would like the opportunity to meet with you it would seem that the time constraints imposed by my own schedule and the department's desire to make recommendations on the highway noise regulations at the Commissions next meeting on August 27 make this rather difficult. As an alternative, I would like to respond in this letter and elaborate on some of the issues that concern the League.

The attached staff report prepared for the next meeting of the League's Executive Board on September 17, represents a history of the proposed noise rules for public roads. Hopefully, it may give you some insight to the frustration which we, in local government, have in supporting the regulations contained in any of the rules presented thus far.

The League would look to the department to more effectively prove its case that the noise standards contained in the proposed rules are reasonable and workable, given consideration of all the other factors that must be taken into account when constructing and modifying major roads and highways. In addition, the department's proposal to involve local government as its enforcer of in-use motor vehicle noise programs in particular, and noise emissions in general, should be the subject of further dialogue between the department and representatives of local government.

Oregon Municipal Policy, a publication which sets forth the policy position of Oregon cities as developed by city officials in the state working through the League of Oregon Cities, provides the following direction:

"Cities will work with the state to assure the implementation of reasonable, enforceable standards for the control of noise pollution. The state should be responsible for the expense of enforcing state noise control standards, either through provision of adequate state staff and equipment or through contract with local governments where mutually agreeable."

As indicated in my previous letter the League appreciates being a participant on the committee that is working to develop noise standards and looks forward also the participating in a review of staff proposals for a city/county model noise ordinance.

Mr. Loren Kramer
August 26, 1976
Page 2

It may be possible to schedule a session on the noise control program at the League's annual convention in Portland on November 14-16 and, in that case, representatives from your department will be invited to discuss the present and future directions of the state program.

Thank you again for the opportunity to provide these comments to the commission.

Sincerely yours,



Richard T. Carruthers
Mayor, Town of Hammond
President

Enclosure

Salem, Oregon
August 26, 1976

To: Executive Committee, League of Oregon Cities

From: Noel J. Klein, Senior Staff Associate, League of Oregon Cities

Subject: Historical Background to DEQ's Proposed Rules for Noise Control on Public Roads

1971

The 1971 legislative assembly authorized the Environmental Quality Commission to adopt reasonable statewide standards for noise emissions and promulgate reasonable rules relating to the control of levels of noise emitted into the environment.

1972

The proposed DEQ statewide noise control program, published in October, 1972, identified that the state should "guide planning of its transportation system and provide assistance to local governments". It further stated that "noise levels specified in the federal Highway Administration noise standards are too high and a state standard is necessary for planning new highways and for identifying areas of existing highways which require noise abatement".

1973

The first set of proposed highway noise regulations appeared in September 1973. It established the maximum allowable ambient noise level for highways in any hour at L10=55dBA (i.e. the noise level which is exceeded 10 percent of the time). This regulation, applied however not only to highways but to all public roads in the state, was 15 dBA more restrictive than the federal guidelines which OSHD had to meet on federal aid projects and provided nothing in the way of technical assistance for local government to operate and purchase necessary equipment to monitor noise levels.

Needless to say, this was not a very auspicious introduction to the noise control program so far as local government was concerned and the League voiced its opposition based on the "unreasonableness" of the rules, given other considerations of safety, economics and technical feasibility of meeting the standards, and also on local governments' lack of resources to comply with the orders DEQ might make under the rules.

1974

The January 1974 version of the proposed rules did incorporate an awareness that the highway was only the conduit upon which the noise source travelled and, accounting for stricter source control, provided for an immediate construction and modification standard of L10=63 dBA, delaying the 55 dBA standard until 1986. The rule still spoke in terms of any public road and the League still questioned the total impact of the proposed standards. The reluctance of the department to analyse typical existing and

proposed street construction - a reluctance which still exists today - to show the effect of the proposed regulations did little to engender confidence in the "reasonableness" of the proposals. With the case for such stringent standards not proven, the League continued to oppose the rules on the basis of the potential economic impact on cities.

1975

The 1975 version of the proposed rules began with a meeting of a Road Noise Review Committee on February 11, 1975. The departmental letter inviting a League staff person to attend that meeting, said in part "the following items need a detailed discussion before we can begin to draft our own rule.

1. Protective levels.
2. Nature of road noise.
3. Source control.
4. FHWA rules.
5. Other state rules.
6. Requirements for an Oregon rule.

The letter went on to say "with your knowledge and assistance we will adopt reasonable standards for public roads that are workable and protective of the public health and welfare". This laudatory approach was shortlived however and would appear to have been merely rhetoric for only one week later, on February 18, a new draft was sent by the department to members of the committee. The draft was not prepared as a consensus arriving out of discussion of the above six points, but rather was a draft from the Noise Division staff. In this latest effort L10 was 65 dBA, "highway" was defined to restrict the rule to high volume roads and the limitation of construction of noise sensitive property within high noise contours was introduced. The overt intrusion into the realm of land use planning, by using the regulations to say that local agencies do not have the right to change the zoning on a piece of property to residential if such a change would violate the standards, appeared to exceed the department's authority to regulate in this area. At the very least it seemed like a direct attack on the rights of local government and understandably drew some criticism from that quarter. By May of 1975, the proposed rules had been amended to require a L10=55 dBA but based on estimated traffic volumes predicted for the tenth year after completion.

1976

The reactivation of the Road Noise Technical Advisory Committee in May, 1976, introduced the 1976 version of the rules. In this draft, prepared by the department, 55 dBA was retained but the descriptor was changed from L10 to Ldn, a day/night noise level favored by EPA. The Noise Levels Document published by EPA in March, 1974, identified an outside environmental noise level of Ldn=55 as that level required to protect against both hearing loss and activity interference with an adequate margin for safety.

However the EPA Document referred to the levels as "identified levels" and did not speak of them as "goals" or "standards" or even "recommended levels". In fact, a letter from the Deputy Assistant Administrator for Noise Control Programs at EPA, dated October 10, 1975 lamented the fact that, in some EPA reviews, the levels had been erroneously interpreted as an implied standard. The letter says in part "Ldn=55 is not a recommended standard because EPA has not determined that the achievement

Executive Committee

August 26, 1976

Page 3

of that level is appropriate when considering other factors. Such factors as cost, feasibility, characteristics of the source, and other agency objectives, some of which may be in conflict with noise reduction efforts, are important elements in both the standard setting process and in judging the acceptability of individual agency actions". If the reason for the stringency of the Department's proposed regulations is being attributed to EPA levels then there seems to be a need to recognize the reservations identified above. Local government has already lost ground from the 1975 version with the withdrawal of local initiative to deal with noise problems on existing public roads and, in conflict with the recommendation contained in the original 1972 Statewide Noise Control Program, the section of the rules providing technical assistance to local government has also been deleted.

AMENDED BYLAWS

OF THE ASSOCIATION OF UNIT OWNERS OF
SURFTIDES PLAZA

ARTICLE I
NAME AND OFFICE

1. Name. This association shall be named the "Association of Unit Owners of Surftides Plaza", hereinafter referred to as the "Association".

2. Principal Office. The principal office of the Association shall be maintained in Lincoln County, Oregon.

ARTICLE II
MEMBERSHIP, VOTING RIGHTS, MEETINGS

1. Composition. The Association shall be composed of all the unit owners of units in the condominium known as Surftides Plaza; provided, however, that a lessee of a unit pursuant to a lease thereof duly filed with the Board of Directors shall be deemed the owner of such unit to the extent and for such purposes as shall be provided in such lease and such lessee shall be entitled, as owner of such unit, either in person or by proxy, to vote on matters within the scope of his authority as set forth in such lease at all meetings of the Association.

(a) Each Unit Owner shall have a vote equal to his percentage interest in the general common areas of the project as approximated in the preliminary Declaration

E X H I B I T "B"

of Surfides Plaza recorded in the office of the recording officer of Lincoln County, Oregon; i.e., 1.6129% per unit.

2. Proxies. A proxy may be given by a unit owner to any person to represent such owner at meetings of the Association. Proxies shall be in writing and signed by such owner, shall be filed with the Board of Directors and, unless limited by its terms, shall be deemed valid until revoked in writing. An executor, administrator, guardian, or trustee may vote, in person or by proxy, at any meeting of the Association with respect to any unit owned or held by him in such capacity, whether or not the same shall have been transferred to his name; provided that he shall satisfy the Secretary that he is the executor, administrator, guardian, or trustee holding such unit in such capacity.

3. Joint Owners. Whenever any unit is owned by two or more jointly, according to the records of the Association, the vote therefor may be exercised by any one of the owners then present, in the absence of protest by a co-owner, but in the event of such protest, no one co-owner shall be entitled to vote without the approval of all co-owners.

4. Quorum. At any meeting of the Association, unit owners owning more than fifty percent of the general common areas according to the recorded Declaration of Surfides Plaza, present in person or by proxy, hereinafter referred

to as "majority of owners", shall constitute a quorum and the concurring vote of a majority of such owners present and constituting a quorum shall be valid and binding upon the Association, except as otherwise provided by law or by these Bylaws.

5. Place of Meetings. Meetings of the Association shall be held at the principal office of the Association or such other suitable place convenient to the owners as may be designated by the Board of Directors in the notice.

6. Initial Meeting. By the execution of the Memorandum of Action of the initial organization by 100% of the then existing unit owners duly attached to these Bylaws, the initial meeting and organization shall be deemed to have been so held, and these Bylaws adopted.

7. Annual Meeting. The first annual meeting of the Association shall be held on the second Saturday of the first month following completion of the project. Thereafter, the annual meetings of the Association shall be held at 2 o'clock p.m. on the second Saturday of April each succeeding year. At such meetings there shall be elected by ballot of the owners a Board of Directors in accordance with the requirements of Section 1 of Article III of these Bylaws. The owners may also transact such other business of the Association as may properly come before them.

8. Special Meetings. Special meetings of the Association may be called at any time by the Board of Directors or upon the request of unit owners owning not less than one-third of the total percentage of all owner's interests in the general common areas of Surfides Plaza. At any such special meeting, only such business shall be transacted as shall have been specifically or generally described in the notice of such meeting, except upon consent of all the owners present at the meeting.

9. Adjourned Meetings. Any meeting of the Association may be adjourned from time to time to such place and time as may be determined by a majority vote of the unit owners present, whether or not a quorum be present, without notice other than the announcement at the meeting. At any such adjourned meeting at which a quorum be present any business may be transacted which might have been transacted by a quorum at the meeting as originally called.

10. Notice of Meetings. No notice of the annual meeting need be given if the meeting is to be held as provided herein at the principal office of the Association. If any meeting is to be held elsewhere or at a different time, notice shall be given by the Secretary in writing to each unit owner, such notice to be given not less than fifteen days and not more than twenty-five days before the meeting; provided, that no notice of a meeting need be given

to any owner who shall waive such notice in writing or who shall be present at such meeting, in person or by proxy. Notice shall state the time, place, date and purpose of the meeting. Written notice shall be effective whether or not received, if mailed to the last known address of a unit owner shown on the books of the Association's Secretary and shall be effective as of the date mailed or personally delivered. The written ratification by an owner of any action taken at any meeting shall be equivalent to a waiver of notice of such meeting by the one so ratifying.

11. Order of Business. The order of business at all Association meetings shall be as follows:

- (a) Roll call.
- (b) Proof of notice of meeting or waiver of notice.
- (c) Reading of the minutes of preceding meeting.
- (d) Reports of officers.
- (e) Report of committees.
- (f) Election of inspectors of election if applicable.
- (g) Election of directors, if applicable.
- (h) Unfinished business.
- (i) New business.

ARTICLE III BOARD OF DIRECTORS

1. Election. The unit owners shall elect from among themselves a Board of Directors consisting of five

persons. The initial five directors shall be elected from staggered terms, so that two shall have a term of two years; and three a term of one year; thereafter each director elected shall have a term of three years and until his successor be elected, so that the terms of at least two directors shall expire annually. Whenever any director is absent from a meeting of the Board of Directors by reason of any temporary incapacity or absence from Oregon on the day on which the meeting is held, the office of such director shall be temporarily vacant during such meeting, but the number of directors required to constitute a quorum or to transact business shall not be thereby reduced. A husband and wife shall not serve simultaneously as directors.

2. Powers. The Board of Directors shall be vested with the management of all the affairs of the Association, including, but without being limited to, the power to direct the purchase of the Association of such property as the purposes thereof shall require, to provide for the incurring of debts on behalf of the Association, and the issuance of notes or other evidences of such debts; provided, however, that the annual purchases of the Board of Directors of capital assets for the Association may not exceed the total amount of five thousand dollars (\$5,000.00), without the enactment of a resolution authorizing additional purchases of capital assets by a majority of all the unit owners of the Association.

The Board may also engage the services of an individual or corporate manager and provide for his or its compensation. The Board may delegate to such manager the power to contract for services and to employ gardeners, workmen, and other help for the operation and maintenance of the common elements and of any of the units the owners of which shall have consented thereto; provided, however, that no contract for services or of employment shall continue in effect if rejected by the Board of Directors within six months of its inception. The Board may also delegate to such manager any additional powers and duties.

3. Other Duties. In addition to duties imposed by these Bylaws or by resolution of the Association, the Board of Directors shall be responsible for the following:

(a) Care, upkeep and surveillance of the project and the general common elements, and to perform all duties, make all lease payments.

(b) Collection of monthly assessments from the owners in accordance with these Bylaws and the Oregon Unit Ownership Law.

(c) Designation and dismissal of the personnel necessary for the maintenance and operation of the project and the general common elements.

4. Vacancies. Vacancies in the Board of Directors caused by any reason other than the removal of a Director by a vote of the Association shall be filled by a vote of the majority of the remaining Directors, even though they may constitute less than a quorum; and each person so elected shall be a Director until a successor is elected for the unexpired term at the next annual or special meeting of the Association.

5. Removal. Any Director may be removed from office at any time, with or without cause, upon the majority vote of the unit owners at the meeting of the Association; provided, however, that the notice of such meeting shall have stated that such removal was to be considered, and provided further that a substitute Director shall be elected at the same meeting for the then unexpired term of the one so removed.

6. Compensation. The Directors, as such, shall serve without compensation.

7. Organization Meeting. The first meeting of a newly elected Board of Directors shall be held within ten (10) days of election at such place as shall be fixed by the Directors at the meeting at which such Directors were elected, and no notice shall be necessary to the newly elected Directors in order legally to constitute such meeting, providing a majority of the whole Board shall be present.

8. Meetings. The Board of Directors may hold meetings when and in such place in Oregon as the Chairman shall designate, or, in the case of his absence from the State, incapacity, or death, then as may be designated by a majority of the other Directors.

9. Notice of Meetings. The Secretary shall give notice in writing or by telephone or telegraph of each meeting of the Board of Directors (except the meeting following the annual meeting of the Association) to each Director at least three days before the meeting. The failure to give notice shall not invalidate any action at a meeting of the Board of Directors at which all the Directors are present. The presence of any Director at any meeting shall constitute a waiver of any required notice of such meeting.

10. Quorum. A majority of the Directors shall constitute a quorum for the transaction of business, and in every case the affirmative vote of a majority of the whole Board shall be necessary to the validity of any act of the Board. If, at any meeting, there be less than a quorum present, the majority of those present may adjourn the meeting to a date certain, which shall then constitute the regular meeting.

ARTICLE IV
OFFICERS

1. Office, Election and Removal. The Board of Directors shall elect annually, at its first meeting after the annual meeting of the Association, a Chairman, a Secretary and a Treasurer, each of whom shall serve for the ensuing year and until his successor shall be elected. The Chairman shall be elected from among the Board of Directors. The Secretary and the Treasurer need not be members of the Board or unit owners, and either or both may be a corporation.

The Board of Directors may elect each other officers as it may deem necessary, who shall have such authority and perform such duties as from time to time may be prescribed by the Board of Directors. One person may hold more than one office, except the Chairman shall hold no other office. Any officer shall be subject to removal at any time by the affirmative vote of a majority of the Board of Directors. If the office of any officer shall become vacant for any reason, the Board of Directors may elect a successor to fill the unexpired term.

2. Chairman. The Chairman shall preside over all meetings of the Board of Directors and the Association at which he shall be present. In his absence, the senior of the other members of the Board of Directors who are present shall preside. The Chairman shall have the powers and perform the duties customarily incidental to the chief

executive officer of a corporation and such other powers and duties as are assigned to him elsewhere in these Bylaws or as may be assigned to him from time to time by the Board of Directors. The Chairman shall be entitled to vote only in case of a tie vote and his vote shall be final.

3. Secretary. The Secretary shall keep the minute books wherein all resolutions duly passed and all other action taken at any meeting by the Association and by the Board of Directors shall be recorded. He shall give notice of all meetings of the Association and the Board of Directors. The Secretary shall have the powers and perform the duties customarily incidental to his office and such other powers and duties as may be assigned to him from time to time by the Board of Directors.

4. Treasurer. The Treasurer shall keep all the Association's financial records and books of account and have custody of all funds and securities of the Association and be responsible for the safekeeping of all moneys, notes, bonds, and other money instruments belonging to the Association. He shall be bonded and shall render statements in such form and as often as required by the Board of Directors or the Association. He shall send an audited financial statement to each unit owner as soon as practicable after the end of the fiscal year of the Association. He shall have the powers and perform the duties customarily incidental to his

office and such other powers and duties as may be assigned to him by the Board of Directors. He shall pay all vouchers signed by the manager up to One Thousand Dollars (\$1,000). Any voucher in excess of One Thousand Dollars (\$1,000) shall require the signature of the Chairman.

ARTICLE V
OBLIGATIONS OF THE OWNERS

1. Assessments. All owners are obligated to pay monthly assessments imposed by, and as may be changed by action of, a majority of the owners of the Association, to meet all the project's common expenses, which may include all types of insurance premiums such as liability, fire, windstorm or other hazards, theft, workmen's compensation and boiler insurance. The initial monthly assessment shall be set out in the Memorandum of Action of Initial Organization as executed and attached hereto. Such assessments shall include monthly payments to a reserve fund for replacements as follows:

(a) The Association shall establish and maintain a Reserve Fund for Replacement by the allocation and payment monthly to such reserve fund an amount to be established by the Board of Directors and approved by a majority of the owners commencing January 1, 1977. Such fund shall be deposited in a special account with a safe and responsible depository whose deposits are insured by a federal agency

and may be in the form of a cash deposit or invested in obligation of, or fully guaranteed as to principal by, the United States of America. The reserve fund is for the purpose of effecting replacements of structural elements and mechanical equipment of the condominium. Disbursements from such fund may be made only after the consent of the Board of Directors. The annual payment of this fund may be increased from time to time by action of a majority of the owners.

(b) Such monthly assessments shall be due and payable quarterly in advance on the first day of every calendar quarter without demand and delinquent accounts shall bear interest at the rate of ten percent (10%) per annum from the due date until paid.

(c) The assessments and interest thereon shall constitute a lien upon each unit upon compliance with ORS 91.580 and such lien shall be collected as provided therein. Such lien shall be subordinate to the lien of any mortgage upon any unit which is accepted in good faith and for value and which was recorded prior to the recording of the claim of lien as provided in ORS 91.580 (2) and (3).

(d) Failure by the owner to pay any assessment to the Association shall be a default by the owner and subject the owner and the family unit to the obligations of these Bylaws and the Oregon Unit Ownership Law.

(e) Upon foreclosure of such lien, the unit owner shall be required to pay a reasonable rental for the unit

from the date of filing of the suit until the date of sale of the unit in foreclosure and, if part of such suit, the confirmation of such sale. The plaintiff in such foreclosure shall be entitled to the appointment of a receiver to collect any rent. The manager, acting on behalf of the Association of Unit Owners, shall have the power to bid on the unit at the foreclosure sale and to acquire, hold, lease, mortgage, and convey the same. A suit to recover a money judgment for unpaid assessments and interest shall be maintainable against any unit owner without either foreclosure or waiving the lien securing the same.

2. Maintenance and Repair.

(a) Every owner must perform promptly all maintenance and repair work within his own unit, which if omitted would affect the project in its entirety or in a part belonging to other owners, being expressly responsible for the damages and liabilities that his failure to do so may engender.

(b) All the repairs of internal installations of the unit such as water, light, gas, power, sewage, telephones, air conditioners, sanitary installations, door, windows, and all other accessories belonging to the unit area shall be at the owner's expense.

(c) An owner shall reimburse the Association for any expenditure incurred in repairing or replacing any common area and facility damaged through his fault.

3. Use of Family Units - Internal Changes.

(a) All units shall be utilized for single family residential purposes only.

(b) An owner shall not make structural modifications or alterations in his unit or internal installations without previously notifying the Association in writing, through the Chairman of the Board of Directors. The Association shall answer within 30 days and failure to do so within the stipulated time shall mean that there is no objection to the proposed modification or alteration.

4. Use of General Common Elements. An owner shall not place or cause to be placed in the lobbies, decks, ramps, vestibules, stairways, and other common elements, any furniture, packages or objects of any kind. Such areas shall be used for no purpose other than what is normal.

5. Right of Entry.

(a) In case of an emergency originating in or threatening his unit, owners hereby grant the right of entry to the manager or to any other person authorized by the Board of Directors or the Association, whether the owner is present at the time or not.

(b) An owner shall permit other owners, or their representatives, when so required, to enter his unit for the purpose of performing installations, alterations or repairs to the mechanical or electrical services, provided that

requests for entry are made in advance and that such entry is at a time convenient to the owner.

6. Rules of Conduct. No owner shall:

(a) Post any advertisements, or posters or signs of any kind in or on the project except as authorized by the Association.

(b) Hang garments, rugs, etc. from the windows or from any of the facades or decks or terraces of the project.

(c) Shake dust rags, mops, etc., from the windows or porches or terraces, or to clean rugs, mops, etc., by beating in any exterior part of the project.

(d) Throw garbage or trash outside the disposal installations provided for such purposes in the service areas.

(e) Install wiring for electrical or telephone installations, television antennae, machines or air conditioning units, awnings, etc., on the exterior of the project or that protrude through the walls or roof of the project except as authorized by the Association.

(f) Install exterior antennae except those installed by the Association.

7. Other Requirements.

(a) Owners shall exercise extreme care about creating disturbances, making noise, or the use of musical instruments, radios, television and amplifiers that may disturb other residents. Those keeping domestic animals

will abide by the Municipal Sanitary Regulations, lease laws, and other applicable regulations or regulations of the Association created under authority of these Bylaws.

(b) The parking spaces designated as general common elements in the Declaration are intended for use of the owners' automobiles.

(c) Vehicular traffic on the streets and drives within the property will be limited to five (5) miles per hour as a safety precaution. This speed limit shall apply to bicycles, motor scooters, motorcycles, automobiles and trucks. Muffled motorized vehicles may operate only at reasonable hours in a manner which does not create a disturbance or noise nuisance.

(d) Recreation and play areas, all common garden and patio areas are provided for the use of the owners and their guests. Rules and regulations will be posted setting out the hours the various facilities will be available and the conditions attendant thereto. Compliance with the rules as determined by the Association is essential to the harmonious operation of the facilities.

ARTICLE VI MISCELLANEOUS

1. Execution of Instruments. All checks, drafts, notes, bonds, acceptances, deeds, leases, contracts and other instruments shall be signed by such person, or persons,

as may be designated by general or special resolution of the Board of Directors, and in the absence of any such general or special resolution applicable to any such instrument, then such instrument shall be signed by the Chairman.

2. Definitions. The terms used herein shall have the meanings defined in the Unit Ownership Act of Oregon and the recorded Declaration of Surfptides Plaza, except that "Surftides Plaza" shall mean the "Project" as defined in said Declaration.

3. Persons Affected. All unit owners, tenants of such owners, employees of owners and tenants, and any other persons that may in any manner use the property subject hereto shall be subject to these Bylaws and all rules and regulations promulgated herein and pursuant thereto, as the same may from time to time be amended.

4. Initial Effect. These Bylaws are adopted by Surfptides Condominiums, Inc., on behalf of the Association of Unit Owners and adopted by the owners as stated in Article II, Section 6, herein.

5. Easement. Each Unit Owner shall have an easement in common with the owners of other units to use all pipes, ducts, cables, wires, conduits, public utility lines, or other common elements located in other units and serving his unit. In addition, each Unit Owner shall have an easement for the continuance of any encroachment by his unit

on any adjoining unit or on any common element, existing as a result of construction of the Condominium or which may come into existence thereafter as a result of settling or shifting of the Condominium or as a result of restoration of the Condominium or such unit after damage by fire or other casualty, or as a result of condemnation or eminent domain proceedings, or as a result of repairs or alterations made or approved by the Board of Directors, so that any such encroachment may remain undisturbed so long as the Condominium stands. Each unit shall be subject to an easement in favor of the owners of the other units to use the pipes, ducts, cables, wires, conduits, public utility lines, and other common elements serving such other units and located in such unit.

In addition, each unit shall be subject to an easement in favor of any adjoining unit and common element for the continued maintenance of any encroachment of such adjoining unit or common element existing as a result of construction of the Condominium or which may come into existence thereafter by reason of settlement or shifting, or as a result of repair or restoration of the Condominium or such adjoining unit or common element after damage by fire or other casualty, or as a result of condemnation or eminent domain proceedings, or as a result of repairs or alterations made or approved by the Board of Directors, so that any such

encroachment may remain undisturbed so long as the Condominium stands. In addition, each unit shall have and shall be subject to all easements of necessity in favor of such or in favor of other units and the common elements.

ARTICLE VII AMENDMENT

These Bylaws may be amended at any annual or special meeting of the Association in the notice of which such amendment is announced; provided, however, that such amendment shall not be effective unless and until approved in writing by seventy-five percent (75%) of the unit owners and until a copy of the Bylaws as so amended, certified by the Chairman and Secretary of this Association, is recorded with the recording officer of Lincoln County, Oregon.

ARTICLE VIII MORTGAGEES

1. Notice to Association. An owner who mortgages his unit shall notify the Association through the manager, if any, or the Chairman of the Board of Directors in the event there is no manager, the name and address of his mortgagee; and the Association shall maintain such information in a book entitled "Mortgagees of Units".

2. Notice of Unpaid Assessments. The Association shall report, at the request of the mortgagee of a unit, any unpaid assessments due from the owner of such unit.

ARTICLE IX
COMPLIANCE

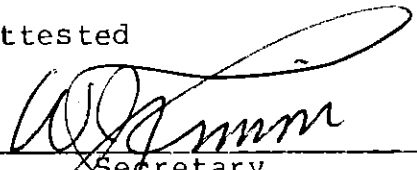
These Bylaws are set forth to comply with the requirements of the Oregon Unit Ownership Law, which are incorporated herein. In case any of these Bylaws conflict with the provisions of said statute, it is hereby agreed and accepted that the provisions of the statute will apply.

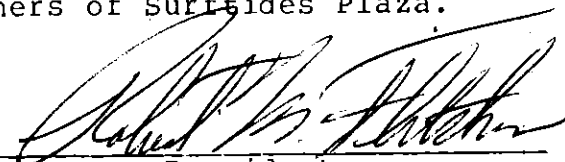
ARTICLE X
SUITS AND ACTIONS

In the event suit or action is commenced by the Directors for the collection of any amounts due pursuant to these Bylaws or for the enforcement of any provisions of the Bylaws or of the Oregon Unit Ownership Law, the owner or owners, jointly and severally, will in addition to all other obligations, pay the costs of such suit or action including a reasonable attorney's fee to be fixed by the trial court and in the event of an appeal, the cost of the appeal, together with a reasonable attorney's fee in the Appellate Court to be fixed by such Court.

I herewith certify that these amended Bylaws were ADOPTED at a special meeting this 22 day of July, 1976, on behalf of the Association of Unit Owners of Surfside Plaza.

Attested


Secretary


President