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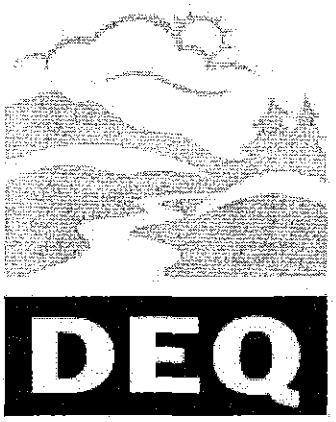
OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS



State of Oregon
Department of Environmental Quality

AGENDA

ENVIRONMENTAL QUALITY COMMISSION MEETING

October 29, 1971

Second Floor Auditorium, Public Service Building, 920 S.W. 6th Avenue

Portland, Oregon

9:30 a.m.

✓A. Comments from the public

✓B. Minutes of September 17, 1971 meeting

✓C. Project plans for September 1971

10:00 a.m.

D. Public Hearing re: Motor Vehicle Parking Structures, Portland

E. City of Riddle sewage disposal

F. Proposed Regulations for Recreational Forest Areas

G. Regional Variances

(1) CWAPA - Zidell Explorations

(2) CWAPA - Open Burning

H. Mack-West, Inc., Douglas County (Open burning)

I. Metler Brothers, Klamath Falls (Hearing authorization)

(J.) Fremont Lumber Co., Lake County (Compliance program)

K. Tax Credit Applications

(1)	Clark and Powell	T-198	($42,877.00)
(2)	Modoc Orchards	T-212	($62,633.36)
(3)	Harry and David	T-200	($17,275.38)
(4)	Louis Hillecke & Sons	T-239	($10,809.26)
(5)	Richard Herman & Carol Jean Egger	T-238	($ 7,843.33)

L. MSD Request for Advance Planning Loan - Progress report

M. CWAPA - Washington County - Status Report

N. Designation of Hearings Officers

O. Authorization for Director to sign stipulations

P. Proposed Hearings Schedule

Q. Next EQC Meeting suggested for Friday, November 19, 1971

MINUTES OF THE TWENTY-EIGHTH MEETING
of the
Oregon Environmental Quality Commission
October 29, 1971

The twenty-eighth regular meeting of the Oregon Environmental Quality Commission was called to order by the Chairman at 9:30 a.m. Friday, October 29, 1971, in the Second Floor Auditorium, Public Service Building, 920 S.W. 6th Avenue, Portland, Oregon. Members present were B.A. McPhillips, Chairman, Arnold M. Cogan, Edward C. Harms, Jr., George A. McMath and Storrs S. Waterman.

Participating staff members were L.B. Day, Director; E.J. Weathersbee and K.H. Spies, Deputy Directors; Harold M. Patterson, Air Quality Control Division Director; Harold L. Sawyer and Joseph A. Jensen, Chief Engineers; E.A. Schmidt, Solid Waste Division Director; F. Glenn Odell, T.M. Phillips and Ron C. Householder, Associate Engineers; R. Bruce Snyder, Meteorologist; and A.B. Silver, Legal Counsel.

COMMENTS FROM THE PUBLIC

There was no one present in the audience who offered upon invitation to make any comment or submit a statement regarding subjects relating to environmental matters not listed on the agenda.

MINUTES OF PREVIOUS MEETING

It was MOVED by Mr. Cogan, seconded by Mr. Waterman and carried that the minutes of the twenty-seventh meeting of the Commission held in Astoria on September 17, 1971 be approved as prepared.

PROJECT PLANS FOR SETPEMBER 1971

It was MOVED by Mr. McMath, seconded by Mr. Waterman and carried that the actions taken by the staff during the month of September 1971 regarding the following 65 municipal sewerage, one industrial waste and 33 air quality control projects be approved:

Water Pollution Control

Date	Location	Project	Action
Municipal Projects (65)			
9-1-71	Salem	Countryside Apts. sewer	Prov. app.
9-1-71	Scappoose	Sewage treatment plant and collection system	Prov. app.
9-1-71	Siletz	Sewage treatment plant and collection system	Prov. app.
9-2-71	Wilsonville	The Village at Wilsonville	Prov. app.
9-2-71	Toledo	Three sewer extensions	Prov. app.
9-2-71	Aumsville	Rex Lucas Properties	Prov. app.
9-3-71	Dallas	Sewer extension	Prov. app.
9-3-71	Hubbard	Whiskey Hill West	Prov. app.
9-3-71	St. Helens	Railroad Addition	Prov. app.
9-7-71	Black Butte Ranch	Phase II sewers	Prov. app.
9-7-71	Heppner	Shobe Creek Canyon relocation	Prov. app.
9-7-71	Black Butte Ranch	Sewage treatment plant	Prov. app.
9-7-71	Clatskanie	Sewage treatment plant report	Prov. app.
9-8-71	Sherwood	East Willamette Street sewer replacement	Prov. app.
9-8-71	Ashland	Sewerage system study (rev.)	Prov. app.
9-8-71	North Bend	SID 101-71	Prov. app.
9-8-71	Oak Lodge San. D.	Shadybrook Subd. (Phase I)	Prov. app.
9-8-71	Clackamas County Service Dist. I	Hartnell Estates No. 4	Prov. app.
9-8-71	Oregon City	Woodlawn Park Subd.	Prov. app.
9-8-71	Gladstone	Woodland Hills Estates	Prov. app.
9-8-71	Tualatin	Apache Bluff #7 and #9	Prov. app.
9-8-71	Rockaway	Sewage treatment plant flow measuring device	Prov. app.
9-9-71	Gresham	N.E. Holladay and N.E. 183rd	Prov. app.
9-9-71	Newport	Mark Street project	Prov. app.
9-9-71	Knoxtown San. Dist.	Rogue Shores Subd.	Prov. app.
9-9-71	Sutherlin	Sutherlin Knoll Estates	Prov. app.
9-9-71	McMinnville	Michellbrook Subd.	Prov. app.
9-9-71	Medford	Brookhurst Subd.	Prov. app.
9-9-71	Brookings	Mill Beach Road pressure syst.	Prov. app.
9-9-71	USA	Willow Creek interceptor	Prov. app.
9-13-71	Lake Oswego	Two sewer projects	Prov. app.
9-16-71	Reedsport	Longwood sewer extension	Prov. app.
9-16-71	Portland	Change Order No. 3 Columbia Blvd. plant	Approved
9-16-71	Brookings	Tan Bark interceptor	Prov. app.
9-16-71	Salem	Sunnyview West	Prov. app.
9-16-71	St. Helens	Change Order No. G-4	Approved
9-16-71	Oak Lodge San. D.	Change Order #8 and #9	Approved
9-16-71	Canby	Change Order No. 2	Approved
9-16-71	Newberg	Change Order #1, Schedule L and Change Order #3 plant	Approved

Water Pollution Control - cont.

Date	Location	Project	Action
9-16-71	Brookings	Addendum No. 3	Approved
9-16-71	Florence	Change Order #1 and #2	Approved
9-16-71	Aumsville	Collection system Change Order #1 to #4	Approved
9-16-71	Aumsville	Sewage treatment plant Change Order #1 to #3	Approved
9-20-71	Oregon City	River Bluff Subdivision	Prov. app.
9-20-71	Condon	Plant improvements	Prov. app.
9-20-71	Bandon	Change Order No. 1 sewage treatment plant	Approved
9-20-71	Bandon	Addenda #1 to #4 sewage treatment plant	Approved
9-20-71	Salem	Three sewer projects	Prov. app.
9-20-71	Portland	Four sewer projects	Prov. app.
9-20-71	Glendale	Sether Avenue pump station and force main	Prov. app.
9-20-71	Gresham	Five sewer projects	Prov. app.
9-20-71	Canby	South Locust Street	Prov. app.
9-20-71	Gresham	Six sewer projects	Prov. app.
9-20-71	Eugene	Five sewer projects	Prov. app.
9-20-71	USA	Nine sewer projects	Prov. app.
9-20-71	Marion County	Four projects in Keizer and East Salem Sewer & Drainage District	Prov. app.
9-24-71	Cedar Hills	Berkshire No. 5	Prov. app.
9-24-71	Salem	Madrona Ave.-Neff Avenue	Prov. app.
9-24-71	Salem	Foothills sewer	Prov. app.
9-24-71	Green San. Dist.	Lateral "A" extension	Prov. app.
9-24-71	Gresham	Halsey Street-Wilman East	Prov. app.
9-24-71	Portland	S.W. Eighth and Lucille	Prov. app.
9-27-71	Eugene	Change Order #3 and #4	Prov. app.
9-28-71	Gresham	Sewage treatment plant expansion	Prov. app.
9-29-71	Klamath County	Bly Ranger Station report	Concurrence

Industrial Projects (1)

9-28-71	Griggs (Linn County)	Willamette Industries glue recycle	Approved

Air Quality Control

Date	Location	Project	Action
9-1-71	Klamath County	Metler Bros. - Request for extension of time until Dec. 1972, for WWB phase-out	Denied
9-1-71	Douglas County	U.S. Plywood - Rifle Range Road plant - Proposal to comply with Board Products Regulations by September 1973	Approved

Air Quality Control - cont.

Date	Location	Project	Action
9-1-71	Morrow County	Heppner Lumber Co. Proposal to phase-out WWB by Oct. 1, 1971	Approved
9-1-71	Douglas County	Superior Lumber Co. Proposal to phase-out WWB by Dec. 1, 1971	Approved
9-1-71	Tillamook County	Miami Shingle Company - Request additional six (6) months for submission of WWB compliance program	Denied
9-3-71	Douglas County	Drain Plywood Company - Plans for sanderdust control system	Approved
9-7-71	Klamath County	Weyerhaeuser Company - Bly Operations-proposal to phase-out WWB by September 1, 1971	Approved
9-7-71	Jackson County	Double Dee Lumber Co. - Plans to rebuild mill and to phase out WWB by December 31, 1971	Approved
9-7-71	Deschutes County	Brooks-Willamette Corp. Redmond Division - Statement of compliance with Board Products Regulations	Approved
9-8-71	Douglas County	Schafer Lumber Co. Proposal to phase-out WWB by March 1, 1972	Add. inf. req.
9-8-71	Deschutes County	Brooks-Scanlon, Inc. - Boiler control program for completion by April 1972	Approved at Sept. 1971 EQC meeting
9-9-71	Jackson County	Fir Ply, Inc. - Plans to modify WWB at Plant #1 by November 1, 1971	Add. inf. req.
9-10-71	Deschutes County	Brooks-Willamette Corp. Redmond Division - Plans to modify WWB by November 15, 1971	Add. inf. req.
9-13-71	Hood River County	U.S. Plywood - Neal Creek Division - Plans to modify WWB by December 31, 1971, and to phase-out second WWB by July 15, 1972	Approved
9-13-71	Lincoln County	W.O.W. Lumber Co. Proposal to phase-out WWB by December 1, 1971	Approved
9-13-71	Curry County	R.D. Tucker Lumber Co. Proposal to phase-out WWB by December 31, 1971	Add. inf. req.

Air Quality Control - cont.

Date	Location	Project	Action
9-13-71	Clatsop County	Crown Zellerbach Corp. Plans for smelt tank demister pads	Approved
9-16-71	Jackson County	Fir Ply, Inc. - Proposal to phase-out second WWB by December 31, 1971	Approved
9-16-71	Jackson County	Timber Products Co. Proposal for compliance with Board Products Regulations by December 31, 1973	Approved
9-20-71	Douglas County	Drain Plywood Co. Plans to install new hogged-fuel fired boiler by July 1, 1972	Approved
9-23-71	Tillamook County	Hodgdon Shingle Co. Proposal to phase-out WWB	Not approved
9-23-71	Umatilla County	U.S. Gypsum Company Proposal to phase-out WWB by December 15, 1971	Approved
9-23-71	Douglas County	Robert Dollar Co. Proposal for compliance with Board Products Regulations by December 31, 1971	Approved
9-23-71	Klamath County	Weyerhaeuser Company - Bly Operations - Proposal to phase-out second WWB by April 1, 1972	Approved
9-27-71	Hood River County	U.S. Plywood - Statement of compliance with Board Products Regulations	Add. inf. req.
9-27-71	Deschutes County	Brooks-Willamette Corporation Plans to modify WWB by Nov. 15, 1971	Approved
9-27-71	Douglas County	Georgia-Pacific Corp. Sutherlin - Plans to modify WWB	Add. inf. req.
9-27-71	Umatilla County	U.S. Gypsum Company Statement of compliance with Board Products Regulations	Approved
9-27-71	Lincoln County	Alsea Veneer - Plans to modify WWB	Add. inf. req.
9-28-71	Klamath County	Boise Cascade Corp. Beaver Marsh - Plans to modify WWB by December 1, 1971	Approved

Air Quality Control - cont.

Date	Location	Project	Action
9-28-71	Coos County	Elkside Lumber Co. Request for extension of time until Nov. 15, 1971 for completion of phase-out of WWB	Approved
9-28-71	Klamath County	Metler Brothers - Request for one (1) year extension to develop WWB phase-out program	Denied
9-29-71	Deschutes County	Central Oregon Fir Supply Co. Request for indefinite delay for developing WWB phase-out program	Denied

FREMONT LUMBER CO., Lake County - Compliance Program

Mr. Phillips read the staff report dated October 20, 1971 regarding the proposal of the Fremont Lumber Company to meet state requirements pertaining to atmospheric emissions from the wigwam waste burner and boiler plant at the Lakeview mill and the wigwam waste burner at the Paisley mill. He recommended that the company's proposal be accepted by the Commission, subject to the following conditions:

1. The company will have completed the boiler modifications, per plans and specifications approved by the Department, tested the boilers as recommended by the Department, and operate the boilers in compliance with current emission standards by no later than October 1, 1973.
2. The company will remove from service the wigwam waste burner at Paisley and the wigwam waste burner at Lakeview by no later than October 1, 1973.
3. No land fill or other solid waste disposal system will be conducted without prior approval from the Department.
4. By no later than April 1, 1972, the company shall submit a firm time schedule for the accomplishment of each phase of construction so that the Department can confirm total progress relative to achievement of the completion date.

Mr. Alan C. Goudy, Vice President, was present to represent the company.

Following a discussion of the company's proposed construction schedule and the indication that the two mills are in an area of lower priority relative to timing for achievement of air quality standards it was MOVED by Mr. Harms,

seconded by Mr. Cogan and carried that the staff recommendation regarding the compliance program for the Fremont Lumber Company be approved.

TAX CREDIT APPLICATIONS

Mr. Sawyer presented the staff's evaluations and recommendations regarding the tax credit applications covered by the following motions:

(1) It was MOVED by Mr. Waterman, seconded by Mr. Cogan and carried that under the provisions of the 1967 Act a pollution control facility tax credit certificate bearing the actual cost of $42,877.00 be issued to Clark and Powell (formerly Larsen, Clark and Powell) of Junction City for facilities claimed in application No. T-198.

(2) It was MOVED by Mr. Waterman, seconded by Mr. McMath and carried that a pollution control facility tax credit certificate bearing the actual cost of $62,633.36 be issued to George F. Joseph and Estate of Victor H.M. Joseph (Modoc Orchard Company) for facilities claimed in application No. T-212, with more than 40% and less than 60% of the cost allocated to pollution control.

(3) It was MOVED by Mr. Waterman, seconded by Mr. Harms and carried that a pollution control facility tax credit certificate bearing the actual cost of $17,275.38 be issued to Harry and David of Medford for facilities claimed in application No. T-200 with 80% or more allocated to pollution control.

(4) It was MOVED by Mr. Harms, seconded by Mr. McMath and carried that a pollution control facility tax credit certificate bearing the actual cost of $7,843.33 be issued to Louis Hillecke and Sons of Hillsboro for facilities claimed in application No. T-238 with 80% or more allocated to pollution control.

(5) It was MOVED by Mr. Waterman, seconded by Mr. Cogan and carried that two pollution control facility tax credit certificates be issued to Richard Herman and Carol Jean Egger of Hillsboro for the facilities claimed in application No. T-239 as follows:

One certificate to cover the manure tank, slab, roof surface area, pump, sprinkler and tractor blade, at an actual cost of $7,209.26, with 80% or more allocated to pollution control.

One certificate to cover the Case tractor, Serial No. 2650604, at an actual cost of $3,600.00 with 40% or more and less than 60% allocated to pollution control.

PUBLIC HEARING RE: MOTOR VEHICLE PARKING STRUCTURES IN PORTLAND

At 10:00 a.m. the public hearing in the matter of proposed construction of motor vehicle parking structures in the Portland metropolitan area and their impact on environmental quality was convened by the Chairman. The Director explained the purpose and scope of the hearing.

Mr. Householder presented the department's report dated October 29, 1971, a copy of which has been made a part of the agency's permanent files in this matter. In response to questions from Commission members following his presentation of the report Mr. Householder stated that probably 98% of the CO concentrations in the downtown area are due to automobile emissions and that based on 3 years of data the concentrations are not increasing. He said they are expected to decrease in the future.

Mr. Lloyd Anderson, Commissioner of Public Works for the city of Portland, read a prepared statement for the city. He said the city council agrees with Mr. Day that there is need to determine what is required to provide a livable Portland and how to deal with the problems of automobiles and parking facilities in the downtown area. He pointed out that at the present time of the 165,000 persons entering the central business district daily only 15% utilize mass transit, that the most optimistic projection for 1990 indicates that the highest possible use of mass transit will be 50%, and that consequently at that time 100,000 people will still rely on the automobile for transportation daily to the core area. He stated that during the last 2 years approximately 2,000 additional off-street parking spaces have been provided but at the same time some 600 on-street parking spaces have been eliminated. He estimated that at least 15 years would be required to plan, design and finance construction of a rapid transit system, and that an adequate system of public transportation could cost as much as one billion dollars. He asked that the state provide financial assistance.

In the discussion that followed Mr. Anderson's statement mention was made of the possible use of the state bond program and gas tax for this purpose.

The next person to submit a statement was Mr. Larry Williams of the Oregon Environmental Council. In his prepared statement Mr. Williams asked that the Commission hold a formal public hearing to establish its authority to halt further construction of parking structures in the Portland core area, that parking structures be declared "air contaminant sources" as defined by state law, that the builders of such facilities be required to submit plans for review and approval, and that an implementation plan for complying with the National Clean Air Act include the control of auto traffic density and parking in the urban area.

Mr. Walter Daggett appeared as representative of Tri-Met and in support of the department's recommendations. In reply to a question from Mr. Cogan he said DEQ could best help Tri-Met by providing pertinent data and hard facts and by regulating the use of private motor vehicles.

Mr. G.A. Wood, representing CRAG, said they together with Tri-Met are sponsoring a study of mass transit for the Portland area. The report is to be completed in a few months and will cover both short-range and long-range improvements. He said short-range means the next 5 years. He expressed the opinion that improved public transportation would not affect the daily number of private automobile trips in the downtown area for some time and indicated their hope is to divert some 4 or 5% of the increased downtown traffic to public transportation.

Mr. Richard E. Hatchard, Program Director for the Columbia Willamette Air Pollution Authority, reported the data being collected by that agency are made available to and are being used by the planners of transportation systems. He said CWAPA is engaged in efforts to encourage development of adequate motor vehicle control programs. He submitted copies of reports covering Phase I - A Review of Existing Air Quality and Phase II - Projected Air Quality to Year 1985 of a study project pertaining to the Portland downtown area.

When asked about the health significance of the CO concentrations on days when they have been in excess of adopted standards he stated that more evaluation should be provided by the medical profession.

Mr. Robert E. Royer, Planning Engineer for the State Highway Division, read a prepared statement for that agency. He said that a parking structure by itself does not generate trips and that instead it is the land use or type of development adjacent to such a structure that generates trips. He pointed out that if the central business district is to continue to grow a strong commitment must be made to provide a balanced transportation system, including a satisfactory public transit system.

He reported on the success of the new "Blue Streak" rapid bus service operation in Seattle which covers 9 miles from the northern section of the city to the downtown business area. He said the 900-space fringe area parking lot is filled to the limit every day and that some 75% of the rapid bus service patrons previously traveled by private car.

In reply to a question by Mr. Cogan he said it is the policy of the State Highway Commission to make a study before a new freeway is planned to determine the best possible solution to a given problem.

State Representative Keith Skelton, Vice Chairman of the House Committee on Environmental Affairs in the 1971 Legislature, was present and was invited by Chairman McPhillips to make a statement. He said he was greatly surprised when the Portland City Council approved the proposed construction of a downtown parking structure by Benjamin Franklin Federal Savings and Loan. He stressed the need for a cooperative study by the city, county, state and regional entities. He was asked by Mr. Cogan when the legislature was going to "bust the trust" and use gas tax money for public transportation systems. He replied that he had introduced a bill to amend the state constitution to insure use of gas tax funds for mass transit purposes but it died in the Highway Committee. He indicated that about the only way to get it approved would be by means of an initiative measure. He thought it was reasonable and logical to use gas tax funds for controlling air pollution caused by motor vehicles.

Mrs. Maureen Bressler of 3015 N.E. 20th Ave., Portland, read a prepared statement for the citizen's organization S.T.O.P. (Sensible Transportation Options for People). She opposed the construction of both the Benjamin Franklin downtown parking structure and the proposed parking structure for the Medical School Complex on Marquam Hill and urged the EQC to take every possible course of action to prohibit such construction and to limit automobile traffic in the core area.

Dr. W.A. Richter, member of the University of Oregon-Dental School faculty, appeared in opposition to the Marquam Hill parking structure. He presented a petition signed by 47 of the 57-member Dental School faculty asking that construction of said facility be delayed to allow reassessment of the (1) potential degradation of the environment, (2) possibility of coordination with metro mass transit planning and (3) alternatives to solve the campus parking problems. He asked the Commission to use its influence in persuading the State Board of Higher Education to delay construction until adequate study has been made. He then introduced Dental School students Mike Hill, Larry O'Neill and Bill Cady and later submitted copies of an article written by student Steve Rathofer entitled "A Question of Priorities."

Mr. Mike Hill, President of the Dental School Student Body, read the following resolution which had been adopted by the Student Association on October 26, 1971:

WHEREAS, the proposed parking structure planned for erection next to the site of the University of Oregon Dental School, at 611 S.W. Campus Drive, Portland, Oregon, imposes a potential degradation of unknown dimension to the environmental quality of that area;

WHEREAS, the parking structure would irrevocably occupy land which might in the near future be crucially needed for teaching and research to meet the health requirements of the people of the State of Oregon;

WHEREAS, the transportation needs of the patients, students, and workers utilizing the health institutions in that area are being considered with the transportation modernization of the total community;

WHEREAS, the parking structure would serve as an attraction for more cars to enter the campus area

RESOLVED that the students of the University of Oregon Dental School desire a delay in the construction of said parking structure to allow a complete assessment of the impact of the erection of the building

RESOLVED that the Student Council request the Department of Environmental Quality of the State of Oregon to extend all efforts to complete that assessment before construction begins.

Mr. Larry O'Neill, President of the Dental School Senior Class, presented a petition similar to the one presented by Dr. Richter and said it had been signed by 207 of the 275 members of the senior class.

Mr. Bill Cady, President of the Dental School Junior Class, said that the Dental School students are prepared to accept an alternative proposal to the planned parking structure, that one such proposal involves a peripheral-park-and-ride system, that a plan that could accommodate the Dental School is now in operation at Portland State University, that negotiation with PSU officials has resulted in full cooperation and permission of use of their facilities, and finally that the aid of the Department of Transportation is being sought in an attempt to get a federal grant for a mass transit system. He said he understands the estimated cost of the proposed Marquam Hill parking structure is 2-1/2 million dollars.

Mrs. Nancy Stevens of 4334 S.W. Washouga, Portland, presented a short statement in behalf of the Oregon Citizens for Clean Air. She opposed the construction of parking structures and urged that all possible incentives be given for public transportation.

Ms. Mary Ann Donnell of 1240 S.W. Hillcroft, Portland, and Chairman of the Coalition for Clean Air Oregon/Washington read a prepared statement for that organization. She urged the EQC to do everything within its power to coordinate the efforts of all entities in this matter in order to improve the livability of Portland.

There being no others who wished to make statements the hearing was recessed by the Chairman at 11:45 a.m. Following the noon recess it was MOVED by Mr. Cogan, seconded by Mr. McMath and carried that the Director be authorized to prepare a series of additional recommendations to the Commission after a thorough review of the information and views presented as a result of this hearing and with meetings with other government and environmental entities. We specifically authorize the Director to undertake the following:

1. That he initiate and recommend a delay in the construction of the Benjamin Franklin parking facility and the Dental School parking facility until after a comprehensive planning effort is made of downtown Portland. In addition to this, the Director is authorized to investigate the possibility of recommending the adoption of regulations declaring parking facilities as sources of pollution.

2. The Director is authorized to appear before the Portland Planning Commission on November 4, 1971, and support the Portland bus lane proposal. In addition to this, the Director should make known the Commission's support and his personal assistance on an early implementation of Tri-Met's announced peripheral parking and express busing system.

3. The Director is authorized to study the following areas:

a. Avenues for financial assistance of municipal alternatives to automobiles.
b. Develop an action plan for air pollution emergencies.
c. Develop a procedure for integrating air quality standards in highway and transportation planning.
d. Develop and study the authority of the Department of Environmental Quality to impose regulating devices on automobile impact decisions.
e. Authorization of the gas tax as a means of effecting environmental control.
f. Develop a better cooperation with the staffs of the Highway Department, Tri-Met, CRAG, and the city of Portland.

It was agreed that it is also the policy of the Department that it publicly recognize that the mere control of motor vehicle emissions is not the only environmental consequence; that continued automobile encroachment of the urban centers, the congestion and the environmental impact that comes from additional freeways, parking structures, and the loss of green and open spaces are of equal importance and it is the Department's obligation to work closely with other state agencies, local governments, and environmental groups to effect a major change in the planning and action priorities for the future to alleviate this situation.

CWAPA - Washington County - Status Report

Mr. Patterson read a staff memorandum dated October 26, 1971 regarding the proposed withdrawal by Washington County from CWAPA because of financial difficulties. He recommended that a formal resolution be adopted by the

Commission in this matter.

Mr. Waterman commented that in the press it had been reported that private citizens are trying to raise the required $13,581 to cover the county's share of the annual operating budget.

It was then MOVED by Mr. Waterman, seconded by Mr. Cogan and carried that the following resolution be adopted by the Commission.

RESOLUTION

The Environmental Quality Commission expresses grave concern over the decision of Washington County to withdraw from the Columbia Willamette Air Pollution Authority. Pertinent facts are as follows:

1. Washington County faces financial difficulties; the amount required for continued membership in CWAPA is $13,581 (about 8.8 cents per capita);

2. A loss in program funding, amounting to $80,000, appears imminent if Washington County's action stands;

3. Air pollution is a regional problem requiring coordinated efforts in local planning, zoning and public works as well as air pollution control. Service facilities such as freeways, mass transit and solid waste, as well as location of residential and industrial areas, directly affect air pollution. Therefore, the only meaningful way to maintain local control of air quality programs is through a regional approach involving the various elements which have impact on air quality. Federal, state and county officials have strongly supported this regional approach.

4. The Portland Metropolitan Region's program is an essential element in the state's environmental improvement program.

On the basis of the overall loss to environmental quality in Oregon which can be expected to result from Washington County's withdrawal from CWAPA, and the relatively small cost Washington County would incur in order to continue participation, the Environmental Quality Commission strongly urges Washington County officials and citizens to examine alternatives which might permit them to resume strong participating membership in the Columbia Willamette Air Pollution Authority, and offers its support toward achieving that objective.

The meeting was recessed at 12:00 noon and reconvened at 1:30 p.m.

CITY OF RIDDLE SEWAGE DISPOSAL

Mr. Jensen reviewed the October 22, 1971 staff report regarding this matter. The city of Riddle had requested the opportunity to appear before

the Commission a second time to plead for permission to install its own sewage treatment plant rather than participate in the proposed regional system which is to include the Myrtle Creek and Tri-City areas and to have its own plant considered eligible for federal and state grants.

At the May 7, 1971 meeting when this matter was first considered by the Commission a motion was adopted directing that the same basic criteria be used for determining eligibility for state grants as are used by EPA for federal grants. The regional office of EPA had already ruled that unless the city of Riddle participated in the regional system it would not be eligible for a federal grant even though the local Council of Governments (COG) had concluded that Riddle could build its own treatment works. The motion by EQC on May 7 provided further that if the city of Riddle insisted on building its own plant without state or federal financial assistance it could do so but it must meet all requirements for compliance with applicable water quality standards for the receiving stream.

Mr. Jensen pointed out that there are three public water supply intakes downstream from the city of Riddle which must be protected.

Mr. Dudley C. Walton, Attorney, was present to represent the city of Riddle. He claimed it would cost the city some $30,000 less to build its own plant even if it received no federal grant or $75,000 less with a federal grant. He said the voters are extremely concerned about the costs. He claimed further that the regional project could not meet the July 1, 1972 completion deadline.

Mr. Robert Ackaret, Consulting Engineer, was also present to represent the city. He said the cost estimates are $157,500 for the separate plant and $180,900 for the city's share of the regional system. He also contended that the cost of the river and highway crossings required by the regional system will probably be higher than estimated by the engineers for the regional project. He stated that from a technical standpoint the small water supply system intake that is located only one mile downstream from the Riddle outfall could at one time have been eliminated but from other standpoints it now would probably be impossible. He also questioned the reliability of the three raw sewage pumping stations that would be required

to connect the city to the regional plant.

Mr. Walton asked the Commission to approve the COG's regional plan which calls for a separate plant for the city of Riddle.

Mr. Spies reviewed the action taken at the May 7 EQC meeting in this matter.

After further discussion it was MOVED by Mr. Harms, seconded by Mr. McMath and carried by a 3 to 1 vote that the city of Riddle's proposal for a separate plant be approved, that the Commission approve the project for federal grant purposes, and that adequate supervision definitely be required for the city's plant in order to maintain water quality standards in the receiving stream.

Mr. Cogan voted against the motion.

PROPOSED REGULATIONS FOR RECREATIONAL AREAS

Mr. Odell reviewed the staff report dated October 22, 1971 concerning the draft of proposed environmental standards for natural scenic and recreational areas. He submitted a suggested amendment to Section III, Subsection 5 which reads as follows:

> "5. In addition to all new mining and manufacturing activities, the Commission may also require permits for any activity being conducted or proposed to be conducted in a Class "A" or Class "B" Natural Scenic and Recreational Area in the event such activity has an actual or potential significant environmental impact."

The objective of the above change is to broaden the Commission's discretionary powers to include review of any controversial existing or proposed project in these areas.

Mr. Day reported he had requested opinions from the Attorney General and others regarding the Commission's authority to adopt such standards. He commended highly the outstanding work done by Mr. Odell and Mr. D.R. Armstrong in developing the standards proposal.

Mr. Larry Williams of the Oregon Environmental Council expressed appreciation for the opportunity to participate in the development of the proposal. He said his organization supports it and urges its early adoption.

Mr. Day recommended that a date be set for a Public Hearing.

PUBLIC HEARINGS SCHEDULE

It was MOVED by Mr. McPhillips, seconded by Mr. Waterman and carried that the following schedule for public hearings as proposed by the Director be adopted:

Schedule of Public Hearings

Date	Subject	Place	Hearings Officer or Body
Nov. 11 (Thurs.)	Civil Penalties Regulations	Rm. 36, State Office Bldg., Portland	Director (1)
Nov. 23 (Tues.)	State Dept of Forestry- Slash Burning Plan & Regs.	(to be announced)	Oregon St. Forestry Dept., Hearings Officer (Mr. Snyder, DEQ, will attend to hear testimony)
Dec. 6 (Mon.) 10:00 a.m.	Animal Waste Control Regs.	Pub. Serv. Bldg. Aud., Portland	Env. Qual. Commission
Dec. 6 (Mon.) 2:00 p.m.	Natural Scenic Recreational Areas Regs.	Pub. Serv. Bldg. Aud., Portland	Env. Qual. Commission
Dec. 7*			
Jan. 5 (Wed.)	DEQ Implementation Plan (to comply with Fed. Clean Air Act)	Pub. Serv. Bldg. Aud., Portland	Env. Qual. Commission
Jan. 7 (Fri.)	" " "	Medford	Director (1)
Feb. 18 (Fri.)	Solid Waste Disposal Regs. (HB 1051)	Pub. Serv. Bldg. Aud., Portland	Env. Qual. Commission
Mar. 17 (Fri.)	Oil Spill Control Regs. (HB 1301)	Term. Sales Bldg. Portland	Director (1)

(1) or other authorized Hearings Officer

* Possible hearing at Ontario on Animal Waste Regs. before the Director.

In addition to the above schedule December 15 was tentatively selected for a joint luncheon meeting with the air pollution control regions and Monday, November 22 was tentatively selected as the date for the next regular Commission meeting.

At this point in the meeting Mr. McPhillips had to leave and Mr. Harms took over as Chairman.

REGIONAL VARIANCES

Mr. Snyder discussed the procedures which had been drafted by the staff and proposed for adoption by the Commission pertaining to the review of regional variances. It was agreed that the exhibits to be submitted by the regions should include a copy of any action taken by the respective advisory committee.

It was therefore MOVED by Mr. McMath, seconded by Mr. Cogan and carried that with such an amendment the proposed procedures for DEQ review of regional variances be adopted. A copy of said procedures is attached to and made a part of these minutes.

The staff report prepared by Mr. Snyder under the date of October 21, 1971 presented evaluations and recommendations regarding variances No. 40 and 41 granted by CWAPA relating to Zidell Explorations and open burning respectively.

It was MOVED by Mr. Cogan, seconded by Mr. McMath and carried that as recommended by the Director variance No. 41 issued by CWAPA be denied and the Board of Directors of CWAPA be urged to adopt as an order the conditions in the variance in the form of a compliance schedule with a termination date of March 1, 1972.

It was MOVED by Mr. Waterman, seconded by Mr. McMath and carried that in accordance with the Director's recommendations CWAPA's variance No. 41 be approved with a termination date of June 30, 1972 and that CWAPA be requested to incorporate modified open burning regulations to cover these problems by rule change.

MACK WEST INC., Douglas County

Mr. Phillips presented the staff report dated October 29, 1971 pertaining to this matter.

It was MOVED by Mr. McMath, seconded by Mr. Waterman and carried that the Department be authorized to schedule as quickly as possible a show cause hearing to establish an order requiring Mack-West, Inc. to cease immediately the open burning of wood residues and to cease all operations until such time as the company can demonstrate compliance with OAR Chapter 340, Sections

20-005, 20-010, 20-015, 20-020, 20-025, 20-030, 21-010, 21-015 and 23-011.

METLER BROS. INC., Klamath Falls

Mr. Phillips reviewed the staff report dated October 20, 1971 pertaining to this matter.

It was MOVED by Mr. Cogan, seconded by Mr. Waterman and carried that as recommended by the Director the Department be authorized to schedule a public hearing for the purpose of requiring Metler Bros. Inc. to show cause why the EQC should not enter an order requiring the company to submit an orderly program of compliance and to phase-out the operation of its wigwam burner within 90 days after adoption of said order.

MSD REQUEST FOR ADVANCE PLANNING LOAN

Mr. Schmidt reported that the officials of the Metropolitan Service District are still preparing revisions to their request for an advance planning loan. He said it is expected that the revised request will be ready for consideration by the EQC members at the November 22 meeting.

AUTHORIZATION FOR DIRECTOR TO SIGN STIPULATIONS

It was MOVED by Mr. Harms, seconded by Mr. McMath and carried that the Director be authorized to sign on behalf of the DEQ orders based on stipulations between parties and the Department, orders adopting regulations, and final orders after Commission decisions and further that this action be considered as an internal management directive of the DEQ subject to such further revisions as may be required.

DESIGNATION OF HEARINGS OFFICERS

The Director informed the Commission members that he plans to confer with representatives of the Oregon Student Public Interest Research Group (OSPIRG) and to suggest to them that one way they could provide assistance to the Department would be to have their qualified law student members serve without pay as hearings officers. Mr. Harms agreed that this would be a commendable move.

There being no further business the meeting was adjourned at 3:40 p.m.

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY CONTROL DIVISION
October 29, 1971

PROCEDURES FOR DEPARTMENT OF ENVIRONMENTAL QUALITY REVIEW OF REGIONAL VARIANCES

A. The Department of Environmental Quality will obtain from the region relative to variances granted by the Regional Authority:

1) Letter of transmittal.
2) Copy of the variance granted.
3) Copy of the staff report presented to the Regional Authority at the time of granting.
4) Copy of the minutes of the meeting.
5) Copy of Advisory Committee recommendations (if applicable)

B. The Technical Services Section will review the submission relative to conformity with Regional Rules and Oregon Revised Statutes.

C. A review will be made of the particular variance relative to reasonableness based upon the submitted material. Communications will be conducted with the Region to clarify any areas or to obtain additional information as required.

D. A recommendation will be made to the Environmental Quality Commission based upon this review. Under Chapter 315, Oregon Laws 1971, the EQC may approve, deny or modify the variance.

E. A representative of the Regional Authority will be requested to be present at the Commission meeting at which the variance is to be considered to provide additional information as required.

F. Criteria for review of Regional variance:

1. Does it meet conditions of ORS 449.810?

2. Did the applicant demonstrate a good-faith effort to comply prior to applying for the variance?

3. Is the situation of the applicant unusual in comparison with similar sources in the same general area?

4. Were alternate or interim measures considered along with the variance?

5. Is the variance properly conditioned to protect air quality to the fullest extent, including requirements for intermediate compliance steps, and submittal of plans, specifications and progress reports?

6. Is the variance period the shortest practicable and will compliance be achieved at the end of it?

7. Did the Regional staff fully investigate the application and submit a detailed staff report and recommendation to the Board?

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: EQC Members

Date: October 22, 1971

From: Director

Subject: October 29, 1971, EQC Meeting Agenda Item C - Project Plans for September

During the month of September, staff action was taken relative to plans, specifications and reports as follows:

Water Quality Control

1. Sixty-five (65) domestic sewage projects were reviewed.

   a) Provisional approval was given to:

      42 plans for sewer extensions.

      7 plans for sewage treatment works improvements.

      1 plan for a sewage lift station.

      3 engineering reports.

      1 contract modification.

   b) Eleven (11) contract modifications were approved without conditions.

2. One (1) project plan for an industrial waste glue re-cycle system was approved.

Air Quality Control

1. Twenty-four (24) proposals relative to WWB modification or phase-out were received and reviewed:

   13 were approved.

   5 were not approved.

   6 comments were requested.

2. Six (6) industrial APC proposals other than WWB's were reviewed:

   5 were approved.

   1-comments were submitted.

Solid Waste Disposal

There were no formal staff actions regarding solid waste disposal project plans or reports during the month of September.

Director's Recommendation

These staff actions were taken, subject to confirming approval by the EQC, and it is recommended that they be approved, as itemized on the attached lists.

PROJECT PLANS

Water Quality Control

During the month of September, 1971, the following project plans and specifications and/or reports were reviewed by the staff. The disposition of each project is shown, pending ratification by the Environmental Quality Commission.

Date	Location	Project	Action
Municipal Projects (65)			
9-1-71	Salem	Countryside Apts. sewer	Prov. approval
9-1-71	Scappoose	Sewage treatment plant and collection system	Prov. approval
9-1-71	Siletz	Sewage treatment plant and collection system	Prov. approval
9-2-71	Wilsonville	The Village at Wilsonville	Prov. approval
9-2-71	Toledo	Three sewer extensions	Prov. approval
9-2-71	Aumsville	Rex Lucas Properties	Prov. approval
9-3-71	Dallas	Sewer extension	Prov. approval
9-3-71	Hubbard	Whiskey Hill West	Prov. approval
9-3-71	St. Helens	Railroad Addition	Prov. approval
9-7-71	Black Butte Ranch	Phase II sewers	Prov. approval
9-7-71	Heppner	Shobe Creek Canyon relocation	Prov. approval
9-7-71	Black Butte Ranch	Sewage treatment plant	Prov. approval
9-7-71	Clatskanie	Sewage treatment plant report	Prov. approval
9-8-71	Sherwood	East Willamette Street sewer replacement	Prov. approval
9-8-71	Ashland	Sewerage system study (rev.)	Prov. approval
9-8-71	North Bend	SID 101-71	Prov. approval

Date	Location	Project	Action
9-8-71	Oak Lodge San. D.	Shadybrook Subd. (Phase I)	Prov. approval
9-8-71	Clackamas County Service Dist. I	Hartnell Estates No. 4	Prov. approval
9-8-71	Oregon City	Woodlawn Park Subd.	Prov. approval
9-8-71	Gladstone	Woodland Hills Estates	Prov. approval
9-8-71	Tualatin	Apache Bluff #7 and #9	Prov. approval
9-8-71	Rockaway	Sewage treatment plant flow measuring device	Prov. approval
9-9-71	Gresham	N.E. Holladay and N.E. 183rd	Prov. approval
9-9-71	Newport	Mark Street project	Prov. approval
9-9-71	Knoxtown San. Dist.	Rogue Shores Subd.	Prov. approval
9-9-71	Sutherlin	Sutherlin Knoll Estates	Prov. approval
9-9-71	McMinnville	Michellbrook Subd.	Prov. approval
9-9-71	Medford	Brookhurst Subd.	Prov. approval
9-9-71	Brookings	Mill Beach Road pressure system	Prov. approval
9-9-71	USA	Willow Creek interceptor	Prov. approval
9-13-71	Lake Oswego	Two sewer projects	Prov. approval
9-16-71	Reedsport	Longwood sewer extension	Prov. approval
9-16-71	Portland	Change Order No. 3 Columbia Blvd. plant	Approved
9-16-71	Brookings	Tan Bark interceptor	Prov. approval
9-16-71	Salem	Sunnyview West	Prov. approval
9-16-71	St. Helens	Change Order No. G-4	Approved
9-16-71	Oak Lodge San. D.	Change Order #8 and #9	Approved
9-16-71	Canby	Change Order No. 2	Approved
9-16-71	Newberg	Change Order #1, Schedule L and Change Order #3 plant	Approved

Date	Location	Project	Action
9-16-71	Brookings	Addendum No. 3	Approved
9-16-71	Florence	Change Order #1 and #2	Approved
9-16-71	Aumsville	Collection system Change Order #1 to #4	Approved
9-16-71	Aumsville	Sewage treatment plant Change Order #1 to #3	Approved
9-20-71	Oregon City	River Bluff Subdivision	Prov. approval
9-20-71	Condon	Plant improvements	Prov. approval
9-20-71	Bandon	Change Order No. 1 sewage treatment plant	Approved
9-20-71	Bandon	Addenda #1 to #4 sewage treatment plant	Approved
9-20-71	Salem	Three sewer projects	Prov. approval
9-20-71	Portland	Four sewer projects	Prov. approval
9-20-71	Glendale	Sether Avenue pump station and force main	Prov. approval
9-20-71	Gresham	Five sewer projects	Prov. approval
9-20-71	Canby	South Locust Street	Prov. approval
9-20-71	Gresham	Six sewer projects	Prov. approval
9-20-71	Eugene	Five sewer projects	Prov. approval
9-20-71	USA	Nine sewer projects	Prov. approval
9-20-71	Marion County	Four projects in Keizer and East Salem Sewer & Drainage District	Prov. approval
9-24-71	Cedar Hills	Berkshire No. 5	Prov. approval
9-24-71	Salem	Madrona Avenue-Neff Avenue	Prov. approval
9-24-71	Salem	Foothills sewer	Prov. approval
9-24-71	Green San. Dist.	Lateral "A" extension	Prov. approval
9-24-71	Gresham	Halsey Street-Wilman East	Prov. approval

Date	Location	Project	Action
9-24-71	Portland	S.W. Eighth and Lucille	Prov. approval
9-27-71	Eugene	Change Order #3 and #4	Prov. approval
9-28-71	Gresham	Sewage treatment plant expansion	Prov. approval
9-29-71	Klamath County	Bly Ranger Station report	Concurrence

Industrial Projects (1)

9-28-71	Griggs (Linn County)	Willamette Industries glue recycle	Approved

PROJECT PLANS, REPORTS, PROPOSALS FOR AIR QUALITY CONTROL DIVISION FOR SEPTEMBER, 1971.

The following project plans or reports were received and processed by the Air Quality Control Division for the month of September, 1971:

Date	Location	Project	Action
1	Klamath County	Metler Brothers - Request for extension of time until December, 1972, for WWB phase-out	Denied
	Douglas County	U. S. Plywood - Rifle Range Road plant - Proposal to comply with Board Products Regulations by September, 1973	Approved
	Morrow County	Heppner Lumber Company - Proposal to phase-out WWB by October 1, 1971	Approved
	Douglas County	Superior Lumber Company - Proposal to phase-out WWB by December 1, 1971	Approved
	Tillamook County	Miami Shingle Company - Request additional six (6) months for submission of WWB compliance program	Denied
3	Douglas County	Drain Plywood Company - Plans for sanderdust control system	Approved
7	Klamath County	Weyerhaeuser Company - Bly Operations-proposal to phase-out WWB by September 1, 1971	Approved
	Jackson County	Double Dee Lumber Company - Plans to rebuild mill and to phase-out WWB by December 31, 1971	Approved
	Deschutes County	Brooks-Willamette Corporation - Redmond Division - Statement of compliance with Board Products Regulations	Approved
8	Douglas County	Schafer Lumber Company - Proposal to phase-out WWB by March 1, 1972	Additional Information Requested
	Deschutes County	Brooks-Scanlon, Inc. - Boiler control program for completion by April, 1972	Approved at Sept., 1971, EQC meeting

PROJECT PLANS, REPORTS, PROPOSALS FOR AIR QUALITY CONTROL DIVISION FOR SEPTEMBER, 1971:

Date	Location	Project	Action
9	Jackson County	Fir Ply, Inc. - Plans to modify WWB at Plant #1 by November 1, 1971	Additional Information Requested
10	Deschutes County	Brooks-Willamette Corporation - Redmond Division - Plans to modify WWB by November 15, 1971	Additional Information Requested
13	Hood River County	U. S. Plywood - Neal Creek Division - Plans to modify WWB by December 31, 1971, and to phase-out second WWB by July 15, 1972	Approved
	Lincoln County	W. O. W. Lumber Company - Proposal to phase-out WWB by December 1, 1971	Approved
	Curry County	R. D. Tucker Lumber Company - Proposal to phase-out WWB by December 31, 1971	Additional Information Requested
	Clatsop County	Crown Zellerbach Corporation - Plans for Smelt Tank demister pads	Approved
16	Jackson County	Fir Ply, Inc. - Proposal to phase-out second WWB by December 31, 1971	Approved
	Jackson County	Timber Products Company - Proposal for compliance with Board Products Regulations by December 31, 1973	Approved
20	Douglas County	Drain Plywood Company - Plans to install new hogged-fuel fired boiler by July 1, 1972	Approved
23	Tillamook County	Hodgdon Shingle Company - Proposal to phase-out WWB	Not Approved
	Umatilla County	U. S. Gypsum Company - Proposal to phase-out WWB by December 15, 1971	Approved

PROJECT PLANS, REPORTS, PROPOSALS FOR AIR QUALITY CONTROL DIVISION FOR SEPTEMBER, 1971:

Date	Location	Project	Action
23	Douglas County	Robert Dollar Company - Proposal for compliance with Board Products Regulations by December 31, 1971	Approved
	Klamath County	Weyerhaeuser Company - Bly Operations - Proposal to phase-out second WWB by April 1, 1972	Approved
27	Hood River County	U. S. Plywood - Statement of compliance with Board Products Regulations	Additional Information Requested
	Deschutes County	Brooks-Willamette Corporation - Plans to modify WWB by November 15, 1971	Approved
	Douglas County	Georgia Pacific Corporation - Sutherlin - Plans to modify WWB	Additional Information Requested
	Umatilla County	U. S. Gypsum Company - Statement of compliance with Board Products Regulations	Approved
	Lincoln County	Alsea Veneer - Plans to modify WWB	Additional Information Requested
28	Klamath County	Boise Cascade Corporation - Beaver Marsh - Plans to modify WWB by December 1, 1971	Approved
	Coos County	Elkside Lumber Company - Request for extension of time until November 15, 1971, for completion of phase-out of WWB	Approved
	Klamath County	Metler Brothers - Request for one (1) year extension to develop WWB phase-out program	Denied
29	Deschutes County	Central Oregon Fir Supply Co. - Request for indefinite delay for developing WWB phase-out program	Denied

PROJECT PLANS, REPORTS, PROPOSALS FOR AIR QUALITY CONTROL DIVISION FOR SEPTEMBER, 1971.

In summary, the Air Quality Control Staff:

1. Approved proposals to comply with Board Products Regulations. 5

2. Requested additional information regarding compliance with Board Products Regulations. 1

3. Approved WWB phase-out proposals 9

4. Approved WWB plans and specifications for modification 3

5. Requested additional information regarding WWB phase-out proposals. 2

6. Requested additional information regarding plans and specifications for WWB modification. 4

7. Approved time extension for WWB phase-out. 1

8. Denied requests for extended time delays for either phase-out or modification of WWB's 5

9. Approved other miscellaneous control programs. 4

TOTAL ACTIONS 34

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION

B. A. McPhillips, Chairman
Storrs S. Waterman, Member
Arnold M. Cogan, Member
E. C. Harms, Jr., Member
George A. McMath, Member

FROM : DIRECTOR

SUBJECT : October 29, 1971, EQC Agenda Item D
Portland Parking Structure Hearing

PURPOSE OF HEARING

The specific question for which answers are sought by this hearing deals with the impact on air quality in the Portland metropolitan region that may result from the construction of additional permanent parking facilities in the area. A broader, more basic underlying purpose of this hearing is to examine the impact on environmental quality of continued accommodation of the automobile in metropolitan areas. The information and views gathered will assist the Commission in carrying out its broad environmental responsibilities and specifically those responsibilities for air quality control as it pertains to pollutants from motor vehicles.

BACKGROUND

The Department presented a report to the Portland City Council on February 11, 1971, in support of a moratorium on all permanent parking structures within the central commercial zone of the city until such time that a comprehensive core area plan could be developed and adopted.

The Commission and Department have gone on record in support of mass transportation system development in the metropolitan area. In a letter of December 10, 1969, to Tri-Met, it was noted that by developing a mass transportation system which would significantly reduce automobile traffic within the metropolitan area, a sizeable reduction in atmospheric loading could be achieved. This position was reiterated December 1, 1970, in a letter to Tri-Met which stated that: "Many of the proposed concepts which offer the greatest potential for significantly reducing the deleterious effects upon the urban environment of emissions from the private automobile are contingent upon the development of a viable alternative to the private automobile as a transportation mode within the urban area, and particularly within the core areas."

The Department, further, has worked closely with Tri-Met on the Development of its coach specifications as they pertained to air quality control. These specifications call for compliance with the motor vehicle visible

emission regulation adopted by the Commission and further incorporate specific exhaust emission control requirements.

ANALYSIS OF THE PROBLEM

The essence of the problem under consideration is that too many motor vehicles in a congested area result in environmental problems: that the federally established national ambient air standard for carbon monoxide is being exceeded regularly at the continuous air monitoring station operated by the Department at 718 W. Burnside in Portland; that the Federal new vehicle emission control program will not provide a sufficient reduction in total vehicle emissions to meet the standards within the time-frame required by the Clean Air Amendments of 1970; and that there is currently no effective alternative to private vehicle usage in the Portland metropolitan region which could provide significant beneficial impact on air quality.

Motor Vehicle Division records show that 526,785 automobiles were registered during 1970 in the four county area of Clackamas, Columbia, Multnomah and Washington counties. The area of these four counties totals 3,742 square miles. The total number of automobiles registered in the state during 1970 was 1,253,231. The state land area is 96,315 square miles. Thus, 42% of the automobiles in the state are located in 4% of the state land area.

Similarly for vehicle usage, it has been estimated that the 1970 total vehicle mileage, including trucks, in the Portland metropolitan region four county area was 4,337,000,000 miles. The estimated statewide figure was 13,125,000,000 miles. Thus, over 33% of the vehicle usage in the state occurred in less than 4% of the state area. Multnomah County, with 331,481 automobiles registered in 1970, has the greatest number of vehicles of any county in the State, and also has the greatest density of vehicles with 725 registered automobiles per square mile. Washington County was the second most densely populated with 123 registered automobiles per square mile. Twenty counties in the State show less than 10 registered automobiles per square mile.

Pollution levels in the surrounding outdoor air (ambient air) have been measured by the Department at a continuous air monitoring station (CAMS) located off West Burnside Street in Portland since 1967. The carbon monoxide values obtained at this station show that the national ambient air standard of 10 mg/m^3 (average for 8 hours) for carbon monoxide has been exceeded on seventy separate days in the first nine months of this year. The maximum 8 hour value recorded during this period was 19.4 mg/m^3. The maximum 8 hour carbon monoxide value recorded during 1970 was 22.25 mg/m^3.

The Federal Clean Air Act Amendments of 1970 require that each State prepare for submittal to the Environmental Protection Agency by January 30, 1972, an Implementation Plan by which it proposed to meet national ambient air standards by 1975. In the event that "necessary technology or alternatives" are not available to enable meeting the standards by 1975, the Act provides that the Governor may request an extension of two years, allowing the State until 1977 to comply with national standards.

The Department has recently reviewed two consultants reports regarding motor vehicle emission control in the Portland area. Both of these reports concurred with earlier Department studies in that it was found that the Federal new car program alone will not result in sufficient emission reductions to achieve the national primary standards for carbon monoxide by the year 1977.

In view of this inability to comply with national primary standards for carbon monoxide by 1977, when relying solely upon the Federal new vehicle program, the Department must look to other means by which further reductions can be accomplished.

Generally speaking, there are two "other methods" that can be used to supplement reductions of emissions that are expected to accrue from Federally required modifications or controls for new automobiles. These are: 1) to effect a substantial reduction of emissions from a significant number of automobiles through the implementation of a comprehensive system of motor vehicle testing, maintenance and repair, and 2) to reduce the number of automobiles in presently congested areas.

The costs of motor vehicle testing, maintenance and repair programs are high in terms of both dollars and inconvenience to individual motorists. Their effects are limited almost solely to some beneficial effects in reducing automobile-caused air pollution; however, existing data indicate that the air pollution benefits would not be sufficient to meet the standards by themselves.

It seems clear that any strategy designed to meet air quality standards in the downtown core area of Portland must include means for substantially reducing the number of automobiles in the area, especially during normal peak traffic hours. If a viable alternative to private vehicle usage in the metropolitan area is to be developed, transportation systems must be discussed, thought of, and planned as having a dual role - that is, a functional role and an environmental role. A lack of widespread public concern in the past regarding the environmental impact of transportation systems has undoubtedly contributed to emphasis being placed primarily on the functional role in design of most transportation systems.

Indicative of the comprehensive approach that is required, the Report of the Committee on Public Works, United States Senate, which accompanied

the Senate version of the 1970 Amendments to the Clean Air Act, submitted by Senator Byrd of West Virginia, contained the following statements:

> "Implementation of standards will require other changes in public policy:
>
> Land use policies must be developed to prevent location of facilities which are not compatible with implementation of national standards. Transportation policies must be developed or improved to assure that the impact of pollution from existing moving sources be reduced to the minimum compatible with the needs of each region. Construction of urban highways and freeways may be required to take second place to rapid and mass transit and other public transportation systems. Central city use of motor vehicles may have to be restricted."
>
> "If the Nation is to continue to depend on individual use motor vehicles, such vehicles must meet high standards. The bill recognizes that a generation - or ten years' production - of motor vehicles will be required to meet the proposed standards. During that time, as much as seventy-five percent of the traffic may have to be restricted in certain large metropolitan areas if health standards are to be achieved within the time required by this Bill."
>
> "The Committee recognizes that during the next several years, the attainment of required ambient air quality in many of the metropolitan regions of this country will be impossible if the control of pollution from moving sources depends solely on emission controls. The Committee does not intend that these areas be exempt from meeting the standards. Some regions may have to establish new transportation programs and systems combined with traffic control regulations and restrictions in order to achieve ambient air quality standards for pollution agents associated with moving sources."

Many traffic control strategies designed to reduce pollution can accrue benefits which reach far beyond the immediate goal of air pollution reduction. Some measures, however, may cause shifts in transportation patterns which are desirable in terms of air quality improvements, but detrimental to urban planning goals. The development of any strategy requires close coordination with urban planners, transportation engineers, economists and other specialists as well as communication with affected citizens and public agencies.

Significant benefits to air quality control from transportation system design will occur only when significant changes in design are made. If it were possible, for instance, to restrict traffic volume in the four county Portland metropolitan region to current levels through 1975, then a 20% reduction in the projected 1975 emission levels could occur. If traffic were restricted in

the central business district, other environmental benefits such as reduction in noise levels and downtown congestion would also accrue. Either event requires an effective mass transportation system to maintain viability of the restricted central district. However, successful transit systems tend to attract new developments, especially in the downtown areas, which in turn generate new trip desires. The increased transit usage may also not reduce the total number of motor vehicle trips unless additional companion measures are introduced to limit automobile trips.

CONCLUSIONS

The Department, through its studies and reviews, has concluded the following in regard to motor vehicle emission control in the Portland area:

1. Primarily as a result of motor vehicle emissions, carbon monoxide concentrations in excess of national standards are frequently recorded at the continuous air monitoring station operated at 718 W. Burnside in downtown Portland.

2. Current trends show increasing numbers and usage of private motor vehicles within the greater metropolitan regions.

3. Gaseous emissions of hydrocarbons, carbon monoxide, and nitrogen oxides from automobiles will decrease in the major metropolitan areas and throughout the state, in spite of increased vehicle usage, as a result of the federal new vehicle emission control program.

4. The emission change in Portland resulting from the federal new vehicle program alone, however, is insufficient to achieve national primary standards for carbon monoxide by the year 1977. The Federal Clean Air Act requires compliance with national standards by 1975, with possible extension to 1977 at the Governor's request.

5. A periodic inspection of motor vehicles to insure compliance with emission control criteria would affect a significant reduction in pollutants being emitted to the airshed, however, in critical areas certain additional control measures would still be necessary to comply with national ambient air standards by 1977.

6. In order to meet air quality standards and to restore and preserve environmental quality in downtown Portland, methods must be developed and implemented to substantially reduce the number of private automobiles operating in the downtown area. Methods deserving consideration include:

   a) Peripheral park-and-ride parking and "express" buses.

b) Exclusive bus lanes.

c) Reduction of on-street parking, and careful scrutiny of proposals for off-street parking.

d) Direct restriction of non-essential individual automobile traffic during peak traffic hours concurrent with development of viable alternative means of transportation.

7. Mass transportation does not and will not have a significant role in attracting people from private motor vehicle use unless major changes in transportation and urban planning occur. On the other hand, a mass transit system cannot be successful unless the people as individuals accept the challenge of making it work for environmental as well as functional reasons.

8. Traffic restrictions in critical areas is dependent upon concurrent development of alternative transportation modes if vitality of the restricted area is to be maintained and degradation of adjacent areas is to be avoided.

9. Construction of parking structures, freeways, or other structures that would or may tend to increase automobile pollution and congestion in downtown Portland should be preceeded by studies to determine the probable impact on environmental quality.

DIRECTOR'S RECOMMENDATION

The primary purpose of this hearing is to gather information. The Director will present a series of additional recommendations to the Commission after a thorough review of the information and views presented as a result of this hearing and with meetings with other government and environmental entities.

In addition to this, the director believes the mandate for action is clear and that the Commission and this Department must immediately start to reduce the number of private automobiles in the downtown area. I therefore recommend that the Commission publicly support the Portland bus lane proposal to be heard before the Portland Planning Commission, November 4, 1971. In addition to this, I recommend that the Department take immediate action to support and assist early implementation of Tri-Met's announced peripheral parking and express busing system. In addition to this, the Department and the Commission must publicly recognize that the mere control of motor vehicle emissions is not the only environmental consequence; continued automobile encroachment of the urban centers, the congestion and the environmental impact that comes from additional freeways, parking structures, and the loss of green and open spaces are of equal importance and it is our obligation to work closely with other state agencies, local governments, and environmental groups to affect a major change in our planning and action priorities for the future to alleviate this situation.

b) Exclusive bus lanes.

c) Reduction of on-street parking, and careful scrutiny of proposals for off-street parking.

d) Direct restriction of non-essential individual automobile traffic during peak traffic hours concurrent with development of viable alternative means of transportation.

7. Mass transportation does not and will not have a significant role in attracting people from private motor vehicle use unless major changes in transportation and urban planning occur. On the other hand, a mass transit system cannot be successful unless the people as individuals accept the challenge of making it work for environmental as well as functional reasons.

8. Traffic restrictions in critical areas is dependent upon concurrent development of alternative transportation modes if vitality of the restricted area is to be maintained and degradation of adjacent areas is to be avoided.

9. Construction of parking structures, freeways, or other structures that would or may tend to increase automobile pollution and congestion in downtown Portland should be preceeded by studies to determine the probable impact on environmental quality.

DIRECTORS RECOMMENDATION

Since the primary purpose of this hearing is to gather information, the Director will present additional recommendations to the Commission after a thorough review of the information and views presented as a result of this hearing. However, since it is abundantly clear that specific actions must begin immediately to start to reduce the number of private automobiles in the downtown area, it is recommended at this time that the Commission publicly support the Portland bus lane proposal to be heard before the Portland Planning Commission on November 4, 1971, and the Department support and assist the early implementation of Tri-Met's announced peripheral parking and express bussing system.

DIRECTOR'S RECOMMENDATION

It is recommended that the Department proceed immediately to develop, in coordination with Columbia-Willamette Air Pollution Authority and other agencies involved and responsible to urban planning, quantitative criteria to guide the City, County, State, and Tri-Met in developing and implementing methods and means of systematically reducing the numbers of automobiles operated in the downtown Portland area, such that air pollution standards and other environmental objectives are continuously met.

File copy
Read at hearing
by Maureen Brassler

STATEMENT OF S.T.O.P.
(Sensible Transportation Options for People)
REGARDING CONSTRUCTION OF A PARKING
LOT IN DOWNTOWN PORTLAND BY THE
BENJAMIN FRANKLIN SAVINGS & LOAN ASSOC.
BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
On October 29, 1971

I represent a relatively new organization called S.T.O.P., an acronym for "Sensible Transportation Options for People". STOP is a group of citizens who would like to encourage a balanced transportation system in which the automobile will be placed in a reduced role within the city and state, and more efficient modes of transportation will predominate. STOP is concerned with mass transportation, freeways, certain aspects of Constitutional reform, including the Highway Trust Fund Initiative; downtown land use, and bicycles.

1. General Position of STOP:

STOP is opposed to the construction of parking structures in the Portland downtown core area and in any area where alternate means of transportation to the automobile can be provided.

2. Passage of this Resolution:

This resolution and the supporting arguments were proposed by the Downtown Committee, reviewed by the Coordinating Committee and approved by the general membership of STOP at a regular meeting on October 25, 1971.

3. Reasons for Opposition to Parking Structures:

Allowing the construction of parking structures such as the Benjamin Franklin parking structure perpetuates the environmentally destructive trend to more automobile use.

The proposed Benjamin Franklin drive-in bank also continues this destructive trend.

STOP contends that for state air quality control purposes, this is an "air contamination source" as defined by ORS 449.760(5), in that the parking lot is a source "by reason of which" there are emitted into the atmosphere air contaminants. In substantiation of this point, STOP contends that a large number of cars emitting air contaminants would not be in the immediate area of the proposed Benjamin Franklin parking structure but for the existence of the garage. Further, the location

of this garage is a mere two blocks south of a DEQ Continuous Air Monitoring Station which has shown excessive ambient air contamination many times even without the existence of a substantial parking structure in this area. The fact that similar readings have been obtained at a CWAPA Station approximately four blocks south of the proposed structure indicates that excessive contaminants are pervasive throughout the area.

In order to meet the national ambient air standard for carbon monoxide (CO) by 1975 as required by the Clean Air Act, CO levels in downtown Portland must be reduced by 60% of 1970 levels. According to EPA, the federal emission standards for new cars will reduce CO emissions by only 25% of 1970 levels. This means that an additional 35% reduction must be obtained. Clearly, any new development which will increase the number of automobiles in downtown Portland is going to hinder any attempt to achieve such a reduction. The Benjamin Franklin project is such a development, and should be stopped.

Another area of responsibility of the EQC is for noise. The downtown area already has an extremely irritating level of noise. Attracting more cars to this area will simply increase the amount of noise in the downtown area. Such a result should be avoided.

At this informational hearing, we would like to raise another question, and that is the proposed 800-car parking structure for the Medical School complex on Marquam Hill. It is our position that unnecessary carbon monoxide increases would result from this parking structure and that due to the configuration of the canyon there will be a significant increase in noise pollution. Perhaps even more important is the fact that alternatives to this structure are readily available in the form of existing bus lines and potential special shuttle bus runs from peripheral areas.

We would also like to make a few comments about this particular hearing. While we realize that this is an informational hearing, and we also understand that the EQC has received some indication it may not be able to sustain a position which categorizes parking facilities as air contaminational sources, we believe it is incumbent upon the Commission to determine the extent of its statutory authority. Therefore, we urge the Commission to hold a formal rule-making hearing which would incorporate restrictions on parking structures into the Implementation Plan required under the Clean Air Act of 1970. It is our position that the EQC has the authority to proceed along these lines and that if this authority is challenged, a court determination of limitations on that authority should be made.

All of this goes to reflect that an overall policy regarding parking structures is needed by the EQC. Specifically, STOP urges the Commission to take the following steps:

1. Recognize and declare a parking structure to be an "air contaminant source" as defined in ORS 449.760(5).
2. Add parking structures to the list of sources required to submit plans and secure approval for construction, as set forth in ORS 449.712.
3. Direct your staff to prepare rules and regulations, for consideration as part of Oregon's Clean Air Act Implementation Plan, establishing limitations on automobile traffic and parking density in urban areas, and guidelines for reviewing parking structure proposals.
4. Hold a formal public hearing and require Benjamin Franklin to show cause why an order prohibiting construction should not be issued.
5. Hold a formal public hearing and require the State Board of Higher Education to show cause why an order prohibiting construction of the proposed Medical School parking structure should not be issued.
6. Hold a formal public hearing and require the City of Portland to show cause why it should not be ordered (1) to repeal those portions of its building code requiring off-street parking as part of every development outside the C-1 zone, and (2) to provide adequate mass transit and/or peripheral parking sufficient to solve downtown air quality problems.

Thank you.

File copy
Read at hearing
by Mike Hill

It is resolved by the Student Association of the University of Oregon Dental School on October 26, 1971 that:

WHEREAS, the proposed parking structure planned for erection next to the site of the University of Oregon Dental School, at 611 S.W. Campus Drive, Portland, Oregon, imposes a potential degradation of unknown dimension to the environmental quality of that area;

WHEREAS, the parking structure would irrevocably occupy land which might in the near future be crucially needed for teaching and research to meet the health requirements of the people of the State of Oregon;

WHEREAS, the transportation needs of the patients, students, and workers utilizing the health institutions in that area are being considered with the transportation modernization of the total community;

WHEREAS, the parking structure would serve as an attraction for more cars to enter the campus area

RESOLVED that the students of the University of Oregon Dental School desire a delay in the construction of said parking structure to allow a complete assessment of the impact of the erection of the building

RESOLVED that the Student Council request the Department of Environmental Quality of the State of Oregon to extend all efforts to complete that assessment before construction begins.

Adopted by the Council

Michael C. Hill
Student Body President

File copy

UNIVERSITY OF OREGON DENTAL SCHOOL

611 S.W. Campus Drive
Portland, Oregon 97201

Area Code 503 222-9781

CROWN AND BRIDGE DEPARTMENT

November 1, 1971

Mr. L.B. Day, Director
Dept. of Environmental Quality
State Office Building
1400 S.W. 5th Avenue
Portland, Oregon 97201

Dear Mr. Day,

Thank you very much for providing the opportunity for Mike Hill, Larry O'Neill, Bill Cady, and myself to appear as witnesses at your hearing on October 29. I am pleased especially about the reaction expressed by Chairman McPhillips that he was pleased to note an interest by a younger group of people. You may recall you expressed the same feeling in our conversation in your office and suggested to me that evidence of that sort at the hearing would have impact. I believe you were right.

Another student was present that I'd hoped to introduce, but time was short. His name is Steve Rathofer and he had written a perceptive article pertaining to the problem as copy for the student newspaper. I am taking the liberty to include copies of that article for you and the commission members. I hope they might find time to read this important piece of writing. Also included are copies of the presentations of Mr. Cady and my own, which we neglected to give Mr. Spies at the hearing.

Thank you again for your help and consideration.

Sincerely,

Bill Richter

W.A. Richter, D.M.D., M.S.
Chairman & Professor
Crown & Bridge Department

WAR/sc
Enclosures

Read at hearing
by Dr. Richter

I am William Richter. I am a member of the faculty of the University of Oregon Dental School. My purpose here is to present for your consideration a position opposing the construction of the proposed parking structure on a site next to the University of Oregon Dental School on Marquam Hill here in Portland. I have with me petitions signed by 47 members of the faculty. That figure represents a majority (47 of 57) attending a faculty meeting of September 20, 1971. The petition reads:

I favor a delay in the construction of the proposed parking structure to be located next to the Dental School to allow a reassessment of the . . . .

1. Potential degradation of the environment
2. Possibility of coordination with metro mass transit planning
3. Alternatives to solve campus parking problems

The purpose therefore of this presentation is to request your commission to exert all possible effort to cause the State Board of Higher Education to delay construction of the parking structure until an exacting study has been conducted by authorities in the field of environmental pollution and by experts concerned with the future transportation needs of people of the total community. The vision of a structure, of questionable need, with permanent polluting potential being erected on a campus dedicated to the health needs of the people of the State of Oregon is too awful to behold.

I would also respectfully ask you to hear from another interested group. Related to our faculty, but separate. They are members of the student body. I would like to introduce Mike Hill, Bill Cady, Larry O'Neill and Steve Rathofer. They represent an interest by an age group far more concerned with the future of the issue before us than ours. Each of them has been very active in some phase or another of possible solutions to the problem - for example, investigation in to alternative methods of transportation to the Marquam Hill area by patients and students and staff.

Read at hearing
by Bill Cady

I am Bill Cady Junior Class President at the University of Oregon Dental School. We as students of the University of Oregon Dental School are prepared to accept an alternate proposal to the planned parking structure.

One such workable plan involves a peripheral-park-and-ride system.

A plan that could accommodate our needs is now in operation at Portland State University.

Negotiation with Portland State University officials has resulted in full cooperation and permission of use of their facilities.

Finally, another motion is now being sought through the aid of the Department of Transportation in seeking a federal grant for a mass transit system for our school parking needs.

With the aid of a mass transit system, we believe the parking problem would be handled in the best interest of all people concerned.

A QUESTION OF PRIORITIES

Steve Rathofer

1 copies

The 1972-73 school year has begun with a campus-wide controversy concerning the proposed construction of a parking facility adjacent to the dental school building. This controversy in a short time has encompassed arguments from both students and faculty. The current shortage of parking for medical-dental facilities is obvious. Almost any upperclassman or faculty member can affirm that the problem is not a new one, nor is it a small one. The minutes of the UOMS Building Committee indicate that by official estimate, the parking shortage will be over 750 spaces by 1972.

Proposed Solution

The solution advocated by the Building Committee is a six-level parking structure of reinforced concrete to be constructed on the west side of UODS - directly between the dental school building and the Activities Center building. The report to the Building Committee indicates it will be an "open structure" lacking any form of forced or mechanical ventilation. The projected capacity is approximately 752 cars. The direct construction costs (excluding costs of "associated projects") are anticipated to be $2,535,000 (or $3,147 per average parking stall). The report states that "this figure excludes $156,066 which is budgeted as the cost of providing and installing of a fourth elevator...to the teaching hospital...and modifying the elevator control equipment for the many patrons who will be routed through the hospital to reach offices, classrooms, clinic, and service areas on upper (north) campus". Bidding is anticipated to occur in June of 72, with project completion set at summer of 73. This is to be a "user-tax" project, which means that those who use the facility will pay for it with parking fees and fines (Students and faculty will remember that parking fees were recently raised to begin building a monetary cushion with which initiation of the project is to be financed). In this respect, each parking stall must earn about $3,200 in fines and fees to pay for itself. On completion of the project, the shuttle buses which run up to Marquam Hill residential areas and Lot #33 will cease operation.

A Critical Look

The first evaluation that must be made in the analysis of this project is whether the parking ramp will meet the needs for which it is designed. Parking on "The Hill" is currently a problem, and as research and treatment facilities increase, parking will be even more difficult. This parking ramp with its 752-car capacity is purported to be a solution to the parking problem. By the Building Committee's own projections, the parking space crisis will reach a shortage of 750 spaces in 1972. Since the parking ramp's capacity is only about 750, the proposed structure appears to be an answer to only the problems of 1972. The facilities on The Hill are expanding yearly as is the number of personnel employed by the services. Each year there are more people trying to park their cars, and the rate of increase seems to accelerate with each year. The construction of a parking structure that can meet the needs of only the coming year seems to be neglecting that the year after the ramp is completed, there will inevitably again be more cars than parking stalls. The construction of a parking ramp of any reasonable capacity is therefore a stop-gap measure which has the very real potential of being outgrown by the rapidly changing demands of a growing university. The UOMS recently built a multi-level parking facility on the upper (medical) campus to handle their parking requirements. The structure was obsolete almost before it was completed. University expansion outgrew the capacity of that parking facility, and now the Building Committee is planning yet another parking ramp next to the dental school. Unfortunately, the proposed ramp has the same potential of obsolescence in the near future.

As a premise upon which a second point of evaluation may be based, let us assume that the medical-dental facilities are a health professions complex designed for the treatment of human diseases and the performance of research associated with medical fields. Let us further assume that the space occupied by the facilities that carry on this humanitarian function are of somewhat greater significance and importance than the space occupied by a parking lot. It follows, then, that land associated with this medical facility should be dedicated

to medical research, teaching, and patient treatment. The land is much too valuable to be used for parking space. The ability of the medical-dental complex to expand is hampered by the very fact that it is built on a hill, and for this reason, land is at a premium. If requirement arises in the unplanned future for expanded facilities of UOMS-UODS, some 250,000 square feet of valuable land will be found to be occupied by a six-story cement parking lot.

The most obvious aspect of a parking complex that bears consideration is that of pollution that will inevitably result: air pollution from the automobiles, noise pollution from both the cars and the construction of the ramp, and the visual pollution from the very presence of a six-story concrete structure next the UODS. These pollution forms cannot help but degrade the UODS-UOMS environment. This aspect of the consideration is perhaps the most critical, for the effects are not local, but like other pollution, has widespread effects. For decades, American cities have expanded without plan; industry has built and operated factories with no regard for ecological considerations; governments and citizens have been apathetic and lethargic in the field of pollution control. The result has been a polluted excuse for air, with automobile exhaust being responsible for over half of air pollution in metropolitan areas such as Portland. Large parking structures such as those proposed for UOMS and The Benjamin Franklin Company merely add impetus to the snowballing effect of environmental pollution. We have now reached the point at which the temporary solutions of huge parking structures to hold more and more cars must be abandoned in favor of a more rational approach to city planning and pollution control. This UOMS parking structure is then not only a stop-gap measure of only transitory effectiveness, but it also poses a threat to an already suffering environment.

Another consideration that must be examined is related to recent changes in public attitudes. One of the changes that has been occurring lately is that citizens and city planners have become more interested in "people-oriented" planning. For the first time cities have been planned for people rather than cars. Trends in more progressive American cities has tended toward mass transit from peripheral areas with core areas closed to automobile traffic. Such programs are under consideration by the city of Portland to alleviate its traffic congestion. Similiarly, this trend has occurred in college campus planning. The idea of a central campus with peripheral parking was initiated about a decade ago in the architectural planning of many of California's new colleges. The application of this to the proposed UOMS-UODS parking facility should be explored. The medical facilities here may be an extension of the University of Oregon in Eugene, but they are physically a part of Portland. Those who work on The Hill drive on Portland streets, add to Portland's traffic problems, and augment Portland's pollution. The UOMS Building Committee, therefore cannot rightly act autonomously in the planning of its traffic patterns. The serious work that has been conducted in Portland and other large cities in the field of city planning and the achievements that have been made in campus planning seems to have been ignored by the proposal of a six-story,on-campus parking complex. Again, we have returned to the thought that the parking facility is a short-termed, stop-gap, partial solution to the parking problem. More seriously, it now appears to be a rather retarded solution in light of the very progressive remedies that have been found to be workable in other cities.

Perhaps the most disturbing symptom of the parking mania is evident in the procedural minutes of the Building Committee. Briefly, the entry states that the Veteran's Administration has requested the donation of 4.5 acres of Medical School property for use as a parking lot for the V.A. hospital. "This is contingent on the V.A. giving back 0.2877 acres on the south side of UODS property for parking." We have reached the point where numerous medical facilities have been crushed onto the physically limiting space of a hill. Now parking has been wedged in also, and this to the degree that land parcels measured in tenths of acres are being transferred for use in parking. One cannot help but wonder where this will end. It appears also that we have reached the point where various agencies on The Hill are planning their own parking programs with little or no inter-agency communication in the inter-

est of parking space conservation and avoidance of duplication of facilities.

Priority: A Question of Judgment

This editorial comment does not attempt to support or argue any particular alternate proposal. It does, however, plea for a moratorium on the construction of this parking complex until all of the workable alternatives have been fully explored. It also proposes that the committee responsible for campus management look deeper into the way their decision will affect the mass transit systems being considered by the city of Portland and Tri-Met. With current traffic and pollution problems in Portland, a high degree of judgment must be exercised before instituting any hasty solutions that may turn out to be only a measure which will postpone facing the real issues and devising real and workable solutions. In the question of traffic and parking, the disease must be treated, not the symptom. A priority must be established. A city and campus program must be established in the interest of the individual people that must live in that environment. The time is upon us in which citizens are fed up with uninhabitable cities and haphazard planning. This applies as well to the feelings students and faculties have toward campus planning. The developments in transit and city planning have shown cities that there may be a way out, after all, but that it will require the effort and cooperation of all agencies within the city, including university campuses. The city of San Francisco has recently instituted a planned peripheral parking/mass transit program of their own, the Bay Area Rapid Transit (BART), proving that mass transit on a large scale is feasible. If traffic congestion and hydrocarbon air pollution continues to spiral, Portland will shortly need a workable transit system and city plan of its own, and the traffic and parking patterns of the UOMS-UODS campus should be a cog in the wheel, not a thorn in the side.

File Copy

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

1010 N. E. COUCH STREET PORTLAND, OREGON 97232 PHONE (503) 233-7176

29 October 1971

Oregon Environmental Quality Commission
1400 S.W. Fifth Avenue
Portland, Oregon 97201

Gentlemen:

Thank you for the invitation to present information and viewpoints regarding the control of air contaminants from the motor vehicle and its effects upon the quality of life in our cities.

The Columbia-Willamette Air Pollution Authority has been engaged in efforts to encourage the development of adequate motor vehicle control programs from its official start in January of 1968. The Authority recognizes that some significant steps have been taken as a result of the statutes adopted by the 1967, 1969 and 1971 Oregon Legislature.

The Board of Directors of CWAPA has authorized its staff to engage in air quality studies requested by local planning and zoning agencies. The Air Quality Aspects of the City of Portland Downtown Study Project is an example of such a project. Enclosed is a copy of Phase I of our report which is, A Review of Existing Air Quality. Also enclosed is a draft of Phase II, Projected Air Quality to Year 1985. These reports make extensive use of data from the Oregon Department of Environmental Quality, the City of Portland Planning Department and the Oregon State Highway Department. It is the hope of our Board of Directors that the conclusions in these reports will enable the land use planners and the policy boards involved to launch a broad scale effort to comply with the air quality standards that are or will be incorporated in the state and regional rules and regulations.

For the Board of Directors.

Very truly yours,

R. E. Hatchard
Program Director

REH: sm
Enclosure

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY
1010 N.E. Couch Street, Portland, Oregon 97232

Technical Report No. 71-3

Air Quality Aspects of the City of Portland Downtown Study Project

Phase I - A Review of Existing Air Quality

Prepared for
City of Portland Planning Commission
Cornell, Howland, Hays and Merryfield, Inc.
DeLeuw, Cather and Company

Prepared by:

Technical Division
Columbia-Willamette Air Pollution Authority
April 30, 1971

Approved by:

John F. Kowalczyk
John F. Kowalczyk
Technical Director

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY
1010 N.E. Couch Street, Portland, Oregon 97232

TABLE OF CONTENTS

GLOSSARY OF TERMS

1. Ambient Air - The air that surrounds the earth, excluding the general volume of gases contained within buildings or structures.

2. Ambient Air Standard - The prescribed level of a pollutant in the ambient air that cannot legally be exceeded during a specified time in a specified geographical area.

3. Carbon Monoxide - A colorless, odorless, very toxic gas produced by any process that involves the incomplete combustion of carbon-containing substances. One of the major air pollutants, it is primarily emitted through the exhaust of gasoline-powered vehicles.

4. Emergency Action Procedure - An action procedure to minimize immediate adverse effects on the health of citizens during periods of high air pollution. It will be implemented in a progressive, step-wise fashion based on actual or forecasted conditions of increasing air pollutant concentrations, and may require immediate reduction of pollutant emissions from motor vehicles, commercial and industrial sources, and refuse burning.

5. E.P.A.-A.P.C.O. - The Environmental Protection Agency's Air Pollution Control Office, which is the Federal agency responsible for the implementation of the Congressional Clean Air Act.

6. E.P.A.-A.P.C.O. National Primary Ambient Air Quality Standards - A National ambient air standard which defines the levels of air quality, which the Federal government judges are necessary, with an adequate margin of safety, to protect the public health.

7. E.P.A.-A.P.C.O. National Secondary Ambient Air Quality Standards - A National ambient air standard which defines the levels of air quality which the Federal government judges necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

8. Nitrogen Oxides - Gases formed in great part from atmospheric nitrogen and oxygen when combustion takes place under conditions of high temperature and high pressure, such as in internal-combustion engines. Under the influence of sunlight, nitrogen oxides combine with gaseous hydrocarbons to form a complex variety of secondary pollutants called photochemical oxidants. These oxidants, together with solid and liquid particles in the air, make up what is commonly known as smog. Nitrogen dioxide, a product of photochemical smog, has been associated with a variety of respiratory diseases. At higher concentrations, it has been related to vegetation damage, visibility reduction and corrosion.

9. Particle Fallout - Particulate matter consisting of relatively large particles such as soot, cinders and dusts which fall to earth fairly close to their point of emission. They are primarily a nuisance and soiling problem.

This page revised 20 May 1971

10. Parts per million (ppm) - Parts of an air pollutant per million parts of air by volume.

11. Photochemical oxidants - Photochemical oxidants are produced in the atmosphere when a mixture of reactive hydrocarbons and nitrogen oxides are exposed to sunlight. The photochemical oxidant family of pollutants includes, among others, ozone, an unstable, toxic form of oxygen; nitrogen dioxide; peroxyacyl nitrates; aldehydes; and acrolein. In air they can cause eye and lung irritation, damage to vegetation, deterioration of materials, offensive odor, and thick haze.

12. Sulfur Oxides - Acrid, corrosive, poisonous gases produced when fuel containing sulfur is burned. They have been related to a variety of respiratory diseases and increased mortality rates and may cause significant economic damage and nuisance problems.

13. Suspended Particulates - Small particles of liquids or solids, normally less than 100 microns, which may remain suspended in the atmosphere for long periods and can be transported great distances by the wind. They originate from combustion sources, through condensation in the atmosphere and from many human activities and have been related to a variety of adverse effects on public health and welfare. Suspended particulates in the respiratory tract may produce injury by itself or may act in conjunction with gases. They are the largest single air pollution factor reducing visibility.

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY
1010 N.E. Couch Street, Portland, Oregon 97232

Air Quality Aspects of the City of Portland Downtown Study Project

Phase I - A Review of Existing Air Quality

Purpose and Scope

The City of Portland Downtown Study is a comprehensive land use study of the downtown area by the City of Portland Planning Commission, DeLeuw, Cather and Co., and Cornell, Howland, Hayes and Merryfield, Inc. The area encompassed by this study is indicated on Figure 1 and includes the northwest portion of the City of Portland core area extending from N.W. Front Street to N.W. 6th as well as the southwest portion of downtown Portland from the Willamette River to the foothills of the Tualatin Mountains.

The purpose of this document is to provide a summary of existing air quality within the Downtwon Study Project area. It is intended to assist planning agencies with the development of a conceptual land use plan based in part on air pollution considerations. A Phase II report will be issued which will project future air quality in the Study area.

Introduction

The air quality within the Downtown Study Project area is perhaps better defined than in most other portions of the Columbia-Willamette Air Pollution Authority region. The availability of particulate and gaseous pollutant data from sampling stations operated by CWAPA and the Oregon Department of Environmental Quality should provide considerable information to assist planning agencies.

Ambient Air Standards

The ambient air standards presented in Table 1 may be used as a guideline to assist in interpreting the air quality data obtained within the Study area. The Environmental Protection Agency - Air Pollution Control Office standards are the Federal National ambient air standards adopted by the Environmental Protection Agency, Air Pollution Control Office. These standards have been converted to parts per million (ppm) for comparative purposes.

The national primary and secondary ambient air standards noted in Table 1 will most likely have to be achieved within three years following federal approval of a control implementation plan which is scheduled for submission for the Portland Interstate Air Quality Control Region by 1 February 1972. In addition, a requirement for an Emergency Action Procedure may be in effect in 1972, requiring necessary control action by all elements of the community to protect the public health during periods of prolonged air stagnation.

Although the E.P.A.-A.P.C.O. has adopted a national ambient air standard for hydrocarbons, the standard relates to the reactive hydrocarbon content of the air. All of the data collected in the past has been in terms of total hydrocarbons and cannot be directly related to the standard. Reactive hydrocarbons are primarily related to the formation of photochemical air pollutants which are also reflected by the photochemical oxidant ambient air standard.

Air Quality Data Summary

Air quality data applicable to the Downtwon Study Project area is available from the Columbia-Willamette Air Pollution Authority and the Oregon Department of Environmental Quality (D.E.Q.) sampling stations noted in Table 2. Figure 2 presents a map of the station locations. The data from these sampling stations has been summarized by pollutant and is presented in Tables 3 through 10. It should be noted that gaseous pollutant data for the Study area aside from carbon monoxide is only available for the year 1968.

Ambient Air Data in Relation to Ambient Air Standards

A clearer understanding of the preceding data may be obtained by considering the data in relation to the ambient air standards noted in Table 1. In Table 11 the air quality data measured within the Study area is reviewed in terms of CWAPA and National standards and have been tabulated in terms of the number of ambient air violations which occurred at each sampling point.

Discussion

The data presented describes the air quality at the sampling location at which the measurements were made and may not be necessarily directly applicable to the entire area within the Downtown Study Project. This is especially true of carbon monoxide data, which is strongly influenced by the vehicle traffic density immediately surrounding the sampling site.

It is clear that the major air quality problems within the Study area arise from sources of suspended particulate, particle fallout and carbon monoxide.

1. Suspended Particulates

Information currently available suggests that suspended particulates (which are largely responsible for respiratory irritation, visibility reduction and soiling) are the single largest area wide problem within the air shed as well as within the Study area. Figure 3 is a suspended particulate isopleth map of the Portland Metropolitan area representing the distribution of suspended particulates during the year 1970.

The distribution suggests that the Study area is within the area of the highest suspended particulate concentrations to be found in the CWAPA region, and is continually in violation of the CWAPA annual suspended particulate ambient air standard of 60 micrograms per cubic meter. No violations of the E.P.A. - A.P.C.O. suspended particulate National primary standard occurred within the Study area during 1969 or 1970.

Present sampling information suggests that the Study area is being significantly influenced by particulate sources located in the industrialized areas of Guilds Lake and particulate sources to the south of the Study area along the Willamette River. Vehicular particulate emissions within the downtown area may also be a significant contributing source.

It is clear that the Downtown Study Project area frequently is subjected to suspended particulate concentrations in excess of present ambient air standards, and consequently additional significant sources of suspended particulate emissions should not be permitted to locate in the Study area, unless current emissions can be reduced to attain compliance including emissions from proposed new sources.

2. Particle Fallout

Large particles such as soot, flyash, wood cinders and dusts are the primary components of particle fallout samples obtained within the Study area. This material is primarily a nuisance problem which increases the frequency of cleaning automobiles and buildings. The particles of concern are relatively large and primarily related to sources near the affected receptor. The most significant sources of fallout particles are probably oil fired furnaces, incinerators and dusts generated by auto traffic and construction. Soot deposition from diesel exhaust emissions may also be a contributing source.

Although the major contributing source is difficult to establish, it is apparent that the particle fallout rate as measured at the two sites within the Study area, is almost continually in excess of the CWAPA ambient air standard. Future particle fallout air quality will primarily depend on better control of particulates emitted from oil fired furnaces, incinerators and other dust emission sources.

3. Carbon Monoxide

Intensive carbon monoxide sampling has been conducted within the Study area in an attempt to define the extent of the problem in specific portions of the area. Further work will be required to more fully define the carbon monoxide air quality in other portions of the area.

Sufficient information has been obtained to establish that a problem does exist under certain conditions of adverse meteorology, traffic density and traffic flow. The number of carbon monoxide violations of the National ambient air standards, noted in Table 11, clearly demonstrates that action will be required to reduce carbon monoxide emissions from mobile sources. During 1968, 182 violations of the ambient air standards occurred at the D.E.Q. sampling

station located at 718 W. Burnside. Approximately 32,300 vehicles per day pass through the intersection at S.W. Broadway at Burnside, located approximately 150 feet east of the sampling station.

Recent one hour samples collected by CWAPA within the downtown area indicated that a greater problem may exist near the intersection of W. Burnside and 2nd Street, where the air quality may be effected by approximately 58,000 vehicles per day travelling on W. Burnside, S.W. Front Avenue and 1st and 2nd Avenues.

The existence of the carbon monoxide problem has prompted this Authority to establish a carbon monoxide Interim Emergency Action Procedure to protect the public health within an area roughly encompassing the Downtown Project Study area. The more restrictive National ambient air standards will undoubtedly greatly increase the frequency of carbon monoxide ambient air violations within the Study area. This is likely further to arouse the public demand for corrective action.

Current progress in reducing carbon monoxide ambient air concentrations is not clear. Federal automotive emission standards put into effect in 1968 and tightened in 1970 have significantly reduced total automotive carbon monoxide emissions. No trend analysis of continuous ambient carbon monoxide levels is available at this time, however, to document the actual effectiveness of these controls. A trend analysis will be included in Phase II of the Downtown Study Project air quality report.

If the Federal National ambient air standards for carbon monoxide are to be realized in the time span allowed, it is believed that further vehicular emission reduction and improvements in traffic flow patterns within the Study area will have to be developed. The nature of future land use development within the Study area will have a direct impact on the achievement of these goals.

4. Photochemical Oxidants

The ambient air violations of photochemical oxidant concentrations are less frequent than those of other pollutants measured. They occur during warm summer days when reactive hydrocarbons and oxides of nitrogen emissions from automotive exhausts react to form secondary pollutants which have been found to be economically, esthetically and physiologically injurious.

The traffic density within and near the Study area constitutes the greatest concentration of vehicles per square mile to be found within this Authority's jurisdiction. Reactive hydrocarbon emissions from these vehicles are the primary source of the pollutants from which photochemical oxidants are formed. The attainment of satisfactory oxidant air quality within the Study area, as well as within the air shed, will be directly dependent upon the degree of control applied to motor vehicle exhaust emissions either by reduction of emissions from individual vehicles or by reduction of total traffic within the area, or by a combination of both. Sources of secondary importance, such as evaporative losses from fuel storage facilities and other combustion processes may require control at a future date.

5. Other Pollutants

Future adoption of additional air quality standards for other pollutants may demonstrate additional air quality problems within the study area. At present, the levels of oxides of nitrogen and sulfur dioxide do not appear to be in excess of the adopted or proposed standards.

Problems related to the synergistic effects of sulfur dioxide in combination with suspended particulates are currently being examined by this Authority and will be incorporated in the Emergency Action Procedure. The relatively high concentrations of suspended particulates within the Study area may require only relatively low sulfur dioxide concentrations to be present to exceed the established Emergency Action Procedure index value.

Conclusion

The immediate air quality problems within the Study area are related to carbon monoxide, suspended particulates and particle fallout. Perhaps the most important problem is the reduction of carbon monoxide levels because of the frequent violations of the National Primary ambient air standards and the resultant effect on the public health. Control of automotive emissions, the primary source of carbon monoxide, would also reduce the frequency of oxidant violations and may reduce suspended particulate levels. Federal requirements for the attainment of the National ambient air standards will require new and far reaching land use and traffic control concepts to attain these standards. The future development within the Downtown Study Project area will have a very significant impact on the attainment of these required goals. The proper planning of future land use within the Study area, specifically traffic density and flow patterns, will greatly assist this Authority in restoring the quality of the air that is necessary to protect the health and welfare of all segments of the public.

Figure 1
City of Portland
Downtown Study Project Area

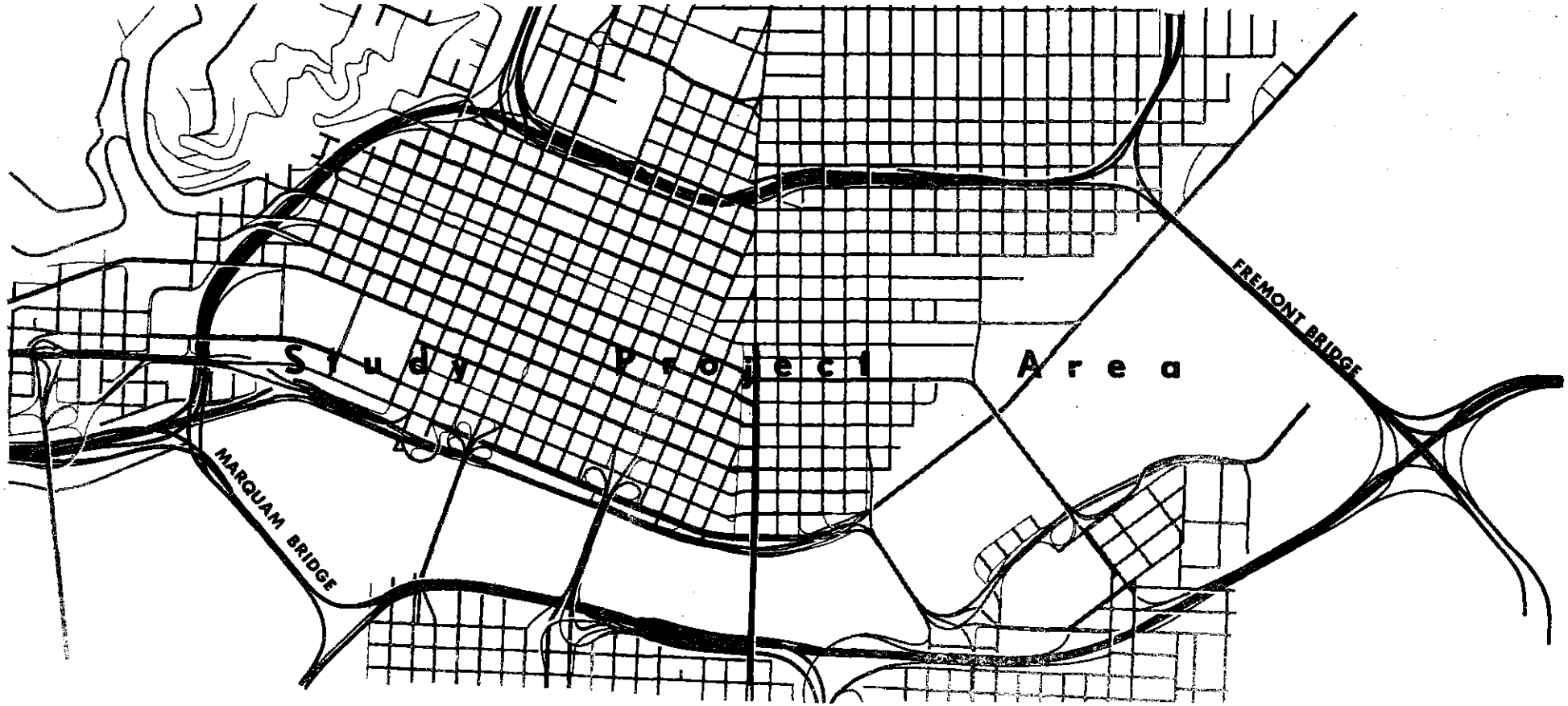


Figure 2

Sampling Site Locations

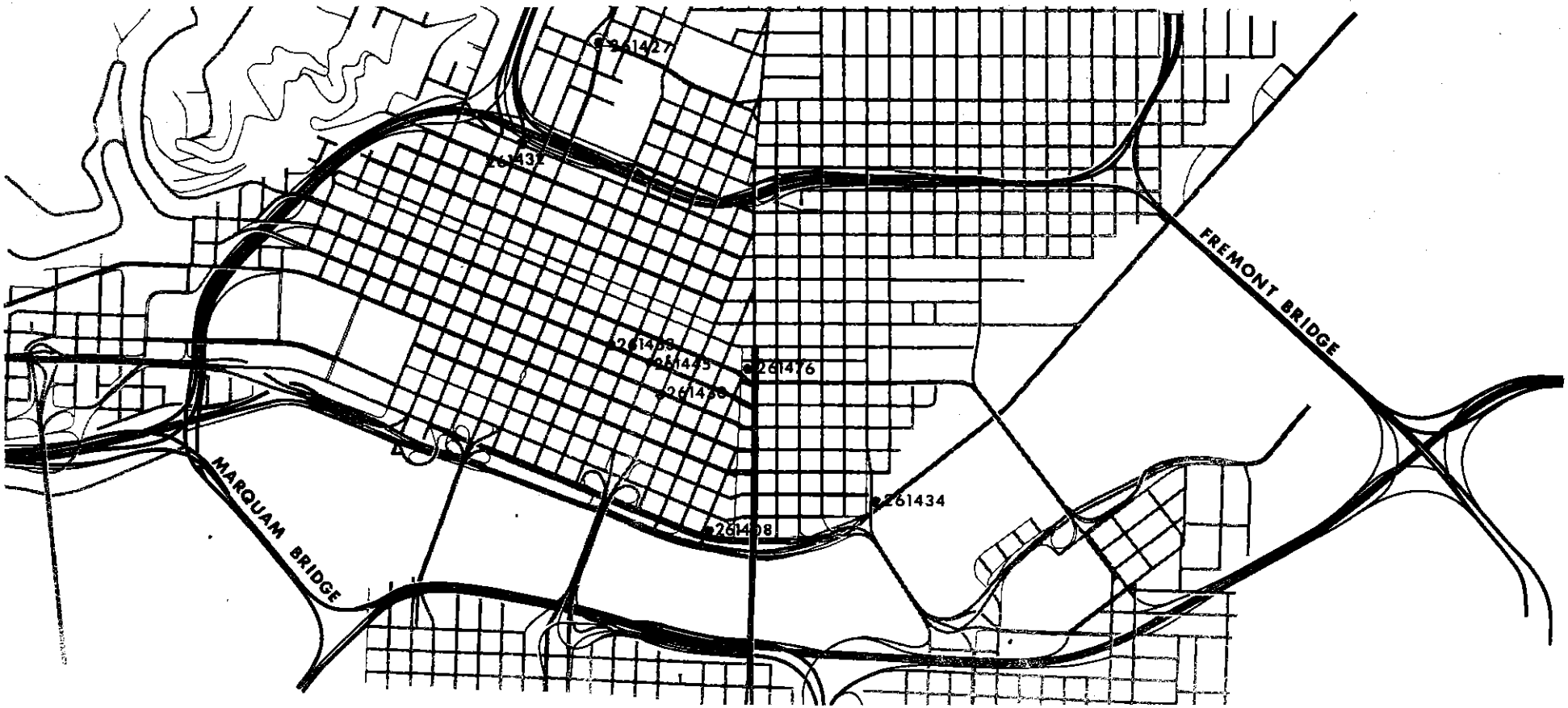


Figure 3
1970 Suspended Particulate Isopleth
Annual Geometric Mean

(MICROGRAMS PER CUBIC METER)

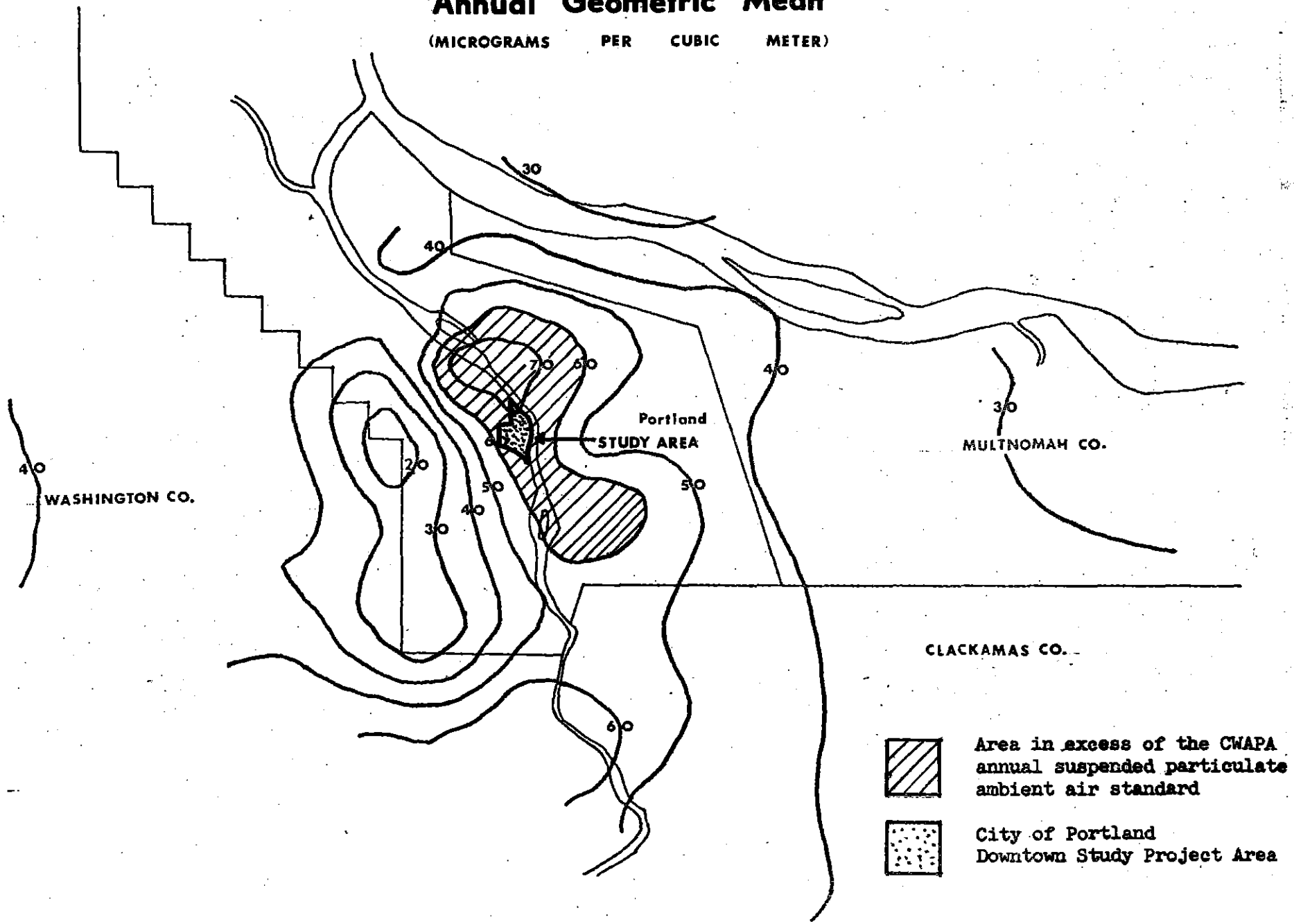


TABLE I

AMBIENT AIR STANDARDS
Affecting Downtown Study Area

Pollutant	CWAPA-DEQ Standard	EPA-APCO National Primary Standard	EPA-APCO National Secondary Standard
Suspended Particulate	a. 60 ug/m^3 Annual 50 percentile b. 100 ug/m^3 for not more than 15% of samples per month	a. 75 ug/m^3 Annual Geometric Mean b. 260 ug/m^3 maximum 24 hr. concentration not more than once per year	a. 60 ug/m^3 Annual Geometric Mean b. 150 ug/m^3 maximum 24 hr. concentration not more than once per year
Particulate Fallout	5 grams/sq. meter/month	None	None
Carbon Monoxide	20 ppm maximum for 8 consecutive hours	a. 8.7 ppm maximum for 8 consecutive hours not more than once per year b. 35 ppm 1 hour maximum not more than once per year	Same as Primary
Sulfur Dioxide	a. 0.50 ppm 1 hr. average once in every 4 days b. 0.10 ppm 24 hr. average once in any 30 consecutive days	a. 0.03 ppm Annual Arithmetic Mean b. 0.14 ppm maximum 24 hour average not more than once per year	a. 0.02 ppm Annual Arithmetic Mean b. 0.10 ppm maximum 24 hour average not more than once per year c. 0.50 ppm maximum 3 hour concentration not more than once per year
Photochemical Oxidants	None	0.08 ppm 1 hour maximum not more than once per year	Same as Primary
Nitrogen Dioxide	None	a. 0.055 ppm Annual Arithmetic mean	Same as Primary

References: a. Federal Register, Volume 36, No. 67, April 7, 1971
NOTE: EPA-APCO National Primary and Secondary Standards have been converted to parts per million for comparative purposes
b. Rule of the Columbia-Willamette Air Pollution Authority

This table revised 20 May 1971

TABLE 2

Air Quality Sampling Sites within the Study area

Station Number	Location	Pollutants Measured	Available Data Period	Sampling Frequency
261408	Central Fire Station 55 S.W. Ash	Suspended Particulate Particle Fallout	January, 1967 to Present	Every 4th day monthly
261427	S.W. 18th & Jefferson	Carbon Monoxide	10 Oct. 1968-5 Nov. 1968	Continuous
261430	S.W. 5th & Washington	Carbon Monoxide	24 Dec. 1968-22 Jan. 1968	Continuous
261432	S.W. Clay & Stadium Freeway	Carbon Monoxide	15 Feb. 1969-27 Mar. 1969	Continuous
261434	N.W. Front Ave. & Steel Bridge	Carbon Monoxide	15 Apr. 1969-29 May 1969	Continuous
261445	S.W. 6th & Alder	Carbon Monoxide	25 Sep. 1969-22 Oct. 1969	Continuous
261453	Pioneer Post Office S.W. 6th & Morrison	Carbon Monoxide	14 Jan. 1971 to Present	Continuous
261476	716 W. Burnside (DEQ)	CO, SO_2, HC, NO_x, NO_2, NO, O_x, O_3	Jan. 1968-Dec. 1968*	Continuous
		Carbon Monoxide	1967, 1968, 1969, 1970	Continuous
		Suspended Particulate Particle Fallout	Jan. 1970-Dec. 1970	Every 4th Day

* 1969 and 1970 data has been compiled by DEQ but not available for this report

TABLE 3

Suspended Particulate Data Summary, ug/m^3

Station 261408 (24 hour samples)

Year	No. Samples	Max.	Min.	Geo. Mean	Frequency Distribution* 10	20	30	40	50	60	70	80	90
1970	90	214.3	8.0	68.2	29	36	53	62	70	83	101	124	160
1969	61	374.2	12.2	82.1	36	47	57	74	87	97	112	133	162
1968	25	142.7	30.4	67.5	36	44	47	65	70	74	87	99	113
1967	12	151.8	32.1	76.4	32	38	54	55	89	89	96	104	105
Station 261476 (10 months)													
1970	68	183	14	70	not available								

* % samples equal to or less than stated value

TABLE 4

Particle Fallout Data Summary, $g/m^2/mo$

Station 261408 (monthly samples)

Year	No. Samples	Max.	Min.	Geo. Mean	Frequency Distribution* 10	20	30	40	50	60	70	80	90
1970	11	13.3	5.7	8.7	5.7	7.3	7.5	8.0	8.4	8.4	9.2	9.3	10.0
1969	12	15.0	1.9	5.8	1.9	3.6	3.6	3.7	6.4	6.7	7.5	8.5	8.5
1968	12	11.2	6.2	7.5	6.2	6.4	6.4	6.6	7.3	7.3	7.4	7.9	8.3
1967	12	5.1	1.6	2.8	6.1	6.7	6.9	7.2	7.9	8.2	8.3	8.4	8.4
Station 261476													
1970	9	14.0	2.7	6.1	not available								

* % samples equal to or less than stated value

TABLE 5

Carbon Monoxide Data Summary, ppm

Station 261476

Frequency Distribution

% Samples Equal to or Less Than Stated Value

One Hour Averages

Year	10	20	30	40	50	60	70	80	90
1967	4	5	7	9	10	12	14	18	24
1968	5	7	9	10	12	15	18	22	28
1969	3	6	8	10	11	13	15	19	22
1970	3	5	6	7	8	10	12	16	21

Eight Hour Averages

1967	2.6	3.3	4.0	4.8	6.1	7.3	8.6	10.6	12.7
1968	3.3	4.5	5.3	7.0	8.0	9.7	11.1	13.1	15.1
1969	2.2	3.7	5.1	6.1	7.1	8.3	9.8	11.2	13.3
1970	2.0	2.7	3.7	4.5	5.2	6.5	7.7	9.7	12.4

Station	Averaging Period, hrs	Max.	Min.	Average	Time Period
261453	1	19	0	3	14 Jan 71 to present
	8 max.	15	2	6	
261445	1	31	1	10	25 Sep 69 to 22 Oct 69
	8 max.	24	3	15	
261434	1	18	1	3	15 Apr 69 to 29 May 69
	8 max.	11	0	5	
261432	1	7	1	2	15 Feb 69 to 27 Mar 69
	8 max.	6	1	3	
261430	1	38	1	5	24 Dec 68 to 22 Jan 69
	8 max.	27	2	13	
261427	1	27	1	5	10 Oct 68 to 5 Nov 68
	8 max.	16	3	10	

TABLE 6

1968 Sulfur Dioxide Data Summary, ppm
Station 261476

Averaging Period, hours	Maximum	Minimum	Average
1	0.16	0.00	0.006
24	0.04	0.00	0.005

TABLE 7

1968 Ozone Data Summary, ppm
Station 261476

Averaging Period, hours	Maximum	Minimum	Average
1	0.10	0.00	0.00
24	0.02	0.00	0.00

TABLE 8

1968 Total Oxidant Data Summary, ppm
Station 261476

Averaging Period, hours	Maximum	Minimum	Average
1	0.140	0.000	0.007
24	0.040	0.000	0.005

TABLE 9

1968 Nitrogen Dioxide Data Summary, ppm
Station 261476

Averaging Period, Hours	Maximum	Minimum	Average
1	0.140	0.000	0.022
24	0.060	0.000	0.020

TABLE 10

1968 Total Hydrocarbon Data Summary, ppm
Station 261476

Averaging Period, Hours	Maximum	Minimum	Average
1	9.0	0.0	2.3
24	5.2	1.0	2.3

Ambient Air Violations Within the Portland Downtown Study Area

SUSPENDED PARTICULATE

Standards	Station 261408	Station 261476
60 ug/m^3 annual P_{50} (CWAPA)	1 (1970) insufficient data 1967,68,69	Insufficient data
15% 100 ug/m^3 monthly (CWAPA)	15 (1969,70) insufficient data 1967,68	5 (9 months of 1970)
150 ug/m^3 max. 24 hr. (EPA-APCO Sec.)	24	data not available

PARTICLE FALLOUT

Standard	Station 261408	Station 261476
5 gram/meter^2/month (CWAPA)	36	4 (9 months of 1970)

CARBON MONOXIDE

Standard	Station 261427	Station 261430	Station 261432	Station 261434	Station 261445	Station 261453	Station 261476('68)	Station 261476('70)
20 ppm, 8hr max. (DEQ)	0	1	0	0	5	0	3	1
8.7 ppm, 8hr max. (EPA-APCO Prim)	12	23	0	4	22	4	173	69
35 ppm, 1 hr max.(EPA-APCO Prim)	0	2	0	0	1	0	6	3

SULFUR DIOXIDE

Standard	Station 261476
0.50 ppm, 1 hour (CWAPA)	0
0.10 ppm, 24 hour (CWAPA)	0
0.03 ppm, annual (EPA-APCO Prim.)	0
0.14 ppm, 24 hour (EPA-APCO Prim.)	0
0.02 ppm, annual (EPA-APCO Sec.)	0
0.10 ppm, 24 hour (EPA-APCO Sec.)	0

OXIDANTS

Standard	Station 261476
0.08 ppm, 1 hour (EPA-APCO Prim.)	3

NITROGEN DIOXIDE

Standard	Station 261476
0.05 ppm, annual (EPA-APCO Prim.)	0

This table revised 20 May 1971

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY
1010 N.E. Couch Street, Portland, Oregon 97232

Technical Report 71-9A

Air Quality Aspects of the City of Portland Downtown Study Project

Phase II - Projected Air Quality to Year 1985

Prepared for
City of Portland Planning Commission
Cornell, Howland, Hayes, Merryfield and Hill, Inc.
DeLeuw, Cather and Company

Prepared by:

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Technical Division
Columbia-Willamette Air Pollution Authority
19 October 1971

Approved by:

John F. Kowalczyk
Technical Director

Preface

This document was prepared at the request of the City of Portland Planning Commission to provide an input into the City of Portland Downtown Study Project, a comprehensive land use study of the downtown area of the City of Portland. The Downtown Study Project will create a conceptual land use plan for the core area to serve as a guide for its future development. Of the many considerations that will be incorporated within the final land use plan, the findings presented in this report may prove to be among the most significant.

Acknowledgements

The Technical Division of the Columbia-Willamette Air Pollution Authority wishes to thank the following agencies and persons for their assistance in the preparation of this report.

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Oregon State Highway Department

City of Portland Planning Department

Jack Payne, CWAPA Summer Trainee, assigned by Applied Science Department, Portland State University

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Phase II - Projected Air Quality to Year 1985

Purpose and Scope

Zoning in the United States is a relatively new development, marked by the first comprehensive zoning ordinance enacted in 1916 by New York City. Although zoning has not been directed solely at controlling air pollution, those who were its early spokesman appeared to have some rudimentary appreciation of ecological factors in mind. The early efforts in land use zoning were directed toward the avoidance of nuisances created by poor community planning. In a U.S. Supreme Court case in 1926, marking the first zoning litigation proceedings, Judge Sutherland stated that "a nuisance may be merely the right thing in the wrong place, -- like a pig in the parlor instead of the barnyard". The avoidance of air quality "nuisances", which in basis of fact may be much more serious than a mere nuisance, is the primary objective of this report.

The City of Portland Downtown Study is a comprehensive land use study of the downtown core area being conducted by the City of Portland Planning Commission, DeLeuw, Cather and Company and Cornell, Howland, Hayes, Merryfield and Hill, Inc. The area encompassed by this Study is indicated in Figure 1 and includes that portion of the City of Portland core area within the area bordered by the Stadium Freeway, Marquam Bridge, Eastbank Freeway and the Fremont Bridge. For purposes of this study, the eastern boundary of the Study area has been extended to include Grand Avenue, a relatively high motor vehicle emission density area which may influence the air quality within the Study area proper. Particulate emission sources located in Northwest Portland area have also been considered for similar reasons.

The Phase II Study is the second of two documents concerned with the air quality within the Portland Downtown Study area. The Phase I report presented a review of the past and present air quality and forms the basis for much of the material presented in this report. The Phase II report is a projection of the air quality within the Study area to year 1985.

Summary of Phase I Findings

Air Quality measurements from sampling stations operated by the Columbia-Willamette Air Pollution Authority and the Oregon Department of Environmental Quality within the Study area have provided the most complete assessment of ambient air quality of any area within the jurisdictional boundaries of this Authority.

The data shows that most immediate air quality problems within the Study area are related to carbon monoxide, suspended particulates, particle fallout and photochemical oxidants. The most pressing problem is related to carbon monoxide levels, primarily because of the frequency of occurrences of levels in excess of the Environmental Protection Agency's (E.P.A.) National Primary Ambient Air Standard (8.7 parts per million maximum eight hour concentration) and the possible adverse effects on the public health. In 1970, 69 instances of carbon monoxide concentrations exceeding the E.P.A. standard occurred at the Department of Environmental Quality's (D.E.Q.) monitoring station located near Southwest Broadway and West Burnside Streets.

Twenty-four violations of the National Secondary Ambient Air Standard for suspended particulates (150 micrograms per cubic meter maximum 24-hour concentration) occurred in 1970 at the Authority's monitoring station located at Southwest Front and Oak Streets. Three violations of the National Primary photochemical oxidant standard (0.08 parts per million maximum 1 hour concentration) occurred in 1970 at the D.E.Q. monitoring station. These two pollutants constitute a significant problem of lesser priority than that of carbon monoxide. Although particle fallout standards are frequently exceeded in the downtown core area (11 out of 12 months in 1970), this class of pollutants constitutes primarily a nuisance problem and therefore a lower priority.

The National Primary and Secondary ambient air standards referred to above were promulgated by the Environmental Protection Agency in April of 1971 and form the basis upon which states must base air pollution control strategies to attain and maintain compliance with these standards by a 1975 deadline. The Environmental Protection Agency may grant an extension of the deadline date to year 1977 upon submission of a variance request by the State of Oregon. In addition, a requirement for an Emergency Action Procedure, now being formulated by the Authority and D.E.Q., may necessitate immediate control action by all elements of the community to protect the public health during periods of prolonged air stagnation and associated high levels of air contaminants.

Introduction to Phase II

The Phase II report is a projection of the air quality in the years 1975, 1980 and 1985 based on presently known plans for vehicle emission reduction imposed by Federal requirements, proposed changes in traffic density and vehicle flow and stationary source emission reductions planned by this Authority.

Projections of air quality in this report are classified for each air contaminant since each presents its own individual problems. Trends in actual air contaminant levels from measurements made by this Authority and the Department of Environmental Quality are compared with the projected emission reductions to determine whether the actual performance of vehicle emission control devices is having an impact on the existing air quality.

Projections related to portions of the Study area where carbon monoxide ambient air standard violations are expected to occur have been developed to year 1985 to emphasize the need for assistance and action from planning and zoning agencies in order that the Federal air quality standard requirements be met within the adopted time schedule.

It is hoped that the material and data presented in this report will provide a basis for the consideration of the air quality impact of future transportation and land use development within the Portland Downtown Study Project area.

Study Area Meteorology

The meteorology of the Study area is the single most important factor influencing the air quality within the downtown core area as well as the entire Portland Metropolitan area. The ability of the atmosphere to adequately ventilate the Study area is frequently restricted by shallow inversions which trap air pollutants near ground level. The restriction, which is usually coincidental with low wind speeds, results in adverse air quality, most commonly recognized as severe visibility reduction.

Studies conducted within the Willamette Valley[1] indicate that the Portland Metropolitan area is within an area of high air pollution potential. Approximately 84 percent of the days during the years have shallow morning inversions lasting about six hours before they are dissipated.

An analysis of the occurrence of air pollution episodes shows that the most severe restriction of ventilation occur during the months of September and October; followed by December, January and February. The months of May, June and July are characterized by relatively good atmospheric ventilation. Figure 2 presents the average number of days in which one or more hours of reduced visibility due to smoke or haze occurred during each month of the year during a five year study (1960-64)[2]. Information presented in Figure 2 confirms the fact that the fall months of September and October have the greatest frequency of air pollution. Eighty-five distinct pollution periods were identified during the 5 year study period, varying in intensity from weak to strong and lasting from two to twenty-five days, with an average duration of about six days.

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[1]Columbia-Willamette Air Pollution Meteorological Survey, Phase I. Prepared by Litton Systems, Inc., December 1968.

[2]Ibid.

Low wind speeds during periods of adverse ventilation greatly limit the horizontal dispersion of pollutants. The frequency of occurrence of low wind speeds is greatest during the periods of prolonged stagnation. Table 1 presents a tabulation of the percentage frequency of wind speed groups by month as measured over a 10 year period at the Portland International Airport. Although the data obtained at the airport may not accurately represent wind conditions within the Study area, the seasonal distribution of low wind speeds are similar.

TABLE 1

Percentage Frequency of Wind Speeds by Month

Month	Wind Speed, M.P.H.							
	Calm	1-3	4-7	8-12	13-18	19-24	25-38	Over 38
Jan	7%	17	22	27	23	4	1	0
Feb	12	21	22	23	18	3	1	0
Mar	11	23	25	24	15	2	0	0
Apr	11	29	30	21	8	1	0	0
May	10	28	34	21	5	0	0	0
Jun	10	27	35	23	4	0	0	0
Jul	7	21	37	29	5	0	0	0
Aug	10	24	38	26	3	0	0	0
*Sep	13	32	34	17	4	0	0	0
*Oct	15	29	29	18	8	1	0	0
Nov	14	24	24	20	15	3	0	0
Dec	9	23	23	23	22	5	1	0

*Months having greater than 40% occurrence of wind speeds less than 4 mph

The formation of photochemical oxidants during the summer months is highly dependent upon the intensity of solar radiation, which provides the energy required to promote the formation of atmospheric oxidants from the two participating reactants, hydrocarbons and oxides of nitrogen. Although the concentrations of hydrocarbons and oxides of nitrogen in the ambient air can be reduced through effective control action, the intensity of solar radiation is directly dependent upon the sky cover and the zenith angle of the sun. As such, the degree of photochemical oxidant air pollution is more closely tied to the meteorology of the Study area than any other pollutant.

The transport of pollutants into and away from the Study area is a significant factor influencing the particulate air quality of the downtown core area. The channelling of the surface winds through the Study area and the Willamette Valley is illustrated in Figures 3 and 4 for typical summer and winter periods of the year. During the summer months of June through August, surface winds from the northwest transport pollutants toward the Study area from the Guilds Lake Industrial District, generally resulting in deteoriated

suspended particulate air quality. Pollutant transport during the winter flow regime (October through March) is the reverse of the summer pattern with typically south to southeasterly winds transporting pollutants generated from sources to the south of the Study area into the city center. During the remaining months of April, May and September, no clear wind flow pattern exists. In all cases, the influence of the Tualatin Mountains (West Hills) on pollutant transport is evident. Suspended particulate sampling data illustrating the distribution of particulates near the city center shows a steep gradiant in particulate concentrations on the eastern side of the Tualatin Mountains, suggesting that the mountains act as a natural barrier preventing the transport of pollutants into the Tualatin Valley (see Phase I report, figure 3).

Past meteorological data has demonstrated the existence of frequent shallow inversions within the Willamette Valley. In a recent study[3] on air pollution meteorological potential throughout the United States, G. C. Holzworth suggested that Western Oregon has a relatively frequent occurrence of high air pollution potential. Figure 5 presents an isopleth map developed by Holzworth of air stagnation episodes and episode-days during a five year study (1960-1965). The data shows that the Study area is within the 100 to 200 episode-day category for the mixing height and wind speeds specified. In contrast to the Study area's 172 episode-days (most of which occur in the autumn months) Los Angeles has 563; New York City 9 and Chicago 24 episode-days. The Holzworth study further concludes that because of the frequency of air stagnation in Western Oregon and Central Wyoming, these areas could experience serious air pollution problems as their populations and economic development progresses. Figure 6 presents a meteorological isopleth map of air pollution potential for autumn afternoons (high values of $\bar{x}/\bar{Q}$ indicate high pollution potential) illustrating the national meteorological air pollution potential distribution.

Meteorological studies concerned with the effect of air pollution on the climatology of urban centers have demonstrated that the presence of polluted atmospheres over cities has a marked influence on the frequency and formation of fog, precipitation, solar radiation, temperature and relative humidity. Although no direct studies on the relationship of urban climatology to air pollution have been conducted within the Portland metropolitan area, the simultaneous occurrence of high suspended particulate levels, reduced visibility, and morning fogs over the metropolitan area has been frequently observed.

The meteorology discussed above determines, to a great extent, the Study area's air quality. Because the weather cannot be controlled, we can expect to experience periods of restricted ventilation in the years ahead similar to those that have occurred in the past.

Projection of Future Air Quality-Methodology

The highly urbanized nature of the Study area is evident from the fact that pollutant emissions from vehicular sources play a significant role in influencing the air quality. It is these emissions which will play a major

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[3]Holzworth, G.C., "Mixing Heights, Wind Speeds and Potential for Urban Air Pollution Throughout the Contiguous United States". Environmental Protection Agency, Division of Meteorology. May 10, 1971.

role in the future air quality of downtown Portland. The carbon monoxide, hydrocarbon and oxides of nitrogen air quality estimates presented in this report are largely based on the projected emission rates from mobile sources within the Study area. These emission rates are, in turn, based upon the federal motor vehicle emission control program.

Federal legislation, in the form of the Clean Air Act, and Amendments, has required car manufacturers to install control systems in new cars which, by the year 1975, should reduce emissions from the 1975 model cars by about 97% compared to the pre-1963 model cars. Table 2 presents a summary of the federal emission controls required for new automobiles by model year.

TABLE 2

Summary of Federal Automotive Emission Control Requirements in Oregon (and all states except California)

Model Year	Control Required
1963	Open positive crankcase ventilation system for hydrocarbons
1968	First exhaust emission controls for carbon monoxide and hydrocarbons
1970	More restrictive carbon monoxide and hydrocarbon emission standards
1972	Further restriction of carbon monoxide and hydrocarbon emission standards
1973	First oxides of nitrogen emission standard requiring a 25% reduction in emissions
1975	Substantial reduction of carbon monoxide and hydrocarbon emission standards (emission limits equivalent to 10% of the 1970 emissions)
1976	Reduction of oxides of nitrogen standards to 10% of 1971 actual emissions

Figure 7 shows the progressively restrictive automotive exhaust emission standards relative to the emissions from an uncontrolled vehicle.

The emission factors employed in the preparation of the 1970 and 1975 air quality projections were obtained from federal government documents[4] and were considered in relation to freeway and non-freeway traffic speeds, projected traffic volume increases and the projected traffic flow patterns within the Study area. Emission factors for years 1980 and 1985 were based on Projected National Urban Emissions[5] for each pollutant and adjusted to reflect the influence of traffic speeds, traffic volumes and vehicle attrition.

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[4]Air Pollution Emission Factors, Environmental Protection Agency, April 1971.

[5]The Federal Register, Volume 36, Number 67, April 7, 1971.

Estimates of the vehicular emissions within portions of the Study area were obtained by estimating the number of vehicle miles within each of the 136 grids into which the area was divided (see Technical Report 71-9B, Figure 1). This information was adjusted to reflect future traffic volume increases, traffic flow changes and "old" vehicle attrition for years 1970, 1975, 1980 and 1985.

The estimates of annual carbon monoxide, hydrocarbons and oxides of nitrogen emissions were used as an input to an atmospheric diffusion model developed by G. C. Holzworth which provided an estimate of the annual average pollutant concentrations within the Study area. With these estimates, and with a knowledge of the frequency of occurrence of various concentrations of carbon monoxide at one location (D.E.Q. CAM station) within the Study area, it was possible to prepare predictions of which portions of the Study area would be expected to be in violation of established carbon monoxide ambient air standards in various years. A detailed presentation of the techniques employed to prepare the future air quality estimates for motor vehicle pollutants is found in CWAPA Technical Report 71-9B.

The preparation of air quality projections for suspended particulates were based on the present particulate air quality within the Study area and the current control strategies that have been formulated to bring stationary sources into compliance with existing air quality regulations by 1975. Particulate emissions were also used to provide some insight into future visibility.

Oxidant projections were prepared with knowledge of hydrocarbon projections and air quality trends. Sulfur dioxide air quality projections were based on information relative to the estimated future sales of residual and distillate fuel oils in the Portland area.

Carbon Monoxide

Carbon monoxide is a colorless, odorless, toxic gas produced by any process that involves the incomplete combustion of carbon-containing substances. One of the major air pollutants, it is primarily emitted through the exhaust of gasoline-powered vehicles. In view of the findings reported in the Phase I document, the present and projected carbon monoxide air quality of the Study area is of primary importance. Approximately 96 percent of the carbon monoxide emitted within the Study area originates from motor vehicles. The significance of the future carbon monoxide air quality must therefore be largely based on automotive emissions. The projections made are founded on the projected urban carbon monoxide emission curves developed by the Environmental Protection Agency which assume that vehicles manufactured in 1975 will comply with the strict emission standards that have been established.

Projected Carbon Monoxide Air Quality

During the year 1970, 47,782 tons per year of carbon monoxide were estimated to be emitted within the Study area of which 86% was attributed to non-freeway traffic. The distribution of these emissions is directly related to the speed and volume of motor vehicle traffic and varies greatly within short distances. The distribution of hydrocarbon and oxides of nitrogen emissions from motor vehicles is largely proportional to the carbon monoxide emission distribution.

The areas of highest carbon monoxide emission are currently located near the west end of the Hawthorne Bridge interchanges, the west end of the Burnside Bridge interchanges, and the intersection of S.E. Union and Morrison Streets. These are the three locations in which the highest carbon monoxide, hydrocarbon and oxides of nitrogen ambient air concentrations would be expected to occur.

Emission projections for the years 1975, 1980 and 1985 reflect an apparent trend toward a proportionately greater degree of vehicular emissions from freeway traffic within the Study area. By the year 1985, it is estimated that 15% of the carbon monoxide emissions will result from freeway traffic compared to 13% in 1970.

The estimated carbon monoxide emissions within the Study area were derived through application of the methodology described in Technical Report 71-9B. The projections obtained are presented in Table 3 below.

TABLE 3

Estimated Carbon Monoxide Study Area Emissions
(Tons per Year of Carbon Monoxide)

Driving Mode	Year 1970	Year 1975	Year 1980	Year 1985
Freeway	6,271	4,513	1,851	989
Non-Freeway	41,511	27,357	11,100	5,415
Total	47,782	31,870	12,951	6,404

The estimates represent a 34, 73 and 87 percent reduction in carbon monoxide emissions from the 1970 level for the years 1975, 1980 and 1985, respectively.

Application of the above emission projections to the atmospheric diffusion model (developed by Holzworth; see Technical Report 71-9B) provides an estimate of the average annual carbon monoxide air quality within the Study area to year 1985. This method has provided the estimate that the Study area annual average carbon monoxide concentrations will be approximately 2.1, 1.4, 0.6 and 0.3 parts per million for years 1970, 1975, 1980 and 1985, respectively. The estimated 1970 value of 2.1 parts per million is in contrast to the measured concentration of 3.9 parts per million measured at one point within the Study area (D.E.Q. monitoring station, 18.5 feet above ground level in a high density traffic area).

TABLE 5

Study Area Grid Classifications

Carbon Monoxide Emissions (tons/yr)*	Number of Grids in Each Classification in Year				
	1970	1975	1977	1980	1985
0-266	70	87	102	132	136
267-300	1	4	4	3	0
301-350	4	8	8	1	0
351-400	9	7	10	0	0
401-450	5	8	4	0	0
451-500	8	6	6	0	0
501-550	3	5	2	0	0
551-600	5	3	0	0	0
601-650	6	5	0	0	0
651-700	4	3	0	0	0
701-750	5	0	0	0	0
751-800	3	0	0	0	0
801-850	5	0	0	0	0
851-900	0	0	0	0	0
901-950	3	0	0	0	0
951-1000	5	0	0	0	0

*Within 0.033 square mile grid

Tabulation of the data presented in Tables 4 and 5 indicate that approximately 49, 36, 25 and 3 percent of the area under consideration in this report is likely to contain areas in violation of the eight hour ambient air standard in years 1970, 1975, 1977 and 1980, respectively. The portions of the Study area estimated to contain locations in violation of the standard for the years 1970, 1975, 1977 and 1980 are presented in Figures 8 through 11 respectively.

It should be noted that Figures 8 through 11 indicate grids in which the carbon monoxide eight hour maximum ambient air standard may be exceeded at specific points near high emission density locations within the grids. They should not be interpreted to indicate that the entire area within the grid would be in violation of the standard.

Grids located along the west bank of the river, extending from the Hawthorne to the Burnside Bridge (grids 68 to 71 inclusive noted in Figure 1, Technical Report 71-9B), contain emissions generated from vehicles travelling along southwest Harbor Drive. Although the proposed closure of Harbor Drive will decrease the emissions on this thoroughfare, it is anticipated that the rerouted traffic within these grids and other grids, may result in a net deteoriation of carbon monoxide air quality within the Study area. Further study of actual rerouting plans is needed to more definitively portray the air quality effects of this major traffic change.

The high violation frequency grids located along the major freeway systems substantially reflects emissions generated from vehicle traffic which, in some cases, is travelling along elevated roadways. The effects of the elevated freeways may reduce the predicted occurrance of ambient air violations due to the greater dispersion of the emissions than may occur within the downtown area.

The portions of the Study area in which the greatest emissions occur are, almost without exception, areas in which the majority of emissions occur from non-freeway vehicle travel. Specifically, the areas adjacent to the west-side approachs to the Hawthorne and Burnside Bridges and near the intersection of southeast Union and Morrison Streets contain the highest emissions within the Study area. Although emissions from freeway traffic form a highly important input to the carbon monoxide emissions within the Study area, the emissions from non-freeway vehicular traffic is the greatest problem. Quicker attainment of acceptable carbon monoxide air quality within the downtown core area would therefore be directly dependent upon the reduction of emission from motor vehicles operated under the congested traffic conditions on non-freeway streets.

A relationship between traffic volumes at freeway and non-freeway speeds to the Environmental Protection Agency's carbon monoxide standard was developed to provide a guideline for land use planners. During the course of the development of the carbon monoxide projections, it was determined that the emission of more than 266 tons per year of carbon monoxide within the grid size used in this report (0.033 square miles) was likely to result in ambient air carbon monoxide levels in excess of the E.P.A. standard. Figure 9 of Technical Report 71-9B provides the relationship between combinations of freeway and non-freeway traffic volumes and the E.P.A. standard. The figure suggests than in a grid in which all of the traffic is of a non-freeway nature, such as downtown Portland, violations of the E.P.A. standard is likely to occur if the total 1975 daily traffic (ADT) volume exceeds 28,000 cars.

In terms of ADT volume reductions required to meet the E.P.A. standard, an approximate 53,44 or 23% reduction in ADT volumes within the downtown core area would be required if compliance with the carbon monoxide standard is to be achieved in year 1972, 1975 or 1977. This projection is based on the compliance date estimated for the D.E.Q. CAM station grid in 1978.

Carbon Monoxide Air Quality Trends

The projections of future carbon monoxide air quality are heavily dependent upon the continued efficiency of automotive emission control systems. Whether or not the impact of these control systems is in fact being felt in terms of an ambient air carbon monoxide trend is also dependent upon the possible offsetting effect of increasing traffic volumes.

Statistical analysis of carbon monoxide ambient air quality measurements made by the Department of Environmental Quality suggests that control systems are presently effective in improving carbon monoxide air quality. In a recent study conducted by the Authority, the long term trend in daily average ambient air CO concentrations during the period 1967 to 1970 showed a downward trend averaging about 20% of the average of the daily values. The maximum eight hour average values and maximum one hour values were also found to be decreasing.

Comparison of the measured ambient air trends with projected urban carbon monoxide emission trends prepared by the Environmental Protection Agency show that the emission projection trend appears to be valid for the Study area, supporting the assumption that increased traffic volumes are not offsetting the effectiveness of automotive control systems. Figure 12 illustrates the similarity in the projected and measured decrease in carbon monoxide emissions and ambient levels.

Hydrocarbons

The significance of hydrocarbon ambient air levels lies almost entirely in the relationship between hydrocarbons and photochemical oxidants. The future extent of the photochemical air pollution problem within the Study area and the Portland Metropolitan area depends to a great degree upon the reduction of hydrocarbon emissions, of which about 80% come from motor vehicles.

Table 6 presents a tabulation of the Study area annual motor vehicle hydrocarbon emissions to year 1985 and indicates a 48, 79 and 91 percent reduction from the 1970 emissions in years 1975, 1980 and 1985, respectively.

TABLE 6

Estimated Annual Motor Vehicle Hydrocarbon Emissions
(Tons per year of Hydrocarbons)

Driving Mode	Year 1970	Year 1975	Year 1980	Year 1985
Freeway	815	496	190	84
Non-Freeway	4,317	2,189	910	384
Total	5,132	2,685	1,100	468

The above emissions have been estimated to be approximately equivalent to 0.73, 0.38, 0.15 and 0.07 parts per million annual Study area average of non-methane hydrocarbons from vehicle sources in years 1970, 1975, 1980 and 1985, respectively. If an assumed natural background methane concentration of 1.5 parts per million is added to these estimates, the 1970 estimate of 2.2 ppm total hydrocarbon annual average is quite close to the measured value of 1.9 ppm at the D.E.Q. CAM station.

Hydrocarbon Air Quality Trends

Statistical trend analysis of measured ambient air total hydrocarbon levels during the period 1967 to 1970 indicates a statistically significant steady downward trend in the daily average total hydrocarbon concentrations equivalent to 6 percent of the average value obtained during the five year period. Figure 13 presents the projected national urban hydrocarbon emission reduction curve in comparison with the measured ambient air total hydrocarbon trend line (D.E.Q. CAM station). Comparison suggests that the ambient air hydrocarbon reduction is somewhat less than that predicted by the emission reduction projection, possibly because of the influence of other hydrocarbon sources (notably fuel storage emissions) and/or the ineffectiveness of vehicular emission control systems.

The trend is reactive hydrocarbon ambient air levels is not known at present (measurements are scheduled to start in the near future). Deviations of the reactive hydrocarbon trend, if one exists, from the projected national emission curve are therefore unknown and make it difficult to anticipate the impact that this class of hydrocarbons will have on the future photochemical oxidant air quality problem within the Study area. The significance of the above projections is discussed in relation to projected photochemical oxidant air quality.

Oxides of Nitrogen

Nitrogen oxides are gases formed from atmospheric nitrogen and oxygen when combustion takes place under conditions of high temperature, such as in internal-combustion engines. Under the influence of sunlight, nitrogen oxides react with gaseous hydrocarbons to form a complex variety of secondary pollutants called photochemical oxidants. These oxidants, together with solid and liquid particles in the air, make up what is commonly known as photochemical smog. Nitrogen dioxide, a product of photochemical smog, has been associated with a variety of respiratory diseases. At higher concentrations, it has been related to vegetation damage, visibility reduction and corrosion.

The projected oxides of nitrogen emissions within the Study area are unique within the major pollutants emitted from motor vehicles in that they are projected to increase signficantly until about mid-1972. The projected increase strongly reflects the absence of nitrogen control systems on pre-1973 model year model vehicles. Nitrogen oxide emissions from motor vehicles probably account for about 76% of the total oxides of nitrogen emissions; the remainder originates from incinerators, boilers and other combustion processes.

Table 7 presents a tabulation of the estimated Study area annual motor vehicle oxides of nitrogen emissions to year 1985 and indicate a 22, 53 and 75 percent reduction from the 1970 emissions for years 1975, 1980 and 1985, respectively.

TABLE 7

Estimated Annual Motor Vehicle Oxides of Nitrogen Emissions
(Tons per year of oxides of nitrogen)

Driving Mode	Year 1970	Year 1975	Year 1980	Year 1985
Freeway	502	496	268	144
Non-Freeway	830	547	366	200
Total	1,332	1,043	634	344

These vehicular emissions have been estimated to be equivalent to about 0.101, 0.079, 0.048 and 0.026 parts per million of oxides of nitrogen Study area averages in years 1985, 1980, 1975 and 1970, respectively. The 1970 estimate of 0.101 ppm annual average is comparable to the measured value of 0.12 ppm at the Department of Environmental Quality's CAM station.

Oxides of Nitrogen Air Quality Trends

The ambient air oxides of nitrogen trend appears to closely agree with the projected national urban oxides of nitrogen trend curve. Nitric oxide daily average values have followed a steady upward trend during the period 1967 to 1970 with an average change of 0.016 ppm for the four year period. This is equivalent to a 22% of the four year period average. The rate of increase is about 5 percent per year.

The increase in ambient air oxides of nitrogen concentrations closely follows the motor vehicle emission projections confirming the estimate that motor vehicles are the major source of these pollutants in the Study area. Figure 14 presents the projected emission - ambient air oxides of nitrogen trend line relationship.

Summary of Estimated Motor Vehicle Pollutants

Table 8 presents a summary tabulation of the major motor vehicle pollutants considered above. This data, presented in Figure 15, was compared to the 1970 emissions to obtain a perspective on the rate of reduction of each pollutant. These reductions have been compared to those projected for urban areas throughout the United States. Based on the study's estimates, the degree of reduction for carbon monoxide and hydrocarbons and oxides of nitrogen in the years 1975, 1980 and 1985 are somewhat greater than that projected by the national estimates.

Photochemical Oxidants

Photochemical oxidants are produced in the atmosphere when a mixture of reactive hydrocarbons and nitrogen oxides are exposed to sunlight. The photochemical oxidant family of pollutants includes, among others; ozone, an unstable, toxic form of oxygen; nitrogen dioxide; peroxyacyl nitrates; aldehydes; and acrolein. In air they can cause eye and lung irritation, damage to vegetation, deterioration of materials, offensive odor, and thick haze.

The frequency of occurrence of adverse photochemical oxidant air quality is generally limited to the summer months of June through September during which time sufficient solar radiation is available to provide the energy required to form photochemical oxidants. During this period, the formation of oxidants is highly dependent upon the daily meteorology. These natural limitations have probably confined the frequency of oxidants exceeding ambient air standard to three to four days per year in the past.

In terms of the overall annual air pollution problems, the occurrence of adverse photochemical oxidant air quality is not a major condition. However, on the days when oxidant air quality is poor, the oxidant concentrations may reach levels sufficient to cause mild eye irritation in susceptible persons and exceed established concentrations specified in the first stage of a proposed Emergency Action Procedure being developed by this Authority (0.10 ppm total oxidant one hour maximum). Although these conditions are not frequent during the year, they do constitute an adverse effect on the health and welfare of the public when they do occur.

Investigation into the effects of low levels of oxidants has shown that the substantial economic damage can be caused by the effects of oxidants on crops, fabrics and rubber products. Although the significance of these effects within the Portland metropolitan area are largely unknown, the potential for economic damage from these pollutants cannot be discounted, emphasizing the need for the reduction in oxidant levels not only during the limited periods of high oxidant concentrations but also on the lower values that occur with greater frequency.

Photochemical Oxidant Air Quality Trends

Statistical analysis of oxidant ambient air trends within the Study shows a very slight downward trend in maximum one hour values obtained during the summer months of 1967 through 1970. Although the trend is statistically significant, it indicates such a slow decrease in oxidant levels as to be realistically unimportant.

Projection of future photochemical oxidant air quality must be largely based on the projected trends for reactive hydrocarbons and oxides of nitrogen, the two primary components involved in the formation of oxidants, the complexity and the largely unknown nature of atmospheric reactions in general (and of the atmospheric chemistry of the Portland metropolitan areas in particular), coupled with the unknown trend of reactive hydrocarbons, increases the difficulty of making reasonable projections of oxidant air quality in the future years.

Given the difficulties noted above, the following projections must be expressed in general terms. If the assumption is made that the total hydrocarbon trend is similar to the reactive hydrocarbon trend, it appears that photochemical oxidant air quality may improve slightly in the immediate future. Federal photochemical oxidant air quality projections[6] indicate that a 15% reduction in hydrocarbon emissions will be required to meet the present E.P.A. primary ambient air standard. The ability to comply with the photochemical oxidant ambient air standard by the year 1975 appears doubtful in light of present hydrocarbon projections. Beyond the year 1975, the oxidant air quality should continue to improve somewhat but remains dependent upon future increases or decreases in hydrocarbon emissions from motor vehicles, as well as stationary sources. Compliance with current photochemical oxidant ambient air standards should occur in about 1977 or 1978 if the hydrocarbon projections are correct.

Sulfur Oxides

Sulfur oxides are acrid, corrosive, poisonous gases produced when fuel containing sulfur is burned. They have been related to a variety of respiratory diseases and increased mortality rates and may cause significant economic damage and nuisance problems. Of the numerous sulfur oxide gases generated from fuel combustion, sulfur dioxide is the primary pollutant found within the Study area.

Within Multnomah County, approximately 8,197 tons per year of sulfur oxides are emitted, of which 52 and 28 percent originate from commercial and industrial sources and space heating, respectively. Commercial and industrial sources typically use residual fuel oils, which have a higher sulfur content than the distillate fuel oils commonly used in domestic space heating applications. In terms of the sulfur oxide emission influencing the air quality of the Study area, the industrial and commercial sources located in the Guild's Lake district and sources within the Study area itself are probably the most significant.

Review of the Phase I findings relative to current sulfur oxide air quality reveals that the present ambient air levels of sulfur dioxide are well below the current ambient air standards. A statistical analysis of sulfur dioxide ambient air trends during the period 1967 to 1970 shows that daily average values are following a steady upward trend at the rate of about eight percent per year.

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[6]The Federal Register, Volume 36, Number 158. August 14, 1971

Estimation of future sulfur oxide air quality must be largely based on expected trends in fuel oil consumption. Since it is estimated that residual fuel oil combustion emissions are perhaps the most significant single source of sulfur dioxide, the future air quality largely rests in projected use of this fuel. Although available data is limited, it appears that the consumption of residual fuel oils within and near the Study area will probably decrease within the next five years. This decrease should coincide with a general increase in the use of distillate fuel oil. The end result should be little change or a slight decrease in sulfur oxide emissions, resulting in similar or slightly better sulfur oxide air quality within the Study area to year 1975. Projection beyond year 1975 is difficult with the information presently at hand.

Particulates

Particles of solids and liquids (excluding water) in the atmosphere constitute a class of air pollutants resulting from such activities as fuel combustion, various manufacturing and processing operations and refuse incineration. Particulate air pollution interferes with visibility, and is associated with soiling and corrosion and adverse health affects. Most coarse particulate, those which easily settle to the ground (above 10 microns), lodge in the nasal passages and present little health hazards while fine particles, those which affect visibility, and remain in the atmosphere for prolonged periods may penetrate deeply into the lungs.

The Phase I review of existing air quality within the Downtown Study area indicated that particulate concentrations in the Study area were among the highest in the entire CWAPA region, with some 36 violations of particle fallout standards and 24 occurrences of suspended particulate concentrations exceeding E.P.A. national ambient air standards over the last four years.

Particulate Air Quality Trends

A statistical study[7] of suspended particulate trends for nine sampling stations within the Portland Metropolitan Area for the period 1967 through 1970 concluded that with 95% confidence, there is no long term trend in monthly averages. Establishment of trends prior to 1967 are not possible due to the lack of adequate sampling data.

Particulate Emission Trends

Determination of actual particulate emission trends requires a detailed emission inventory and an assessment of the future emission reductions due to planned control actions. A detailed emission inventory was recently compiled for the 1969-70 period as was a projection of particulate emission rates in 1975, assuming all stationary emission sources were brought into compliance with existing air quality emission standards by this date.

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[7] Suspended Particulate Trends Within the Portland Metropolitan Area, 1967-1970. CWAPA Technical Report 71-7, March, 1971.

Table 9 presents the particulate emission inventory and projected emission reductions for Multnomah County as well as the area in and near the Downtown Study project boundaries (includes Guilds Lake industrial sources). The inventory for the Study area required some gross approximations as to the distribution of oil combustion and motor vehicle emission in Multnomah County.

The data presented in this table indicates that total particulate emissions in the Study area, which come mainly from commercial and industrial processes, oil space heating and transportation, would be reduced 46% by 1975. Fine particulates, which are of most concern, would be reduced by 37%. It is coincidental that the Multnomah County particulate emission reduction would be similar to those of the Study area. These emission projects are based on no significant increase in particulate emissions due to establishment of new sources and no significant increase in fuel useage. It is also noteworthy that an emission reduction greater than projected could occur if proposed national plans to eliminate the majority of lead from gasoline in 1975 are implemented. This action could reduce fine particulate emissions by another 8%.

Air Quality in Relation to Particulate Emission Trends

The frequency distribution of suspended particulate samples for 1970 at the Central Fire Station located in the heart of the Study area is presented in Figure 16. This graph indicates approximately 8% of the sampling days exceed the E.P.A. National Secondary suspended particulate standard of 150 ug/m^3. The 60 ug/m^3 National annual standard was exceeded by 8 ug/m^3 or 13%. Application of the projected 37% reduction in fine particulate emissions for the Study area to the following formula[8] gives a 1975 estimate of the expected suspended particulate annual geometric mean resulting from the emission reductions (annual geometric mean of 45 ug/m^3 for the Central Fire Station sampling site).

$$\% \text{ emission reduction} = \frac{(A-B) - C}{(A-B) - D} \times 100$$

Where A = 68 ug/m^3 = existing air quality
B = 5 ug/m^3 = reduction in background air quality due to emission control programs outside of metro area
C = Expected air quality (ug/m^3)
D = 14 ug/m^3 = Absolute background air quality

A plot of the expected frequency distribution of suspended particulate in 1975 (shown on Figure 17) compared with the requirements of the National Secondary particulate ambient air standard, indicates that the National annual standard will be met; however, the National 150 ug/m^3 standard would still be exceeded approximately 1% of the time. The reduction of lead emission from vehicular emissions would appear to enable attainment of all standards.

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[8]15 July 1971 Correspondence to the Department of Environmental Quality.

TABLE 9

Particulate Emissions

(Tons/Year)

Multnomah County

Source	1969-70 Emission		1975 Emission		% Reduction		
	Fine	Total	Fine	Total	Fine	Total	
Comm'l & Indust. Processes	2,487	5,302	969	1,592	61	70	
Oil - Com. & Ind.	471	493	471	493	0	0	
Oil - Residual	533	533	533	533	0	0	
Transportation	1,250	1,250	1,250	1,250	0	0	
Incineration	36	142	5	18	86	86	
Reynolds Metal	1,620	1,620	700	700	57	57	
Aircraft	484	484	550	550	-14	-14	(increase)
Open Burning	340	340	50	50	85	85	
Slash Burning	96	96	96	96	0	0	
TOTAL	7,319	10,260	4,624	5,272	38% (44%)	49% (55%)	With lead Removed from gasoline

Study Area and Vicinity

(Tons/Year)

Source	1969-70 Emission		1975 Emission		% Reduction		
	Fine	Total	Fine	Total	Fine	Total	
Commercial and Industrial Processes	1,024	1,974	434	777	56	61	
*Oil Com. & Ind. (¼ of County)	120	120	120	120	0	0	
*Oil - Resid. (15% of County)	80	80	80	80	0	0	
*Transportation 2/3 rail & ship	200	200	200	200	0	0	
1/4 auto	220	220	220	220	0	0	
TOTAL	1,644	2,594	1,054	1,397	37% (45%)	46% (51%)	With lead Removed from gasoline

*Estimation based on population density, traffic info, etc.

Further substantial increases in particulate emissions in the Study area would appear unallowable in light of the above calculation since control of all sources of particulate emissions within the Study area will be barely adequate to attain acceptable air quality. It would appear that a maximum emission density of 60 tons/sq. mile of fine particulate would be necessary to meet all applicable standards compared to the present Study area and vicinity emission density of approximately 100 tons/sq. mile.

Total particulate emission reductions (coarse and fine particulate) will be about 10% greater than fine particulate emission reductions. It would therefore be anticipated that particle fallout standards will also be met.

Visibility

Although visibility restriction due to air pollutants is not of direct concern to the Downtown Study project, people who live, work or visit in the downtown area are very cognizant of the visibility from the area and it is felt that a report on air quality trends in the Study area would not be complete without some mention of visibility trends.

Figure 18 presents frequency distributions of eighteen years of visibility data (1949-1967) taken at the Portland International Airport during the daylight hours of 8 a.m. to 5 p.m. Two distributions are shown, one for all meteorological conditions and one for conditions where relative humidity is less than 60% (a condition normally used to exclude visibility reduction due to fog). From this data it can be seen that visibilities greater than 45 miles (distance from Portland downtown area to Mt. Hood) occur 5% of all daylight hours under all meteorological conditions and 15% of the daylight hours with relative humidity under 60% (5% of all daylight hours based on 34% of the daylight hours having relative humidities less than 60%). Severe visibility restriction less than 10 miles occurs 30% of the daylight hours during all meteorological conditions and about 12% of the daylight hours during relative humidity conditions less than 60% (4% of all daylight hours).

Figure 19 presents a graph of the average number of hours per month when visibility was reduced to six miles or less due to smoke and haze only during the period 1960-1964. It is apparent that the month of Sep, Oct, Dec, Jan and Feb had over 50 hours per month of severe visibility reduced due to smoke and haze. During 1970 there were 37 days when visibility restriction of six miles or less due to smoke and haze only were recorded.

Visibility Trends

Trends of visibility data show an improvement in visibility for the period 1949-1958 and a degradation of visibility from 1958-1967 with a net effect for the 18 year period of only a very slight improvement. Figures 20 and 21 show trends for visibilities greater than 30 miles with relative humidities less than 70% for the 1949-67 and 1958-67 period which exemplify this conclusion. Figure 22 superimposes the 1970 frequency distribution of suspended particulate at the Central Fire Station on the 18 year visibility

distribution plot using the visibility-suspended particulate relationship developed by Charleson of the University of Washington.[9] As can be seen, the distribution of visibility and suspended particulate reasonably agree.

Assuming that the projected 1975 particulate emission reductions and associated projected suspended particulate reductions will improve visibility in direct proportion, an estimation of possible improvements in visibility may be made. Figure 23 presents the projected visibility distribution in 1975, assuming visibility will directly follow the 37% reduction in fine particulate emissions in the Study area and county. This graph indicates that under all meteorological conditions, visibilities greater than 45 miles would increase from 5% of daylight hours to 15% of the daylight hours. Restricted visibilities less than 10 miles would decrease from 30% of daylight hours to 15% of daylight hours. For relative humidities less than 60%, visibilities greater than 45 miles would increase from 5% of daylight hours to 11% of daylight hours. Restricted visibilities less than 10 miles would decrease from 4% of daylight hours to 2% of daylight hours. A summary of visibility improvements is shown in Table 10. It is noteworthy to compare visibility improvements with visibilities that might be expected with "no" air pollution.

In summary, long range visibilities will be improved almost three-fold while severe visibility restrictions will be reduced by a factor of two.

It should be cautioned that the exact relationship between visibility, suspended particulate, particulate emissions and such factors as particle size and atmospheric reactions for the Portland area atmosphere remain largely unknown. Because of these unknowns, projected visibility improvements are considered at best a hopeful estimate.

SUMMARY

The Environmental Protection Agency, in April 1971, set forth strict standards defining the quality of air which is necessary to protect the health and welfare of the community and which must be attained in a reasonable time. This means, in most cases, by the year 1975. These ambient air standards include requirements that an implementation plan be prepared by the State of Oregon by February, 1972, outlining the control strategy to be employed to insure compliance with the adopted standards. This report reflects, in part, the effects of control strategy that will be employed to attempt to attain and maintain the required air quality. A review of the projected future air quality for each pollutant including relations to the ambient air standards is presented below. It is important to view the projections and estimates presented in this document in the proper light. The statements and data presented have been based on a number of estimations and assumptions related to motor vehicle emissions and air pollution control strategies. Deviations from these estimations and assumptions in the future could significantly alter the projections made.

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[9]Charleson, R.J., Ahlquist, N.D., "A New Instrument for Evaluating Visual Quality of Air", Journal of the Air Pollution Control Association, Vol. 17, No. 7, (1967).

Carbon Monoxide

The pollutant of greatest concern within the Study area is carbon monoxide. In the year 1970, approximately 47,700 tons of carbon monoxide was emitted from motor vehicle sources. By the year 1985, the emissions should be 13% of the 1970 emissions, or 6,400 tons per year, provided automotive manufacturers produce vehicles which meet stringent 1975 motor federal emission standards. Expressed in terms of carbon monoxide air quality, the carbon monoxide emissions in years 1970-1982 indicate that air quality standards will not be met in all parts of the Study area until 1982. Approximately 49, 36 and 3 percent of the area under consideration in this report is likely to contain areas in violation of the standard in years 1970, 1975 and 1980, respectively.

The impact that future development of mass transportation will have on the motor vehicle pollution problem is largely unknown past the year 1975. Present information suggests that a 15% increase in the number of people using bus transportation will occur by 1975, however, this may be offset by increase of motor vehicle usage. An earlier solution to the carbon monoxide pollution problem may well rest, at least in part, on the future role of mass transit within the Study area. If mass transit could produce a 29% reduction of 1975 motor vehicle traffic in downtown Portland, attainment of carbon monoxide standards by 1975 would be possible. An 11% reduction of present motor vehicle traffic by 1977 could enable attainment of CO standards by 1977. New vehicle emission control programs, i.e., vehicle emission control system inspection, retro-fitting of pre-1968 vehicle with control systems, etc., should be investigated to determine the effectiveness of additional control strategies. All of these approaches could help improve air quality in a shorter time span.

Hydrocarbons

The hydrocarbon air quality, like that of carbon monoxide, is closely related to automotive emissions. A 91 percent reduction in hydrocarbon emissions is expected by the year 1985 as a result of automotive emission control. Comparison of the anticipated reduction with the actual ambient air trend shows that there may have been less improvement in hydrocarbon levels than would be predicted by the national projected urban hydrocarbon emission curve. This could be due to partial ineffectiveness of present automotive hydrocarbon emission control devices. Compliance with National hydrocarbon ambient air standards, either at the present time or in the future, is unknown due to a lack of adequate air monitoring data.

Oxides of Nitrogen

The oxides of nitrogen emissions from motor vehicles are expected to increase from the 1970 emission rate of 1332 tons per year to a peak in mid-1972, at which time the 1973 model cars, which will be equipped with oxides of nitrogen control systems, are expected to initiate a downward trend in emissions. Emissions are expected to be reduced to 26 percent of the 1970 level by year 1985.

Oxides of nitrogen air quality is generally acceptable at the present time although the anticipated increase in levels has been observed in the measured air quality. Oxides of nitrogen levels are not expected to exceed current E.P.A. standards within the foreseeable future. The primary impact in the near future of the hydrocarbon and oxides of nitrogen projections will be upon the photochemical oxidant air quality.

Photochemical oxidants

Adverse photochemical oxidant air quality may well be the most difficult problem to control in view of the projected hydrocarbon air quality. This is especially true in light of the fact that the oxidant problem may improve only slightly in the immediate future. Compliance with the standard prior to 1977 or 1978 appears doubtful. The impact that the photochemical oxidant air quality has on visibility reduction is largely unknown at present, but it is anticipated that it contributes to the visibility reduction problem at least three or four days per year when the oxidant level standard is exceeded.

Sulfur Oxides

Sulfur dioxide within the Study area is at present well below established ambient air standards, although trend analysis suggests that there has been a steady upward trend in sulfur dioxide levels over the past four years. Given the emission projections presented in this report, it appears unlikely that the E.P.A. standards will be exceeded within the Study area in the near future.

Projection of the future sulfur oxides air quality is largely based on the expected consumption of residual and distillate fuel oils within the Portland Metropolitan area, since the use of these fuel oils account for most of the sulfur oxide emissions. Information presently available suggests that the use of these fuels will result in little change or slightly better sulfur oxides air quality within the next four years. Projection beyond 1975 is difficult, given the information presently at hand.

Particulate

Particulates are one of the Study areas major air pollutant problems. Short and long term national ambient air standards for suspended particulate are being frequently exceeded and numerous violations of particle fallout standards have been recorded. Major sources of particulate emissions directly influencing the air quality of the Study area include numerous manufacturing and process industries, transportation facilities including motor vehicles, ships and trains, and oil heating.

Fine particulate emission reductions in and near the Study area due to projected control actions should be about 38% of the 1970 levels by 1975. This reduction will almost be sufficient to meet all applicable air quality standards. The National 150 ug/m^3 24 hour standard will probably be exceeded about 1% of the time in 1975 unless proposed reductions in lead content of gasoline take effect, in which case all standards may be met.

Since all potential particulate control actions will be barely adequate to restore acceptable air quality in the Study area by 1975, it appears that no significant increases in particulates such as that caused by establishment of new sources can be ever tolerated; that is, unless greater particulate reductions occur than those predicted.

Visibility

Visibility from the Study area is frequently reduced due to air pollution. Some 37 days per year have occurrences of visibilities less than six miles due to smoke and haze only. Visibilities greater than 45 miles with all relative humidity conditions occur only 5% of the daylight hours per year in comparison to a possible 40% under no air pollution condition.

Assuming the projected particulate emission reductions by 1975 will directly affect visibility improvements, it is estimated that long range visibilities will be improved almost three-fold while severe visibility restrictions will be reduced by a factor of two.

Visibility projections should be considered only very rough estimates due to the many unknown factors such as stmospheric reactions, particle size, emission relationships and influences of remote and natural sources of visibility reducing matter.

CONCLUSIONS

The Portland Metropolitan area is in a region of the U.S. having among the highest meteorological potential for air pollution in the country. This condition will not alter unless major climatic change occur, which is highly unlikely in the foreseeable future.

During 1970, air quality within the Downtown Study Project area exceeded National Ambient Air Standards. Sixty-nine occurrences of carbon monoxide concentrations exceeding the national primary and secondary standard of 8.7 ppm-eight hour average were recorded. Eleven occurrences of suspended particulate concentration exceeding the national secondary standard of 60 ug/m^3 annual geometric mean was exceeded by 14%. Photochemical oxidants in excess of the National Primary 1 hour average standard of 0.08 ppm occurred on three days. Nitrogen dioxide and sulfur dioxide concentrations were within national standards in 1970. It is not known whether reactive hydrocarbons meet applicable standards due to a lack of sampling data. Severe visibility restrictions due to air pollutants occurred on 37 days.

Trends in ambient air concentrations during the last four years indicate that carbon monoxide and hydrocarbons are presently on a downward slope due primarily to the Federal motor vehicle emission control program. Nitrogen dioxide is on an upward trend due to the lack of a Federal emission control standard; sulfur oxides are also on an upward trend probably due to increased use of sulfur bearing fuel oil. Suspended particulates exhibited no upward or downward trend. Long range visibilities have become more restricted during the period 1958-1967.

Present and projected Federal motor vehicle emission control programs will continue to significantly reduce carbon monoxide and hydrocarbon concentrations through 1985. Nitrogen oxides will begin a downward trend in 1973 which will continue through 1985 due to instigation of a Federal nitrogen oxides control program in 1973. (It should be pointed out that projections in motor vehicle emissions past 1975 are based on 1975 new vehicles meeting extremely stringent Federal standards and as of this date, no such production line engine has been announced).

Sulfur oxide emissions will probably not increase significantly in the future due to limitations in fuel oil supplies. Particulate emissions could be reduced by some 37-47% in and near the Study area by bringing industrial and commercial sources into compliance with existing air quality regulations.

In relation to National Ambient Air Standards, projected carbon monoxide emission reductions should enable about 64% of the Study area to meet compliance with applicable standards by 1975, about 97% of the area would meet compliance by 1980 and all the area would meet compliance by 1982.

Due to the slow decline in hydrocarbon emissions, photochemical oxidants will probably continue to exceed standards at the same or slightly lesser rate through 1977. Compliance with applicable standards would be expected shortly after this year.

Projected particulate emission reductions by 1975 would appear adequate to enable meeting the national secondary annual standard but barely inadequate to meet the 24 hour standard. Possible reduction on vehicular lead emissions might be sufficient to enable meeting all standards. It would appear that no further significant increases in particulate emissions could be tolerated in and near the Study area in the future, unless further reduction in present emissions above those projected actually occur. Projected particulate emission reductions could improve long range visibility by a factor of 3 and reduce occurrences of severe visibility restrictions by a factor of 2.

Increase is mass transit in strategic areas, retro-fitting or pre-1968 automobiles with emission control devices, more stringent stationary source emission standards and enactment of new emission reduction strategies (traffic re-routement, and industrial emission curtailment) could enable attainment of national ambient air standards in a shorter time then projected in this report. At least a 29% reduction in motor vehicle traffic in the downtown area would be necessary to enable meeting the Federal carbon monoxide standard by 1975.

In conclusion, present air quality within the Downtown Study Project area is not at a level to insure adequate protection of the health and welfare of the community. Present and future federal, state, and local air pollution control programs will result in a downward trend in emission rate of all major air contaminants by 1973. By 1977, the major air contaminants will meet existing air quality standards with the exception of carbon monoxide in a few parts of the Study area. Substantial improvements in visibility should also be noted by 1975.

Epilogue to the Planner

Desirable air quality cannot be achieved solely by the control of individual emission sources. Given the best current emission control technology, there is a point at which the total emissions from "controlled" sources within a given land area will create an air pollution problem. For example, the air pollution discharged from ten thousand automobiles crossing an intersection may cause no air pollution problem whereas the emissions from thirty thousand vehicles may cause serious levels of contaminants that may endanger the public health and welfare.

The Phase II projection of air quality within the downtown Study area is somewhat encouraging. The time span, however, for the attainment of desirable air quality is long. Also, unforeseen factors such as an increase in the urban growth rate (including adjacent land use), major traffic pattern changes, reduced efficiency of motor vehicle control systems and more frequent occurrences of unfavorable meteorological episodes could result in significant deviations from the projections made in this report. It is hoped that action from planning and zoning agencies will significantly assist in shortening the time span required to attain desirable air quality. In specific regard to the Downtown Study area, the following roles could be played by planning, zoning, traffic and transportation agencies to assist and insure the attainment of desirable air quality within the downtown core area.

1. In areas where the Phase II report shows the carbon monoxide standards will not be achieved by 1975, conduct traffic studies and determine what feasible short term means exist to reduce carbon monoxide emission densities in these areas.

2. Actively participate in the implementation of an interim action plan to prevent high carbon monoxide and photochemical oxidant levels in problem areas from occurring during poor atmospheric dispersion conditions. It is possible that this might be accomplished in the near future to serve as an interim solution until federal and state motor vehicle emission reductions can produce a substantial improvement.

3. Make no major changes in traffic flow without full consideration of the air quality impact and consider all possible means of reducing traffic density, increasing traffic speeds and reducing traffic congestion. Consideration should be given to the achievement of the desirable emission densities presented in this report.

4. Oppose any future increase in particulate emissions in and near the Study area regardless of compliance with air quality emission standards. Encourage means of reducing existing particulate emissions, including those resulting from general road dust, building construction and space heating.

5. Encourage public information and motivation efforts to reduce motor vehicle related pollution through changes in the citizen's habits, i.e., to increase use of Tri-Met for downtown trips, to encourage car pools, particularly for reducing peak traffic densities and to improve maintenance of automobile emission control systems.

6. Encourage and support an intensive visibility air pollution study to insure that proposed particulate control actions may actually achieve desired results within an acceptable time period.

7. Support a vehicle emission surveillance system especially for traffic using the downtown area and encourage correct operation of the existing emission control systems.

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

1010 N. E. COUCH STREET PORTLAND, OREGON 97232 PHONE (503) 233-7176

19 May 1971

Harold M. Patterson, Director
Air Quality Control Division
Department of Environmental Quality
1400 S.W. Fifth Avenue
Portland, Oregon 97201

Dear Harold:

At the Columbia-Willamette Air Pollution Authority's Board of Directors meeting 14 April 1971, the Board instructed its General Counsel to review the petition filed by the Northwest Environmental Defense Center and determine whether or not the Board is vested with legal power to grant relief prayed for in the petition. A copy of the amended petition is enclosed, along with the opinion by Emory J. Crofoot.

The 21 May CWAPA Board meeting will include an agenda item involving the Northwest Environmental Defense Center petition. I'm sending you the opinion which is confidential really up until the Board either accepts the advice or adds some of their own policy advice and instructs the staff on other activities. Since the opinion relates to a class of sources which the Environmental Quality Commission has retained primary jurisdiction, I thought might be helpful to supply you a copy of the petition in advance. I realize a similar petition was filed before your Commission and that an opinion was requested from the State Attorney General.

I would be glad to review with you any tenative implementation plans that will reduce the carbon monoxide concentrations and meet the new Federal requirements.

Sincerely yours,

Hatch

R. E. Hatchard
Program Director

REH:sm
Enclosure

Northwest Environmental Defense Center
c/o 10015 Southwest Terwilliger Boulevard
Portland, Oregon 97219 (ph. 244-1181)

BEFORE THE COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

In the Matter of the Application of the
NORTHWEST ENVIRONMENTAL DEFENSE CENTER PETITION

TO THE COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

The petitioner seeks an investigation of the granting of permission by the City of Portland Planning Commission and the Council of the City of Portland, Oregon, to the Benjamin Franklin Federal Savings and Loan Association and Security Bank to construct an office, parking and commercial facility in the C-1 moratorium area, an action which threatens to contribute to the deterioration of air quality and to compromise the formulation of an acceptable implementation plan under the federal Clean Air Amendments of 1970 to reduce carbon monoxide levels in the Portland, Oregon, downtown area; petitioner further seeks injunctive, abatement, or other appropriate action by the Columbia-Willamette Air Pollution Authority, as it deems appropriate.

I

Petitioner, the Northwest Environmental Defense Center, is an interested and affected party and a non-profit corporation formed under the laws of the State of Oregon with the corporate purpose of preserving, protecting and improving the environmental quality of the Pacific Northwest.

II

The Columbia-Willamette Air Pollution Authority is a commission formed under the laws of the State of Oregon with the responsibility of effectuating the public policy of the State of Oregon

(A) To restore and maintain the quality of the air resources of the state in a condition as free from air pollution as is practicable, consistent with the overall public welfare of the state, CWAPA Rules, Section 2.1(1)(2); ORS 449.850, 449.855,

(B) To assist in adopting and submitting to the Administrator of the Environmental Protection Agency a plan to implement, maintain and enforce the national ambient air standards, Clean Air Amendments of 1970, Section 110(a),

(C) To facilitate cooperation among units of local government in establishing and supporting air quality control programs, ORS 449.765, and

(D) To safeguard the air resources of the state by controlling or abating air pollution and preventing new air pollution. ORS 449.770.

III

The proposed Security Bank of Oregon and Benjamin Franklin Federal Savings and Loan Association facility [hereinafter, facility] will consist of a 10-1/2-level parking structure with shops on the ground floor, 3 office floors above the parking levels, and a drive-in auto bank. The plan includes one entrance each to the parking structure and to the drive-in bank from Southwest Sixth Avenue, a garage entrance from Southwest Oak Street, and three exit lanes from the parking garage and drive-in bank on Southwest Oak Street.

IV

According to ORS 449.760(5), "air contamination source" is defined as

> "any source at, from, or by reason of which there is emitted into the atmosphere any air contaminant, regardless of who the person may be who owns or operates the

building, premises or other property in, at or on which such source is located, or the facility, equipment or other property by which the emission is caused or from which the emission comes." (emphasis added)

V

On 11 January 1971, the staff of the Columbia-Willamette Air Pollution Authority promulgated an opinion as to the proposed facility, part of which said,

> "Since carbon monoxide concentrations are in direct relationship to the number of vehicles, the proposed Benjamin Franklin parking structure would result in an increase of ambient air pollutant concentrations. The exact amount of increase cannot be calculated due to the many variables involved. However, the average CO levels in the immediate area would be expected to increase approximately 7 to 14% depending upon the traffic turnover. This realistic estimate does not reflect any additional increase resulting from idling or slow moving vehicles or emissions resulting from the vehicles within the parking structure itself.
>
> "The effect of the proposed Benjamin Franklin parking structure on ambient air carbon monoxide levels would be in the order of a 2-4 ppm increase which could result in additional violations in the immediate vicinity. This projection is predicated upon measurements made at SW 5th and Washington extrapolated to the vicinity of the proposed parking structure."

VI

The Clean Air Amendments of 1970 [PL 91-604] specify that each state shall formulate, implement and enforce a plan to achieve the national primary and secondary ambient air standards. Section 110(a) (2)(B) requires that this plan include "emission limitations, schedules, and time-tables for compliance with such limitations, and such other measures as may be necessary to insure attainment and maintenance of such primary or secondary standard, including, but not limited to, land-use and transportation controls."

VII

Page 2 of the Report of the Senate Committee on Public Works elaborates on the intent of the Clean Air Amendments of 1970:

> "Implementation of standards will require other changes in public policy. Land use policies must be developed to prevent location of facilities which are not compatible with implementation of national standards. Transportation policies must be developed or improved to assure that the impact of pollution from existing moving sources is reduced to the minimum compatible with the needs of each region. Construction of urban highways and freeways may be required to take second place to rapid and mass transit and other public transportation systems. Central city use of motor vehicles may have to be restricted."

The report continues:

> "The bill recognizes that a generation -- or ten years' production -- of motor vehicles will be required to meet the proposed standards. During that time, as much as seventy-five percent of the traffic may have to be restricted in certain large metropolitan areas if health standards are to be achieved within the time required by this bill."

VIII

In its discussion of what is now Section 110(a)(2)(B) of the Clean Air Amendments of 1970, the Report of the Senate Committee on Public Works concludes,

> "The Committee recognizes that during the next several years, the attainment of required ambient air quality in many of the metropolitan regions of this country will be impossible if the control of pollution from moving sources depends solely on emission controls. The Committee does not intend that these areas be exempt from meeting the standards." [p. 13]

IX

The proposed national primary and secondary air ambient standard for carbon monoxide, as published in the Federal Register, 30 January 1971, is

(a) 10 milligrams per cubic meter (approximately 8.7 ppm) maximum 8-hour concentration not to be exceeded more than once per year;

(b) 15 milligrams per cubic meter (approximately 13 ppm) maximum one-hour concentration not to be exceeded more than once per year.

X

The aforementioned Senate Public Works Committee Report states:

> "Based on data contained in air quality criteria already issued (for carbon monoxide and photochemical oxidants) or in preparation (for nitrogen oxides) and on requirements for margins of safety, it has been concluded that the following ambient air quality levels must be attained to insure protection of public health: carbon monoxide, 9 ppm/8-hour average."

XI

On 11 February 1971, the Department of Environmental Quality presented testimony to the Portland City Council with regard to the facility. It documented the following violations of the proposed national standards, measured by the Department's continuous air monitoring station at 718 West Burnside:

Year	Standard	Number of Violations
1968	10 mg/m^3 (8-hr)	166
	15 mg/m^3 (1-hr)	566
1969	10 mg/m^3 (8-hr)	136
	15 mg/m^3 (1-hr)	378
1970	10 mg/m^3 (8-hr)	42 (data through July)
	15 mg/m^3 (1-hr)	133

XII

In its 11 February 1971 testimony to the Portland City Council, the Department concluded,

"The Department is of the opinion that only through traffic planning, regulation, and control or restriction, can the proposed national ambient air quality standard for carbon monoxide be complied with in the near future. The full sphere of transportation affecting the downtown area must be studied and planned for, not just the role of moving privately owned automobiles into and through the area. Since this total planning concept is being undertaken with the Downtown plan it does not appear reasonable from an air quality control viewpoint, to impose additional restraints upon the planning at this stage by allowing the construction of additional parking facilities during this interim period."

XIII

At a national air pollution conference (27-30 January 1971), Robert Neligan, Chief of the Bureau of Abatement and Control of the Air Pollution Control Office, Durham, North Carolina, stated that ambient standards are not and never had been an average. They apply close to the source as well as some distance away.

XIV

WHEREFORE, pursuant to the provisions of ORS 183.390, petitioner prays that in order "to safeguard the air resources of the state" [ORS 449.770] the Columbia-Willamette Air Pollution Authority do each of the following:

A. Make findings of fact to determine the probable impact of the Security Bank of Oregon and the Benjamin Franklin Federal Savings and Loan Association parking structure upon downtown Portland air quality and the extent to which it will restrict further planning by providing a permanent attraction for automobiles. ORS 449.765(1)(a), 449.770, 449.800(2), 449.800(3). CWPA Rules, Section 2.1(3)

B. Hold public hearings, either singly or in cooperation with the Environmental Quality Commission, to ascertain those facts. ORS 449.800 (2). CWAPA Rules, Section 2.1(3)

C. Seek the cooperation of the Planning Commission of the City of Portland and the Council of the City of Portland by requesting them to revoke permission to build the parking structure if the Environmental Quality Commission or Columbia-Willamette Air Pollution Authority determines that the parking structure may adversely affect the state's ability to produce an acceptable implementation plan for the downtown area. ORS 449.028, 449.765(1)(b), 449.765(1)(c), 449.781.

D. Investigate all other proposals that threaten to maintain or increase carbon monoxide levels. ORS 449.800(2), CWAPA Rules, Section 2.1 (3)(b)

E. Actively seek the cooperation of affected agencies such as the Highway Commission, any city or county planning commission, or any government to prevent further erosion of local air quality. ORS 449.028, 449.765(1)(b), 449.765(1)(c), 449.781(2), CWAPA Rules, Section 2.1(2) 2.2(1)(b).

F. Issue orders to effect compliance with the state implementation plan or to abate or prevent any threatened air pollution resulting from the construction of the proposed Benjamin Franklin facility. ORS 449.702, 449.717, CWAPA Rules, Section 2.1(3)(c), (3)(a)(g).

G. Institute actions or suits to prevent, enjoin or abate any air pollution or threatened air pollution from the construction of the proposed Benjamin Franklin facility. ORS 449.717, 449.800(4), 449.800(5), 449.820, CWAPA Rules, Section 2.1(3)(f)(g).

FOR THE NORTHWEST ENVIRONMENTAL DEFENSE CENTER:

Dated this 19th day of March, 1971.

Respectfully submitted,

Bill L. Williamson

Bill L. Williamson, President
Northwest Environmental Defense Center

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

1010 N. E. COUCH STREET PORTLAND, OREGON 97232 PHONE (503) 233-7176

14 May 1971

MEMORANDUM

TO: The Board of Directors

FROM: Emory J. Crofoot, General Counsel

SUBJECT: Northwest Environmental Defense Center Petition

Gentlemen:

On 19 March 1971 at the close of business of the Board of Directors meeting, the Northwest Environmental Defense Center filed the subject petition with the Columbia-Willamette Air Pollution Authority, hereinafter referred to as Authority. The petition was amended by the petitioner 14 April 1971.

At its regular meeting 16 April 1971 the Board directed your General Counsel to review the petition and applicable law and render an opinion as to whether or not the Board is vested with legal power to grant the relief prayed for in the petition.

The amended petition alleges, not necessarily in the same order, the existence, corporate status and the purposes of the petitioner, the existence and some of the legal powers of this Authority, that the Security Bank of Oregon and the Benjamin Franklin Savings and Loan Association propose with the approval of the City of Portland Council to construct a combination building which will house retail shops, office space and several levels of vehicular parking area. The petition goes on to allege that construction and use of the parking structure will attract sufficient numbers of autos on the streets near the structure to cause violations of the existing ambient air carbon monoxide standard promulgated by the Environmental Quality Commission and the new and vastly different carbon monoxide standard promulgated by the Environmental Protection Agency. In addition, the petition sets forth some applicable sections of Oregon

Administrative Rules (Ambient Air Carbon Monoxide Standard), some sections of state statute (pertaining to air pollution control) and numerous sections of the 1970 Amendments (Public Law 91-604) to the Clean Air Act with excerpts of proceedings of various congressional committees while considering the amendments. The prayer of the petition enjoins the Board of Directors to hold a public hearing to determine the effect of the parking structure, if any, on the ambient air carbon monoxide concentrations in the core area of the City of Portland and to seek the cooperation of the Planning Commission and Council of the City of Portland in revoking the permission granted to build the structure if the hearing resulted in findings that the impact of the structure would adversely affect the ability of the Environmental Quality Commission to produce an "implementation plan" to meet the Federal ambient air carbon monoxide standard as required by the 1970 Amendments to the Clean Air Act. If supported by evidence to be adduced, the prayer also seeks an order by the Board of Directors prohibiting construction of the proposed structure.

It should be here noted that for the purpose of deciding the question put by the Board and for that purpose only, your General Counsel must assume that all allegations of the petition which are relevant to the prayer contained therein are true.

Although the powers of the Authority (ORS 449.855) and the powers of the Board (ORS 449.875) are not identical, the two sections of statute must be read pari materia. ORS 449.855(2) vests in the Authority all the powers of the Environmental Quality Commission contained in ORS 449.800.

ORS 449.800 provides in part as follows:

> "(2) Hold public hearings, conduct investigations, *** and receive such pertinent and relevant proof as it may deem necessary or proper in order that it may effectively discharge its duties and powers *** to control and abate air pollution; *** .
>
> "(3) Make findings of fact and determinations"

ORS 449.765 made applicable to the Authority by the provisions of ORS 449.770 sets forth the policy of the State of Oregon on restoration and maintaining the quality of air resources of the state and invokes the policy of cooperation among units of local government in establishing and supporting air quality control programs.

Although there is no statutory directive similar to ORS 449.765 adverted to above requiring cooperation between the Authority and Environmental Quality Commission, it is beyond question that the Legislature anticipated such cooperation. This then, requires the cooperation of the Environmental Quality Commission and the Authority, as well as other regional air pollution control authorities in the state in formulating the "implementation plan" required by the Clean Air Act as amended.

Inasmuch as the Environmental Quality Commission has retained exclusive jurisdiction over mobile sources (motor vehicles), and it is alleged the ambient air carbon monoxide standard violations will be caused by motor vehicles on the streets near to and attracted by the proposed sturcture, the Authority cannot be required to conduct the requested hearing.

On the other hand, the Authority having the legal power to hold hearings and conduct investigations to control and abate air pollution and being required to cooperate with other governmental units in the support of air quality control programs, the Board of Directors does have the legal power to conduct a hearing and receive evidence on the question of construction and use of the proposed parking structure and the effect, if any, this would have on the ability of the Environmental Quality Commission to produce an implementation plan to meet the Federal ambient air carbon monoxide standard. It also follows that if the evidence adduced resulted in a finding that construction and use of the proposed parking structure would adversely effect the ability of the Environmental Quality Commission to produce the required implementation plan, the Board would be required by policy to seek the cooperation of the City of Portland Council to revoke the permission previously granted to construct the proposed structure.

As noted above, the prayer of the petition also seeks an order of the Board, if supported by evidence, prohibiting the proposed structure.

There is no question that under the provisions of ORS 449.712 and 449.800 the Board has ample legal power to promulgate and adopt rules governing construction and/or use of vehicular parking structures if it finds that such structures are a source of or contribute to air pollution. However, as of this date there has been no such finding, and consequently, no rule promulgated. It follows that the Board does not have the legal power to grant the relief requested. The Board cannot enforce a rule which does not exist.

The Environmental Quality Commission, on 19 December 1969, in promulgating its ambient air carbon monoxide standard, directed the regional air quality control authorities to implement traffic control programs in any given area to eliminate carbon monoxide induced health hazards. It should be here pointed out that ORS 483.036 and 483.042 vest control of vehicular traffic solely in the Legislature and pre-empt "local authorities" (which includes CWAPA) from enacting traffic control legislation other than that contained in the Oregon Revised Statutes. The statutes currently contain no regulation of vehicular traffic for air pollution control purposes. Thus, there is no legal power to carry out the directive.

Respectfully submitted,

Emory Croxdale
General Counsel

EJC:jl

This was amended

TO : ENVIRONMENTAL QUALITY COMMISSION MEMBERS

FROM : Director

SUBJECT : October 29, 1971 Meeting Agenda Item F
Proposed Environmental Standards for Natural Scenic and Recreational Areas

Background:

At its August 13, 1971 meeting, the Environmental Quality Commission directed the Department of Environmental Quality to "propose standards for recreational forest areas of the State surrounding national parks and national monuments which would best protect such environment in its present state." The staff has investigated this area and contacted the following State, Federal and citizen agencies for assistance:

1. U. S. Forest Service
2. National Park Service
3. Bureau of Land Management
4. Bureau of Outdoor Recreation
5. Bureau of Sport Fisheries
6. State Highway Division, Scenic Waterway and State Parks Coordinator
7. League of Oregon Cities
8. Association of Oregon Counties
9. Sierra Club
10. Oregon Environmental Council

A meeting was held on October 13, 1971, and based upon the comments received at that time, the proposed regulation was revised into its present form.

Factual Analysis:

The proposed regulation applies to seven basic classes of lands. These areas, plus others that are not included, were investigated and evaluated according to the following criteria:

- Need for environmental standards
- Proximity to rural or industrial areas
- Recreational and scenic values
- Public or private ownership
- Extent of a protective buffering zone
- Projected use of area
- Extent of privately owned dwellings
- Applicable State and Federal regulations

Areas selected for inclusion, and their associated scenic and recreational values are described as follows:

1. Wilderness areas so designated by the Congress of the United States in order to preserve the area in its original state.

2. Wild and Scenic Rivers or Scenic Waterways designated by the responsible State or Federal agency in order that the natural flow and ecology is not interrupted.

3. Recreational sites, landscape management, zones, and special interest areas so designated by the Forest Service or Bureau of Land Management by virtue of having any of the following characteristics:

   a) Suitability for intensive recreational activity.

   b) Recreational, scenic, or aesthetic values that require protection and attention beyond the level normally given other forested or similar land.

   c) Special scenic, geological, archeological, historical or botanical interest.

4. National Monuments, Parks, or Memorials.

5. Registered Natural Landmarks, designated by the Secretary of the Interior as being of National natural or historic importance.

6. National Wildlife Refuges established to maintain the habitat of struggling forms of wildlife.

7. Specific State Parks and a buffer zone as recommended by the State Highway Division for their recreational value.

Table I presents a tabulation of the types and acreages included in each category of land. The estimated total affected acreage is 3,665,000 .

With the exception of some buffer zones, certain lands bordering Scenic Waterways, and Natural Registered Landmarks, all areas are publicly owned. Within those areas privately owned, a minimum number of existing sources in violation of proposed standards is expected. However, special provisions for existing sources are included in the regulation.

Table II presents a summary of the proposed environmental standards and the general range of affected activities.

Under present day technology it appears impossible for any mechanized industrial operation to comply with the Class "A" environmental standards.

The Class "B" standards (for affected areas other than Wilderness) are established in recognition of the fact that recreation is the major value for these areas, and should be allowed to remain so. The standards are exceedingly strict, allowing virtually no degradation. It is unlikely that any mechanized activity or heavy industry could comply.

Existing mining and manufacturing activities may be exempted from the standards, provided they comply with other general rules. Permits may also be required for existing activities.

Logging and forestry are tacitly exempted from the Class "B" environmental standards (logging is not allowed in Wilderness), but are required to comply with other applicable state standards.

Recreational activities are not regulated by the proposed rule, primarily in recognition of the Department of Environmental Quality's enforcement limitations.

Permits are required of all new mining and manufacturing activities, and of existing activities at the Department's discretion. Public hearings are required for all permits. Logging and forestry are exempted from the permit requirement.

Conclusions:

The proposed regulation is considered to fulfill the Commission's directives to prepare rules to protect recreational forest areas. They have been prepared with the assistance of numerous governmental and citizen agencies, and are believed to reflect a consensus of the groups consulted.

Director's Recommendation:

It is recommended that a date be set for a Public Hearing for the purpose of adopting the proposed regulation.

D. R. Armstrong, October 22, 1971

TABLE I

CATEGORIES OF NATURAL SCENIC AND RECREATIONAL AREAS

Designation and Type of Area	Number of Areas Covered	Estimated Acreage
Class "A" Areas		
Wilderness	10	819,234
Total		819.234
Class "B" Areas		
Wild and Scenic Rivers	2	30,000
Scenic Waterways	6	160,000
National Forest Lands		
Recreation Zones	4000	76,000
Landscape Management zones	--	750,000
Special Interest zones	45	432,000
BLM Lands		
Recreational sites	75	61,425
National Parks, Monuments, Memorials	3	160,895
Registered Natural Landmarks	3	1,000
Natural Wildlife Refuges	2	421,515
State Parks	36	135,000
Total		2,845,638

TABLE II

SUMMARY OF ENVIRONMENTAL STANDARDS FOR
NATURAL SCENIC AND RECREATIONAL AREAS

Standards Applicable to Mining and Manufacturing	Class "A" (Wilderness)	Class "B"
Air Quality	No emissions allowed from any mechanical device	No visible or malodorous emissions (logging and motor vehicles exempted)
Water Quality	No discharge; no degradation	No degradation (logging exempted, provided water quality standards are met)
Noise	70 dbA at 10 feet (equivalent to vacuum cleaner)	80 dbA at 10 feet (equivalent to automobile traffic on highway)
Permit Requirement	Permit required for all activities except logging, Public Hearing required for approval of permits.	
Standards Applicable to Other Activities		
Air Quality	No emissions allowed from any mechanical device	General air quality standards apply
Water Quality	No discharge; no degradation	General water quality standards apply
Noise	70 dbA at 10 feet; exempted for emergency activities or recreational activities allowed by Federal government	No regulation
Permit Requirement	No permit required	No permit required

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY CONTROL DIVISION
October 18, 1971

PROPOSED
ENVIRONMENTAL STANDARDS FOR NATURAL SCENIC AND RECREATIONAL AREAS

I. STATEMENT OF POLICY:

1. Natural scenic and recreational areas represent a natural resource of unique importance to the State of Oregon. As a major part of the cultural heritage of citizens of the State, and as a key element in developing and maintaining tourism and recreation as a viable industry, the environment of natural scenic and recreational areas is deserving of the highest level of protection.

   Therefore, it is hereby declared to be the policy of the Environmental Quality Commission to regulate industrial and commercial activities in these areas such that:

   1. The environment of Wilderness areas shall be maintained essentially in a pristine state and as free from air, water, land and noise pollution as is possible given the types of recreational uses permitted in wilderness areas under State and Federal Law and regulations.

   2. The environment of all other natural scenic and recreational areas shall be altered from the natural state to the minimum degree compatible with reasonable recreational and forest management practices. All other practices shall be conducted in such a manner that environmental degradation is virtually imperceptible to persons using the area for recreational purposes.

II. DEFINITIONS:

As used in this regulation unless otherwise required by context:

1. "Wilderness" means any area so designated by the Congress of the United States pursuant to Public Law 88.577.

2. "Wild and Scenic Rivers" means any area so designed by the Congress of the United States pursuant to Public Law 90.542.

3. "Scenic Waterway" means a river or a segment of river, and related adjacent land, that has been designated as such in accordance with ORS 390.805 to 390.925.

4. "Class A Natural Scenic and Recreational Area" is any Wilderness.

5. "Class B Natural Scenic and Recreational Area" is any area specified by the following list.

   a. Any area in, or within 1/2 mile of lands administered by the U. S. Forest Service or Bureau of Land Management and designated by the Federal Government as a recreational site, or special interest area, or within the area designated as a Landscape Management zone.

   b. Any area within one mile of Wilderness.

   c. Any Wild and Scenic River or Scenic Water Way.

   d. Any area in or within 5 miles of Oregon Caves National Monument or Crater Lake National Park.

   e. Any area in or within 1/2 mile of Fort Clatsop National Memorial.

   f. Any area in or within 1/2 mile of any Registered Natural Landmark as designated or declared eligible by the Secretary of the Interior.

   g. Any Public Domain Lands as administered by the Federal Bureau of Sport Fisheries, Wildlife Refuge Division.

   h. Any area in or within 1/2 mile of the following State Parks.

	Name	County
1.	Boiler Bay State Wayside	Lincoln
2.	Cape Arago State Park	Coos
3.	Cape Lookout State Park	Tillamook
4.	Cape Sebastian State Park	Curry
5.	Cascadia State Park	Linn
6.	Champoeg State Park	Marion
7.	Collier Memorial State Park	Klamath
8.	Crown Point State Park	Multnomah
9.	Deschutes River State Recreation Area	Sherman, Wasco
10.	Detroit Lake State Park	Marion
11.	Ecola State Park	Clatsop
12.	Emigrant Springs State Park	Umatilla
13.	Floras Lake State Park	Curry
14.	Fort Stevens State Park	Clatsop
15.	Fort Rock State Park	Lake

16.	Hat Rock State Park	Umatilla
17.	Humbug Mountain State Park	Curry
18.	Jessie M. Honeyman Memorial Park	Lane
19.	Lapine State Recreation Area	Deschutes
20.	Lava River Caves State Park	Deschutes
21.	Loeb State Park	Curry
22.	Neptune State Park	Lane
23.	Oswald West State Park	Clatsop, Tillamook
24.	Otter Crest State Wayside	Lincoln
25.	Otter Point State Wayside	Curry
26.	Painted Hills State Park	Wheeler
27.	Rooster Rock State Park	Multnomah
28.	Samuel H. Boardman State Park	Curry
29.	Shore Acres State Park	Coos
30.	Silver Falls State Park	Marion
31.	Smith Rock State Park	Deschutes
32.	Sunset Bay State Park	Coos
33.	The Cove Palisades State Park	Jefferson
34.	Thomas Condon-John Day Fossil Beds State Park	Grant, Wheeler
35.	Umpqua Lighthouse State Park	Douglas
36.	Wallowa Lake State Park	Wallowa

6. "Commenced" means that an owner or operator and a contractor to, or affiliate of, such owner or operator, have entered into a binding agreement or contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

7. "Mining and Manufacturing Industry" is an industry, private or public, classified as such by the Standard Industrial Classification Manual of the Federal Bureau of the Budget.

8. "Sound Pressure Level" means the intensity of a sound, measured in decibels (dbA) using a sound level meter having a reference pressure of 0.0002 dynes/square centimeter, and the "A" frequency weighting work.

9. "Ambient Sound Pressure Level" means the total sound pressure level in a given environment, usually being a composite of sounds from many sources, far and near.

III. PERMIT REQUIREMENTS AND CRITERIA FOR APPROVAL:

1. After the effective date of this regulation, no person shall commence any new mining or manufacturing activity other than forestry or logging in any Class "A" or Class "B" Natural Scenic and Recreational Area without first securing a permit from the Environmental Quality Commission. This permit shall not be in lieu of other permits or requirements of other Federal, State, or local agencies.

2. Application for a permit to conduct an activity subject to the provisions of this section shall be made on forms supplied by the Department of Environmental Quality. Said application shall be made no less than 90 days prior to the proposed date of commencing construction or establishment of the activity.

3. All applications for permits required under this section shall be considered at a public hearing before the Environmental Quality Commission. At least 20 days public notice for said hearing shall be provided to the applicant and to all interested parties requesting to be provided notice of such hearings.

4. The Commission shall consider the testimony presented at public hearing and shall either approve or disapprove a permit for the proposed activity according to the Commission's evaluation of the degree to which the activity is consistent with the policy of the Commission as set forth in Section I, and with the Environmental Standards as set forth in Section IV of this regulation.

5. In addition to all new mining and manufacturing activities, the Commission may also require any such activities commenced prior to the effective date of this regulation to apply for a permit for continued operation.

IV. ENVIRONMENTAL STANDARDS:

1. Wilderness

Within the boundaries of Class "A" Natural Scenic and Recreational Areas, no person shall:

a. Cause, suffer, allow, or permit the emission of air contaminants, in any amount or for whatever duration, from any stationary or mobile mechanical device not related to emergency activities.

b. Discharge any sewage or industrial waste into any surface or ground waters, or conduct any activity which causes or is likely to cause:

i) a measurable increase in turbidity, temperature, or bacterial contamination;

ii) any measurable decrease in dissolved oxygen;

iii) or any change in pH (hydrogen ion concentration) of any waters of the state.

c. Cause, suffer, allow or permit the emission of noise from any mechanical device not related to emergency activities or recreational activities allowed under the laws and regulations of the Federal Government, which noise causes the peak ambient sound pressure level

(ceiling value) to exceed 70 dbA at a distance of 10 feet from the source.

2. Other Natural Scenic and Recreational Areas:

Within the boundaries of Class "B" Natural Scenic and Recreational areas, no person shall:

a. Cause, suffer, allow or permit the emission of visible or malodorous air contaminants from any equipment or activity related to any mining or manufacturing industry other than forestry or logging.

b. Discharge any industrial waste into any surface or ground waters or conduct any activity related to any mining or manufacturing enterprise other than forestry or logging, which waste or activity causes or is likely to cause:

i. a measurable increase in turbidity, temperature, or bacterial contamination;
ii. any measurable decrease in dissolved oxygen;
iii. or any change in pH (hydrogen ion concentration) of any waters of the state.

Activities related to forestry or logging shall be conducted in such a manner that applicable state water quality standards are not violated.

c. Cause, suffer, allow or permit the emission of noise from any stationary equipment or activity related to any mining or manufacturing industry other than forestry or logging, which noise causes the peak ambient soundpressure level (ceiling value) to exceed 80 dbA at a distance of 10 feet from the source.

d. Exempted from the provisions of this subsection are motor vehicles operating upon permanent State or Federal Highways.

e. Mining and manufacturing industrial activities commenced prior to the adoption of this regulation may be exempted from the standards as set forth in sub-sections A, B, or C of this section, provided that compliance with other applicable air, water and noise standards is achieved.

V. REGIONAL AIR POLLUTION AUTHORITIES:

1. Regional air pollution authorities established pursuant to ORS 449.855 are authorized to enforce Section IV, Subsections 1 (a) and 2 (a), of this regulation in Class A and Class B Natural Scenic and Recreational Areas within the boundaries of a regional authority.

2. Permits required under Section III of this regulation are in addition to any air emission permits required by a regional authority. In considering permits required under Section III, however, the Environmental Quality Commission shall endeavor to assure consistency between state and regional permit conditions.

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY CONTROL DIVISION
October 15, 1971

PROCEDURES FOR DEPARTMENT OF ENVIRONMENTAL QUALITY REVIEW OF REGIONAL VARIANCES

A. The Department of Environmental Quality will obtain from the region relative to variances granted by the Regional Authority:

1) Letter of transmittal.
2) Copy of the variance granted.
3) Copy of the staff report presented to the Regional Authority at the time of granting.
4) Copy of the minutes of the meeting.

B. The Technical Services Section will review the submission relative to conformity with Regional Rules and Oregon Revised Statutes.

C. A review will be made of the particular variance relative to reasonableness based upon the submitted material. Communications will be conducted with the Region to clarify any areas or to obtain additional information as required.

D. A recommendation will be made to the Environmental Quality Commission based upon this review. Under Chapter 315, Oregon Laws 1971, the EQC may approve, deny or modify the variance.

E. A representative of the Regional Authority will be requested to be present at the Commission meeting at which the variance is to be considered to provide additional information as required.

F. Criteria for review of Regional variance:

1. Does it meet conditions of ORS 449.810?

2. Did the applicant demonstrate a good-faith effort to comply prior to applying for the variance?

3. Is the situation of the applicant unusual in comparison with similar sources in the same general area?

4. Were alternate or interim measures considered along with the variance?

5. Is the variance properly conditioned to protect air quality to the fullest extent, including requirements for intermediate compliance steps, and submittal of plans, specifications and progress reports?

6. Is the variance period the shortest practicable and will compliance be achieved at the end of it?

7. Did the Regional staff fully investigate the application and submit a detailed staff report and recommendation to the Board?

TO : ENVIRONMENTAL QUALITY COMMISSION MEMBERS

FROM : Director

SUBJECT : October 29, 1971 Environmental Quality Commission Meeting Agenda Item G.

Department of Environmental Quality Variance Review Procedures and Columbia-Willamette Air Pollution Authority Variances No. 40, Zidell Explorations, Inc., and Open Burning No. 41

I. Department of Environmental Quality Variance Review Procedures

Attached for your information and comment are procedures developed by the Department to facilitate review of variances submitted by regional air pollution authorities for your consideration and action.

The procedures set requirements for 1) information to be supplied by the Region when submitting a variance, 2) steps to be taken by the Department upon receipt of a variance, and 3) criteria for review that the Department will apply to each variance.

It is felt these procedures will assure that the Commission will have the benefit of more complete information when acting on any given variance, while also facilitating rapid processing of all variances submitted.

II. Columbia-Willamette Air Pollution Authority Variance No. 40, granted to Zidell Explorations, Inc., Portland.

Background:

This variance has been granted Zidell's in order to allow operation of the Portland salvage yard copper and aluminum wire reclaiming furnace in which the insulating material is burned off wiring removed from ships dismantled at Zidell operations in Portland and Tacoma. The wire burner has failed to meet CWAPA visible emission standards on numerous documented occasions, and has been a source of citizen complaints for over two years. Notices of violation have been issued, office conferences held, and court action threatened by CWAPA.

Analysis:

1) All materials required were submitted by CWAPA, and all supplementary information subsequently requested was supplied.

2) The variance as written has a number of conditions, including limitation on emission opacity, restrictions on burning hours and days, dates for submission of plans and for purchase and installation of a new unit and provisions for shutdown during adverse meteorological or air quality conditions. All the provisions but the shutdown provision were proposed by Zidell's.

3) The incinerator cannot, within economic reason, be modified or controlled to meet CWAPA emission standards, and a new unit will be required.

4) Department review of the variance based on the criteria established earlier shows the following:

a) The variance may meet the conditions of ORS 449.810

b) A good-faith effort by Zidell's is not evident.

c) Zidell's situation is not widely different than that of other industries with incinerators.

d) There is no evidence of consideration or discussion of a proposal for alternate or interim measures.

e) The variance is adequately conditioned to protect air quality and to keep Zidell's on the road to compliance.

f) The variance period is apparently the shortest possible, and compliance is reasonably assured at the end of the period.

g) Regional staff investigations and reporting were adequate.

Conclusions:

The Department concludes the following:

1) The variance as written is in essence a type of compliance schedule.

2) The variance fails to satisfy three of the seven review criteria, primarily those reflecting the efforts and practical situation of the industry, rather than the performance of the region.

Director's Recommendation:

Based on review of the material submitted by CWAPA and the results of the Department review, the Director recommends the variance be denied, and that the Board of Directors of CWAPA be urged to adopt the conditions in the variance in the form of a compliance schedule as an Order, and the compliance date be terminated March 1, 1972.

III. Columbia-Willamette Air Pollution Authority Variance No. 41 Relating to the Open Burning of Certain Materials During Certain Periods of the Year.

Background:

This variance is similar to the one granted by CWAPA last year from mid-April through May to allow residential open burning of spring yard and garden clean-up material. CWAPA estimates at least 55,000 households took advantage of that variance.

Analysis:

1) CWAPA submitted all materials required.

2) The variance has four parts, as follows:

Part 1 allows a variance from CWAPA Rule 6 for residential open burning of plant materials in compliance with fire protection requirements during the period October 29, 1971 through November 29, 1971 and during the period April 15, 1972 through May 31, 1972, except on days classified as prohibition days as determined by the Department of Environmental Quality.

Part 2, also a variance from CWAPA Rule 6, suspends application of that rule to open burning of domestic rubbish in Vernonia, Clatskanie, Prescott, and Columbia City until further action by the Board of Directors, and similarly suspends that rule for commercial, governmental and industrial open burning at locations greater than three miles from the city limits of the named cities.

Part 3, extends until further action of the Board of Directors, the effective date for prohibition of open burning of domestic rubbish in the following Clackamas County Rural Fire Protection Districts: Clarkes, Estacada, Colton-Springwater, Molalla, Hoodland, Monitor, Scotts Mills and Aurora.

Part 4, extends variance No. 36 allowing open burning of land clearing debris in Special Control Areas A and B through June 30, 1972. That variance was to expire December 31, 1971.

3) Department review of the variance based on the criteria established earlier is as follows:

a) The variance may meet the conditions of ORS 449.810.

b) As near as can be determined in this case, the public, in general, has made a good-faith effort to comply with the open burning prohibition.

c) The situation is not unusual.

d) Alternate measures have been in effect in the form of the prohibition on open burning.

e) All things considered, the variance seems adequately conditioned.

f) The variance period seems reasonable, but indication is given that such variances may be requested each year through 1974.

g) The Regional Advisory Board made adequate investigations and submitted a report to CWAPA Directors, as did the staff.

Conclusions:

The Department concludes the following:

1. There is apparent need for periodical relaxation of CWAPA's residential open burning prohibition.

2. Since the CWAPA Advisory Board recommended periodic burning through 1974, and since CWAPA is soon to revise its regulation, the variance provisions, other than this fall's burning period, and the land clearing variance extension, should be accomplished by rule changes.

Director's Recommendation:

Based on a review of the material submitted by CWAPA and the Department's review and comments, the Director recommends that Columbia-Willamette Air Pollution Authority's variance No. 41 be approved with a termination date of June 30, 1972, and that CWAPA be requested to incorporate modified open burning regulations to cover these problems in a rule change. (It is understood a change in rules is planned at or just past the beginning of the 1972 calendar year.)

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

1010 N.E. COUCH STREET PORTLAND, OREGON 97232 PHONE (503) 233-7176

1 October 1971

Environmental Quality Commission
1400 Southwest 5th Avenue
Portland, Oregon 97201

Attention: Mr. L. B. Day, Director
Department of Environmental Quality

Gentlemen:

Please find enclosed copies of Variance No. 40 granted to Zidell Explorations, Inc. and Variance No. 41 a variance relating to open burning of certain materials during certain periods of time. The variances were granted by the Board of Directors at their regular meeting 17 September 1971.

In addition to the Zidell petition for the variance, there is also enclosed the report and recommendations of the Advisory Committee, the staff recommendations and the minutes of the Board meeting pertaining to each of the variances.

The variances and supporting material are submitted pursuant to the provisions of ORS 449.810 as amended by Chapters 315 Oregon Laws 1971.

Very truly yours,

Emory J. Crosbot
General Counsel

EJC:jl
Enclosures

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY
1010 NE Couch Street, Portland, Oregon 97232

BOARD OF DIRECTORS MEETING
9:30 a.m., Friday, 17 September 1971
Portland Water Service Bldg Auditorium

Present:

Board of Directors:	Francis J. Ivancie, Chairman Fred Stefani, Vice Chairman A. J. Ahlborn Ben Padrow
Staff:	R. E. Hatchard, Program Director Emory J. Crofoot, General Counsel
Others:	Darrel Johnson, Chairman, Advisory Committee Charles Haney, Chairman, Sub-Committee on Open Burning Elaine Cogan, member Sub-Committee on Open Burning Gail Haakinson, member Sub-Committee on Open Burning Bob Neumeister, Oregon Steel Mills

Minutes

The meeting was called to order by Chairman Ivancie and the minutes of the 20 August 1971 meeting were approved as recorded.

Open Burning

Mr. Johnson, Chairman of the Advisory Committee, reviewed the tasks undertaken by the Advisory Committee, to obtain public opinion on the subject of open burning, study other aspects of the problem and bring a recommendation to the Board at this meeting whether open burning should or should not be permitted in the region. Mr. Johnson expressed his appreciation to Mr. Charles Haney who served as the Chairman, Sub-Committee on Open Burning, and to the following members, Nancy Rushmer, Elaine Cogan, Gail Haakinson, Walter Nutting and Harry Kemp. He said that the Sub-Committee had done an outstanding job in gathering information on the open burning question and the Advisory Committee had unanimously adopted the amended report of its Sub-Committee.

Copies of the Advisory Committee recommendations to the Board of Directors had previously been mailed to the members of the Board and Mr. Johnson outlined them as follows:

There is a critical problem of solid waste disposal and the Advisory Committee recommends (1) that open burning of garden debris, trimmings and other leaf and needle material be allowed for a short period in the fall and in the spring each year through 1974; (2) that the Advisory Committee be directed by the Board to attempt to precipitate cooperative actions with other concerned groups to promote the development of a satisfactory economic solution to solid waste

disposal; (3) that the ban on commercial, industrial and governmental open burning be continued; (4) that Vernonia and Clatskanie areas be removed from the special restricted area; and (5) that the Advisory Committee investigate, review and report semi-annually on the progress of the recommendations contained in the report.

In answer to Chairman Ivancie's inquiry, Mr. Haney stated that the problem appeared to be concentrated in the rural and suburban areas, where people have large land areas to maintain and poor or no solid waste disposal facilities available.

Mr. Hatchard reviewed the staff report dated 13 September 1971, copies of which had previously been sent to the Board and Advisory Committee. In this report the staff explains the meteorological conditions in the spring and fall, and if the Board of Directors decides to permit short open burning periods then the 15 April to 15 May 1972 period and the 29 October 29 November 1971 period are suggested. The staff recommended that this be accomplished with a variance from the present rules and that any further open burning periods after spring of 1972 be accomplished by rule change.

Further recommendations are: that an information bulletin be made available to the fire permit issuing agencies for distribution to permit applicants emphasizing that the open burning variance is granted only because no alternative disposal methods are available; that burning be limited to brush, leaves and other garden materials; that the staff also agrees with the Advisory Committee recommendation that Vernonia and Clatskanie areas be removed from the special restricted area; and in addition, that the special restricted areas be redefined as within and three miles from the boundary of the cities of Vernonia and Clatskanie for commercial, industrial and governmental sources which is similar to the land clearing boundary lines in other areas of the region; that the boundary lines where land clearing is presently prohibited remain and not be extended for the special restricted area; that the boundary lines not be extended in Clackamas County for domestic open burning on 1 January 1972 as stated in the existing Authority rules.

In the discussion that followed these reports, Mrs. Cogan pointed out the importance of emphasizing that people are aware of the air pollution problems and permitting them to burn wood and leaf materials is authorized only because no other feasible way of disposing of this material is available at this time.

Chairman Ivancie suggested that the burning period in the spring be 45 days in length rather than 30 days, as the air dilution is better this time of year.

After further discussion, Commissioner Stefani moved, Commissioner Padrow seconded and the motion carried to allow a burning period in the fall from 29 October to 29 November 1971 and a period in the spring from 15 April to 31 May 1972 during which time permits will be issued for burning wood and leaf materials from trees shrubs or plants on days when meteorological conditions are such that the burning will not adversely effect air quality.

Commissioner Padrow moved, Commissioner Stefani seconded and the motion carried to adopt the recommendation of the Advisory Committee regarding the wording on the fire permits, which points out to the permit applicant the permit is issued only because there is no other alternate disposal method available.

After further discussion concerning the Columbia County area, Commissioner Padrow moved, Commissioner Ahlborn seconded and the motion carried to adopt the Advisory Committee recommendation that Vernonia and Clatskanie be removed from the special restricted area and that backyard burning be allowed on burn days; to also remove Prescott and Columbia City from the special restricted area and redefine the special restricted area for Vernonia, Clatskanie, Prescott and Columbia City as within the city and within 3 miles from the boundary for commercial, industrial and government sources, and not extend the land clearing area or domestic burning area as in Rule 6 effective 1 January 1972.

In answer to Chairman Ivancie's inquiry, Mr. Johnson pointed out the frustration felt by the Advisory Committee and the Sub-Committee on Open Burning during the public meetings as it became apparent that the solid waste disposal problem was indeed serious and also that it appears notenough was being done. The Advisory Committee feels that more should be done and if no one else is doing it, the Advisory Committee is stating its willingness to do what it can to precipitate solutions to the solid waste disposal problems. Just what the Advisory Committee can do, Mr. Johnson stated, is unknown, but a joint meeting with the agencies involved has been suggested. Also he pointed out that all the facts will have to be made known to the Committee in order for anything to be accomplished. At least, Mr. Johnson pointed out, the Advisory Committee is certainly willing to try to help. Commissioner Stefani suggested that the Committee contact the Metropolitan Service District. Chairman Ivancie stated he felt the place to start was with the decision makers, the Boards of Commissioners of each county.

After further discussion, Commissioner Padrow moved, Commissioner Stefani seconded and the motion passed to request the Advisory Committee to investigate the problem of solid waste disposal as it relates to the air pollution problem, to report back to the Board at periodic intervals and to do whatever it feels is necessary to go forward with the fact-finding mission in the hope of encouraging activity.

Zidell Explorations, Inc. - Variance Request

Mr. Hatchard stated that after a number of meetings with this source concerning the air pollution problems caused by their wire burner, a variance was requested by the Company. This variance request was considered by the Advisory Committee and recommended that it be granted as set forth in the letter of 1 September 1971 from Zidell Explorations, with the added condition that Zidell Explorations will cease operation of the existing wire burner when notified by the Authority staff that emissions from the unit are causing excessive public complaints, nuisance, or a condition of air pollution exists and the Authority staff believes the unit should not be operated. Operation may resume subsequently in accordance with conditions of the variance when notified by Authority staff.

Commissioner Padrow moved, Commissioner Ahlborn seconded and the motion carried to grant a variance to Zidell Explorations, Inc. to operate their wire burner subject to the conditions listed in the staff report and letter from Zidell dated 1 September 1971.

Compliance Proposal - Oregon Steel Mills

Mr. Neumeister appeared before the Board of Directors at their June 1971 meeting at which time the Board asked that they make a report at the September 1971 meeting on the progress made in bringing their Front Avenue plant into compliance with Authority rules. Mr. Neumeister stated that a course of action had been agreed upon and the plant will be in compliance by 31 December 1974.

Mr. Hatchard stated that because of the length of time involved in bringing this source into compliance, it is the staff recommendation that a stipulation and order be entered into with this company to minimize and reduce emissions as much as possible as soon as possible. Mr. Crofoot reported that extensive negotiations with the company are underway and the order and stipulation should be ready for Board consideration at the 15 October 1971 meeting. Hearing no objections, Chairman Ivancie set this matter over for consideration at the 15 October Board meeting.

Interim Emergency Action Plan

Mr. Johnson, Chairman of the Advisory Committee, reported that the Advisory Committee had considered the interim emergency action plan, agrees with the procedures in principal and recommends that the Board proceed with implementing this plan. Chairman Ivancie requested the staff to proceed with the voluntary aspects of the plan.

Tour of Controlled Facilities

Mr. Hatchard stated that the staff recommends a tour of controlled facilites be organized for the Board and the Advisory Committee to see the accomplishments and some of the remaining problems. Chairman Ivancie instructed the staff to proceed with arrangements for this tour to be held 19 October 1971 from 1 to 4 p.m.

Washington County Status

Mr. Hatchard stated the Authority had received no official notification from Washington County in regard to their participation in CWAPA. Oregon statutes do not enable withdrawal of a single jurisdiction from a regional authority. Mr. Hatchard recommended that the Authority write to the Department of Environmental Quality asking for direction on this matter. The Board agreed with this recommendation and Chairman Ivancie instructed Mr. Hatchard to contact the State agency on this matter.

Contract for Administrative Services

Mr. Crofoot pointed out the contract for administrative services each year entered into with Multnomah County, this year is essentially the same as last year's contract. It is his recommendation the Board authorize this contract be entered into with Multnomah County. Commissioner Stefani moved, Commissioner Ahlborn seconded and the motion carried to contract with Multnomah County for administrative services for the 1971-72 fiscal year.

Authorization for Travel

Mr. Hatchard stated authorization is requested to travel to Warrenton, Va. to attend a meeting dealing with economic, political and social aspects of air quality control and sponsored by the Environmental Protection Agency, featuring some outstanding experts in the field. He pointed out there would be no cost to the Authority for his participating in this meeting. Commissioner Padrow moved, Commissioner Stefani seconded and the motion carried granting authorization for Mr. Hatchard's attendance at this meeting.

The meeting was adjourned at 11:15 a.m.

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

1010 N. E. COUCH STREET PORTLAND, OREGON 97232 PHONE (503) 233-7176

7 September 1971

MEMORANDUM

TO: The Board of Directors

FROM: R. E. Hatchard, Program Director

SUBJECT: Variance Request

Zidell Explorations, Inc.
3121 SW Moody, Portland

Gentlemen:

On 1 September 1971 Zidell Explorations requested a variance from the Columbia-Willamette Air Pollution Authority rules to operate their existing wire burner until 1 July 1972, subject to the seven conditions as stated in their request (copy enclosed).

On 2 September 1971, the variance request was considered by the Advisory Committee. After consideration, the Advisory Committee recommended the variance be granted as requested with the following additional condition, which would become number 8:

(8) Zidell Explorations, Inc. will cease operation of the existing wire burner when notified by the Authority staff that emissions from the unit are causing excessive public complaints, nuisance; or a condition of air pollution exists and the Authority staff believes the unit should not be operated. Operation may resume in accordance with conditions of the variance when notified by the Authority staff.

Recommendation: The variance request is the result of a number of conferences between the Authority staff and Zidell Exploration personnel. It is the staff opinion conditions of the variance are attainable and reasonable. Therefore, it is the staff recommendation the variance be granted as requested and modified by the Advisory Committee.

Respectfully submitted,

R. E. Hatchard

REH:whj
Enclosure

IDELL EXPLORATIONS, INC.

3121 S.W. MOODY AVENUE
PORTLAND, OREGON · 97201
228-8691 · AREA CODE 503

September 1, 1971

Columbia-Willamette Air Pollution Authority
1010 N. E. Couch Street
Portland, Oregon 97232

Gentlemen:

This is a request for a hearing from the Columbia-Willamette Air Pollution Authority for a variance to operate the incinerator located in Zidell's Metal Yard, 3121 S. W. Moody Avenue, until July, 1972, the variance to include the following conditions:

(1) Opacity from the existing unit is not to exceed 40 per cent.

(2) Operation of the existing unit is limited to five (5) days per week from 8:00 a.m. until 4:30 p.m. with copper wire burning to be done only on Mondays, Wednesdays and Fridays.

(3) A new unit is to be installed and a status report will be submitted to the Authority by the 15th of November, 1971, which will outline development of engineering for the new unit and any improvements that can be made to the existing operation.

(4) Complete engineering plans for the new unit will be submitted to the Authority by January 1, 1972. Purchase of the equipment will be completed by February 1, 1972 and installation will be completed by July 1, 1972.

(5) No extension of the variance will be requested and the variance will be invalid upon notification by the Authority if any of the conditions of the variance are not made.

(6) Arrangement have been made by the Portland State University to have some of the personnel from Zidells trained on opacity readings.

(7) Zidell also promises to be as selective as possible in the type of wire coating which they will burn.

These conditions have been thoroughly discussed with our people in that particular section and we are confident they will meet all your entire requests.

Sincerely,

ZIDELL EXPLORATIONS, INC.

Emery Zidell
President

EZ:mm

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

1010 N. E. COUCH STREET PORTLAND, OREGON 97232 PHONE (503) 233-7176

14 October 1971

Department of Environmental Quality
1400 S.W. Fifth Avenue
Portland, Oregon 97201

Attention: H. M. Patterson, Director
Air Quality Control Division

Gentlemen:

This is in response to a request by Mr. Snyder of your staff for additional information concerning variance No. 40 granted by the Columbia-Willamette Air Pollution Authority to Zidell Exploration Inc., 3721 S.W. Moody, Portland.

The following is essentially a chronological summary of our staff activities concerning this source from the Authority's files for the past year which may be of assistance to you.

1. Our staff observed and recorded on ten separate occasions, excess visible emissions from Zidell's wireburner for the period March 1970 to March 1971.

2. The Authority engineering staff conducted an engineering survey in February 1971 which, in essence, concluded the wireburner was not capable of complying with the Authority emission standards.

3. Following an accidential fire in the unit in early May 1971,on 3 June, our Authority notified Zidell Exploration (copy attached) in the event of any future violation of the Authority rules, the matter would be referred to the District Attorney's office for further action. Thereafter, until the variance was granted by our Authority, Zidell Exploration did not use the wireburner to reclaim copper wire (primary cause of excess visible emissions) resulting in a large accumulation of copper wire that could not be reclaimed without use of the incinerator.

4. Conferences were held with personnel from Zidell's on 24 June and 6 July 1971 (copy attached) to discuss the feasibility of a mutually acceptable compliance agreement. Due to the past performance of Zidell Exploration concerning air pollution matters, public complaints, and lack of a specific compliance program presented at the meetings, the Authority could not accept the compliance program as discussed. Thereafter, at future meetings on 27 August and 1 September, the staff directed negotiations toward a variance request by Zidell Exploration.

5. On 1 September 1971, a variance request was submitted by Zidell Exploration which contained the following essential items:

(a) Visible emissions were limited to 40% opacity based on tests observed by our staff which was considered the minimum of air contaminants that would allow the unit to operate.

(b) Operation hours and days were restricted to minimize public complaints.

(c) Time was allowed to design and purchase a new unit based on information supplied by a reputable consulting engineering firm retained by Zidell's. The new unit discussed would be specifically designed for the material to be reclaimed (estimated cost $50,000 - $70,000).

(d) No extension of the variance would be requested and the variance would be invalid if any of the conditions were not complied with.

It is our staff opinion the conditions of the variance are attainable and of the various compliance methods available, compliance could be attained in the shortest time by utilization of this method.

We trust this information will assist in developing your staff report. If we can be of any further assistance to you, please do not hesitate to contact us.

Very truly yours,

R. E. Hatchard
Program Director

Wayne Hanson
Deputy Program Director

WH:sm
Attachments: Our letter of 3 June 71
7 July 1971 memo

3 June 1971

Zidell Explorations, Inc.
3121 SW Moody Avenue
Portland, Oregon 97201

Attention: Mr. Jack Rosenfeld, Vice President

Re: Wire Burner and Sweat Furnace

Gentlemen:

For a period in excess of two years, this agency has been in contact with you on many occasions regarding the emissions from the wire burner sweat furnace on your premises. The contacts were made by letter or by personal conversation between personnel of this agency and Mr. Rosenfeld. In nearly all such conversations with Mr. Rosenfeld, he has expressed himself as not being aware of any emissions.

Between 11 January 1971 and 4 May 1971 there were no less than 15 citizen complaints of the dense emissions. Some of these complaints originated from people in the west hills residential area, others from persons employed in the vicinity of the installation and still others from drivers of vehicles on nearby streets or highways whose visibility had been seriously impaired.

Over the two year period mentioned above, this agency has many times urged you to operate the facility in compliance with the emission standards contained in the agency rules. However, as recent as 11 May 1971, subsequent to the breakdown the facility was operating in violation of the rules.

Please be advised and you are hereby notified that any future violation(s) will be referred to the District Attorney.

For your information, a copy of Columbia-Willamette Air Pollution Authority rules is enclosed. I invite your particular attention to Rules 5, 6 and 7.

Very truly yours,

Emory J. Crofoot
General Counsel

EJC:jl
Enclosure

ROUTING	
To	Noted by
TB	NB
WH	NB
DS	NB
From:	
Action:	

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY
1010 NE Couch Street, Portland, Oregon 97232

MEMORANDUM 7 July 1971

TO: Tom Bispham, Air Pollution Specialist

FROM: Dan Bolme, Air Pollution Field Representative

SUBJECT: Office Conference - Zidell Explorations

On 6 July 1971 an meeting was held at the CWAPA Office. Representing Zedell Explorations was Ewen Morrison and E. L. Angell. The agency was represented by Wayne Hanson, Emory Crofoot and Dan Bolme. The subject of the meeting was the Zedell wire-burner.

E. Morrison began by stating that, although Zidell had contacted Sternhoff about purchasing two new incinerators, they could not obtain them for approximately 14 months. During that time Zidell wishes to burn copper wire in their present incinerator because copper wire is the economic backbone of Zidell Explorations. E. Morrison further stated that John Anderson had been contacted regarding a source test on the present incinerator. No agreement between Zidell and John Anderson has been reached as yet. Mr. Morrison said that Zidell is proposing to modify the present incinerator in order to burn copper wire. This would be in the interim before the arrival of the Sternhoff incinerators estimated to arrive 12 to 18 months after purchase.

Wayne Hanson then stated there was a problem with E. Morrison's proposal. The agency does not have anything specific with which to deal. Mr. Morrison then asked, if a purchase was placed with Sternhoff, would that satisfy the agency. W. Hanson explained that our engineering staff would have to make an evaluation before Zidell could install any air contaminant source.

E. Crofoot asked Mr. Morrison what he intended to do in order to control present emissions from their wire-burner. E. Morrison replied that the present wire-burner has deteriorated greatly, making installation of a bag-house not feasible. More definite proposals will be submitted with plans when all the alternatives have been investigated.

E. Morrison then stated that Zidell would like to enter into a compliance schedule agreement. He cited the agency's agreement with Esco as an example. W. Hanson said the agency knows exactly when and what Esco will do to solve their problems in writing. The agency still has no idea what Zidell is planning to do. In order for the agency to even consider a compliance schedule agreement, we must have, in writing, exactly what will and can be done to the present unit and when and what will replace the present wire-burner. Until then the agency's attitude will continue to be the same as reflected in E. Crofoot's letter dated 3 June 1971 and D. Bolme's letter dated 18 May 1971.

Dan Bolme

DB:jl

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY
1010 NE Couch Street, Portland, Oregon 97232

IN THE MATTER OF VARIANCE	)	VARIANCE
	)	
TO	)	INCLUDING
	)	
ZIDELL EXPLORATIONS, INC.,	)	FINDINGS AND ORDER
a corporation	)	
	)	No. 40

FINDINGS

I

Zidell Explorations, Inc. by Emery Zidell, President, on 1 September 1971 petitioned for a variance to operate the incinerator (wire burner) located in the metal yard at 3121 SW Moody Avenue, Portland, Oregon, in violation of visible emission standards contained in Columbia-Willamette Air Pollution Authority Rules, Rule 7, for a limited period of time, said variance if granted to be subject to certain conditions.

II

The incinerator is used for metal recovery employing an aluminum sweating process and a process for burning and removing the insulating material from copper wire.

III

It is not economically feasible to remodel or control said existing incinerator (wire burner) in such manner that operation thereof will comply with the emission standards contained in Columbia-Willamette Air Pollution Authority Rules, Rule 7.

IV

That the Advisory Committee having reviewed the petition for variance, having heard the oral statements of the petitioner and the reports and recommendations of the staff, recommended that the Board of Directors grant the requested variance subject to certain conditions.

ORDER

NOW THEREFORE, IT IS HEREBY ORDERED that a VARIANCE be granted to Zidell Explorations, Inc., a corporation, to operate an incinerator (wire burner) located in the metal yard at 3121 SW Moody Avenue, Portland, Oregon, in violation of the emission standards contained in Rules of Columbia-Willamette Air Pollution Authority for a period of time not beyond 1 July 1972 subject to the following conditions:

1. Visible emissions from the incinerator (wire burner) shall not exceed 40 percent opacity.

2. Operation of the incinerator (wire burner) is limited to five (5) days per week between 0800 and 1630 hours with copper wire recovery to be done only on Mondays, Wednesdays or Fridays.

3. A new incinerator (wire burner) is to be installed and a status report will be submitted to Columbia-Willamette Air Pollution Authority by 15 November 1971 which will outline development of engineering for the new unit and any improvements that can be made to the existing operation.

4. Complete engineering plans for the new unit will be submitted to the Authority by 1 January 1972. Purchase of the equipment will be completed by 1 February 1972 and installation will be completed and the unit operational by 1 July 1972.

5. No extension of this variance will be requested and the variance will be invalid upon notification by the Authority that any of the conditions of the variance have been violated.

6. Arrangements shall be made with Portland State University to have personnel from Zidell Explorations, Inc. trained on opacity readings.

7. Zidell Explorations, Inc. shall be as selective as possible in the type of wire coating which they will burn.

8. Zidell Explorations, Inc. will cease operation of the existing wire burner when notified by Authority staff that emissions from the unit are causing excess public complaints or nuisance or that a condition of air pollution exists and Authority staff believes the unit should not be operated because of such air pollution condition. Operation may resume in accordance with the conditions of this variance when notified by Authority staff.

A certified copy of this variance shall be filed with the Environmental Quality Commission for review and approval, modification or denial.

Entered at Portland, Oregon the 17th day of September 1971.

I HEREBY CERTIFY THAT THE FOREGOING IS A TRUE COPY OF THE ORIGINAL THEREOF.

Attorney For

Chairman, Board of Directors

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

1010 N. E. COUCH STREET PORTLAND, OREGON 97232 PHONE (503) 233-7176

13 September 1971

MEMORANDUM

TO: The Board of Directors

FROM: R. E. Hatchard, Program Director

SUBJECT: Staff Comments on Advisory Committee Report on Open Burning

Gentlemen:

The Authority staff has reviewed the Report on Open Burning completed by the Advisory Committee, and based upon their recommendations, submit the following specific comments for consideration.

1. If two short open burning period per year as recommended in the spring and fall are to be established through 1974, it is the staff opinion the short periods should be specific calendar days, established in advance so the fire permit issuing agencies and the individuals who need to burn during the period may make plans accordingly.

The meteorological conditions normally expected for the months of September through December show up to 50% of the time the wind speed is less than 3 to 5 miles per hour and often with temperature inversions causing poor ventilation of air contaminants. If burning is allowed to dispose of the wood and leaf materials from trees, shrubs or plants, based upon past experience and expected meteorological conditions, we estimate there would be approximately 7 days when burning could be permitted in October, approximately 15 days in both November and December.

During the spring months of April and May as experienced in spring of 1971, the meteorological conditions are such that burning permits could be issued for about 22 of the days each month.

Based on the above information, if the Board of Directors accepts the Advisory Committee recommendation to allow burning of certain materials for a short period in the spring and in the fall, it is our staff recommendation the fall period in 1971 by October 29 to November 29, and burning be prohibited only on days of poor ventilation. It should be noted that during the fall period suggested by the staff, five weekends are included which is the time we expect most burning would be done. For the spring of 1972, the staff would recommend the period April 15 to May 15. For any period thereafter, it is the staff recommendation, if burning is to be continued for short period in the spring and fall, similar periods be predetermined and incorporated with the rule changes to be considered by the Authority late this year.

2. Although the staff agrees in concept with the Advisory Committee recommendation that the fire permit be worded "so that the individual is putting himself on record that he has no adequate disposal method available", it is our opinion this is not feasible because of the variation in the method of issuing permits by the various fire protection districts and the physical problem of re-wording the existing permits by the fire districts to satisfy their particular fire codes. It is our staff recommendation that the Columbia-Willamette Air Pollution Authority make available to the fire permit issuing agencies an information bulletion to be issued with the fire permit that emphasizes this fact.

3. The staff concurs with the Advisory Committee recommendation that burning be restricted to the type of material stated.

4. The staff concurs with the Advisory Committee recommendation concerning the Vernonia and Clatskanie areas, with the following additional recommendation. Special restricted areas for the Vernonia and Clatskanie areas be re-defined as three miles from the boundary of the cities of Vernonia and Clatskanie for commercial, industrial and governmental sources which is similar to the land clearing boundary lines in other areas of the region. In addition, the staff recommends that for all other areas with special restricted areas in the region remain as defined in the existing Authority rules.

In addition to the Advisory Committee recommendations, the staff recommends the boundary lines where land clearing is presently prohibited (in essence three miles from any city over 1,000 population and 6 miles from any city over 45,000 population) remain and the boundary lines not be extended at this time for the special restricted area.

Also the staff recommends that the boundary lines not be extended in Clackamas County for domestic open burning on 1 January 1972 as stated in the existing Authority rules.

If the Board of Directors wishes to take action on this matter at this meeting, it is the staff recommendation that the appropriate variance be granted for the necessary changes until 15 May 1972.

Respectfully submitted,

R. E. Hatchard

REH:jl

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY
1010 N.E. Couch Street, Portland, Oregon 97232

IN THE MATTER OF	)	VARIANCE No. 41
	)	
VARIANCE FOR	)	INCLUDING
	)	
OPEN BURNING OF CERTAIN MATERIALS	)	FINDINGS AND ORDER

FINDINGS

I

Based upon facts developed through a series of public hearings conducted in various parts of the region by a sub-committee of the Advisory Committee, the Board of Director finds that the development of a solid waste disposal program of certain materials is not commensurate with the generation of these certain materials and there is no practical, feasible method of disposing of said materials except by burning.

ORDER

NOW THEREFORE, it is hereby ordered that a VARIANCE be granted from Columbia-Willamette Air Pollution Authority Rules, Rule 6, to permit the open burning of wood wastes and needle materials from trees, shrubs or plants growing on real property occupied as a residence for the period beginning 29 October 1971 and ending 29 November 1971 and for the period beginning 15 April 1972 and ending 31 May 1972. Said open burning shall be conducted in strict compliance with applicable rules, regulations and ordinances of fire protection agencies. No open burning of any type of material shall be permitted on "prohibition days" as determined by the Department of Environmental Quality.

IT IS HEREBY FURTHER ORDERED that the provisions of Columbia-Willamette Air Pollution Authority Rules, Rule 6 regulating open burning of domestic rubbish and commercial, governmental or industrial rubbish in Vernonia, Clatskanie, Prescott and Columbia City shall not be applicable until further action of the Board of Directors except that commercial, governmental or industrial wastes shall not be open burned within or within a three miles radius of the boundaries of said cities.

IT IS HEREBY FURTHER ORDERED that the effective dates of the prohibition of open burning of domestic rubbish in Clarkes, Estacada, Colton-Springwater, Molalla, Hoodland, Monitor, Scotts Mills and Aurora Rural Fire Protection Districts in Clackamas County is extended until further action by the Board of Directors.

IT IS HEREBY FURTHUR ORDERED that Variance No. 36 entered 19 March 1971 by the Board of Directors allowing open burning of landclearing debris, except in Special Control Areas A and B through 31 December 1971 is extended to and including 30 June 1972.

Entered at Portland, Oregon the 17th day of September 1971.

Chairman, Board of Directors

I HEREBY CERTIFY THAT THE FOREGOING IS A TRUE COPY OF THE ORIGINAL THEREOF.

Attorney For

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

1010 N. E. COUCH STREET PORTLAND, OREGON 97232 PHONE (503) 233-7176

7 September 1971

MEMORANDUM

TO: The Board of Directors

FROM: The Advisory Committee

SUBJECT: Report on Open Burning

Gentlemen:

On 4 June 1971, the Chairman of the Board of Directors, requested the Advisory Committee to develop a study and prepare a report on their views and recommendations on whether open burning should or should not be permitted in the region. On 18 June, the Board requested the report and recommendations be presented to the Board at their meeting on 17 September.

Accordingly, a sub-committee was appointed by the Chairman of the Advisory Committee to implement the request of the Board with Charles Haney as Chairman and Elaine Cogan, Nancy Rushmer, Gail Haakinson, Walter Nutting and Harry Kemp as members.

The sub-committee, accordingly:

a. Conducted a public meeting in each of the counties of the region, at which opinions were requested and views heard on the matter of open burning from citizens of the area,

b. Met with the fire prevention and fire control officials within the four counties to obtain their views on open burning with particular reference to open burning as it affects fire prevention and control,

c. Examined the files of the Authority and became familiar with citizen letters, petitions and telephone calls involving both complainants and supporters relative the present regulations on open burning,

d. Met with authority staff for orientation and background briefings on pertinent rules, regulations and prior experiences in the Authority area and elsewhere, and

e. Prepared a report with their findings and recommendations and submitted it to the Advisory Committee for consideration at their meeting on 2 September.

The Advisory Committee, on 2 September, discussed the report in detail, accepted it with minor modifications and herewith submit to the Board the following findings, conclusions and recommendations:

Findings

1. Open burning and the resultant air contaminants affect all individuals in the region, and each individual shares responsibility for maintaining clean air.

2. A general agreement throughout the region that a total ban on open burning would be acceptable if alternate economical means of solid waste disposal were available.

3. On days when backyard open burning is not allowed, citizens of the region obey regulations in a responsible manner as there have been few violations when open burning is banned.

4. Approximately only 15% of the households in the region utilized the 47 day Spring 1971 relaxation period of the open burning ban.

5. In some areas of the region, backyard open burning of brush and garden materials is the only feasible solid waste disposal alternative at this time.

6. Open burning is at best only a temporary solution to a part of the solid waste disposal problem, and acceptable on a limited basis only because of the failure to develop an integrated solid waste disposal program for the metropolitan area.

7. Failure to develop an adequate solid waste disposal program appears not to be due to technical problems, but appears to result from political involvements.

Conclusions

1. No changes are required nor desireable at this time to the Rules of the Authority as they relate to open burning. If the Rules are to be changed, it should be on the basis of development of alternate means of disposal.

2. The existing ban on open burning should be continued for commercial, industrial and government operations.

3. The Advisory Committee should take the initiative to accelerate efforts to find a satisfactory, economical solution to solid waste disposal problems in the region.

Recommendations

1. Through 1974, two short open burning periods per year, in the Spring and Fall, be established at times that would be most appropriate taking all the various aspects into consideration.

2. Any permitted open burning should be controlled according to acceptable fire code standards and any permit to burn be so worded that the applicant puts himself on record that he is asking for the permit to burn only because no adequate solid waste disposal program is available.

3. Only the burning of wood, needle or leaf materials from trees, shrubs or plants growing on the real property occupied by the person requesting the permit, and no other materials, be allowed.

4. The Vernonia and Clatskanie Rural Fire Protection Districts be removed from the special restricted area so that backyard open burning in these districts would be permitted on allowable burn days. This would be to allow open burning only as indicated in Recommendation 3. The restrictions on open burning by commercial, industrial or government operations would not be affected.

In reference to Conclusion 3, and subject to approval by the Board of Directors, the Advisory Committee would precipitate a meeting to which would be invited representatives of the Environmental Quality Commission, CRAG, the County Health Agencies, the multi-service districts and any other group with responsibilities in solving the solid waste disposal problem. The purpose would be to stimulate these groups into coordinated action with definite target dates that will result in an acceptable solution for the disposal of material that presently must be disposed of by open burning.

In reference to Recommendation 1, if approved by the Board of Directors, the Advisory Committee would investigate, review and report semi-annually after each permitted open burning period on the progress of the recommendations in this report, with a view to phase-out of open burning prior to the end of 1974, if possible.

Respectfully submitted,

Darrel Johnson, Chairman

DJ:jlj

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY
1010 NE Couch Street, Portland, Oregon 97232

IN THE MATTER OF VARIANCE	)	VARIANCE
	)	
TO	)	INCLUDING
	)	
ZIDELL EXPLORATIONS, INC.,	)	FINDINGS AND ORDER
a corporation	)	
	)	No. 40

FINDINGS

I

Zidell Explorations, Inc. by Emery Zidell, President, on 1 September 1971 petitioned for a variance to operate the incinerator (wire burner) located in the metal yard at 3121 SW Moody Avenue, Portland, Oregon, in violation of visible emission standards contained in Columbia-Willamette Air Pollution Authority Rules, Rule 7, for a limited period of time, said variance if granted to be subject to certain conditions.

II

The incinerator is used for metal recovery employing an aluminum sweating process and a process for burning and removing the insulating material from copper wire.

III

It is not economically feasible to remodel or control said existing incinerator (wire burner) in such manner that operation thereof will comply with the emission standards contained in Columbia-Willamette Air Pollution Authority Rules, Rule 7.

IV

That the Advisory Committee having reviewed the petition for variance, having heard the oral statements of the petitioner and the reports and recommendations of the staff, recommended that the Board of Directors grant the requested variance subject to certain conditions.

ORDER

NOW THEREFORE, IT IS HEREBY ORDERED that a VARIANCE be granted to Zidell Explorations, Inc., a corporation, to operate an incinerator (wire burner) located in the metal yard at 3121 SW Moody Avenue, Portland, Oregon, in violation of the emission standards contained in Rules of Columbia-Willamette Air Pollution Authority for a period of time not beyond 1 July 1972 subject to the following conditions:

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2. Operation of the incinerator (wire burner) is limited to five (5) days per week between 0800 and 1630 hours with copper wire recovery to be done only on Mondays, Wednesdays or Fridays.

3. A new incinerator (wire burner) is to be installed and a status report will be submitted to Columbia-Willamette Air Pollution Authority by 15 November 1971 which will outline development of engineering for the new unit and any improvements that can be made to the existing operation.

4. Complete engineering plans for the new unit will be submitted to the Authority by 1 January 1972. Purchase of the equipment will be completed by 1 February 1972 and installation will be completed and the unit operational by 1 July 1972.

5. No extension of this variance will be requested and the variance will be invalid upon notification by the Authority that any of the conditions of the variance have been violated.

6. Arrangements shall be made with Portland State University to have personnel from Zidell Explorations, Inc. trained on opacity readings.

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A certified copy of this variance shall be filed with the Environmental Quality Commission for review and approval, modification or denial.

Entered at Portland, Oregon the 17th day of September 1971.

I HEREBY CERTIFY THAT THE FOREGOING IS A TRUE COPY OF THE ORIGINAL THEREOF.

Attorney For

Chairman, Board of Directors

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY
1010 N.E. Couch Street, Portland, Oregon 97232

IN THE MATTER OF	)	VARIANCE No. 41
	)	
VARIANCE FOR	)	INCLUDING
	)	
OPEN BURNING OF CERTAIN MATERIALS	)	FINDINGS AND ORDER

FINDINGS

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Based upon facts developed through a series of public hearings conducted in various parts of the region by a sub-committee of the Advisory Committee, the Board of Director finds that the development of a solid waste disposal program of certain materials is not commensurate with the generation of these certain materials and there is no practical, feasible method of disposing of said materials except by burning.

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NOW THEREFORE, it is hereby ordered that a VARIANCE be granted from Columbia-Willamette Air Pollution Authority Rules, Rule 6, to permit the open burning of wood wastes and needle materials from trees, shrubs or plants growing on real property occupied as a residence for the period beginning 29 October 1971 and ending 29 November 1971 and for the period beginning 15 April 1972 and ending 31 May 1972. Said open burning shall be conducted in strict compliance with applicable rules, regulations and ordinances of fire protection agencies. No open burning of any type of material shall be permitted on "prohibition days" as determined by the Department of Environmental Quality.

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Entered at Portland, Oregon the 17th day of September 1971.

Chairman, Board of Directors

I HEREBY CERTIFY THAT THE FOREGOING IS A TRUE COPY OF THE ORIGINAL THEREOF.

Attorney For

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION

B. A. McPhillips, Chairman
Storrs S. Waterman, Member
Arnold M. Cogan, Member
E. C. Harms, Jr., Member
George A. McMath, Member

FROM Director

SUBJECT : October 29, 1971 - EQC Agenda Item H
Open Burning at Mack-West, Inc. - Douglas County

BACKGROUND:

Mack-West, Inc., formerly doing business as Cedar Products Company of Roseburg, was located on Old Highway 99 South near the Green School in the Green District south of Roseburg. At this location, the company operated a wigwam waste burner which had emissions in excess of OAR, Chapter 340, Section 21-015. Attempts were made with the company to resolve the excessive emission problems in June, August, September, October and December of 1970. In early 1971 staff observations indicated that the mill had closed since no activity was observed. The staff continued routine surveillance of the mill site during visits and trips through the area since a commitment had been made by Mr. Robert C. Robertson, Attorney and Registered Agent for the company that by June 1, 1971, the wigwam burner would be phased-out.

On August 17, 1971, the Department received a complaint from Mr. Fred Blagden, Route 1, Box 1190, Roseburg, regarding the open burning activities of a company referred to as Mack-West, Inc. Subsequent staff investigation revealed that this operation was the result of the reorganization of Cedar Products Company of Roseburg. In reorganizing, the company moved to a new location approximately 1/2 mile to the northeast of the old plant site. At this location there were no provisions for the disposal of wood residues necessitating the open burning activities. The staff learned from the Corporation Commissioner that Mack-West, Inc. was formed on or about March 30, 1971, and that Mr. Robert C. Robertson was again the attorney and Registered Agent. Attached is the memo of August 18, 1971, listing the officers of the company.

CURRENT STATUS:

On August 18, 1971, the staff advised Mr. Robertson that the company had failed to comply with Oregon Administrative Rules, Chapter 340, Sections 20-005, 20-010 and 20-015 which require that all sources having emissions to the atmosphere must register with the Department, and Sections 20-020,

20-025 and 20-030, which require that a "Notice of Construction and Application for Approval" be submitted with applicable plans and specifications to the Department for approval prior to construction. He was also informed that the open burning activities were in violation of OAR, Chapter 340, Sections 21-010, 21-015 and 23-011.

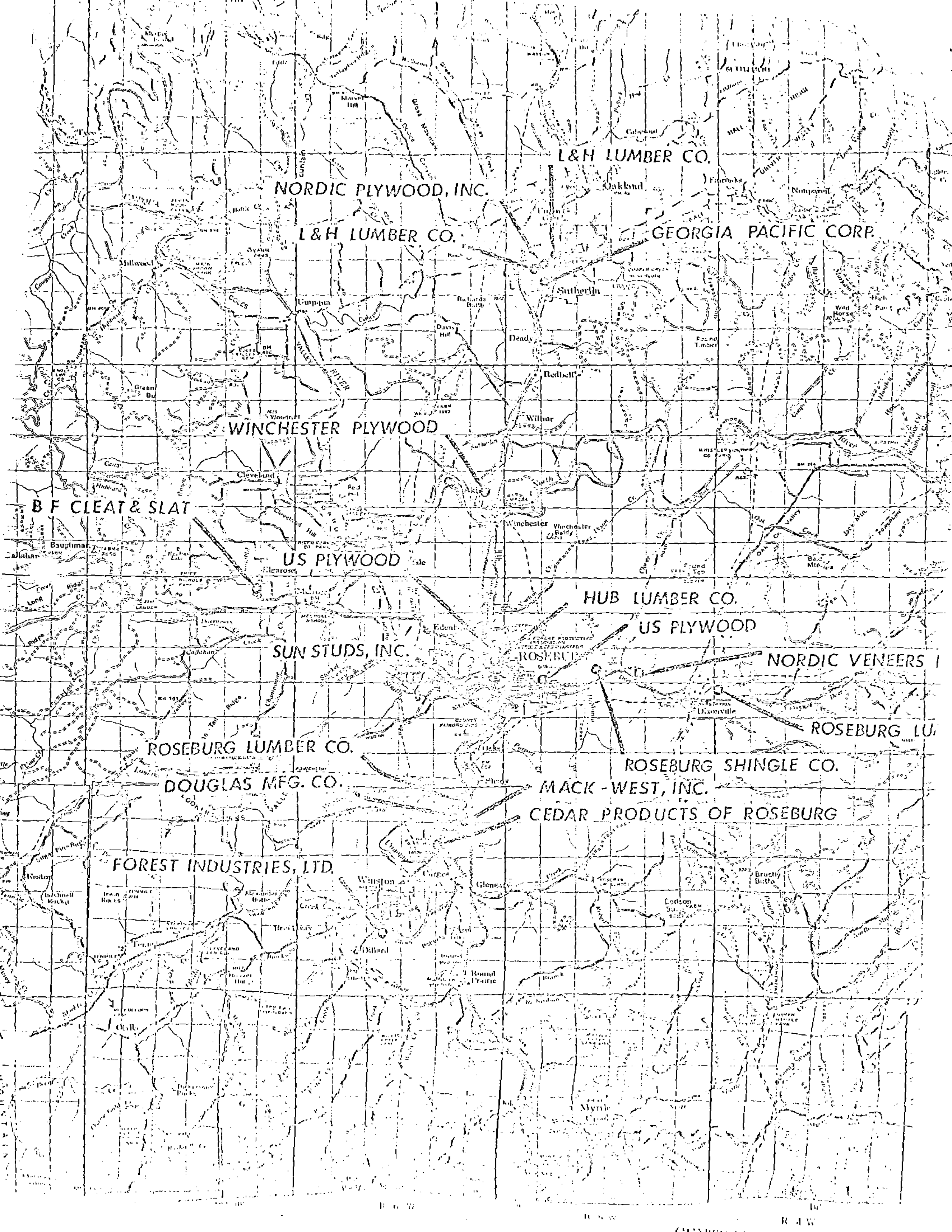
Because of past staff efforts and meetings with Mr. Robertson at his office in Medford it is inconceivable as to why such activity should have been incorporated at this new mill site. In response to the Department letter of August 18, 1971, Mr. Robertson's reply dated September 9, 1971, stated that the company will attempt to make suitable arrangements for disposal of waste residues in the near future. Staff observations and recent complaints indicate that no abatement of this practice has been implemented.

On September 14, 1971, a meeting was held in Roseburg with Mr. John Mack Baily, plant manager, to discuss the disposal of the mill residues and to point out that the accumulation of residues on the mill site was not considered an adequate solution. At that time, it was again emphasized that no open burning was allowed and that the company must develop a more permanent solution. Several possible uses, such as hogged fuel, fire wood sale, and animal bedding, were discussed.

On September 30, a complaint directed to the Department from Mr. P. V. McCurdy, Route 1, Box 1191, Roseburg, who reported that Mack-West, Inc. was open burning wood residues causing a severe problem. Calls to the registered agent, Mr. Robertson, and to the plant manager, Mr. Baily, were without success. Calls to the Chief Forester and the fire district indicated that no fire permits were issued. Chief Wilson of the fire district stated that his department would investigate the matter.

DIRECTOR'S RECOMMENDATION:

Since the company has not presented any program for adequate residue disposal, has not complied with the provisions of Oregon Administrative Rules, Chapter 340, Sections 20-005, 20-010, 20-015, 20-020, 20-025 and 20-030 ("Registration" of sources and "Notice of Construction and Approval of Plans") and is located in a sensitive area (adjacent to a trailer park) open burning these residues in violation of OAR, Chapter 340, Sections 21-010, 21-015 and 23-011, it is recommended that the Department be authorized to schedule a Show Cause hearing to establish an Order requiring Mack-West, Inc. to immediately cease the open burning of wood residues and to cease all operations until such time as the company can demonstrate compliance with OAR, Chapter 340, Sections 20-005, 20-010, 20-015, 20-020, 20-025, 20-030, 21-010, 21-015, and 23-011.


L&H LUMBER CO.
NORDIC PLYWOOD, INC.
L&H LUMBER CO.
GEORGIA PACIFIC CORP.
WINCHESTER PLYWOOD
B F CLEAT & SLAT
US PLYWOOD
HUB LUMBER CO.
US PLYWOOD
SUN STUDS, INC.
NORDIC VENEERS I
ROSEBURG LU
ROSEBURG LUMBER CO.
ROSEBURG SHINGLE CO.
DOUGLAS MFG. CO.
MACK-WEST, INC.
CEDAR PRODUCTS OF ROSEBURG
FOREST INDUSTRIES, LTD.
Oakland
Sutherlin
Roseburg
Winchester
Wilbur
Cleveland
Umpqua
Dixonville
Winston
Dillard
Glengary
Myrtle Creek

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY INTEROFFICE MEMO

To: AQCD Files Date: August 18, 1971

From: H. H. B.

Subject: MACK-WEST, INC. (formerly Cedar Products of Roseburg, Inc.)
P. O. Box 573 (on Old Highway 99 Wouth)
Roseburg, Oregon 97470
Phone: 679-8152

Mfg. cedar shakes - 2429
Employ approximately 20 men

An Oregon corporation in good standing as of March 30, 1971, the date of last filing, with the following officers:

1. William Workman, Cottage Grove, President
   (Mr. Workman is a chip hauler)

2. Dr. James Reed - Medford, Vice-President

3. John Mack Bailey - Plant Manager

4. Robert C. Robertson - Registered Agent and Attorney for company
   110 East Sixth Street
   Medford, Oregon 97501
   Phone: 772-5268

5. Jim York - Business Manager, Insurance agent
   1917 Hibiscus
   Medford, Oregon 97501
   Phone: Office - 773-7343
   Residence - 779-1548

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION

B. A. McPhillips, Chairman
Storrs S. Waterman, Member
Arnold M. Cogan, Member
E. C. Harms, Member
George A. McMath, Member

FROM : Director

SUBJECT : OCTOBER 29, 1971 - EQC AGENDA ITEM I
METLER BROS. INC. - KLAMATH Falls - Klamath County

Background

Metler Bros. Inc., owned by Jeld-Wen, Inc., is located in Klamath Falls. The company produces window and door frames. Residues from the manufacturing operation are conveyed to a wigwam waste burner where they are burned.

This is the last wigwam waste burner operating in Klamath Falls.

On March 20, 1970 Mr. Kent Ashbaker, the District Engineer for Central Oregon, wrote to Metler Bros. Inc. requesting a time schedule for the phase-out of their wigwam waste burner. On April 2, 1970 Mr. Metler requested six (6) months and stated that a market for the material had been found resulting in a sales agreement.

A meeting was held with Mr. Metler on January 14, 1971 regarding the proposed phase-out of the wigwam burner. At that meeting an understanding for the proposed phase-out by March 15, 1971 was reached. Mr. Metler also informed the staff that the company had been purchased by Jeld-Wen, Inc. of Klamath Falls and this had been the reason for the delay.

On February 19, 1971 another letter was sent to the company, reaffirming the March 15, 1971 phase-out and requesting a status report. The report was received in the letter from Metler Bros. dated March 5, 1971, stating that they were unable to meet the March 15, 1971 date and consequently additional time would be required. A letter from the Department was sent on March 16, 1971 rejecting the request for an indefinite delay in the burner phase-out program and requested specific information relative to utilization of these residues and the proposed time schedule for implementing the program. No answer was received.

In July 1971, an "Air Quality Observation Report" noting a violation of OAR 340,21-015 was sent to the company requesting their immediate attention to this emission source. On July 30, 1971 Mr. Ken Moore of Jeld-Wen, Inc. called to inquire of the status of the Metler Plant. Another telephone call from Mr. Moore on August 2, 1971 requested data and background information. This material was sent on August 2, 1971, and a specific request was again made for a phase-out schedule.

On August 27, 1971, another letter was received from Jeld-Wen, Inc. proposing to phase-out the wigwam burner on December 31, 1972. This proposal was rejected by the Department as untimely and unreasonable on September 3, 1971.

After several telephone conversations, a verbal proposal was made for phase-out of the burner by September, 1972. This was again rejected as untimely by the Department in the letter dated September 29, 1971. The company was advised that this matter would be presented to the Commission at an early date since no adequate progress had been made. The company has now submitted a letter, dated October 8, 1971, outlining plans for a phase-out in September or October, 1972.

Factual Analysis

This company operates the only wigwam burner remaining in Klamath Falls. No modifications have been made to the burner. Approximately 200 tons per year are burned. The burner is steadily and continually in violation of OAR, Chapter 340, Section 21-015.

Conclusions

1. The Department has been unable to establish a schedule of compliance that is considered reasonable and timely.

2. The emissions from the wigwam waste burner are in violation with OAR Chapter 340 Section 21-015.

3. The residues generated in this operation are of a type that could be marketed.

Directors Recommendation

1. Since the company has failed to develop a reasonable and timely program for the abatement of the wigwam waste burner emissions, it is recommended that the Department be authorized to schedule a public hearing for the purpose of requiring the company to show cause why the Environmental Quality Commission should not enter an order requiring the company to submit an orderly program of compliance.

2. It is further recommended that this order require the phase-out of the wigwam burner to be completed within 90 days after the adoption of the order.

T. M. Phillips - October 20, 1971

JELD-WEN
MANUFACTURERS OF WINDOW AND DOOR FRAMES
P. O. BOX 1329 - KLAMATH FALLS, OREGON - 97601
TELEPHONE 503 - 882-3461

Sil Metler Bros Klamath Co

October 8, 1971

Mr. L.B. Day, Director
Department of Environmental Quality
State Office Bldg.
1400 S.W. 5th Avenue
Portland, Oregon 97201

Dear Mr. Day:

Mr. Ken Moore of our Company has asked that I reply to your letter of September 29, 1971 regarding a Wigwam Burner at our Metler Bros. Plant. In that connection I submit the following.

On January 1st of this year Metler Bros., inc. a new corporation owned principally by JELD-WEN, inc., acquired the assets of the old Metler Bros. Company partnership. Since then we have become aware of the burner and the request for "phasing out" of such burner. During April and May we attempted unsuccessfully, several methods of handling the waste material without the use of the burner, and have concluded that the only practical solution would be the installation of a "Peerless-type" Bin and subsequent trucking of the waste material to a user of this material. This type of bin along with other necessary modifications would require an investment of $20,000 - $25,000.

Since our acquisition, we have made several studies on the cost and efficiency of operating this plant as a separate entity as opposed to combining it with our present JELD-WEN, operation. We have concluded that it should be combined. We are in the process at the present time of arranging for funds and contracting for the construction of a new 80,000 square ft. building. We expect to complete both arrangements during the month of October and November and to begin construction as early next year as is practical, (Probably late April or May).

When our new building is complete (Probably September or October of 1972), we will discontinue the use of the burner and other obsolete plant equipment. Our people and some of our better equipment will then move into the new building.

Since we already have a large Peerless Bin at our JELD-WEN operation, the purchase and installation of a bin for less than a year and with no further need afterwards seems to us an unwise investment.

We feel that the type and nature of our burning is relatively clean when compared to others, and feel that the arrangements we are making should and can meet both of our objectives with a minimum of hardship to either of us.

Sincerely,

JELD-WEN, inc. & METLER BROS.inc.

R.L. Wendt
President

RW:mc

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION

B. A. McPhillips, Chairman
Storrs S. Waterman, Member
Arnold M. Cogan, Member
E. C. Harms, Member
George A. McMath, Member

FROM : Director

SUBJECT : OCTOBER 29, 1971 - EQC AGENDA ITEM J
COMPLIANCE PROGRAM - FREMONT SAWMILL - LAKE COUNTY

Background

Fremont Sawmill, a division of Ostrander Construction Company operate sawmills in Lakeview and Paisley. Emission sources at the Lakeview-Mill are a wigwam waste burner and a boiler plant. A wigwam waste burner is operated at the Paisley Mill.

The Department met with Mr. Lewis Shelton, the Manager of Fremont Sawmill in Lakeview on January 13, 1971 and indicated that a program to achieve compliance with the visible emission standards was necessary. Subsequent meetings were held with Mr. Alan Goudy, Vice President of the company, and Mr. Charles Kreider, Consulting Engineer.

The company outlined the work currently in progress and the investigations that were being conducted to achieve the most reasonable program for their two mills.

Correspondence and meetings continued as the company developed their program.

On September 13, 1971 a meeting was held with Mr. Goudy to review the company plans. At that time the company outlined a long term program to achieve compliance with visible emission standards. The Department explained that long term compliance programs would be submitted to the Environmental Quality Control for final approval. It was agreed that the proposed program would be presented to the Commission at their October, 1971 meeting.

On October 6, 1971 another meeting was held with Mr. Goudy to determine the details of their compliance program. Their proposal was then submitted to the Department in a letter dated October 11, 1971. A copy of the letter is attached.

Factual Analysis

The company proposes to enlarge and modify the existing mill in Lakeview over the next two years to achieve sufficient capacity to handle the production of the Paisley operations. During this interval the wigwam waste burners at Lakeview and Paisley would be operated with care to insure the best conbustion practices. However, no further modifications to the wigwam waste burners will be made. The only expenditures that might be incurred relative to these two sources would be normal equipment maintenance.

During the 1973 construction season, the boiler plant at Lakeview will be enlarged and modified to comply with air quality standards. Prior to any construction or modification in the boiler facility the company will submit plans and specifications for Department approval. When this boiler plant project is complete, the company will cease the use of both the Paisley and Lakeview wigwam waste burners since the new facility will require the total fuel currently being consumed in these wigwam waste burners.

Conclusions

The company has demonstrated cooperative and serious intent to achieve the required air quality conditions at their mills. The company is dedicated to enlarging and modernizing the Lakeview mill. The two mills are in an area of lower priority relative to timing for the achievement of air quality standards.

Directors Recommendations

It is the recommendation of the Department that the proposal presented by Fremont Sawmill be accepted by the Commission, subject to the following conditions:

1. The company will have completed the boiler modifications, per plans and specifications approved by the Department, tested the boilers as recommended by the Department, and operate the boilers in compliance with current emission standards by no later than October 1, 1973.

2. The company will remove from service the wigwam waste burner at Paisley and the wigwam waste burner at Lakeview by no later than October 1, 1973.

3. No land fill or other solid waste disposal system will be conducted without prior approval from the Department.

4. By no later than April 1, 1972, the company shall submit a firm time schedule for the accomplishment of each phase of construction so that the Department can confirm total progress relative to achievement of the completion date.

T. M. Phillips - October 20, 1971

FREMONT SAWMILL, DIVISION OF
OSTRANDER CONSTRUCTION COMPANY
909 TERMINAL SALES BUILDING
PORTLAND, OREGON 97205

October 11, 1971

Mr. Harold H. Burkitt
Chief, Engineering Services Section
Air Quality Control Division
Department of Environmental Quality
1400 S. W. 5th Avenue
Portland, Oregon 97201

Dear Mr. Burkitt:

I am writing to confirm our discussion of Friday, September 3, concerning Fremont Sawmill's compliance with the air quality requirements of the Department.

Our two mills, in Lakeview and Paisley, were purchased in July 1968 and April 1969, respectively. As soon as we purchased these mills, we commenced reviewing plans to update and modernize them. One of the major items in our thinking was the better utilization of the raw material with resultant correction of the burner and powerhouse problems. As you know, we found the planning problem greater than could be handled by our small staff, so we contracted with consultants experienced in pine mill operations to assist us. They assisted us by reviewing the raw material resources, new developments in sawmilling procedures and new types of equipment that are available. We had been working and developing plans with our consultants when we were cited by the Department on Jan. 26, 1971. Shortly after we were cited, I reviewed our general plans for this year and discussed our long-term thinking with you.

Presently we are completing our first year's plan at the Lakeview plant at an estimated cost of $500,000. This consists of adding a debarker, chipper, screen, rail chip loading facility and miscellaneous items necessary to accomplish the above and permit further improvement work over the next few years.

We have reviewed our studies concerning the future of the Paisley plant and recently come to the conclusion that, while it is presently an economic unit, we cannot justify further major capital expenditures there. This is due to a number of factors such as no rail connection and limited production which limits the feasibility of economic by-product production (chips, bark, etc.). Therefore, it is our desire to continue operating it until the Lakeview plant can be modified and can handle the Paisley volume as well as the present volume at Lakeview. Hopefully, our modernization at Lakeview would permit us to competitively obtain the additional timber volume from the Paisley area and it is planned that we will comply with the Department of Environmental Quality's requirements at Lakeview. We would hope to do this over a period of several years

due to the economics involved in the construction and the relatively short building period present in the Lakeview area each year, due to weather conditions.

At the Lakeview plant next year, 1972, we plan enlargement and improvement so that added volume of two shifts could be handled later. We also plan to modify the back-end of the mill for more efficient operation and to enable the mill to process small logs. It is anticipated that this would include a new trimmer, green chain facility, and relocation of the resaw to handle small logs. We have been working on the design of a small log modification since early in 1970 and have a U. S. Forest Service small log sale under contract.

During the building season of 1973 we plan on building an addition to our kilns at Lakeview to handle the added volume; modify, add to, and/or replace the boilers to provide the steam requirements for this addition and to comply with the Department's regulations, plus other necessary work.

We feel that the above is a sound method of resolving our situation and feel that our past work, work that was commenced prior to the Department's citation, indicates our willingness to develop the operation into one that the Lakeview area can be proud of. We believe that with the operation of the chipper installation, which is being completed, a large volume of material will be better utilized and will no longer be contributing to the environmental problem in Lakeview. We also anticipate putting in shavings bins and selling shavings as soon as the market can be developed. It is hoped that this market for planer shavings in the Lakeview area will come in a few months.

We appreciate your Department's advice and counsel as we work on our problems and trust that the above provides a satisfactory solution to them.

Sincerely,

FREMONT SAWMILL, DIVISION OF
OSTRANDER CONSTRUCTION COMPANY

Alan C. Goudy, Vice President

ACG:rn

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: Environmental Quality Commission Members

Date: October 22, 1971
For 10-29-71 meeting

From: Director

Subject: Tax Credit Application No. T-198
Received February 25, 1971

1. Applicant

Clark and Powell (formerly Larsen, Clark and Powell)
Post Office Box 405
Junction City, Oregon 97448

The applicant owns and operates a sawmill east of the railroad tracks on the south edge of Junction City, Oregon, Lane County.

2. Description of Claimed Facility

The claimed facility consists of a knife hog for reducing wood wastes to a usable uniform fuel, conveyor systems, metal detector and two (2) 15-unit storage bunkers.

The applicant claims that the facility was installed between August 1, 1968 and October 1, 1968 and put into service on October 1, 1968, with a useful life of eight (8) years.

Certification is claimed under the 1967 Act.

Facility cost: $42,877.00 (Accountant's certification is attached.)

3. Evaluation of Application

The claimed facility was installed to eliminate a wigwam waste burner in order to comply with the Lane Regional Air Pollution Authority's rules and regulations. Lane Regional Air Pollution Authority did review the company proposal and plans and subsequently approved the project since no other practical alternatives were available. The hogged fuel is sold and utilized for steam and power generation in the Eugene Water and Electric Board hog-fuel boilers. The company claims that a net annual loss of $13,313.23 is incurred in the operation of this facility since the revenues derived from the sale of the hogged fuel do not offset the operating expenses.

It is concluded that the claimed facility provides the most desirable method for elimination of a wigwam burner and elimination of wood wastes.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing an actual cost of $42,877.00 be issued to Clark and Powell, formerly Larsen, Clark and Powell, for the facilities claimed in Application T-198.

mjb

LYBRAND, ROSS BROS. & MONTGOMERY
CERTIFIED PUBLIC ACCOUNTANTS

COOPERS & LYBRAND
IN AREAS OF THE WORLD
OUTSIDE THE UNITED STATES

Department of Environmental Quality
Portland, Oregon

We have examined the billings from the contractor and others relating to the costs of construction of the pollution control facility for Clark & Powell (formerly Larsen, Clark & Powell), Junction City, Oregon. These costs are summarized as follows:

Contractor	Cost
Carothers Sheet Metal Co.	$42,377.00
Ziniker Machinery Co.	500.00
	$42,877.00

In our opinion, the costs enumerated above and on Exhibit C of this application represent the actual cost of the facility described elsewhere in this application.

Lybrand, Ross Bros & Montgomery

Eugene, Oregon
October 13, 1970

EXHIBIT "D"

MACHINERY AND EQUIPMENT INCORPORATED

INTO THE FACILITY

15 unit bunkers (1) complete with catwalks, spreading conveyor, access doors, ladders, concrete and hydraulic unit	$19,731.00
Hog, support, motor, infeed conveyor revisions, outfeed conveyor, hog motor, concrete and hog hoppers	10,438.00
Metal detector, belt conveyor, ladders and catwalks	5,609.00
Other materials and equipment	7,099.00
	$42,877.00

Note: The facility was constructed on land under a previously existing lease.

Exhibit C

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: Environmental Quality Commission Members

Date: October 22, 1971
For 10-29-71 meeting

From: Director

Subject: Tax Credit Application No. T-212

This application was initially received on March 31, 1971. Additional information was received on June 17, 1971 and August 12, 1971.

1. Applicant

George F. Joseph and
Estate of Victor H. M. Joseph
dba Modoc Orchard Company
3050 S. Pacific Highway
P. O. Box 56
Medford, Oregon 97501

The applicant operates a 285 acre pear orchard on Modoc Road north of Central Point.

2. Description of Claimed Facility

The facility claimed in this application is described to be an overhead sprinkling system on 80 acres of pear orchard.

The facility was completed on March 25, 1971.

Certification is claimed under the 1969 Act. The percentage claimed for pollution control was not specified.

Facility Cost: $62,633.36 (Accountant's certification is attached.)

3. Evaluation of Application

The claimed facility serves to replace the frost protection provided by 3600 Jumbo and Lazy Flame burners in addition to providing irrigation by sprinklers instead of by flooding for 80 acres of a 285 acre pear orchard.

Since the system does contribute to both reducing atmospheric emissions and increasing pear production, only a portion of it can be certified under the 1969 Act. In order to establish the percentage of the system allocable to pollution control, the company was asked to provide the data on hours of heating and hours of irrigation for those previous years for which this information was available. The data submitted by the company for the seasons 1968-69, 1969-70, and 1970-71 indicate that the average hours of

orchard heating (367 hours per season) and the average hours of irrigation (340 hours per season) were about equal. Although these numbers are subject to many variables, they are considered to be sufficiently representative to make the desired determination for this particular application. (It is well established that the required amount of frost protection usually varies among orchards and often within a given orchard.)

It is concluded that the facility operates to a substantial extent for reducing atmospheric emissions and that the portion of the cost allocable to pollution control should be 40% or more and less than 60%.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of $62,633.36 be issued for the facility claimed in Tax Application T-212, with more than 40% and less than 60% of the cost allocated to pollution control.

mjb

HASKINS & SELLS
CERTIFIED PUBLIC ACCOUNTANTS

1005 EAST MAIN STREET
MEDFORD, OREGON 97501

March 19, 1971

Modoc Orchard Co.,
Medford, Oregon 97501.

Dear Sirs:

In accordance with your request, we have examined the accompanying schedule of pollution control facility costs for Modoc Orchard Co. for the fourteen months ended February 28, 1971. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying schedule presents fairly the costs of the facilities described therein.

Yours truly,

Haskins & Sells

MODOC ORCHARD CO.

SCHEDULE OF POLLUTION CONTROL FACILITY COSTS
FOR THE FOURTEEN MONTHS ENDED FEBRUARY 28, 1971

1.	Perma Rain System	$ 39,894.31
2.	Company labor used to install system	7,467.51
3.	Electrical equipment, not including motors	3,993.66
4.	Motors	2,753.71
5.	Pumps	2,801.16
6.	Water pipe, couplings, and fittings	1,292.08
7.	Water reservoir enlargement and sealant coatings	3,363.40
8.	Cement, steel, and other costs	1,067.53
	Total	$62,633.36

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: Environmental Quality Commission Members

Date: October 22, 1971
For 10-29-71 meeting

From: Director

Subject: Tax Credit Application No. T-200

This application was initially received on February 25, 1971. Additional information was obtained on August 12, 1971.

1. Applicant

Harry and David
2518 S. Pacific Highway
(P. O. Box 712)
Medford, Oregon 97501

The applicant receives, cold-stores and packages fresh fruits for commercial markets; preserves, cans and sacks various food products for mail order gifts; and receives, cold-stores, packages and ships roses and other nursery products for wholesale and mail order merchandising.

2. Description of Claimed Facility

The facility claimed in this application is described to be a stationary refuse compactor.

Construction of the claimed facility started August 30, 1970. The facility was placed into operation on September 20, 1970.

Certification is claimed under the 1967 Act.

Facility cost: $17,275.38 (Accountant's certification is attached.)

3. Evaluation of Application

The claimed facility allows the elimination of the practice of open burning of all solid wastes, estimated at 31,500 cubic yards of paper and wood materials per year. This material is now hauled to the Jacksonville dump and placed in a landfill, thus eliminating the emissions to the atmosphere from open burning.

Certification is claimed under the 1967 Act. However, construction must have begun before April 30, 1969 to qualify. Since construction was started after that date, certification can only be made under the 1969 Act.

It is concluded that the facility qualifies for certification under the 1969 Act.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate be issued under the 1969 Act for the facility claimed in Application No. T-200, such certificate to show an actual cost of $17,275.38 with 80% or more allocated to pollution control.

mjb

HASKINS & SELLS
CERTIFIED PUBLIC ACCOUNTANTS

STANDARD PLAZA
PORTLAND, OREGON 97204

February 17, 1971

Harry and David,
Medford, Oregon.

Dear Sirs:

In accordance with your request, we have examined the accompanying schedule of solid waste disposal system costs for Harry and David for the five months ended December 31, 1970. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying schedule presents fairly the costs of the facility described therein.

Yours truly,

Haskins & Sells

HARRY AND DAVID

SCHEDULE OF SOLID WASTE DISPOSAL SYSTEM COSTS
FOR THE FIVE MONTHS ENDED DECEMBER 31, 1970

Design	$ 70.00
Site preparation	680.15
Retaining wall, ramp, and floor	3,792.60
Compactor unit	10,514.30
Electrical work	1,037.96
Gates, stairs, steps, and painting	1,180.37
TOTAL	$17,275.38

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: Environmental Quality Commission Members

Date: October 22, 1971
For 10-29-71 meeting

From: Director

Subject: Tax Credit Application No. T-239
Received July 22, 1971

1. Applicant

Richard Herman & Carol Jean Egger
Route 2, Box 64
Hillsboro, Oregon 97123

The Eggers own and operate a 60-cow dairy located immediately west of the Laurel Store 7 miles south of Hillsboro in Washington County.

2. Description of Claimed Facility

The claimed facility consists of a liquid manure tank 30 ft. in diameter, 8 ft. deep, of reinforced concrete construction; a concrete slab 145 ft. long by 36 ft. wide with gutters for capturing water; a guttered roof over approximately 2/3 of the concrete slab area; a 30 HP manure pump with electrical controls; a Rain Bird sprinkler with 1" nozzle; a Case tractor Serial No. 2650604 and a blade for the tractor.

Construction of the claimed facility began in September 1969 and was completed September 1970.

Certification is claimed under the 1969 Act, with 82% of the cost of the facility allocated to pollution control.

Total cost of claimed facility: $10,809.26 (Cost documentation was submitted.)

3. Evaluation of Application

The claimed facilities were inspected by a staff member on August 6, 1971 and were found to be functioning properly. The facilities were constructed in accordance with plans and specifications which were approved by the Department. The facilities were constructed for the prevention of animal waste contamination of surface and ground waters in the area. The concrete slab claimed in the application serves to connect an existing free-stall barn and milking parlor and functions as a holding area for the cows. The tractor is used to scrape the manure on the slab to the holding tank. The roofing surface keeps excess rainwater from the slab, thereby reducing the volume of material to be disposed of. The tank contents are pumped and spread on adjacent pasture land by sprinkler application. The applicant used irrigation pipe already on hand and has not claimed the pipe in this application.

The applicant indicates that slightly more than 50% of the operating time of the tractor is devoted to pollution control. In arriving at the overall figure of 82% allocated to pollution control, the applicant also allocated 1% of the roofing surface area to a non-pollution control function of covering feeders. It is concluded that the manure tank, slab, roofing surface, sprinkler and tractor blade should be certified with 80% or more of the cost allocated to pollution control. It is also concluded that the tractor should be eligible for certification; however, this should fall within the percentage range of 40% or more and less than 60%.

4. Director's Recommendation

It is recommended that two Pollution Control Facility certificates be issued for the facilities claimed in Application No. T-239 as follows:

One certificate to cover the manure tank, slab, roof surface area, pump, sprinkler and tractor blade, at an actual cost of $7,209.26, with 80% or more allocated to pollution control.

One certificate to cover the Case tractor, Serial No. 2650604, at an actual cost of $3,600.00 with 40% or more and less than 60% allocated to pollution control.

mjb

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: Environmental Quality Commission Members

Date: October 22, 1971
For 10-29-71 meeting

From: Director

Subject: Tax Credit Application No. T-238
Received July 22, 1971

1. Applicant

Louis Hillecke and Sons
Route 4, Box 171
Hillsboro, Oregon 97123

The applicant owns and operates a dairy at the end of Hillecke Road near Hillsboro in Washington County.

2. Description of Claimed Facility

The claimed facility consists of a concrete manure tank 30 ft. in diameter, 8 ft. deep; a Mitchell Model 2030 manure pump; a Rain Bird manure sprinkler; a Nu Field Model 1257 tractor and connecting concrete slab areas to allow scraping of manure to the tank.

The claimed facility was constructed between May 18 and October 1, 1970.

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

Facility cost: $7,843.33 (Invoices were submitted to substantiate the claimed cost.)

3. Evaluation of Application

The claimed facilities were inspected by a staff member on August 6, 1971. The facilities were constructed in accordance with the plans approved by the Department and function to prevent animal waste contamination of surface and ground waters in the area. Concrete slabs were poured adjacent to the manure tank and in the loafing and bedding areas to connect existing slabs to permit using the tractor to scrape manure to the tank. Irrigation pipe used to transport the manure from the tank to the sprinkler for spreading on land was on hand and is not claimed in the application. The Nu Field tractor claimed in the application is a small tractor which is used only for scraping the concrete floor area and is therefore considered solely for pollution control. It is concluded that the facilities claimed qualify for certification.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate be issued to Louis Hillecke & Sons for the facilities claimed in Application No. T-238, such certificate to bear the actual cost of $7,843.33 with 80% or more allocated to pollution control.

mfb

O 4

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: Environmental Quality Commission

Date: October 26, 1971

From: Director

Subject: Agenda #M: CWAPA/Washington County

You have been advised of the problem associated with the Columbia Willamette Air Pollution Authority and Washington County. Washington County has withdrawn from participation in the CWAPA due to budget problems: the amount involved is $13,581.

The total state plan depends on strong regional programs in the Willamette Valley. These programs require local support. Washington County's decision could undermine the regional concept, and the eventual result could be federal intervention and the loss of local control.

There is no way to contain air pollution within certain political boundaries. An air resources management program requires complete coordination of local planning, zoning, public works and air pollution control programs, because freeways, mass transit, solid waste disposal and location of industry and residential areas all affect air pollution. This kind of coordination cannot be brought about without regional organization.

On the financial side, Washington County's unwillingness to spend $13,581 means CWAPA loses $6,790 in matching state funds and $60,000 in federal funds - - a total loss of $80,000 in program operating funds. The $13,581 cost of retaining the matching money amounts to about 8.8 cents per capita for Washington County residents.

Washington County's action affects the interests of the state and the region, as well as those of Washington County. This problem is brought to your attention in the hope that Washington County citizens and officials can be encouraged to resume participation in the regional program.

Thereby I recommend a formal resolution be passed by the Commission.

RESOLUTION

The Environmental Quality Commission expresses grave concern over the decision of Washington County to withdraw from the Columbia Willamette Air Pollution Authority. Pertinent facts are as follows:

1. Washington County faces financial difficulties; the amount required for continued membership in CWAPA is $13,581 (about 8.8 cents per capita);

2. A loss in program funding, amounting to $80,000, appears imminent if Washington County's action stands;

3. Air pollution is a regional problem requiring coordinated efforts in local planning, zoning and public works as well as air pollution control. Service facilities such as freeways, mass transit and solid waste, as well as location of residential and industrial areas, directly affect air pollution. Therefore, the only meaningful way to maintain local control of air quality programs is through a regional approach involving the various elements which have impact on air quality. Federal, state and county officials have strongly supported this regional approach.

4. The Portland Metropolitan Region's program is an essential element in the state's environmental improvement program.

On the basis of the overall loss to environmental quality in Oregon which can be expected to result from Washington County's withdrawal from CWAPA, and the relatively small cost Washington County would incur in order to continue participation, the Environmental Quality Commission strongly urges Washington County officials and citizens to examine alternatives which might permit them to resume strong participating membership in the Columbia Willamette Air Pollution Authority, and offers its support toward achieving that objective.

10/29/71

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY INTEROFFICE MEMO

To: EQC Members Date:

From: Director

Subject: October 29, 1971, EQC Meeting Agenda Item N, Designation of Hearings Officers

Verbal Report

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY INTEROFFICE MEMO

To: Environmental Quality Commission Members Date: October 22, 1971

From: Director

Subject: 10/29/71, EQC Meeting, Agenda Item O, Authorization for Director to Sign Stipulations

Background

Basically, this will allow the Director to expedite formal stipulations which are required in accordance with compliance schedules.

It would not be my intention to exercise this unless I had the verbal approval of the Chairman, or the Vice-Chairman.

Recommendation

The Director recommends approval of this motion for the above reason.

MOTIONS FOR DEPARTMENT OF ENVIRONMENTAL QUALITY MEETING
October 29, 1971

I move that the Director be authorized to sign on behalf of the Department of Environmental Quality orders based on stipulations between parties and the Department, orders adopting regulations and final orders after Commission decision.

I further move that this action be considered as an internal management directive of the Department of Environmental Quality subject to such further revision as may be required.

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: EQC Members

Date: October 21, 1971

From: Director

Subject: Proposed Schedule for Public Hearings - October 29 EQC Meeting Agenda Item P.

The attached tentative schedule for public hearings is proposed for your consideration and approval.

PROPOSED
(Tentative)

Schedule of Public Hearings

Date	Subject	Place	Hearings Officer or Body
Nov. 11 (Thurs.)	Civil Penalties Regulations	Rm. 36, State Office Bldg. Portland	Director (1)
Nov. 23 (Tues.)	State Dept. of Forestry Slash Burning Plan & Regs	(to be announced)	Oregon St. Forestry Dept Hearings Officer (Mr. Snyder, DEQ, will attend to hear testimony)
Dec. 6 (mon.)	10 am-Natural Scenic Recreational Areas Regulations	Pub. Serv. Bldg. Aud., Portland	Env. Qual. Commission
	2 pm-Animal Waste Control Regs	" " " " "	" " "
Jan. 5 (Wed.)	DEQ Implementation Plan (to comply with Fed. Clean Air Act)	" " " " "	Env. Qual. Commission
Jan. 7 (Fri.)	" " "	Medford	Director (1)
Feb. 18 (Fri.)	Solid Waste Disposal Regs. (HB 1051)	Pub. Serv. Bldg. Aud., Portland	Env. Qual. Commission
March 17 (Fri.)	Oil Spill Control Regs. (HB 1301)	Term. Sales Bldg., Portland	Director (1)

(1) or other authorized Hearings Officer

EJW 10/21/71