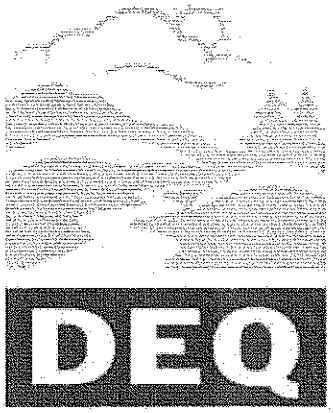
7/25/1969

OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS



State of Oregon
Department of Environmental Quality

AGENDA

Environmental Quality Commission Meeting

9:00 a.m., July 25, 1969

Room 216, Douglas County Court House, Roseburg, Oregon

J. Umpqua River Water Quality Standards Public Hearing

K. Status of Air and Water Pollution Control in Douglas County

L. Keller Lumber Co., Roseburg - wigwam waste burner

M. Hub Lumber Co., Roseburg - wigwam waste burner

N. Douglas County Lumber Co., Roseburg - wigwam waste burner

O. Round Prairie Lumber Co., Dillard - wigwam waste burner

P. Yoncalla Veneer Co., Drain - application for new wigwam waste burner

Q. Mining and Mineral Mfg. Co., Riddle

R. Tax Credit Applications

1.	Publishers Paper Co., Oregon City	T-3
2.	Willamette Industries, Sweet Home	T-55
3.	Reimann & McKenney, Inc., Portland	T-84
4.	Pacific Meat Co., Portland	T-90
5.	Cone Lumber Co., Goshen	T-76

S. Waste Discharge Permits

1.	Pixieland, Lincoln City	(Renewal)
2.	Maupin	(Renewal)
3.	Roseburg Lumber	(Renewal)
4.	Skyline West Sanitary District, Corvallis	
5.	Erdman Packing Co.	

MINUTES OF SECOND MEETING

of the

Oregon Environmental Quality Commission

July 25, 1969

The second meeting of the Oregon Environmental Quality Commission was called to order by the Chairman at 9:05 a.m., Friday, July 25, 1969, in Room 216, Douglas County Court House, Roseburg, Oregon. Members present were B.A. McPhillips, Chairman; Edward C. Harms, Jr., George A. McMath, H.P. Meierjurgen and Storrs S. Waterman.

Participating staff members were the same as those who participated in the July 24, 1969 meeting at Grants Pass, plus F.A. Skirvin, Associate Engineer.

UMPQUA RIVER WATER QUALITY STANDARDS HEARING

Proper notice having been given as required by statute and copies of the proposed standards having been sent to the interested parties, a public hearing was held for the purpose of considering the adoption of special water quality standards for the Umpqua River and its tributaries.

Mr. Glen D. Carter, Water Quality Analyst and Chief Biologist for the Department of Environmental Quality, presented a prepared statement, a copy of which has been made a part of the Department's permanent files, which reviewed the proposed standards and the plan for implementing them. As part of his statement he read from the proposed standards all of Table A (the list of beneficial uses to be protected), all of Section I - Special Water Quality Standards, all of Section II - Minimum Standards for Treatment and Control of Wastes, and all of the Department's Proposed Program of Implementation.

He recommended that Table A and Sections I and II be adopted by the Commission as administrative rules and that the Proposed Program of Implementation be adopted as administrative policy.

The Chairman then called on the Honorable Ray E. Doerner, Chairman of the Douglas County Board of Commissioners. Mr. Doerner introduced the other members of the County Board and then read a prepared statement, a copy of which has been made a part of the Department's permanent files in this matter.

He emphasized the importance to the county of clean air and water and said a comprehensive water and sewer plan is being developed for the entire county with financial assistance from the Housing and Urban Development and the Farmers Home Administration.

Mr. McPhillips commended the county for its efforts in developing master plans.

Mrs. James W. Pratt read a prepared statement from the Roseburg League of Women Voters which supported the proposed water quality standards for the Umpqua Basin.

Mr. Duane Scroggins, Director of Public Works and City Engineer, presented a statement for the city of Roseburg. He said the Roseburg sewage treatment plant has a staff of three operators and that it presently is operating at about two-thirds of its design capacity, but that it cannot meet the proposed new standards. He pointed out that the city has a program for separating storm water, that some $100,000 have been spent thus far, that about 30% of the city is still served by combined sewers, that in the winter the flows increase to 7½ to 10 mgd because of storm water, that they are trying to get federal financial assistance, and that total cost estimates should be available by this fall. He asked that the present waste discharge permit requirements for the city be continued rather than be increased because the existing plant cannot meet the higher standards.

Mr. R.L. Ackaret, Consulting Engineer, presented a statement for the city of Riddle. He read a letter dated July 16, 1969 and signed by T.A. Morrow, Mayor which claimed that the proposed standards are arbitrary and in some cases unreasonable. The letter asked that the proposed standards be reconsidered and that the treatment requirements for the cities be re-evaluated and be based on a realistic ratio of costs to benefits. Mr. Ackaret also represented the city of Canyonville which had the same comments as the city of Riddle. Both cities thought the BOD, suspended solids and chlorination requirements were too strict. They complained about alleged raw or inadequately treated sewage discharges from individual homes.

Mr. Harms commented that in his opinion the standards are not unreasonable. Mr. Weathersbee explained the need for the stricter chlorination requirements. The Chairman stated that if specific reports of raw sewage discharges were received by the Department, the necessary action would be taken to correct them. Mr. Harms pointed out that they would be included in the implementation program as soon as they are brought to the Department's attention.

Mr. Ken Cochrun, representative of the Oregon Game Commission, then read a statement for the Game and Fish Commissions of Oregon which approved of the proposed standards and urged their adoption.

Mr. Bob Coakley of U.S. Plywood Corp., Roseburg, asked if it was the goal of the Commission to shut down all industries when stream flows are low. Mr. Harms replied that there have been occasions when industry had to shut down but said he hoped it would not be necessary in the Umpqua Basin. He said the standards represent goals which take time to achieve. Mr. Coakley claimed that the standards were so high that the whole basin could be shut down if strict enforcement were followed.

Mr. Thomas J. Osborne, Senior Sanitarian for Douglas County, then commented about the statements that had been made concerning raw or inadequately treated sewage discharges into the river system from individual homes. He said the county health department corrects all such cases whenever it learns of them, that it investigates dozens of septic tank complaints each year, that the county sanitarians have promoted the installation of public sewers in many areas of the county by encouraging annexation to cities and formation of sanitary districts. The Director thanked Mr. Osborne for the assistance given the Department of Environmental Quality in this matter by the county.

Mr. Ralph D. Carter of the Hanna Metal Smelting Company, Riddle, read a letter dated July 24, 1969, a copy of which has been made a part of the Commission's files in this matter. He expressed concern about the pH, temperature and dissolved chemical substances standards and claimed that he has data which show natural conditions that exceed the standards.

There being no other persons present who wished to testify regarding the proposed standards the hearing was recessed at 10:30 a.m. and reconvened at 10:45 a.m.

The Chairman then announced that the record would be kept open until 2:00 p.m. in case someone else appeared and wanted to be heard.

Following the noon recess and the conduct of other business the hearing was reopened by the Chairman later in the afternoon.

Dr. James T. Krygier of Oregon State University then presented information similar to the statements made at Grants Pass on July 24, 1969. He mentioned that Oregon State University will be conducting a symposium on the effects of logging operations on watersheds. He said that undisturbed watersheds will have quality similar to the standards, that even with controlled logging operations the water quality will be impaired, that from an area logged and carefully burned there will be as much as a 54% increase in sediment, that the proposed temperature standards represent natural conditions and that with logging and a stream side strip of 100-foot width the temperature can be expected to increase more than the 2° allowed under the standards.

Mr. Clifford Bryden of the Roseburg Lumber Company said he appreciates the need for improved water quality but there is also a need to practice slash burning in the logged areas. He thought there should be a guide as to the size of stream to be protected and the amount of shade cover to be preserved. He said industry will comply but it will cost money which must be passed on to the consumer.

The Commission members commented that enforcement will proceed on a reasonable basis, that it is realized that operating costs will be higher and that they will be borne by the customer, that logging practices have improved greatly in recent years, and that there is need for a detailed logging practices guide.

Mr. Waterman suggested that an amendment be added to the temperature standards similar to the language in the turbidity standard.

Mr. Verner Adkison of the Lane Regional Air Pollution Authority said that the major problems of logging are dependent on the way in which the timber sales are contracted. He claimed lump sum sales result in the

logger's bringing out only the best timber and that if properly contracted 50% more timber could be salvaged for use rather than be burned on the watershed.

The Director then read for the record letters received from the North Roseburg Sanitary District, Bureau of Land Management and Oregon State Highway Department.

No one else asked to be heard.

It was MOVED by Mr. Harms, seconded by Mr. Meierjurgen and carried that the water quality and waste treatment standards including Table A as prepared by the staff for the Umpqua River Basin be adopted by the Commission as administrative rules and that the program of implementation including Tables B and C as proposed by the staff for the Umpqua River Basin be adopted by the Commission as administrative policy.

The public hearing in this matter was then adjourned by the Chairman.

After reconvening the meeting at 10:45 a.m. the following items were considered.

STATUS OF AIR POLLUTION CONTROL IN DOUGLAS COUNTY

Mr. Ron C. Householder reviewed a staff report dated July 9, 1969 pertaining to air pollution and its sources in Douglas County. A copy of said report has been made a part of the Department's files in this matter. He stated that the major cause of air pollution both in Roseburg and in Douglas County are the timber industries.

KELLER LUMBER COMPANY, Roseburg

Mr. Harold McKenzie presented a staff report on the status of the Keller Lumber Company's program to control air pollution caused by its sawmill located about three miles north of the city of Roseburg. The company has two wigwam burners - one for the sawmill and one for the log barking operation - and an open burning dump. Mr. Dan Keller was present and said the wigwam burner for the sawmill had not been used for several months and they are discontinuing the open burning. They would like to phase out the other burner which handles about 25 tons of bark every 8-hour shift.

Mr. Leo L. Baton, District Engineer, reported this has been a continuing smoke problem, that it affects the visibility at the Roseburg airport, that plans are being made to dispose of the bark as a landfill and that a report regarding the suitability of such a method of disposal should be available by the next monthly meeting.

Mr. Bruce Bailey of the Solid Waste Section of the Oregon State Board of Health said there is some concern about possible water pollution.

Following additional discussion of this matter the Commission instructed the Department staff to investigate further the feasibility of disposing of all plant residues as landfill on Keller Lumber Company property near the plant site and to report back at the next monthly meeting of the Commission.

HUB LUMBER COMPANY, Roseburg

Mr. McKenzie presented a staff report on the problems of air pollution caused by the operations of the Hub Lumber Company located in Roseburg. He stated that the major source of pollution is a wigwam burner and therefore he recommended that the company be required to submit a schedule for phasing the burner out of operation.

Mr. Charles Teague, mill owner, said he had been trying to find a market for the wastes so they will not have to be burned but thus far had not been too successful. He admitted that the mill operations have caused a pollution problem but claimed the company wants to be a good neighbor. In reply to a question by the Chairman he said they plan to discontinue burning sawdust by the first of the year, but still do not know what to do with the bark.

Mrs. Dorothy Cherryholmes of 1055 N.E. Cedar Street and Mrs. Evelyn Doyle of 245 N.E. Chestnut St., Roseburg, each presented several samples of fallout which allegedly came from the Hub Lumber Co. burner and which had settled on their car, window ledge, roof gutters, front steps and other areas. All samples were said to have been collected within the past month.

Mrs. Wanda Koch confirmed the complaints of the other two witnesses and in addition mentioned mosquito breeding and general filth around the mill.

Mr. Waterman said he thought the Commission should follow the staff's recommendation in this matter but wondered what might be done in the meantime to alleviate the pollution.

It was then MOVED by Mr. McPhillips, seconded by Mr. Meierjurgen and carried that the company be required to submit by the next meeting of the Commission a satisfactory program for the phase-out of its wigwam waste burner, and that if in the meantime definite improvement has not been made in the operation of the burner a hearing will be scheduled at that time requiring that the Hub Lumber Company appear and show cause why the company should not be enjoined and prohibited from further use of the wigwam waste burner.

DOUGLAS LUMBER COMPANY, Roseburg

Mr. McKenzie presented a staff report on the status of the program of the Douglas Lumber Company to abate the air pollution caused by its operations some five miles north of the city of Roseburg.

Mr. M.L. Hallmark one of the owners was present and discussed the mill's waste disposal problems. In reply to Mr. Meierjurgen he said the open burning is still not under control, that they have to dump the clinkers some place and they have not been able to control their employees.

Mr. Alton Andrews, Manager of the Oregon Water Corporation, registered a complaint about excessive fallout causing problems at the Corporation's water treatment plant which serves the city of Roseburg.

It was MOVED by Mr. Harms, seconded by Mr. Waterman and carried that a hearing be scheduled before a hearings officer and the Douglas Lumber Company be required to appear and show cause why the use of its wigwam waste burner and the practice of open burning should not be terminated.

The meeting was recessed at 12:05 p.m. During the noon luncheon held at the Umpqua Hotel the Commission members and staff discussed informally the wigwam waste burner policies and proposed procedures for future processing of waste discharge permit applications.

The regular meeting was reconvened by the Chairman at 1:45 p.m. in the Douglas County Court House.

PUBLISHERS PAPER COMPANY TAX CREDIT APPLICATION

The necessary documents having been prepared by Mr. Sawyer and sent to the Commission members in advance of the meeting, it was MOVED by Mr. Harms seconded by Mr. Meierjurgen and carried that the tax credit certificate as recommended by the staff be issued to the Publishers Paper Company pursuant to application T-3 for water pollution control facilities installed at a cost of $1,052,703.

ERDMAN PACKING COMPANY

Mr. Baton reported on the status of the project of the Erdman Packing Company for controlling wastes and preventing pollution in the downstream waters near Bandon, Oregon.

Mr. Erdman, owner, was present and said he will start August 1 to install manure and feedlot drainage holding ponds which he thinks will be adequate to handle the wastes and prevent stream pollution. He said, however, that if his plans do not work out satisfactorily he can sell all of his cattle and stop operating within 4 or 5 days. The Chairman pointed out that even so the wastes might still be present.

It was MOVED by Mr. Harms, seconded by Mr. Meierjurgen and carried that the waste discharge permit as proposed by the staff for the Erdman Packing Company be granted with an expiration date of July 31, 1970 and with the understanding that if the conditions of the permit are not complied with the operation will have to be shut down.

ROUND PRAIRIE LUMBER CO., Dillard

Mr. McKenzie reviewed the staff report regarding the Round Prairie Lumber Company mill. Mr. Ralph Sandstede, Partner, was present and discussed their problems of air quality control. He said a barker and chipper were installed in 1961, that the circular draft system subsequently installed in the wigwam burner was later changed to a grate system but because of the high moisture content of their waste (hemlock and white fir 60% moisture) they cannot operate the burner without causing excessive smoke. Mr. McKenzie indicated there was considerable room for improvement in operation and maintenance of the burner.

A study is to be completed after the first of next year regarding conversion of the boiler plant for use of hog fuel with design for handling all the waste.

Mr. Harms suggested that Mr. Sandstede be instructed to confer with Mr. McKenzie regarding more efficient operation and maintenance of the wigwam waste burner and for assistance in expediting the design and installation of a boiler plant to handle all the wood wastes with the understanding that a progress report be submitted to the Commission at its September meeting in Portland.

YONCALLA VENEER COMPANY

Mr. McKenzie reviewed the application of the Yoncalla Veneer Company for a permit to install a new wigwam burner at its mill in Yoncalla. He recommended that the permit not be granted.

Mr. Boyd Gregory of the company said they had looked into the possibility of selling the wastes as hog fuel, that there is no market in Roseburg, that the transportation cost to Eugene is too high, that the hog fuel market may be better in 2 or 3 years, and that installation of a hog fuel system would cost 35 to 40 thousand dollars.

Mr. Harms commented it might be better to sell hog fuel at a loss than to spend money for a wigwam burner.

It was MOVED by Mr. Harms, seconded by Mr. McMath and carried that the application submitted by the Yoncalla Veneer Company for a permit to build a wigwam waste burner at Yoncalla be denied.

MINING AND MINERAL MANUFACTURING CO., Riddle

Mr. F.A. Skirvin presented a staff report regarding the operations of the Mining and Mineral Manufacturing Company plant at Riddle. He said that some time ago the bags in the bag house had failed but the plant continued to operate and as a consequence caused serious air pollution. The bags have since been mostly replaced but a few more are still needed. They have been ordered and all should be in place by mid-August or before school starts. It was pointed out that if the bag house operates properly there should be no serious air pollution problem.

Mr. Orrin Bendfelt, plant manager, was also present. He said the bag house should be 95% effective.

The Commission members requested that the staff maintain surveillance of the operations and that another report be made at the August meeting.

TAX CREDIT APPLICATIONS

After reviewing the evaluation reports and recommendations of the staff the following actions were taken.

It was MOVED by Mr. Meierjurgen, seconded by Mr. Waterman and carried that a tax credit certificate as recommended by the staff be issued to the Willamette Industries, Sweet Home, pursuant to application T-55 for air pollution control facilities installed at a cost of $16,797.86.

It was MOVED by Mr. Waterman, seconded by Mr. Meierjurgen and carried that a tax credit certificate as recommended by the staff be issued to Reimann & McKenney, Inc., Portland, pursuant to application T-84 for air pollution control facilities installed at a cost of $28,599.88.

It was MOVED by Mr. Waterman, seconded by Mr. Meierjurgen and carried that a tax credit certificate as recommended by the staff be issued to the Pacific Meat Co., Portland, pursuant to application T-90 for air pollution control facilities installed at a cost of $13,378.40.

It was MOVED by Mr. Meierjurgen, seconded by Mr. Waterman and carried that a tax credit certificate as recommended by the staff be issued to the Cone Lumber Co., Goshen, pursuant to application T-76 for air pollution control facilities installed at a cost of $102,523.88.

The meeting was recessed at 3:30 p.m. and reconvened at 3:40 p.m.

WASTE DISCHARGE PERMITS

Mr. Lynd reviewed briefly the proposed waste discharge permits for Pixieland located at Lincoln City, for the city of Maupin and for the Skyline West Sanitary District, Corvallis.

It was MOVED by Mr. Harms, seconded by Mr. Waterman and carried that the permits as proposed by the staff be renewed for Pixieland and city of Maupin and that a new regular permit as recommended by the staff be issued for the Skyline West Sanitary District.

Mr. Sherwood reviewed the proposed waste discharge permit for the Roseburg Lumber Company.

It was MOVED by Mr. Meierjurgen, seconded by Mr. Waterman and carried that the waste discharge permit for the Roseburg Lumber Company plant at Roseburg be renewed as proposed by the staff.

APPLICATION FOR AUTHORITY TO GRANT PERMITS

The Tri-County Health Department pursuant to the requirements of the administrative rules pertaining to waste disposal wells had submitted an application for approval by the Commission as the permit granting agency within the area of its jurisdiction.

It was MOVED by Mr. Harms, seconded by Mr. Waterman and carried that the Tri-County Health Department be approved as the permit granting agency for waste disposal wells in the Tri-County area.

There being no further business the meeting was adjourned at 3:55 p.m.

Respectfully submitted,

Kenneth H. Spies

Kenneth H. Spies
Director

HMP

File Memo

July 24, 1969 EQC Meeting, Grants Pass

HPM: Mr..Chairman, I would move the adoption of the Rogue River water quality standards as set forth by the staff.

ECH: Seconded

Motion passed.

ECH: Mr. Chairman, I would move that we adopt the implementation schedule as contained in Tables B and C of the Rogue River Basin water quality and waste treatment standards and report.

____ Seconded

Motion passed.

ECH: Mr. Chairman, I move the approval of the minutes of the 141st Meeting.

____ Seconded

Motion passed

BAM Moved and seconded that the project plans as outlined by the Director be approved.

Motion carried.

____ Moved that we vary the agenda in order to admit the letter (from PP&L) to the record.

____ Seconded

Motion carried.

SW : Move that the amount of $64,977 for the 1969-70 year be approved by us with the admonition that they had better look to their hole card for the $18,000 that they might need over and above for the second year.

____ Seconded

Motion carried

SW: Move that existing permit be extended until March 31, ~~1969~~ 1970 to give an opportunity for the City of Grants Pass to weigh the study, a report of the study made by the consultants, and see just what might be available from that.

/ General discussion

ECH: Move that the permit be granted as recommended by the staff.

___ Second

Motion carried

ECH: Move that the permit be granted for South Suburban Sanitary District in Klamath Falls.

___ Seconded

Motion carried

___ Move that City of Chiloquin permit be extended to September 30, 1970.

___ Seconded

Motion carried

ECH: I would move that we authorize the execution of a contract with Oregon State University in accordance with their research project proposal contingent upon our being able to find budgeted funds.

___ Seconded

Motion carried

ECH: Move that under SB 168 we designate the lands shown on that map as restricted areas. (Willamette Valley, Roseburg area, Ashland, Medford Grants Pass, Coos Bay and Tillamook.)

SW : Second

Motion carried

ECH: Move that a variance be granted for this one load subject to approval as to time and place of burning by the staff. (Re Zidell)

___ Second

Motion carried

ECH Moved that rehearing on Georgia-Pacific Tax application be set for next Sanitary Authority meeting.

___ Seconded

Motion carried

HMP

EQC Meetings July 25, 1969 - Roseburg

S. Ab Lbr

BAM: The Chair is going to move - the staff recommendation has recommended that the company be required to submit a schedule of phase-out of their burner. I am going to move, Gentlemen, that Mr. Hub be required to furnish, by our next meeting, a satisfactory program for either a phase out - in fact it will have to be a phase-out - of the waste burner. In the meantime if there isn't a definite improvement, Mr. McKenzie, in the operation of the burner for the interval between now and the next meeting - at that time I am going to ask for a hearing for him to be show cause why he should not be enjoined and prohibited from any further burner at all..

___ Seconded

Motion carried

Douglas Co

ECH: Move that a Hearing be scheduled before a Hearings Officer whereby Douglas County Lumber Co. will be required to appear and show cause why the use of its wigwam waste burner and the practice of open burning should not be terminated.

___ second

Motion carried

ECH: Move that the tax credit certification be granted in accordance with staff recommendation (Re: Publisher's for $1,052,703).

___ Second

Motion carried

ECH: Moved that the permit be granted to Erdman Packing Co. to expire July 31, 1970, in accordance with the recommendations in our notebooks. If these conditions are not complied with we will not have any choice but to shut you down.

___ Second

Motion carried

ECH: Move that we adopt the water quality standards for the Umpqua River Basin as regulations as proposed and at the same time adopt Appendix B & C of the proposal as the implementation program.

___ Second

Motion carried

ECH: Move to disapprove the application by Yoncalla Veneer to construct a wigwam waste burner.

MCM; Second

Motion carried

HPM: Move that staff recommendation be followed and that tax relief certificate be issued to Willamette Industries, Sweet Home for T-55 in the amount of $16,797.86.

Second

Motion carried

SSW: Moved that certificate for tax relief purposes be issued to Reiman and McKenny in the amount of ~~$28,599.88~~ $28,599.88 (T-84).

Seconded

Motion carried

SSW: Move for approval of tax application of $13,378.40 (T-90) to Pacific Meat Co.

Second

Motion carried

HPM: Move, Mr. Chairman, that we follow the staff recommendation and approve this tax certificate T-76 in the amount of $120,523.88 to the Cone Lumber Co.

Second

Motion carried

ECH: Move that permits be issued for Pixieland, Maupin and Skyline West Sanitary District.

Second

Motion carried

HPM: I'll move, Mr. Chairman that the permit to Roseburg Lumber Co., as set up by the staff be granted.

Second

Motion carried

ECH: I will move that we grant this permit granting authority to the Tri-County Department of Health, and the staff be requested to report back to us on the jurisdiction element on this at the next meeting.

___ Second

Motion carried.

Meeting adjourned

Project Plans

During the month of June, 1969, the following 38 sets of project plans and engineering reports were reviewed and the action taken as indicated by the Water Quality Control Section.

Date	Location	Project	Action
6/3/69	Eugene	Nine sewer projects	Prov. app.
6/4/69	Prineville	Chlorination facilities	Prov. app.
6/4/69	Albany	Sewers	Prov. app.
6/5/69	Millersburg School	Chlorination facilities	Prov. app.
6/4/69	Springfield	Laksonnen Park sewers	Prov. app.
6/5/69	Lake Oswego	Jean Road sewer	Prov. app.
6/6/69	Harrisburg	Market Rd.-Sommerville Loop	Prov. app.
6/6/69	Sunset Valley S.D.	Sludge processing facilities	Prov. app.
6/6/69	Metzger San. Dist.	Priv. Property near Greenburg Road sewer	Prov. app.
6/9/69	Hillsboro	Cedar Park, Plat #3, sewers	Prov. app.
6/9/69	Forest Grove	Projects SS43 & SS52 sewers	Prov. app.
6/9/69	Oak Lodge S.D.	Greenview Estates sewers	Prov. app.
6/9/69	Metzger San.Dist.	S.W. Birch Street sewer	Prov. app.
6/9/69	Metzger San.Dist.	S.W. 82nd & Thorne St. sewer	Prov. app.
6/9/69	Springfield	Gateway Street sewer	Prov. app.
6/9/69	Hubbard	Hoodview Mobile Estates sewers	Prov. app.
6/9/69	Aloha San. Dist.	Alice Park Addition sewers	Prov. app.
6/9/69	Aloha San. Dist.	Loar-A-Lane Subd. sewer	Prov. app.
6/9/69	Aloha San. Dist.	Strawberry Knoll Subd. sewer	Prov. app.
6/9/69	Portland	PSC Urban Renewal sewers	Prov. app.
6/10/69	Winchester Bay	Sewerage Report	Prov. app.
6/10/69	Hillsoror	PermaPost Industrial Waste Water Treatment System	Prov. app.

Date	Location	Project	Action
6/10/69	Lake Oswego	Mt. Park, Phase 3, sewer	Prov. app.
6/10/69	Lebanon	Nichol's Addition, Block 8 Sewer	Prov. app.
6/11/69	Gresham	Paropa Ridge Acres, Unit #2 Sewer	Prov. app.
6/11/69	Beaverton	Juanita Subd. sewers	Prov. app.
6/16/69	Gladstone	Sellers Addn. #2 Subd. sewers	Prov. app.
6/16/69	Somerset West	Holding pond and pumping sta.	Prov. app.
6/17/69	Mult. Co. (East)	Skyport Industrial Park pump station	Prov. app.
6/18/69	Dallas	Godsey Road-Miller Avenue sewers and pump station	Prov. app.
6/18/69	Tualatin	Sewage treatment plant	Prov. app.
6/19/69	McMinnville	Sewage treatment plant report	Prov. app.
6/23/69	Dee - U.S.Plywood	Prel. plans for ind. waste treatment	Prov. app.
6/24/69	Estacada	Westerberg Subd. sewer	Prov. app.
6/24/69	Forest Grove	Forest Fiber Products, Phase I, treatment	Prov. app.
6/24/69	Dallas	Willamette Industries industrial waste treatment	Prov. app.
6/27/69	Eugene	Alley between Broadway and 10th Avenue sewer	Prov. app.
6/30/69	Klamath Falls	Klamath Plywood industrial waste treatment	Prov. app.

PROJECT PLANS AND REPORTS

The following project plans or reports were received and processed by the Air Quality Control staff during the month of June 1969.

Date	Location	Project	Action
3	Prairie City	Strawberry Post & Pole Co., Proposed WWWB	Addition infor. requested

AIR POLLUTION SOURCES
in the
GRANTS PASS AREA

The majority of the air pollution sources in the Grants Pass area are related to the wood products industries. These sources include wigwam waste burners, plywood and veneer plants, wood fired boilers, and cyclone emissions. Although sources such as improperly operated incinerators, open burning, demolition and construction operations add to the air pollution of the Grants Pass area, the only major single source outside of the wood industries processes would appear to be an asphalt plant operation. This plant has installed collection and control equipment and has reduced its emissions considerably this season. The staff, however, is working with the company to achieve further reductions.

A total of 12 wigwam waste burners are operated in the Grants Pass area, including those used only intermittently. Of these, one has not been observed by the staff in the last two years to be operating in violation of the standards, and three others have been observed in violation on only a few occasions. The staff has been advised that two burners are scheduled for phase-out by the first of August. One burner has already been taken out of active use, and is now used for disposal of plant clean-up material only. The management of this firm has been advised that an alternative disposal method must be found for this material.

Four companies have been requested to submit schedules to bring their wigwam waste burners into compliance with current standards. Phase-out of active use may be possible for these four burners.

The visible emissions from veneer drying operations in Grants Pass are often very noticeable and can be mistaken as smoke from a wigwam burner when viewed from the freeway. It is anticipated that control action will be required as the wigwam burner situation is brought under control. The smoke and soot emissions from a large wood-fired boiler at one operation have been reduced with the addition of new equipment and operating procedures, however additional improvement will be required to fully meet the discharge standards.

Outside of the Grants Pass area there has been little staff activity in the County. Complaints regarding a mill operation in Kerby have been received, and the staff is investigating the situation. Several wigwam burners have been observed in Selma that have operated in violation of emission standards, but the staff has not surveyed and evaluated these operations as yet.

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION

B. A. McPhillips, Chairman
Herman P. Meierjurgen, Member
Storrs Waterman, Member
E. C. Harms, Jr.
Geo. A. McMath, Member

FROM : AIR QUALITY CONTROL STAFF

DATE : July 14 for July 24, 1969 Meeting

SUBJECT: ALLOCATION OF STATE FUNDS TO REGIONAL AIR POLLUTION CONTROL AUTHORITIES

Applications for state funds from the Regions for the fiscal year 1969-70 have been received in the amount of $64,977.

The state funds allocated to the Department for the biennium total $145,000. These funds are provided to match state funds on a basis of 50% of the local funds to the conduct of regional control programs.

The original estimate of required funds was made March 20, 1968 after consulting with the Regions. The estimate of $145,000 was based upon a program being initiated in the Jackson-Josephine County area and the following regional estimates with some allowance for second year of the biennium increases.

	Total Program	State Funds
Columbia-Willamette Air Pollution Authority	$363,000	$30,250
Lane Regional Air Pollution Authority	86,535	16,073
Mid-Willamette Valley Air Pollution Authority	108,076	9,006
		$55,329

Federal Grant Applications have been submitted to and have been approved by the National Air Pollution Control Administration for each Region for the 1969-70 fiscal year. A summary of fund sources and budget for that period is as follows:

	State Funds	Federal Funds	Total Budget
Columbia-Willamette Air Pollution Authority	$30,250	$272,250	$363,000
Lane Regional Air Pollution Authority	23,239	77,283	147,000
Mid-Willamette Valley Air Pollution Authority	11,488	102,404	136,869
	$64,977	$451,937	$646,869

Current estimates of state funds required by the Regions for the next two years are as follows:

	By Year		Biennium
Mid-Willamette Valley Air Pollution Authority	1969-70	$11,488	
	1970-71	17,108	
			$ 28,596
Lane Regional Air Pollution Authority	1969-70	$23,239	
	1970-71	28,000	
			$ 51,239
Columbia-Willamette Air Pollution Authority	1969-70	$30,250	
	1970-71	52,937	
			$ 83,187
Estimated Biennium Total - All Regions			$163,022

SUMMARY:

The funds available for the biennium are now estimated to be exceeded by the requests for state funds by $18,022 for that same period. It should be emphasized that the 1970-71 requests are estimates of the respective Regions at the present time. The Mid-Willamette Valley Air Pollution Authority request appears reasonably definite because of a required change in base by the federal government. Columbia-Willamette Air Pollution Authority also reported their request was probably a minimum request.

Since there are no guidelines in the statute this information has been presented for discussion and staff guidance.

CONCLUSION:

1. The staff can be directed to make a further evaluation with established Commission policy, or

2. State funds can be allocated for the fiscal period July 1, 1969 to June 30, 1970 to the Regions at this time as follows:

Columbia-Willamette Air Pollution Authority	$30,250
Lane Regional Air Pollution Authority	23,239
Mid-Willamette Valley Air Pollution Authority	11,488
	$64,977

KHS ✓

To: Hmp

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

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

7 July 1969

Department of Environmental Quality
1400 Southwest 5th Avenue
Portland, Oregon 97201

Attention: Kenneth H. Spies, Director

Re: Request for State Funds in Support of CWAPA Program, 1 July 1969 - 30 June 1970.

Gentlemen:

Our letter of 13 November 1968 estimated a requirement of $30,250 State funds to provide full support for our projected fiscal 1969-70 program grant application in the total amount of $363,000.

The National Air Pollution Control Administration, as well as your agency, has now approved our grant application in the projected amounts, which include total local funds of $90,750, consisting of $60,500 from the region and $30,250 from the State. A copy of the NAPCA letter of approval and grant award is attached.

It is therefore requested State funds be made available to this agency in the amount of $30,250, for the fiscal period 1 July 1969 through 30 June 1970, in support of our 1st year establishment program, NAPCA Grant No. 69A-4006-RE.

Very truly yours,

R. E. Hatchard
Program Director

REH:jl
Attachment
cc: H. M. Patterson, Chief
Air Quality Control

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
CONSUMER PROTECTION AND ENVIRONMENTAL HEALTH SERVICE
801 North Randolph Street, Arlington, Virginia 22203

JUN 24 1969

NATIONAL AIR POLLUTION CONTROL ADMINISTRATION

Re: Grant No. 69A-4006 RE
Columbia-Willamette Air Pollution Authority

ROUTING	
To	Noted by
From:	
Action:	

Mr. M. James Gleason
Chairman, Board of Directors
Columbia-Willamette Air
Pollution Authority
1010 NE Couch Street
Portland, Oregon 97232

Dear Mr. Gleason:

I am pleased to advise you that application No. 941, for an air pollution control program grant in the amount of $272,250, has been approved, subject to the terms and conditions shown on the award statement.

Two important elements of an air pollution control program are effective public information and strong enforcement measures. It is suggested that during the course of this Establishment Project, your agency significantly increase its effectiveness in these particular areas.

Your letter of May 27, 1969 requesting approval of five memberships @ $15.00 in the Air Pollution Control Association is not an allowable project expenditure. One subscription of the journal of this Association in the name of a key person in your agency would be an allowable project expenditure.

Your request to include a nephalometer in your 1969-1970 fiscal year is approved. As part of your application for second year Establishment Grant Support it is asked that you include a comprehensive report on the effectiveness of this instrument in enabling you to better meet the goals and objectives of your workable program.

Since the $5,368 non-recurrent expenditure request in your application does not meet all of the requirements for non-recurrent expenditures, this amount has been included as other than non-recurrent.

RECEIVED
JUN 27 1969
COLUMBIA - WILLAMETTE
AIR POLLUTION AUTHORITY

The U. S. Treasury Department has issued regulations concerning funding payments to all Federal Agencies governing the flow of Federal cash to recipient organizations. A copy of the Memorandum concerning the funding of grants under this payment system has been issued to Comptrollers, Treasurers, Fiscal and Accounting Officers of Grantee Organizations.

If questions arise concerning the payment of grant funds, please notify the Financial Management Branch, National Institutes of Health, Westwood Building, Room 557, Bethesda, Maryland 20014, or telephone Area Code 301/496-7359.

We trust that this grant will effectively assist you in your goal of preventing and controlling air pollution within the area under your jurisdiction.

Sincerely yours,

Charles D. Yaffe

Charles D. Yaffe, Director
Division of Control Agency Development

Enclosures

DEPARTMENT OF HEAL..., EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
CONSUMER PROTECTION AND ENVIRONMENTAL HEALTH SERVICE
NATIONAL AIR POLLUTION CONTROL ADMINISTRATION
ARLINGTON, VIRGINIA 22203

NOTICE OF AIR POLLUTION CONTROL PROGRAM PROJECT GRANT AWARDED

☒ ORIGINAL ☐ AMENDED

IMPORTANT - Refer to this No. in all correspondence

GRANT NO. 69A-4006 RE

DATE JUN 24 1969

A PROJECT GRANT in support of your Air Pollution Control Program, in the amount indicated below, has been approved, as authorized by section 105 of the Clean Air Act, as amended (P.L. 90-148). This award is subject to the Regulations governing grants to air pollution control programs (42 C.F.R. Part 56, as revised), to the Terms and Conditions on the reverse of this Notice, and to other terms and conditions, if any, noted under Remarks of this Notice.

TYPE OF GRANT
☒ INITIAL ☐ SUPPLEMENTAL
☐ CONTINUATION ☐ RETENTION

TYPE OF PROJECT
☐ DEVELOPMENT ☐ IMPROVEMENT
☒ ESTABLISHMENT

BUDGET PERIOD COVERED BY THIS AWARD
FROM July 1, 1969 THROUGH June 30, 1970

TOTAL PROJECT PERIOD
FROM July 1, 1969 THROUGH June 30, 1972

FUTURE SUPPORT (*Subject to the availability of funds and satisfactory project development, Federal funds have been committed, in the amounts shown below, for future support of the project.*)
SECOND YEAR $ 216,000 THIRD YEAR $ 216,000

GRANTEE AGENCY
Columbia-Willamette Air Pollution Authority
1010 NE Couch Street
Portland, Oregon 97232

PAYEE (*check will be drawn as follows:*)
Multnomah County Finance Director
Multnomah County Courthouse
Portland, Oregon 97204

BUDGET SUMMARY FOR BUDGET PERIOD COVERED BY THIS AWARD

PROJECT BUDGET	NON-FEDERAL PROJECT FUNDS			FEDERAL PROJECT FUNDS	TOTAL PROJECT FUNDS
BUDGET CATEGORY	ELIGIBLE NON-RECURRENT	OTHER THAN NON-RECURRENT	TOTAL		
PERSONNEL	$	$ -	$ -	$ 244,863	$ 244,863
EQUIPMENT		20,941	20,941	-	20,941
SUPPLIES		6,100	6,100	-	6,100
TRAVEL		10,115	10,115	-	10,115
CONSULTATION AND SERVICES		32,250	32,250	-	32,250
ALTERATIONS AND RENOVATIONS		-	-	-	-
TUITION		2,000	2,000	-	2,000
PUBLICATION COSTS		-	-	-	-
OTHER		19,344	19,344	27,387	46,731
TOTAL	$	$ 90,750	$ 90,750	$ 272,250	$ 363,000

PROGRAM BUDGET	PROGRAM EXCLUSIVE OF PROJECT			TOTAL PROJECT FUNDS	TOTAL PROGRAM FUNDS
BUDGET CATEGORY	NON-RECURRENT	OTHER THAN NON-RECURRENT	TOTAL		
PERSONNEL	$	$	$	$	$
EQUIPMENT					
SUPPLIES					
TRAVEL					
CONSULTATION AND SERVICES					
ALTERATIONS AND RENOVATIONS					
TUITION					
PUBLICATION COSTS					
OTHER					
TOTAL	$	$	$	$	$

TOTAL GRANT AWARD $ 272,250

SIGNATURE Charles D. Yaffe

APPROPRIATION NO. 7590328
ALLOWANCE NO. 9-1207
PHS PAY LIST NO. APC 91 69
OBJECT CLASSIFICATION 41.60
LOCATION NO. 941
LOCATION CODE 3651

NAME AND TITLE
Charles D. Yaffe, Director
Division of Control Agency Development
NAPCA

REMARKS

See reverse

PHS 4714-3 (11/68)

To: AMP

KHS

PARTICIPATING COUNTIES:
BENTON
LINN
MARION
POLK
YAMHILL

MID-WILLAMETTE VALLEY AIR POLLUTION AUTHORITY

2585 State Street - Salem, Oregon 97301
Telephone 581-1715

July 11, 1969

Mr. Ken Spies, Secretary
Environmental Control Commission
1400 Southwest Fifth Avenue
Portland, Oregon 97201

Dear Mr. Spies:

The Mid-Willamette Valley Air Pollution Authority requests the Environmental Quality Control Commission to reserve State-matching funds in the amount of $11,488 for the fiscal year 1969-1970.

Enclosed is an adopted budget summary for the Authority during this same fiscal time period. Also enclosed is a copy of the Federal Grant Award for this fiscal period.

We would appreciate your prompt consideration of this request.

Sincerely yours,

Michael D. Roach

Michael D. Roach
Director

MDR:dy
Enclosures
cc Harold Patterson
Alfred Kelley

MID-WILLAMETTE VALLEY AIR POLLUTION AUTHORITY

ADOPTED

1969-70 BUDGET

CONTRIBUTIONS

County	*Population	%	**Counties' Cost	**State 50%	Total Non-Federal	Federal
Benton	39,165	14.1	$ 3,240	$1,620	$ 4,860	$14,439
Linn	58,867	21.2	4,871	2,436	7,307	21,710
Marion	120,888	43.5	9,995	4,997	14,992	44,546
Polk	26,523	9.5	2,183	1,091	3,274	9,728
Yamhill	32,478	11.7	2,688	1,344	4,032	11,981
TOTALS	277,921	100.0	22,977	11,488	34,465	102,404

Average per capita costs: (Based on 1968 population estimates, Center of Population Research and Census, Portland State College)

Counties	6.7¢
State	3.3¢
Federal	29.8¢
	39.8¢

EXPENDITURES:

I.	Personnel	$ 98,858
II.	Equipment - Office, Field, and Laboratory	3,945
III.	Supplies	5,200
IV.	Travel	6,890
V.	Other	21,976
	TOTAL	$136,869

* Based on 1960 Federal Census

** The above figures include $330 in non-matching funds for Automotive Insurance, of which the State share is $110 and the counties' share is $220, divided as follows: Benton: $31.02; Linn: $46.64; Marion: $95.70; Polk: $20.90; Yamhill: $25.74.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
CONSUMER PROTECTION AND ENVIRONMENTAL HEALTH SERVICE
NATIONAL AIR POLLUTION CONTROL ADMINISTRATION
ARLINGTON, VIRGINIA 22203

NOTICE OF AIR POLLUTION CONTROL PROGRAM PROJECT GRANT AWARDED

[X] ORIGINAL [ ] AMENDED

IMPORTANT - Refer to this No. in all correspondence

GRANT NO. 69B-4004RE

DATE JUN 12 1969

A PROJECT GRANT in support of your Air Pollution Control Program, in the amount indicated below, has been approved, as authorized by section 105 of the Clean Air Act, as amended (P.L. 90-148). This award is subject to the Regulations governing grants to air pollution control programs (42 C.F.R. Part 56, as revised), to the Terms and Conditions on the reverse of this Notice, and to other terms and conditions, if any, noted under Remarks of this Notice.

TYPE OF GRANT
[ ] INITIAL [ ] SUPPLEMENTAL
[X] CONTINUATION [ ] RETENTION

TYPE OF PROJECT
[ ] DEVELOPMENT [ ] IMPROVEMENT
[X] ESTABLISHMENT

BUDGET PERIOD COVERED BY THIS AWARD
FROM July 1, 1969 THROUGH June 30, 1970

TOTAL PROJECT PERIOD
FROM July 1, 1968 THROUGH June 30, 1971

FUTURE SUPPORT (*Subject to the availability of funds and satisfactory project development, Federal funds have been committed, in the amounts shown below, for future support of the project.*)
SECOND YEAR $ --- THIRD YEAR $ 90,000

GRANTEE AGENCY
Mid-Willamette Valley Air Pollution Authority
2585 State Street
Salem, Oregon 97301

PAYEE (*check will be drawn as follows:*)
Michael D. Roach, Director
2585 State Street
Salem, Oregon 97301

BUDGET SUMMARY FOR BUDGET PERIOD COVERED BY THIS AWARD

PROJECT BUDGET BUDGET CATEGORY	NON-FEDERAL PROJECT FUNDS: ELIGIBLE NON-RECURRENT	NON-FEDERAL PROJECT FUNDS: OTHER THAN NON-RECURRENT	NON-FEDERAL PROJECT FUNDS: TOTAL	FEDERAL PROJECT FUNDS	TOTAL PROJECT FUNDS
PERSONNEL	$	$ 24,715	$ 24,715	$ 74,143	$ 98,858
EQUIPMENT		986	986	2,959	3,945
SUPPLIES		1,300	1,300	3,900	5,200
TRAVEL		1,647	1,647	4,943	6,590
CONSULTATION AND SERVICES		1,900	1,900	5,700	7,600
ALTERATIONS AND RENOVATIONS		63	63	187	250
TUITION		75	75	225	300
PUBLICATION COSTS		125	125	375	500
OTHER		3,324	3,324	9,972	13,296
TOTAL	$	$ 34,135	$ 34,135	$ 102,404	$ 136,539

PROGRAM BUDGET BUDGET CATEGORY	PROGRAM EXCLUSIVE OF PROJECT: NON-RECURRENT	PROGRAM EXCLUSIVE OF PROJECT: OTHER THAN NON-RECURRENT	PROGRAM EXCLUSIVE OF PROJECT: TOTAL	TOTAL PROJECT FUNDS	TOTAL PROGRAM FUNDS
PERSONNEL	$	$ ---	$ ---	$ 98,858	$ 98,858
EQUIPMENT		---	---	3,945	3,945
SUPPLIES		---	---	5,200	5,200
TRAVEL		---	---	6,590	6,590
CONSULTATION AND SERVICES		---	---	7,600	7,600
ALTERATIONS AND RENOVATIONS		---	---	250	250
TUITION		---	---	300	300
PUBLICATION COSTS		---	---	500	500
OTHER		330	330	13,296	13,626
TOTAL	$	$ 330	$ 330	$ 136,539	$ 136,869

TOTAL GRANT AWARD $ 102,404

SIGNATURE Charles D. Yaffe

APPROPRIATION NO.	ALLOWANCE NO.
7590328	9-1207
PHS PAY LIST NO.	OBJECT CLASSIFICATION 41.60
APPLICATION NO. 1 and 1013	LOCATION CODE 3650

NAME AND TITLE
Charles D. Yaffe, Director
Division of Control Agency Development, NAPCA

REMARKS

See Reverse 72-71 Base $51,729
5% Inc $ 2,585.4

PHS 4714-3 (11/68)

Lane Regional Air Pollution Authority
Route 1 Box 739 AC 503 689-3221
Eugene, Oregon 97402

July 15, 1969

JUL 16 1969

Air Pollution

Mr. Harold M. Patterson
Air Quality Control
Department of Invironmental Quality
1400 S. W. 5th Avenue
Portland, Oregon 97201

Re: 1969-1970 Lane Regional Air Pollution Authority Budget

Dear Mr. Patterson:

As per our telephone conversation in early June, we are requesting from the State of Oregon $23,239.00 for the fiscal year 1969-1970. Our request for $19,989.00 for the year as indicated in our letter of May 23, 1969 is in error.

The Lane Regional Air Pollution Authority's budget for the fiscal year 1969-1970 has been approved by the Board of Directors and the Budget Committee at a public hearing held on May 7, 1969.

Total local funds available for the fiscal year from the three participants will be $46,478.00. Based on a ratio of 1:2 for matching State funds, the State of Oregon's share will be $23,239.

Therefore, the funds we are requesting from the State of Oregon are $23,239.00.

As specified in Article X, Paragraph 2 of the agreement forming the Lane Regional Air Pollution Authority, this letter is to notify you of the appropriation requirements.

As per your request of July 14, 1969 we are enclosing a copy of our Project Grant Award and a Budget Summary sheet.

Sincerely,

Verner J. Adkison, Director
Lane Regional Air Pollution Authority

VJA/mw
Encls.

LANE REGIONAL AIR POLLUTION AUTHORITY

1969-1970 BUDGET SUMMARY

REVENUE

Federal Grants-in-aid	$77,283
Local Government available funds	46,478
State Grants-in-aid	23,239
Total source of funds	$147,000

EXPENDITURES

Personnel	61,985
Capital outlay	25,660
Travel	3,200
Supplies	2,880
Other	27,275
Capital Project (Laboratory)	26,000
Total Expenditures	$147,000

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
CONSUMER PROTECTION AND ENVIRONMENTAL HEALTH SERVICE
NATIONAL AIR POLLUTION CONTROL ADMINISTRATION
ARLINGTON, VIRGINIA 22203

NOTICE OF AIR POLLUTION CONTROL PROGRAM PROJECT GRANT AWARDED

[X] ORIGINAL [ ] AMENDED

IMPORTANT - Refer to this No. in all correspondence

GRANT NO. 69D-4003RI

DATE JUN 24 1969

A PROJECT GRANT in support of your Air Pollution Control Program, in the amount indicated below, has been approved, as authorized by section 105 of the Clean Air Act, as amended (P.L. 90-148). This award is subject to the Regulations governing grants to air pollution control programs (42 C.F.R. Part 56, as revised), to the Terms and Conditions on the reverse of this Notice, and to other terms and conditions, if any, noted under Remarks of this Notice.

TYPE OF GRANT
[ ] INITIAL [ ] SUPPLEMENTAL
[X] CONTINUATION [ ] RETENTION

TYPE OF PROJECT
[ ] DEVELOPMENT [X] IMPROVEMENT
[ ] ESTABLISHMENT

BUDGET PERIOD COVERED BY THIS AWARD
FROM July 1, 1969 THROUGH June 30, 1970

TOTAL PROJECT PERIOD
FROM January 1, 1967 THROUGH June 30, 1970

FUTURE SUPPORT *(Subject to the availability of funds and satisfactory project development, Federal funds have been committed, in the amounts shown below, for future support of the project.)*
SECOND YEAR $ --- THIRD YEAR $ ---

GRANTEE AGENCY
Lane Regional Air Pollution Authority
Route 1, Box 739
Eugene, Oregon 97402

PAYEE *(check will be drawn as follows:)*
Lane Regional Air Pollution Authority
Route 1, Box 739
Eugene, Oregon 97402

BUDGET SUMMARY FOR BUDGET PERIOD COVERED BY THIS AWARD

PROJECT BUDGET	NON-FEDERAL PROJECT FUNDS			FEDERAL PROJECT FUNDS	TOTAL PROJECT FUNDS
BUDGET CATEGORY	ELIGIBLE NON-RECURRENT	OTHER THAN NON-RECURRENT	TOTAL		
PERSONNEL	$	$ 10,117	$ 10,117	$ 30,352	$ 40,469
EQUIPMENT		9,526	9,526	22,116	31,642
SUPPLIES		1,212	1,212	3,634	4,846
TRAVEL		560	560	1,680	2,240
CONSULTATION AND SERVICES		1,325	1,325	3,975	5,300
ALTERATIONS AND RENOVATIONS		3,500	3,500	10,500	14,000
TUITION		---	---	---	---
PUBLICATION COSTS		131	131	394	525
OTHER		1,544	1,544	4,632	6,176
TOTAL	$	$ 27,915	$ 27,915	$ 77,283	$ 105,198

PROGRAM BUDGET	PROGRAM EXCLUSIVE OF PROJECT			TOTAL PROJECT FUNDS	TOTAL PROGRAM FUNDS
BUDGET CATEGORY	NON-RECURRENT	OTHER THAN NON-RECURRENT	TOTAL		
PERSONNEL	$	$ 21,516	$ 21,516	$ 40,469	$ 61,985
EQUIPMENT		3,318	3,318	31,642	34,960
SUPPLIES		734	734	4,846	5,580
TRAVEL		960	960	2,240	3,200
CONSULTATION AND SERVICES		8,325	8,325	5,300	13,625
ALTERATIONS AND RENOVATIONS		---	---	14,000	14,000
TUITION		---	---	---	---
PUBLICATION COSTS		225	225	525	750
OTHER		6,724	6,724	6,176	12,900
TOTAL	$	$ 41,802	$ 41,802	$ 105,198	$ 147,000

TOTAL GRANT AWARD $ 77,283

SIGNATURE [signature]

APPROPRIATION NO. 7590328

ALLOWANCE NO. 9-1207

NAME AND TITLE
Charles D. Yaffe, Director
Division of Control Agency Development, NAP

PHS PAY LIST NO. APC 94 69

OBJECT CLASSIFICATION 41.60

APPLICATION NO. 1010 & 1015

LOCATION CODE 3610

REMARKS

See Reverse

TERMS AND CONDITIONS

This award is subject to the Terms and Conditions hereon as well as to the Regulation governing grants for air pollution control programs (42 C.F.R. Part 56, as revised) and policies and procedures of the Department of Health, Education, and Welfare in the Air Pollution Control Program Grants Manual and amendments thereto.

A. Use of Project Funds

Project funds, which include the non-Federal as well as the Federal project funds shown on the Notice, may be used for those costs specifically incurred for the approved project. These funds are to be expended for the purpose stated in the approved grant application and for those items enumerated in the approved budget. The project funds may be expended and/or obligated only during the budget period covered by this award.

B. Prior Approval Items

1. Budget transfers

To facilitate project development, transfers may be made among budget categories without prior approval, *except* that, *prior approval* of the Public Health Service is required where:

a. Expenditures would result in a cumulative increase in any budget category, whether project or program exclusive of project, classified as "Non-Recurrent."

b. Expenditures would result in a transfer of funds whether project or program exclusive of project, between the "Non-Recurrent" and the "Other Than Non-Recurrent" classification.

c. Expenditures would result in a cumulative increase in the grand total of any project budget category of more than 25 percent or $1,000, whichever is greater.

d. An expenditure would be made in a project budget category for which no funds were approved.

The grantee shall submit with justification any request for approval of a budget change as outlined above. Where any transfer or substantial budget change would result in and reflect a significant change in the scope or nature of the approved project, the grantee is required to submit an application for a project revision.

2. Other items

In addition, *prior approval* is required where:

a. Any item of equipment costing in excess of $1000, which was not specifically enumerated in the approved grant application, is to be purchased for the project.

b. Services are to be performed as a part of the project by contract. Any such proposed contract must be submitted for review prior to its execution. The grantee is required to obtain and keep available assurance from the contractor of compliance with Title VI of the Civil Rights Act of 1964 and regulations of the Department of Health, Education, and Welfare (45 C.F.R. Part 80), when services are provided as a part of the project through an approved contract.

C. Matching Requirements

The grantee is required to obtain the necessary non-Federal project funds and to expend such funds so that appropriate non-Federal/Federal matching ratio requirements for the entire project period are assured.

D. Submission of Reports

The grantee is required to submit an annual expenditure report (PHS 4714-5) within 90 days after the end of the budget period, unless otherwise instructed.

E. Fiscal Audit

The grantee will keep such records so as to facilitate an effective audit. All program expenditures, Federal as well as non-Federal, are subject to review and audit by the Department of Health, Education, and Welfare and the Comptroller General of the United States, or any of their duly authorized representatives, for the purpose of verifying the accuracy and propriety of charges.

F. Balance of Grant Funds

Any unencumbered balance of Federal grant funds of one dollar ($1.00) or more at the end of the budget period, as reflected in the annual expenditure report, constitutes a debt to the Federal Government. Any unobligated balance will normally be applied as an offset to future payments for succeeding grants to the agency, unless otherwise instructed.

G. Adjustment of Award

The Public Health Service may amend this award at any time with proper notification to the grantee.

This award includes supplemental funds for which the applicant agency is eligible and has applied. The supplemental grant increases the Federal funds from $45,066 to $77,283.
This award is subject to the condition that the grantee obtains required non-Federal program and project funds for the entire award period and that the grantee submits for approval any proposed contract for services to be performed as a part of the project.
Award of this grant does not relieve the agency from complying with the implementation plan for any Air Quality Control Region of which this agency's jurisdiction may become a part.
Project funds for your proposed weather station and two remote control units may not be expended until an adequate explanation of how this system will lead to the prevention and control of your visible air pollution problem has been approved by the Division of Control Agency Development.
An acceptable plan and implementation schedule for increasing the effectiveness of your existing emission control rules and regulations must be received by our office by September 30, 1969.

OSU

OREGON STATE UNIVERSITY
AIR RESOURCES CENTER

CORVALLIS, OREGON 97331

July 11, 1969

Mr. Kenneth H. Spies, Director
Department of Environmental Quality
State Office Building
1400 S.W. 5th Avenue
Portland, Oregon 97201

Dear Mr. Spies:

Attached are four copies of a proposed research project which we are submitting to you for consideration for funding. This project has been worked out jointly with Bruce Snyder and Harold Patterson.

A preliminary project on this same line was conducted this past Spring using 1967 and 1968 acreage and meteorological data. Our hope with this proposed new project will be to obtain better acreage data to improve our formula.

We will appreciate your consideration of our proposal.

Very truly yours,

R.M. Alexander, Director
Air Resources Center

RMA/mp

enc - 4

cc: E.M. Bates
H.M. Patterson
R.B. Snyder

OREGON STATE UNIVERSITY 1868 1968 CENTENNIAL

Research Project Proposal
OREGON STATE UNIVERSITY

TITLE: Relation of agricultural field burning to visibility and particulate air loading in the Eugene area of the Willamette Valley.

OBJECTIVE: Provide a methodology for use by meteorology and air quality personnel to assist them in predicting the maximum acreages of various types of crop residues which can be burned on specific dates, in the Willamette Valley, at certain distances from Eugene, Oregon, without reducing visibility below a pre-determined distance.

PROCEDURE: The following steps will be taken in obtaining, compiling and analyzing data:

1. Contact farmers and local officials to inform them of our objective and requirements, and to solicit their assistance and cooperation. Detailed procedures, including possible modifications in the form to be used by fire districts will be developed jointly with R. Bruce Snyder and Harold M. Patterson, Department of Environmental Quality.

2. Visit fire control districts throughout the Willamette Valley after the burning season to record dates, locations, acreages and crop types from permits issued for the open field burning of crop residues during the 1969 season.

3. Analyze and classify data gathered in the field. Prepare a summary suitable for computer input which indicates acreage and type of crops burned in each zone on each specific date during the 1969 burning season.

4. Generate and test formulas which relate the visibility at Eugene, Oregon airport to such meteorological and air quality parameters as the level of airborne particulate due to open field burning, atmospheric stability, moisture content of the air, 850 mb wind speed and direction, and the maximum temperature at the Eugene, Oregon airport.

It is proposed that this project be initiated effective July 15, 1969.

PERSONNEL: Earl M. Bates, Advisory Agricultural Meteorologist, ESSA
Dr. D. O. Chilcote, Crop Physiologist, Farm Crops
MarilynJ. Paquin, Research Assistant, Oregon State University

Consultation on statistical matters will be provided by Dr. Lyle Calvin. Consultation on meteorological aspects, including the meteorological model to be used will be provided by Dr. E. Wendell Hewson, Dr. William P. Lowry, and Dr. Lars B. Olsson, of the Department of Atmospheric Sciences.

BUDGET:

Wages including OPE	$1200
Travel	200
Programming, keypunching, computer service time	1000
Miscellaneous & general expense	100
	$2500

July 11, 1969
Revised by Agreement July 14, 1969

STAFF REPORT

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION

B. A. McPhillips, Chairman
Herman Meierjurgen, Member
Storrs Waterman, Member
E. C. Harms, Jr., Member
Geo. A. McMath, Member

FROM : AIR QUALITY CONTROL STAFF

DATE : July 9, 1969 for July 25, 1969 Meeting

SUBJECT: AIR POLLUTION AND ITS SOURCES IN DOUGLAS COUNTY

1.0 INTRODUCTION

This report has been prepared for presentation to the Members of the Environmental Quality Commission at their July 25, 1969 meeting in Roseburg. It provides background information concerning the economy, meteorology and the relative contributions of various emission sources to the air quality of the region; presents the measured effect of these sources on air quality in the Roseburg area; and outlines the staff's program plan for achieving improvement in the region's air quality.

As the greatest concentrations of population and of emission sources are in the Roseburg area, more detailed data is presented concerning problems specific to that area.

2.0 SUMMARY

For a number of years, the Air Quality Control staff has conducted an air pollution monitoring program in Douglas County with particular emphasis on the Roseburg area. The information obtained includes meteorological, visibility, suspended particulate and fallout data, all of which tend to support the conclusion reached by the staff in field work on individual air pollution sources: that the timber industries are the overwhelming cause of air pollution both in Roseburg and in Douglas County as a whole.

In the Roseburg area, emissions from wigwam burners and those from veneer, plywood and particleboard plants add up to 72% of the total fine particulate pollution load. This does not include the secondary contribution to the Roseburg area of smoke from slash burning, which accounts for 19% of the fine particulate emissions in the County as a whole.

Metal smelting is the largest single source of fine particulate emission in the county (30.3%); yet the timber industries (pulp and paper manufacturing, slash burning and wigwam burners) add up to 57% of the county-wide total.

The impact of staff activity in bringing about improvement in individual source problems has been quite limited. Accomplishments have often been obliterated by new sources, by the deterioration of control methods once installed, through inadequate maintenance and operation, or through changes in production processes which rendered the original solution obsolete.

Obsolescence is perhaps most readily observed in the performance of Roseburg's major source, the wigwam burner. With increasing utilization, more and more burners have attained the status of having insufficient fuel for efficient combustion, with an accompanying increase in smoke discharge.

Under a program plan instituted by the staff in 1968, wigwam burners in the Roseburg area are scheduled to receive concentrated attention beginning early in 1970. The program is predicated on the concept that our wigwam burner staff can achieve best results by devoting its efforts to a single problem area until an acceptable schedule is obtained for each burner for either terminating its use or for its modification in accordance with staff recommendations. The program was initiated in Jackson County in March, 1968, and is now underway in Josephine County.

In view of the high level of air pollution in the Roseburg area, it is noteworthy that local citizen complaints have been received only concerning smoke and fallout from a few specific sources. Correspondingly, we are not aware of the activities of any citizen organizations interested in air pollution control. It perhaps logically follows that there is no local organized industry effort to promote more concern among its members about reducing air pollution, as is found in Jackson and Josephine counties.

The effect of air pollution upon the welfare of the people in the area and their enjoyment of the environment cannot be accurately measured, nor can its effect upon tourism. It is significant, however, that we have received written complaints concerning the areas smoky wigwam burners from tourists who were sufficiently concerned to write us upon their return home.

3.0 THE ECONOMY

Douglas County extends inland from the Pacific coast to the summit of the Cascade Range at Mt. Thielsen. It is the fifth largest county in the state with an area of 5,089 square miles. Approximately one-half of the land area is federally owned while only about 2½% is owned by the state and county.

The county contains 1/20th of the virgin timber reserve of the nation, and according to a 1965 study ranks second among Oregon counties in volume of forest products manufactured.

Unemployment in Douglas County averaged 8.9% in 1967. Of the 26,160 persons employed, lumber, wood and paper products manufacturing directly accounted for 7,200 employees. Agriculture is also an important factor in the county's economy with field crops, orchards and livestock the major agricultural endeavors.

4.0 METEOROLOGY

Climatologically, the Roseburg region provides conditions which promote the accumulation of air pollutants. Located as it is in one of a series of canyons surrounded by relatively high mountains, the area suffers from poor horizontal ventilation. In fact, Roseburg's mean hourly wind speed for the year, 4.88 mph, is one of the lowest in the nation; and this predominance of low average wind speeds can be said to extend through most of the canyon areas in the Umpqua basin. The winds at the Roseburg airport exhibit the channelling effects of the surrounding hills, with summer winds from the north and winter winds from the south. Winds of 3 mph or less occur 30% of the time during more than 9 months of the year, with a maximum frequency of 59.7% in November, and a minimum of 22.3% in July.

There are no data gathered in the Roseburg area on the general stability of the atmosphere, but the prevalence of partly cloudy weather, which tends to minimize surface heating and thermal turbulence together with the low average wind speed, indicate that generally stable conditions predominate in the Umpqua Basin.

Two more indicators of stable conditions (one of which is also an indicator of pollution) are the frequencies of fog and smoke. Smoke or haze are often observed in the Roseburg area throughout the year, restricting visibility to six miles or less about 25% of the time in November and December. It must be pointed out, however, that restrictions are only recorded when visibility is less than 7 miles. Weather records do not yield data regarding visibilities of 7 miles or over which could still be considered objectionable to the average citizen.

5.0 AIR POLLUTION MONITORING:

Particle fallout sampling has been conducted in Douglas County intermittently since 1952. During 1959 and the first part of 1960 a concentrated program of fallout sampling was conducted in preparation for a report on the air quality of the Roseburg area. The report "Air Pollution In And Around Roseburg, February 1960" is now out of print, recognized the particulate matter air pollution problem. Of nine particle fallout stations established, 100% of the samples at three stations, 33% at one, and 17% at three additional stations exceeded regulations of the commission. Pollution accumulation was ably demonstrated when daily samples for suspended particulate were collected at the City Hall over a consecutive seven day period. Levels from October 15 to 21, 1958 were 353, 365, 204, 59, 99, 204, and 296 micrograms/cubic meter.

During the period from late 1965 to the present time, the Roseburg Gun Club has been used as a primary surveillance particle fallout sampling site. The particle fallout values from the Roseburg Gun Club site have ranged between 8.1 tons/mi^2/month and 1200 tons/mi^2/mo.

The median values for 1967 and 1968 were 49 and 59 tons/mi^2/month.

Corrosion studies have been initiated in the Roseburg area, but no suspended particulate or gaseous sampling have been conducted in this area.

The air quality staff will soon establish an air monitoring station in the Roseburg area, as part of a 22 station state-wide monitoring network. These stations measure the concentrations of suspended particulate matter, the particle fallout rate, and the presence of pollutants in the air which can cause sulfation reactions. The Roseburg station will not only aid in evaluating the air quality of the Roseburg area, but will also, in conjunction with the other stations in the network, assist in evaluating the overall air quality of Oregon.

6.0 EMISSION SOURCE INVENTORY

6.1 General:

Air pollution is unique in that climate, terrain, industry, population, and manner of living all combine to determine the nature and extent of the air pollution problem. In order to better understand how the various sources of air pollution emissions in Douglas County contribute to the overall problem, an emission inventory has been conducted.

Such an inventory is a very useful input to an air pollution control program, but it is only one of several inputs that must be properly evaluated to obtain a true perspective of the effects of the various air pollution sources on the region's air quality.

It should be emphasized that this inventory was developed by rapid survey methods with a minor degree of direct contact with individual sources. This inherent limitation in the accuracy of the data should be kept in mind; nevertheless, it is felt that the general results provide a reasonably good estimate of what actually occurs.

The detailed methods employed are given in the Appendix. These are summarized in Table I and Figure I which follow. Three categories of pollutants are considered to be significant: 1) particulates, which are the primary factor in visibility reduction and particle fallout nuisance; 2) nitrogen oxides, which may tend to contribute to visibility reduction; and 3) organic gases, which are significant in Douglas County only to the extent that they include malodorous compounds.

6.2 Evaluation:

It is the evaluation of the staff that particulate fallout and visibility reduction are the major air pollution problems in Douglas County. Carbon monoxide, sulfur oxides, and oxides of

nitrogen are not considered to be significant as air contaminants. While it is true that oxides of nitrogen affect visibility, the concentrations required to do so are much higher than those expected in the County or in the Roseburg area proper. Organic gases, which include aldehydes and hydrocarbons, appear to be significant only to the extent that malodorous compounds are included in this class. Such compounds would include those responsible for diesel exhaust odor.

6.3 Method:

In this study, particulate emissions have been broken down into two categories, "coarse" and "fine", using a particle size of 10 microns (0.0004 inches) as the dividing point. This is done in recognition of the fact that large and small particles in the atmosphere behave in quite different ways, and thus have different effects on the environment. Large particles settle rapidly and are responsible for most urban particle fallout problems, while smaller particles behave more like a gas and have a greater effect on visibility reduction than large particles.

6.4 Discussion:

As shown in Table I, there is essentially one major source of coarse particulate in the area, - the plywood and particleboard industry. This industry accounts for a total of 91% of coarse particulates in the County and 95% in the Roseburg area. These values represent the emissions of sander dust particles, of which about 99% are larger than 10 microns. The effect of sander dust emissions has not really been well defined, as a significant portion of the emissions would normally fall to earth before they leave the property of the plant from which they originate. What is significant, however, is that these emissions represent a potential for severe local nuisance situations in the vicinity of the mills, and are therefore deserving of close surveillance and control action.

When emissions of fine particulates are considered, Douglas County is found to have several major sources as shown in Figure I. In fact, a metal smelting operation and one kraft pulp mill together emit over one-half of the total of fine particulate matter emitted in the county. Primarily because of their remote locations, however, these two sources appear at this time to have a nominal effect on the populated areas.

Other major sources of fine particulate in the county at large are slash burning, a seasonal activity producing 19% of the total annual emissions, and wigwam waste burners.

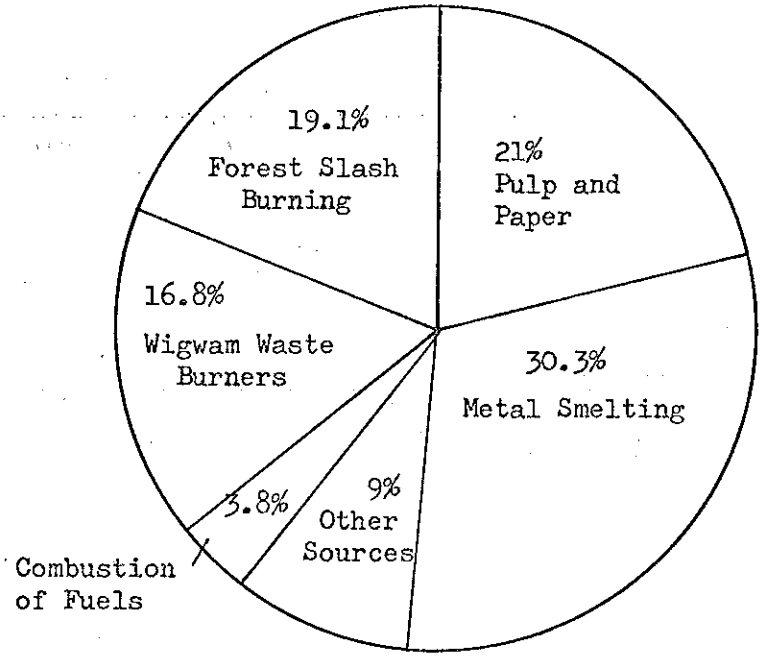
TABLE I

EMISSION OF PARTICULATES, ORGANIC, AND INORGANIC GASES
FOR DOUGLAS COUNTY AND ROSEBURG AREA

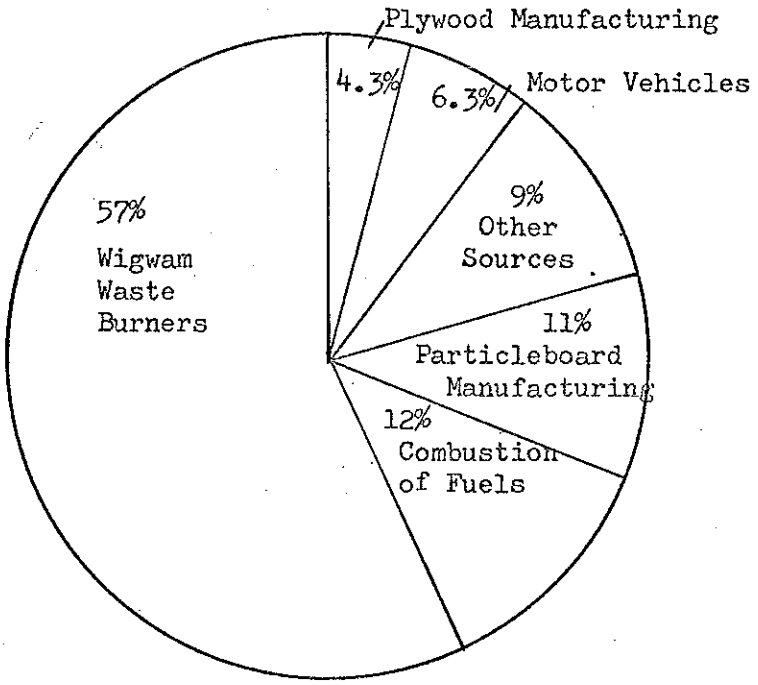
SOURCE CATEGORY	EMISSIONS AS % OF ANNUAL TOTAL FOR POLLUTANT CLASS							
	DOUGLAS COUNTY				ROSEBURG AREA			
	PARTICULATES		Organic	Inorganic	PARTICULATES		Organic	Inorganic
	Fine	Coarse	Gases	Gases	Fine	Coarse	Gases	Gases
MOTOR VEHICLES	2.1	-	52.5	48.6	6.3	-	67.5	58.3
COMBUSTION OF FUELS								
Oil	1.0	.4	.1	2.0	4.5	.2	.2	2.4
Natural Gas	.2	-	.01	.1	.6	-	-	.2
Wood and Wood Waste	2.6	.6	2.4	1.6	7.0	.3	2.7	1.7
Subtotal	3.8	1.0	2.5	3.7	12.1	.5	2.9	4.3
REFUSE DISPOSAL, General	1.0	.9	1.5	1.6	3.1	.6	1.9	1.9
TIMBER PRODUCTS INDUSTRY								
Wigwam Waste Burners	16.8	4.3	10.9	26.3	56.8	3.1	16.0	35.3
Plywood Manufacture	1.1	5.2	5.8	-	4.3	4.0	9.3	-
Particleboard Mfg.	2.2	85.8	.6	-	11.3	91.2	1.4	-
Forest Slash Burning	19.1	-	20.5	19.4	-	-	-	-
Subtotal	39.2	95.3	37.8	45.7	72.4	98.3	26.7	35.3
OTHER INDUSTRIES								
Pulp and Paper	21.0	.3	4.8	-	-	-	-	-
Metal Smelting	30.3	3.9	-	-	-	-	-	-
Miscellaneous	1.0	.1	.4	-	4.3	.1	.5	-
Subtotal	52.3	4.3	5.2	-	4.3	.1	.5	-
TOTAL AMOUNT Million Lb/Year	21.9	58.3	66.6	286	4.4	53.9	31.1	143

FIGURE I

FINE PARTICULATE EMISSION SOURCES
IN
DOUGLAS COUNTY AND ROSEBURG AREA



A. DOUGLAS COUNTY - Total Emissions 21,800,000 lbs/yr.



B. ROSEBURG AREA - Total Emissions 4,400,000 lbs/yr.

Figure I also shows graphically the emissions of fine particulate in the Roseburg area. The conclusion one can derive from this figure is that the timber industry is the major source of visibility reducing pollution in the area. Wigwam waste burners alone account for some 57% of the total, with particleboard and plywood manufacturing contributing an additional 15%. The total of wigwam burners, board products manufacturing, and combustion of wood wastes for fuel, account for almost 80% of the total emissions of fine particulate in the area.

6.5 Source Classifications:

The following is a discussion and evaluation of the principal source classifications by type of industry or operation.

6.5.1 Metal Smelting:

Douglas County is noted for having the only producer of nickel in the United States, Hanna Mining Company near Riddle. Although the emission inventory indicates that this company emits a significant portion of the total fine particulate matter of Douglas County, few complaints relative to the operation have been received. The lack of complaints is attributed to the remoteness of the plant site. The staff has contacted Hanna Mining Co. to assist in the development of a program for reducing atmospheric emissions.

6.5.2 Pulp and Paper:

International Paper Company's plant in Gardiner is the only kraft mill located in Douglas County. This 500 ton per day kraft mill emits considerable quantities of particulate matter and malodorous substances, but the location and meteorological conditions at the site are apparently such that the effect of emissions is limited to a small area, and few complaints result.

Regulations pertaining to kraft mills recently adopted by the Oregon State Sanitary Authority require that the plant reduce particulate emissions to approximately 10% of current levels by no later than 1975 and make a similar reduction of malodorous compounds (Total Reduced Sulfur Compounds) even sooner. Such reduction in emissions should permit development in affected Gardiner areas to continue with a significantly less kraft mill air pollution problem.

6.5.3 Forest Slash Burning:

Forest slash burning, the disposal of waste material and combustible debris generated in the management and harvest of timber, occurs in most forested areas of Douglas County. Emission inventory data show slash burning as the county's third largest contributor of fine particulates. Although forest management and fire protection personnel from both State and Federal forests are cooperating with the Department of Environmental Quality toward minimizing the effects of slash burning, it remains a significant source of smoke in the Umpqua Basin during the slash burning season.

Present concern over the effects of slash burning emissions lies in the reduction in visibility caused by smoke particles generated in the fires. The 1969 Legislation provided for additional control by the State Forester over permits and burning practices. The State and Federal forestry agencies will both be implementing a program during the 1969 fall season to minimize effects on populated and other specifically designated areas.

6.5.4 Combustion of Fuels:

The combustion of fuels includes the combustion of oil, propane gas, and wood by private, commercial and industrial users. There appears to be little potential here for an air pollution problem to arise, except for isolated incidents. In fact, the use of wood for private and commercial heating, which could potentially present more of a problem than the other two fuels, is declining dramatically.

6.5.5 Mobile Sources:

The staff has concluded that emissions of carbon monoxide, hydrocarbons, and nitrogen oxides from mobile sources have no apparent effect on the air quality of Douglas County. Further, a staff study on automotive emissions indicate that by 1980 the total emissions of carbon monoxide and hydrocarbons from automotive sources will have been reduced from current values to approximately 80% and 60% respectively. It is thus concluded that motor vehicles should not present an air pollution problem of general concern for Douglas County in the immediate future.

6.5.6 Miscellaneous Sources:

Several miscellaneous sources of smoke, dust and objectionable odors have been encountered in Douglas County. These include smoke from orchard heating and building demolition; dust from site clearance, soil tilling, hot mix asphalt plants and certain manufacturing processes; air-borne pollens; and odors from septic tank overflows and from industrial operations. Smoke and ash is also produced by a number of miscellaneous open burning and incineration processes.

The staff has surveyed the six asphalt plants currently operating in Douglas County and has found most of them not to be in compliance with current regulations pertaining to hot mix asphalt plants. An enforcement program is underway to obtain compliance in the very near future. The staff is also currently actively engaged in correcting serious dust problems recently created by Mining Minerals Manufacturing Company, an abrasive material manufacturing firm located near the school in Riddle. This problem is expected to be corrected before the start of the new school term.

The burning of refuse other than in wigwam burners has become significant in some local situations. These include open burning, the use of burning barrels or of poorly operated commercial incinerators, and the burning of automobile bodies, all of which create smoke or fly ash nuisance situations.

Douglas County does not have an ordinance prohibiting open burning of refuse, but does currently operate eight landfill sites for refuse disposal. A ninth site is under construction, a tenth site has been obtained and an eleventh site is being negotiated. Roseburg Garbage Disposal Company operates a refuse disposal site near Roseburg at which open burning has occurred. The staff has been advised that this site may also be a contributor to water pollution.

6.5.7 Timber Products Industries:

The timber products industries are the predominant man-made source of particulate emission in Douglas County. A full 95% of the total particulate matter emitted in the Roseburg area and almost 80% of the total particulate matter emitted in Douglas County can be attributed to the timber products industries. These industries also make Douglas County unique in that their combustion processes emit almost as much carbon monoxide as do the automobiles in the county. (On a nationwide basis, it is reported that automobiles account for 95% of the carbon monoxide emitted.) Even so, the staff has concluded that carbon monoxide is not an atmospheric contaminant of significance in Douglas County.

Since the wigwam burner and the wood-fired boiler can be identified as specific air pollution sources and since the magnitude of the problem caused by them depends upon their location, operation and general condition, these sources can be discussed on the basis of both their county-wide and their specific area effects. On an area basis, for example, the wigwam burners in and near Roseburg contribute more than one-half of the total fine particulate loading in that area.

6.6 TIMBER INDUSTRY SOURCES BY AREA:

On a specific area basis, the following is a brief discussion of the individual timber products companies in Douglas County.

6.6.1 Roseburg Area (including Winchester and Dillard):

The Roseburg area is the population center of Douglas County. It is the area from which most of the complaints regarding air pollution in the county are received. The majority of the complaints relate to operations of the forest products industries and particularly to fallout from wigwam waste burners. Efforts of the staff to abate the wigwam waste burner problem in Douglas County have been centered primarily in the Roseburg area. Except as noted, detailed staff surveys have not been completed.

a) CEDAR PRODUCTS COMPANY produces shingles and shakes from Western Red Cedar. The bark, pitch wood and miscellaneous residues are burned in an approximately 50 foot burner. The company is considering the installation of a hog so that their residues may be sold, or to move to a new location and operate without a wigwam burner.

b) DILLARD VENEER burns Douglas Fir bark and a very limited amount of pond lillies in its wigwam burner. It is estimated that these residues total 5 to 6 units in an 8 hour working day. The burner was erected about 3 years ago and is reported to be in good condition. It is 40 feet by 50 feet and is equipped with a forced underfire air system.

c) DOUGLAS COUNTY LUMBER COMPANY - This company operates a sawmill, planing mill and veneer plant approximately ¼ mile west of the Interstate freeway 5 miles north of Roseburg. Emissions from its 2 wigwam burners, 2 boiler stacks and an open burning dump have been the source of many complaints and 2 petitions. To date, only the boiler stack smoke problem has been successfully corrected: this, by converting to natural gas.

The wigwam burner problem was brought to the attention of the Sanitary Authority at its June 29, 1966 meeting. The company's proposal to obtain the recommendations of a consulting engineer was then accepted. Subsequently, some of the recommendations were incorporated, with only a minor reduction in smoke emissions.

d) HUB LUMBER COMPANY now operates one wigwam burner on Cedar Street, approximately 2 blocks south of Garden Valley Road in Roseburg. Located in a residential-commercial area outside the Roseburg city limits, the remaining burner, serving the sawmill, has a history of numerous individual complaints and of two petitions concerning smoke and fallout. The staff feels that only the elimination of the burner can produce results acceptable to the nearby residents in this sensitive location, and our current recommendations to the company are that they find alternate methods of residue disposal.

e) KELLER LUMBER COMPANY has also been the source of individual complaints of smoke and fallout attributed to its two wigwam burners and an open burning dump. The company owns the 200 acres on which the plant is located and is currently investigating the possibility of disposal of its mill residues as landfill on this property as a means of terminating all burning operations. Representatives of our Solid Wastes Section are providing technical assistance regarding landfill practices at this site.

f) ROUND PRAIRIE LUMBER COMPANY, located approximately 11 miles south of Roseburg immediately adjacent to the interstate freeway on its downhill side, operates a wigwam burner in conjunction with its sawmill. Top of this burner is at an elevation only slightly above the southbound portion of the divided freeway, so that its dense white plume is very evident to southbound motorists. Motorists, both in-state and out-of-state are the source of many complaints regarding this burner, there being few residences nearby.

g) PAUL B. HULT LUMBER COMPANY - This company is reported to operate one wigwam burner in Dillard.

h) ROSEBURG SHINGLE COMPANY - Two wigwam burners are used by this company to dispose of residues from the production of shingles and studs. The residues incinerated in the burner are Cedar bark and miscellaneous residues. The burners are reported to be in good condition, with one having been reconditioned about 6 months ago and the other about 2 years ago. The company management is considering installation of a chipper in about one year.

i) ROSEBURG LUMBER COMPANY operates one wigwam burner at its plant #3. About 2 years ago, they dismantled two previously used wigwam burners. The burner operated at plant #3 is approximately 45 feet high and is equipped with a forced draft underfire air system. The burner received bark and end trim, but no sawdust or sanderdust. More than one-half of the bark produced at this plant is used for boiler fuel.

Boiler stack emissions exceeding visible emission standards have been noted at one of the company's plants, but no detailed surveys have been completed.

j) SUN STUDS, INC. currently operates one wigwam burner to dispose of sawdust and bark. All shavings are used as boiler fuel and the coarse residues are chipped and sold. A new boiler system has been installed and is in the final stages of preparation for use. This boiler will use bark for fuel. Surplus bark will be burned in the wigwam burner. All of the sawdust and shavings produced will be sold. Hogged fuel storage bins have been installed and if a market for this fuel is established, the wigwam burner may be on standby use only within a year.

k) U. S. PLYWOOD operates one burner at each of its two Roseburg mills. The wigwam burner at the Main Mill, located on Rifle Range Road, was modified in accordance with regulations in 1965. It receives all bark not needed as boiler fuel, lily pads, and unchippable plant residues. Plant capacity is 150,000 board feet log scale per shift.

The burner at the Webco plant was completely rebuilt in 1966 in accordance with plans approved by the staff. It receives all bark, lily pads and unchippable residues. Plant capacity is 50,000 board feet log scale per shift. This burner has been mentioned in petitions complaining of smoke and fallout from the burner of Hub Lumber Company, as emissions from both affect the same neighborhood. It is difficult to definitely evaluate the relative contribution of each source to the problem.

l) WINCHESTER PLYWOOD - For several years, this plant has been the most obvious and voluminous source of smoke in the Umpqua basin. It has presented a panoramic view of five open burning piles, a partially reconstructed and smoky wigwam burner, and considerable blue smoke from veneer driers to all who travelled north of Roseburg on the interstate highway. No more now need be said than that the plant has recently been closed, and reportedly is to be dismantled and sold.

6.6.2 Riddle-Myrtle Creek Area:

There are currently five burners being operated, either intermittently or steadily, in this area. The staff has observed some of these burners in operation, but no recent detailed survey has been made. The following information has been obtained from the plant managements:

a) C & D LUMBER COMPANY operates two wigwam burners. The residue is primarily Douglas Fir with some dry cedar. Bark, sawdust, chips and shavings are sold, but not the total amount produced.

b) GREEN VALLEY LUMBER COMPANY - One wigwam burner is used by this company to dispose only of its unsold bark residues. Some of the bark, and all of the sawdust is sold. The burner is reported to be in good condition, and a new hog is being installed.

c) HERBERT LUMBER COMPANY reported that they dismantled their wigwam burner early last year.

d) D. R. JOHNSON LUMBER COMPANY reported that they use only one of their two wigwam burners. The species cut are Douglas fir, with some cedar and hemlock. The sawdust and hogged fuel are sold. A chipper is to be installed next year, and thereafter use of the burner will not be required as often as at the present time.

e) RIDDLE VENEER - One wigwam burner is currently in operation. A new plywood plant is being added and is expected to be completed by the end of this year. This will be known as Roseburg Lumber Company Plant #4. It is then planned to hog all of the plant residues and to dismantle the burner to obtain additional room.

6.6.3 Sutherlin Area:

a) GEORGIA PACIFIC CORPORATION has recently completed construction of a veneer plant at the site of an idle facility previously owned by Martin Box Company. The existing wigwam burner was deemed unsatisfactory and application was made for approval to construct and operate a new wigwam burner. The drawings as approved by the staff resulted in the unique construction of a small burner inside the existing large one. Several items of construction deficiency remain to be corrected.

b) L & H LUMBER COMPANY currently operates one wigwam burner. A second burner, which once served the planing mill is no longer used. Douglas fir bark and sawdust are disposed of in the active burner, with the shavings and chips being sold. This burner is about 55 feet in diameter and is equipped with forced overfire and underfire air systems.

c) NORDIC PLYWOOD - The wigwam burner at this plant is used to dispose of waste veneer, saw trim, and sanderdust. It is estimated that less than 2 units of waste veneer and saw trim per day are burned. The burner is approximately 50 feet in diameter.

6.6.4 Drain Area:

Detailed surveys of the emission sources in the Drain area have not been completed. The following information concerning the areas' six wigwam burners was obtained from company managements:

a) DRAIN PLYWOOD COMPANY operates two wigwam burners. One burner is used solely for bark, while the other receives sanderdust, end trim and miscellaneous material. All clean, coarse residues are chipped and sold.

The nature and degree of the emissions from the plywood plant have not been evaluated by the staff.

b) PHEIFFER LUMBER COMPANY operates one 40-foot wigwam burner. The species processed is Douglas fir and currently all residue (approximately 24 units per day) are consumed in the waste burner. A chipper was once in use and the chipped material sold. Following a fire, however, the chipper was removed and has not yet been placed back in service.

c) SMITH RIVER LUMBER COMPANY uses two wigwam burners to dispose of its Douglas fir residues along with a small amount of cedar shavings. Chips and some sawdust and planer shavings are sold. All of the bark and the unsold sawdust and planer shavings are burned. It is estimated that cedar shavings represent less than 10% of the material burned.

d) MT. BALDY LUMBER COMPANY operates a Douglas fir sawmill producing 90,000 bd. ft. of lumber per shift. The wigwam burner is used to dispose of all the bark and some of the sawdust. Chips, shavings and a portion of the sawdust are sold. The burner is approximately 60 feet in diameter and is equipped with an underfire air system. The mill normally operates one 8-hour shift.

6.6.5 Reedsport Area:

The Reedsport area, including Gardiner, is not a part of the Roseburg area airshed. The staff has considered this area as an isolated airshed. The operation of a kraft mill (discussed previously in this report), a plywood plant, seven wigwam burners, and miscellaneous open burning sources appear to have the greatest effect on the local air quality. The staff has not surveyed or evaluated any of the wigwam burners in this area recently. The following information has been obtained by contacting company management.

a) HARDWOOD, INC. - One 40 foot wigwam burner is operated by this company which processes alder and maple. About 25 units daily of bark and sawdust are burned. All chippable material is reported to be chipped and sold.

b) INTERNATIONAL PAPER COMPANY - One wigwam burner is operated by this company and it is used to burn plant clean-up material. The material is apparently fed to the burner by a conveying system.

c) REEDSPORT MILLING COMPANY - One wigwam burner approximately 60 feet in diameter is operated by this company. The species processed is Douglas fir and much of the residue is currently being sold. It is reported that the burner may be phased out within the next year.

d) SCHAFER LUMBER COMPANY - This company operates one wigwam burner. The plant produces alder lumber and essentially all of the plant residues are burned.

e) U. S. PLYWOOD operates two wigwam burners. Lily pads and end cuts are fed to one burner, and floor sweepings and miscellaneous material are fed to the other burner. The company is apparently considering plans to eliminate operation of these burners.

Emissions from the plywood plant have not been evaluated by the staff.

f) WOLLY LUMBER COMPANY - This company currently operates one wigwam burner in which alder and maple are processed, bark, sawdust and planer shavings are burned. Approximately one-half of the total bark produced is sold for mulch. The company has been contacted by prospective purchasers regarding the sale of their wood residues.

6.6.6 Miscellaneous Areas:

a) ROBERT DOLLAR COMPANY (Glendale) - This company has informed the staff that they have shut down one of their two waste burners, as most of the residues it had previously received are now chipped and sold. The material which cannot be chipped is put into a landfill. Most of the bark produced is used to fuel their boilers, so that the remaining wigwam burner receives primarily sawdust, sanderdust, and plywood trim. The management reports that the burner is equipped with forced draft underfire and overfire air systems and is in good condition.

b) LITTLE RIVER BOX COMPANY (Glide) operates one 30 foot wigwam burner. The staff recently made a brief survey of this operation in response to a complaint. At that time, the company was in the process of making major changes which will affect the residue input to the burner. Upon completion of these changes only bark will be burned, and all shavings, chips and sawdust from the stud mill operation will be sold. The burner is structurally in good condition and is equipped with a limited underfire air system and simple overfire openings. It appears that this burner can be made to burn satisfactorily if fuel quantity is sufficient.

c) SCHMIDT & CREW LOGGING (Glendale) - The staff has been informed that this company operates one wigwam burner.

d) SOUTH FORK LUMBER COMPANY (Anlauf) - The wigwam burner operated by this company receives all of the residue produced. This includes bark, sawdust, shavings, and trim material. The burner is equipped with an underfire air system and simple overfire ports. The burner was last surveyed in 1966. Plant production is reportedly 150,000 board feet per month.

e) DOUGLAS FIR PLYWOOD COMPANY (Dixonville) - This company expects that all of their residues which can be used as hogged fuel will be sent to Dillard in the very near future rather than being burned in the wigwam burner. It appears that a remaining problem at this plant may then be the disposal of the plant clean-up material.

f) NORDIC VENEER (Dixonville) - The burner operated by this company is approximately 50 feet in diameter and equipped with an underfire air system. Chips are sold and the burner receives only Douglas fir bark, fines from the chipper, and plant clean-up material.

g) SUPERIOR LUMBER COMPANY (Glendale) - The wigwam burner operated by this company receives only Douglas fir bark and about one-half of the sawdust produced by the plant. The remaining sawdust is used as fuel for the plant boilers. Shavings and chips are sold. The burner is approximately 60 feet in diameter and is equipped with a forced-draft underfire air system, overfire air ports, and a pyrometer.

AIR POLLUTION AND ITS SOURCES IN DOUGLAS COUNTY
(July 9, 1969 Staff Report)

APPENDIX I

EMISSION INVENTORY COMPILATION METHODS

A. Douglas County

The emission figures appearing in the tables in this report are based on many different kinds of data of varying reliability. Typically, the computation of annual emissions of a given pollutant from a given type of source is the multiplication of some process quantity times the "emission factor" which relates emissions to the process quantity. For example, the 6.2 million pounds per year of hydrocarbons attributed to Douglas County's wigwam waste burners is the product of 560,000 tons/year of wood waste burned, times an emission factor of 11 lbs/ton.

One feature of this inventory which has not been included in previous such reports is the division of particulate emissions into "coarse" and "fine" particulate, defined respectively as over 10 microns (0.0004 inches) and under 10 microns in particle size. The normally used emission factors are estimates of total particulate only; therefore an additional estimate of particle size distribution was required. The general approach was to first estimate the total, then apply to it an estimate of the percentage of under 10 micron size material to compute the quantity of fine particulates. The remainder therefore was taken to be coarse particulate.

Sources of information for process quantities and emission factors are as follows:

Motor Vehicles

Process: A staff report of the Oregon State Sanitary Authority "Emission Inventory of Automotive Sources of Air Pollution in Oregon for the Years 1966 and 1980", May 1968,[1] gives estimated daily emissions of major pollutants for Douglas County. 1966 data was used.

Factors: Above report is based on vehicle miles; in addition, present report estimates aldehydes from factor given in Duprey, "Compilation of Air Pollutant Emission Factors", NAPCA 1968.[2]

Oil Combustion

Process: Western Oil & Gas Association provided fuel oil sales data.

Factors: Duprey; 60% of particulate was estimated to be under 10 microns, based on oil-fired boiler data in Duprey, "Particulate Emissions and Size Distribution Factors."[3]

Wood Combustion

Process: Oregon State University, Forest Research Laboratory, 1967 survey of wood waste disposal. Estimated total annual consumption of wood waste as fuel was 426,000 oven dry tons; this was multiplied by 1.85 to get as-used weight.

Factors: Factors used were for wood waste boilers, taken primarily from Stanford Research Institute Report on Air Pollution in Portland, Oregon;[4] NO_x factor of 5.5 lb/ton was estimated using method of Woolrich.[5] 60% of particulate was estimated to be "fine".

Natural Gas Combustion

Process: Sales data was obtained from California-Pacific Utilities Company.

Factors: Duprey; 100% of particulate is under 10 microns.

Refuse Disposal

Process: The national average of 5.3 lbs/day/capita ("The National Solid Waste Survey--an Interim Report"[6]) of solid waste collection was used as a base, and combined with information on collected wastes in Douglas County as supplied by the Environmental Sanitation Section of the State Board of Health. Total refuse burned was estimated at 50,000 ton/yr.

Factor : Duprey; 30% of particulate are considered to be fine, based on incinerator data given by Duprey[3].

Wigwam Waste Burners

Process: Oregon State University, Forest Research Laboratory, 1967 survey of wood waste disposal. Estimated incinerated amount was 304,000 ton/yr. of oven-dry waste. This was multiplied by 1.85 to get equivalent as-used weight.

Factors: Various sources were used:

Aldehydes: 2 lb/ton, from SRI Report on Portland, 1963.

CO 130 lb/ton:) Droege and Lee, "The Use of Gas Sampling
) and Analysis for the Evaluation of
Hydrocarbons, 11 lb/ton) Teepee Burners, 1965".[7]

NO_x - 4 lb/ton - based on P. F. Woolrich, "Methods for Estimating Oxides of Nitrogen from Combustion Processes".

Particulate, 11 lb/ton - R. W. Boubel, "Particulate Emissions from Sawmill Waste Burners"[8]; 50% was estimated to be "fine" particles

Plywood Manufacturing

Process: O.S.U. Survey - total production in county, 826 million sq. ft./year, 3/8" basis.

Factor : R. T. Shigehara, "Particulate and Total Gaseous Hydrocarbon Emissions from a Gas Heated Veneer Dryers"[9]; 50% estimated to be fines. Cyclone sanderdust emissions: Mid-Willamette Valley Air Pollution Authority[10]; Sanderdust is considered to be 99% "coarse" by weight, calculated from particle size analysis data.

Particleboard Manufacturing

Process: Plywood and Board Products Directory 1969," 1967 production data given for two mills in Dillard, Total, 120,000 ft^2, 3/4" basis.

Factor : Based on averages observed in Mid-Willamette Valley Air Pollution Authority survey.[10]

Forest Slash Burning

Process: Slash tonnage estimates were obtained from State Department of Forestry and U. S. Forest Service. Total estimate 843,000 ton/yr., all considered to be small smoke particles.

Factors: Emission factors are from Duprey, for open burning of "landscape material", with exception of particulate factor of 5 lb/ton from University of Washington College of Forest Resources, "The Study of Forest-Fire Atmospheric Pollution."[12]

Asphalt Plants

Process: Surveys of all plants in Coos County. Total production 91,000 tons/yr.

Factors: Various, based on experience in Portland area stack samples and considerations of individual plant control systems. 70% of particulate was considered to be "fine" (Duprey).

Pulping Processes

Emissions were directly estimated by staff members of the single pulp mill in the county. 95% of particulate was estimated to be "fine".

Dry Cleaning

Process: Population of Douglas County, 72,000.

Factor : Duprey, per capita solvent emissions

Metal Smelting

Emissions estimated from data supplied by plant personnel during plant survey.

B. Roseburg Area

1. Emissions for the following source categories were estimated from Douglas County results by population ratios (Roseburg area - 60% of county population).

   Motor vehicles
   Oil and gas combustion
   Refuse disposal

2. Industrial emissions were estimated from data supplied by the Forest Research Laboratory or from plant survey data.

TABLE A

SUMMARY OF AIR POLLUTANT EMISSIONS

DOUGLAS COUNTY, 1968

SOURCE CATEGORY	EMISSION, MILLIONS OF POUNDS ANNUALLY							
	ORGANIC GASES			PARTICULATES		INORGANIC GASES		
	Aldehydes	Hydrocarbons	Other	Fine	Coarse	Nitrogen Oxides	Sulfur Oxides	Carbon Monoxide
MOTOR VEHICLES	0.26	34.8	-	0.46	-	8.6	0.33	130
COMBUSTION OF FUELS								
Oil	0.06	0.07	-	0.34	0.23	1.7	4.1	0.06
Natural Gas	-	-	0.01	0.05	-	0.49	-	-
Wood and Wood Waste	1.6	-	-	0.57	0.38	4.3	-	0.39
Subtotal	1.7	0.07	0.01	0.96	0.61	6.5	4.1	0.45
REFUSE DISPOSAL, General	0.005	0.25	0.75	0.24	0.56	0.55	-	4.2
TIMBER PRODUCTS INDUSTRY								
Wigwam Waste Burners	1.1	6.2	-	3.7	2.5	2.2	-	73
Plywood Manufacture	-	3.9	-	0.25	3.0	-	-	-
Particleboard Manufacture	0.46	-	-	0.50	49.2	-	-	-
Forest Slash Burning	0.0008	2.7	11.0	4.2	-	1.7	-	54
Subtotal	1.6	12.8	11.0	8.7	54.7	3.9	-	127
MISCELLANEOUS								
Dry Cleaning	-	0.28	-	-	-	-	-	-
Asphalt Plants	-	-	-	0.24	0.10	-	-	-
Pulp & Paper	-	-	3.2*	4.5	0.2	-	-	-
Metal Smelting	-	-	-	6.65	2.25	-	-	-
Subtotal	-	0.28	3.2	11.5	2.4	-	-	-
TOTAL	3.6	48.2	15.0	21.9	58.3	19.6	4.1	262

*Includes reduced sulfur compounds

TABLE B

SUMMARY OF AIR POLLUTANT EMISSIONS

ROSEBURG AREA

SOURCE CATEGORY	EMISSIONS, MILLIONS OF POUNDS ANNUALLY							
	ORGANIC GASES			PARTICULATES			INORGANIC GASES	
	Aldehydes	Hydrocarbons	Other	Fine	Coarse	Nitrogen Oxides	Sulfur Oxides	Carbon Monoxide
MOTOR VEHICLES	0.16	20.8	-	0.28	-	5.2	0.20	78
COMBUSTION OF FUELS								
Oil	0.04	.04	-	.20	.14	1.0	2.5	0.04
Natural Gas	-	-	-	.03	-	0.30	-	-
Wood and Wood Waste	0.86	-	-	.31	.20	2.3	-	.21
Subtotal	0.90	0.04	-	.54	.34	3.6	2.5	.25
REFUSE DISPOSAL, General	-	.15	.45	.14	.34	.33	-	2.5
TIMBER PRODUCTS INDUSTRY								
Wigwam Waste Burners	0.75	4.2	-	2.5	1.7	1.5	-	49
Plywood Manufacture	-	2.9	-	0.19	2.2	-	-	-
Particleboard Manuf.	0.46	-	-	0.50	49.2	-	-	-
Subtotal	1.21	7.1	-	3.2	53.1	1.5	-	49
MISCELLANEOUS								
Dry Cleaning	-	0.17	-	-	-	-	-	-
Asphalt Plants	-	-	-	0.19	0.08	-	-	-
Subtotal	-	0.17	-	0.19	0.08	-	-	-
TOTAL	2.3	28.3	.45	4.4	53.9	10.6	2.7	130

REFERENCES - Emission Inventory

1. "Emission Inventory of Automotive Sources of Air Pollution in Oregon for the Years 1966 and 1980", Oregon State Sanitary Authority, May 1968.

2. Duprey, R. L. "Compilation of Air Pollutant Emission Factors", U. S. Department of Health, Education, and Welfare, 1968 (Public Health Service Publication No. 999-AP-42).

3. Duprey, R. L. "Particulate Emissions and Size Distribution Factors," a report prepared for New York - New Jersey Air Pollution Abatement Activity, NAPCA, May 1967.

4. Lunde, K. E. "Investigation of Air Pollution in the Vicinity of Portland, Oregon", Stanford Research Institute, 1956.

5. Woolrich, P. F. "Methods for Estimating Oxides of Nitrogen Emissions From Combustion Processes," Industrial Hygiene Journal, December 1961, pp. 481-484.

6. "1968 National Survey of Community Solid Waste Practices - an Interim Report, U. S. DHEW, 1968.

7. Droege, Henry and Lee, George, "The Use of Gas Sampling and Analysis for the Evaluation of Teepee Burners", paper presented at the Seventh Conference on Methods in Air Pollution Studies, Los Angeles, California, January, 1965.

8. Boubel, R. W. "Particulate Emissions from Sawmill Waste Burners", APCA paper 68-164, 61st Annual Meeting of Air Pollution Control Association, June, 1968.

9. Shigehara, R. T. "Particulate and Total Gaseous Hydrocarbon Emissions From a Gas Heated Veneer Dryer", Oregon State University thesis, June 1969.

10. Mick, Allan and McCargar, Dean, "Air Pollution Problems in Plywood, Particleboard, and Hardboard Mills in the Mid-Willamette Valley." Mid-Willamette Valley Air Pollution Authority, March 1969.

11. Plywood and Board Products Directory - 1969, Forest Industries, Portland, Oregon.

12. University of Washington, College of Forestry Interim Report 68-1, "The Study of Forest Fire Atmospheric Pollution", January 1969.

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION

B. A. McPhillips, Chairman
Herman Meierjurgen, Member
Storrs Waterman, Member
E. C. Harms, Jr., Member
Geo. A. McMath, Member

FROM : AIR QUALITY CONTROL STAFF

DATE : July 10, 1969 for Meeting of July 25, 1969

SUBJECT: STATUS REPORT, KELLER LUMBER COMPANY, ROSEBURG

BACKGROUND

Keller Lumber Company operates a sawmill approximately 3 miles north of the Roseburg city limits between N. E. Stevens Street and the Interstate Highway. Plant capacity is approximately 80,000 board feet per shift, produced from peeler cores and predominately small diameter logs (down to and including 5" diameter).

The plant facilities include two wigwam burners, one serving the sawmill and the other the log barking operation. Recent staff observations have indicated that the sawmill burner is now little used, and that the bark burner is in full operation. An open burning dump immediately west of the sawmill appears to be in continuous use.

Written complaints of smoke and fallout attributed to Keller Lumber Company have been received from residents on N. E. Stevens Street (old highway U. S. 99) in March 1966, August 1967 and November 1968.

Staff activity regarding the problem dates from September 1964. Modifications as required by the original wigwam burner regulation had been installed in both burners when surveyed in April 1966. With subsequent progress in utilization, however, the sawmill burner has for sometime received only a minimal amount of plant and yard clean-up materials. More recently, the bark burner has operated five days per week as logs have progressively replaced peeler cores as raw material. This burner appears to be the source responsible for the complaints, due to the inadequacy of the underfire and overfire air systems, and to inadequate maintenance and operation.

CURRENT STATUS

In recent conversations with Mr. Keller we were advised that the observed open burning is for the disposal of yard and plant clean-up material too dirty for sale as chips, and that no improvements in the bark burner have been made since it was last surveyed. Mr. Keller also advised that he owns the 200 acres upon which the plant is situated and that he could dispose of the remaining residues as landfill on his property.

We have requested that a representative of the solid wastes section contact Mr. Keller and advise him regarding recommended practices in landfill operations to assure against spontaneous combustion, or possible water pollution problems which might result from the leachage.

Accordingly, Bruce Bailey of the Solid Wastes Section and Thos. J. Osborne, Douglas County Sanitarian, have surveyed the site and provided technical assistance to the company. Their preliminary verbal report indicates that no problems will likely result if their recommendations to Keller Lumber Company are followed.

The staff will continue to work cooperatively with Keller Lumber Company to attempt phase-out of the use of the waste burners and consequently no action of the Commission is requested at this time.

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION

B. A. McPhillips, Chairman
Herman P. Meierjurgen, Member
Storrs Waterman, Member
E. C. Harms, Jr., Member
Geo. A. McMath, Member

FROM : AIR QUALITY CONTROL STAFF

DATE : July 11, 1969 for Meeting of July 25, 1969

SUBJECT: STATUS REPORT, HUB LUMBER COMPANY, ROSEBURG

BACKGROUND

Hub Lumber Company operates a sawmill located on Cedar Street, approximately 2 blocks south of Garden Valley Road in Roseburg. Capacity of the mill is approximately 60,000 board feet per shift.

Originally the plant facilities included two wigwam burners: (1) the "south burner", serving the sawmill, and (2) the "north burner", serving the planer mill. Early in 1967, a barker and a chipper were installed and the north burner was converted to a storage bin. On April 16, 1968, the sawmill portion of the plant was destroyed by fire, except for its wigwam waste burner. This portion of the plant was subsequently rebuilt and returned to operation early in 1969.

Written complaints of smoke and fallout from the waste burners date back to June of 1964 and have included two petitions. Following the fire in the sawmill, we received repeated requests that we not allow the company to rebuild at this location.

Staff activity regarding the problem dates back to a staff survey in May of 1964. The survey report included the notation, "...located adjacent to an elementary school, in a commercial-residential land use area. The area, including the school, has grown up around them".

In February 1966 the company reported that they were negotiating with Hanna Nickel Smelting Co. for the sale of all the materials going into the north burner, and that if the negotiations were unsuccessful, they would divert the materials to the south burner. In either event, the north burner would be phased out. Staff recommendation was that a variance should be requested for the north burner pending its phase-out. The variance was then requested and was denied by action of the authority at its June 1966 meeting, and the company was advised that use of the planer mill burner must be discontinued.

Subsequent staff activity was concentrated on bringing the south burner into compliance with the original wigwam burner regulation. By May 11, 1967, this was accomplished and the north burner was used only to enclose a chip bin.

Following plant reactivation after the April 1968 fire, we continued to receive complaints from residents of the adjacent area and on June 13, 1969 the staff held a conference with Mr. Chas. Teague, Manager. It appeared

that only the complete phase out of the burner would likely provide a solution satisfactory to the complaining parties. Although Mr. Teague still expressed some hope for a firm committment from a customer in the Roseburg area for all of his residues, he had yet received no definite indication as to when such a contract might be offered.

Mr. Teague indicated that he would investigate the staff suggestion that he expand his dry kiln operation, utilizing the residues as boiler fuel. Also discussed was the possibility of marketing the residues in the Eugene area, where hogged fuel is now in short supply. Mr. Teague expressed the impression that this would not be economically feasible unless the transport truck had a pay load on the return trip.

RECOMMENDATION

It is recommended that the Company be required to submit a schedule of phase-out of the waste burner.

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION

B. A. McPhillips, Chairman
Herman Meierjurgen, Member
Storrs Waterman, Member
E. C. Harms, Jr., Member
Geo. A. McMath, Member

FROM : AIR QUALITY CONTROL STAFF

DATE : July 14, 1969 for Meeting of July 25, 1969

SUBJECT: STATUS REPORT, DOUGLAS COUNTY LUMBER COMPANY, WINCHESTER

BACKGROUND

Douglas County Lumber Co. operates a sawmill, planing mill, and veneer plant west of the Interstate Freeway approximately five miles north of the Roseburg city limits. Sources of emissions are two wigwam waste burners, a boiler plant, and an open burning dump immediately north of the plant.

Complaints from residents with homes along the Umpqua River from ¼ to ½ mile southwest of the operation concerning smoke and fallout of burned and unburned particles date from August 1963. On August 10, 1965, a petition bearing 75 signatures was received and on December 14, 1965, another petition bearing 66 names was received.

On June 29, 1966, the problem was brought to the attention of the Members of the State Sanitary Authority. The staff report of that date stated that staff activity had included 12 plant surveys and interviews with personnel in responsible charge, that 10 letters had been written to Douglas County Lumber Co. and that 6 replies had been received. It also stated that nothing had been done by the company to achieve compliance with the original wigwam burner regulation.

After considerable discussion, Sanitary Authority action was then to accept the proposal of Mr. M. L. Hallmark, President, Douglas County Lumber Co. to hire a consulting engineering to cause a study to be made and to provide a copy of the engineering report to the Authority. However, Mr. Hallmark stated that he might not necessarily agree with the engineer's findings, but that if he considered them reasonable and economical, he would follow them.

At the next meeting of the Authority on September 13, 1966, Mr. Hallmark reported that he had just that day received the report from the engineers and that he had not had an opportunity to study it.

In subsequent staff surveys it was determined that the engineering firm had provided recommendations only concerning the wigwam burners and that over a considerable period of time a portion of these recommendations were put into practice, utilizing the project to provide "fill-in" work for the plant maintenance personnel.

The staff was advised by Mr. Hallmark that the problem of black smoke emissions from the boiler stack was expected to be corrected by the

installation of a variable speed motor on the fuel conveyor system which had been ordered and was on hand. On subsequent visits it was determined that it had not been installed, and in fact the plant superintendent was completely unaware of such a project.

The staff was at one time informed that the practice of open burning on "Mt. Hallmark", immediately north of the plant, had been ordered terminated; however the practice has since been observed to continue with almost no interruption.

More recently, the emissions from Douglas County Lumber Co. have to some degree been obscured by the even greater emissions from the Winchester Plywood plant immediately next door to the north.

CURRENT STATUS

The sawmill was destroyed by fire in 1968. As a part of its reconstruction, the bark grinder was eliminated so that bark is now delivered to the burner in larger pieces. A steel contractor is reported to have done some work on the south burner, but no appreciable reduction in emissions have been observed as a result.

The boiler plant has been converted to natural gas and is now apparently no longer in violation of smoke discharge regulations.

RECOMMENDATION

It is recommended that a hearing be scheduled at which Douglas County Lumber Co. will be required to show cause why the use of its wigwam waste burners and the practice of open burning should not be terminated.

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION

B. A. McPhillips, Chairman
Herman Meierjurgen, Member
Storrs, Waterman, Member
E. C. Harms, Jr., Member
Geo. A. McMath, Member

FROM : AIR QUALITY CONTROL STAFF

DATE : July 14, 1969 for Meeting of July 25, 1969

SUBJECT: STATUS REPORT, ROUND PRAIRIE LUMBER CO., DILLARD

BACKGROUND

Round Prairie Lumber Co. operates a 90,000 board foot stud mill located approximately 11 miles south of Roseburg alongside the Interstate Freeway. Its wigwam waste burner location was reportedly the subject of considerable controversy at the time the freeway was built, as it occupied an area which normally would have been inundated with fill material. The solution was to enclose the area on one side with a retaining wall with the result that the burner is quite close to the freeway proper with its top at about the same elevation as the southbound portion of the freeway. Its plume is thus very conspicuous to those who travel southward on the Interstate freeway.

As there are few residences nearby, complaints have been entirely from motorists, the most recent coming from a resident of Sonoma, California dated June 24, 1969.

Staff activity dates from March, 1966, at which time a staff survey reported that only the installation of a pyrometer would be needed to satisfy the requirements of the original wigwam burner regulation, but that an underground spring had rendered the underfire air system inoperative by filling the ducts with water. This was subsequently cured by the installation of drains. The company then reported that a hog was to be installed after which use of the burner would be discontinued except as standby.

On April 26, 1966, it was found that a chipper, not a hog, had been installed and that the burner then received all of the bark and some of the sawdust from the operation.

The plume from this wigwam burner has since been consistently heavy (Ringelmann #3 to #4) and recent staff activity has been hampered by absence of the company manager each time the plant was visited.

RECOMMENDATIONS

The staff will continue in its efforts to resolve its problem by cooperative means. As Mr. Ralph Sansted, Manager, Round Prairie Lumber Co., has indicated that he will be present at the July 25 meeting of the Commission, it is requested that the Commission receive his proposal for correcting the problem.

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION

B. A. McPhillips, Chairman
Herman Meierjurgen, Member
Storrs Waterman, Member
E. C. Harms, Jr., Member
Geo. A. McMath, Member

FROM : AIR QUALITY CONTROL STAFF

DATE : July 14, 1969 for July 25, 1969 Meeting

SUBJECT: YONCALLA VENEER COMPANY APPLICATION TO CONSTRUCT AND OPERATE A WIGWAM WASTE BURNER

On June 23, 1969 written request was received from Yoncalla Veneer Company for preliminary approval to construct and operate a wigwam burner at the site of their new plant, now under construction at Yoncalla. This was in accordance with staff recommendations that they first secure approval from the Commission to construct a wigwam burner, per se, before proceeding with the preparation of engineering calculations, drawings and specifications covering the installation for staff review and approval.

We have requested of the company that they undertake a thorough investigation of all alternative means of residue disposal including its sale as hogged fuel and its disposal in a landfill.

The residue to be disposed of will be composed almost entirely of the bark from 40,000 board feet of logs per shift. This would amount to approximately 5100 pounds per hour, or 8 units per shift, of hogged bark.

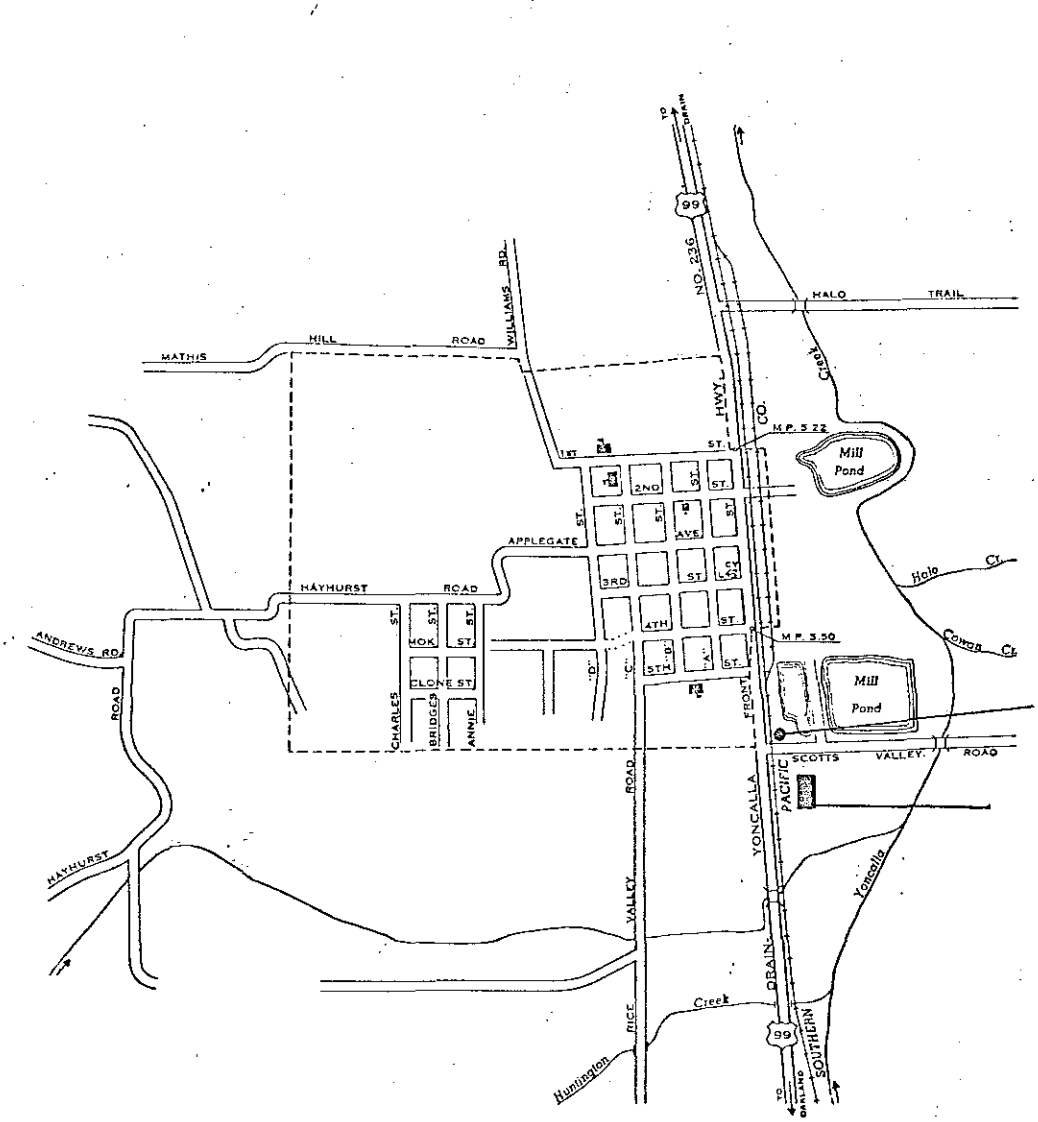
If disposed of in landfill, this material would cover a net area of 1.6 acres per year if piled 6 feet deep. This is a net, minimum area and something more than this would be necessary for the actual operation and if the material were piled less than 6 feet deep, or if divided into cells with earth between and over the material as a precaution against spontaneous combustion.

The company has also been advised that a wigwam burner for this quantity of material should be no larger than 30 feet in diameter. We have not made an accurate assessment of the burner previously existing at the site to determine its adaptability for the above fuel delivery rate.

We have been advised that a representative of Yoncalla Veneer Company will be present at the July 25th Meeting of the Commission to discuss their proposal.

SUMMARY

The company has been requested to present its findings concerning alternative means of residue disposal to the Commission. The staff cannot recommend the approval of a waste burner unless there are no alternative means of disposal available and use and construction of a waste burner is acceptable to the Commission.



SIGNED ROUTES

INTERSTATE

U.S.

ORE.

LEGEND

- Post Office
- School
- R. R. Depot
- Public Bldg.
  - cy – City Hall
  - cr – Court House
  - A – Armory
  - L – Library
- Street open for travel.
- Street dedicated but not open.
- City Limits.

YONCALLA

DOUGLAS COUNTY, OREGON

PREPARED BY THE
OREGON STATE HIGHWAY DEPARTMENT
TRAFFIC ENGINEERING DIVISION
IN COOPERATION WITH THE
U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

Population 670

Scale in Feet

400 0 400 800

February 1963

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION

B. A. McPhillips, Chairman
Herman Meierjurgen, Member
Storrs Waterman, Member
E. C. Harms, Jr., Member
Geo. A. McMath, Member

FROM : AIR QUALITY CONTROL STAFF

DATE : July 15, 1969 for July 25, 1969 Meeting

SUBJECT: MINING MINERALS MANUFACTURING CO.,RIDDLE

This company processes slag from the Hanna Nickel smelting operation by means of drying, crushing, screening and conveying systems. The principal product has been sand blasting grit and more recently granular material for asphalt shingles.

Dust escapement caused severe atmospheric problems and effects on school children as reported by Dr. James K. Gray, Health Office of Douglas County. The staff worked out with the company an emergency operating program pending the end of the school year.

The staff and the company will report on the current status at the July 25, 1969 meeting.

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION

B. A. McPhillips, Chairman
Geo. A. McMath, Member
Storrs Waterman, Member
E. C. Harms, Jr., Member
Herman Meierjurgen, Member

FROM : AIR QUALITY CONTROL STAFF

DATE : July 11, 1969 for July 24, 1969 Meeting

SUBJECT: Application for Certification of Pollution Control Facility for Tax Relief Purposes, No. T-55.

1. Date Received: May 16, 1969

2. Applicant: A. R. Morgans, Financial Vice President
Willamette Industries, inc.
1002 Executive Building
Portland, Oregon

Phone: 227-5585

Facility claimed is located at the company's Sweet Home Division at the East end of Tamarac Street in Sweet Home.

The plant produces lumber, plywood and electrical power.

3. Facility claimed: Additions to the dutch oven boilers to provide automatic control of combustion air consisting of fans and duct work, automatic controllers, and smoke recording instruments. The installation was completed and placed in operation on December 31, 1968.

4. Total installed cost: $16,797.86 (copy of certified public accountants certification attached).

5. Staff Review: Applicant states, "This modification will control the smoke omission to less than #2 Ringelmann for compliance with Mid-Willamette Valley Air Pollution Authority Rules, Article 4-1.2. Previously, there was no control for smoke."

The installation has been surveyed by Allan Mick, Engineer 2, Mid-Willamette Valley Air Pollution Authority, who states that "....their expenditures can be classed as installation of equipment primarily designed for stack omission control".

The expenditure may be divided approximately as follows: (a) one-third for air distribution system duct work, (b) one-third for air tight ash pit and grate cleaning doors, and (c) one-third for automatic control equipment, labor and freight.

Although new water cooled grates were installed at the same time, their cost was not included in the application as this was deemed to be a maintenance item.

Since becoming operational, the system has been surveyed and monitored by personnel of Mid-Willamette Valley Air Pollution Authority who report that the installation is now capable of performing within the limitations of smoke discharge stipulated in their regulations.

6. Conclusion: The principal purpose of the installation is for air pollution control, and it appears to be capable of operation within the limits of smoke discharge stipulated in Oregon Administrative Rules and regulations adopted by the Mid-Willamette Valley Air Pollution Authority.

7. Recommendation: The staff recommends that a pollution control facility certificate reflecting a fair cost of $16,797.86 be issued for application No. T-55 as filed by Willamette Industries, Inc.

Exhibit E

PEAT, MARWICK, MITCHELL & CO.
CERTIFIED PUBLIC ACCOUNTANTS
1010 STANDARD PLAZA
PORTLAND, OREGON 97204

April 28, 1969

Mr. A. R. Morgans, Financial Vice President
Willamette Industries, Inc.
1002 Executive Building
Portland, Oregon 97204

Dear Mr. Morgans:

In connection with your application to the Oregon State Sanitary Authority for certification of pollution control facilities for tax relief purposes, we have examined the costs for the revision to the Sweet Home plant powerhouse to eliminate fly ash and smoke (as detailed in Exhibit D of the application). In making our examination, we have relied upon such detail as being complete itemization of labor and materials devoted to the construction of the facility described, except that costs relating to the purchase and installation of the water cooled grates have been excluded from the application. Our examination consisted of a detailed inspection of vendors' invoices and other documentation of disbursement. We have also traced the costs shown into the plant and equipment accounts of the Company.

In our opinion, the costs for the revision to the Sweet Home plant powerhouse, as detailed in Exhibit D of the application, amounting to $16,797.86, fairly presents the actual costs incurred by Willamette Industries, Inc., in the construction of the facility.

Very truly yours,

PEAT, MARWICK, MITCHELL & CO.

R. M. Alexander

R. M. Alexander, Partner

RMA:OL

EXHIBIT "D"

			Estimated Cost	Actual Cost
Install air duct work on two boiler dutch ovens for proper air distribution to the burning fuel pile.			$4,625.00	4525.00
To do this it also requires:				
4 new airtight ashpit doors	Cost @ 250.00 ea.		1,000.00	
4 new airtight grate cleaning doors	Cost @ 800.00 ea.		3,200.00	5008.00
Automatic controls:				
2 smoke density meters	Cost @ 145.00 ea.	290.00		
2 light source	Cost @ 85.00 ea.	170.00		
2 photo electric receivers	Cost @ 75.00 ea.	150.00		
2 pressure caps	Cost @ 30.00 ea.	60.00		640.00
		670.00		
	Installation labor	410.00		410.00
			1,080.00	
Pressure sender		245.00		271.00
2 EMF to Pressure Transmitter	Cost @ 510.00 ea	1020.00		1020.00
2 Pressure controllers	Cost @ 355.00 ea.	710.00		710.00
2 Pen smoke recorders		307.00		319.00
3way air switches (9)	Cost @ 24.00 ea.	216.00		284.56
5 pressure regulators	Cost @ 9.00 ea.	45.00		45.00
5 3½" pressure control gauges	Cost @ 9.50 ea.	47.50		47.50
8 Pneumatic draft operators	Cost @ 98.00 ea.	784.00		784.00
			3,374.50	
Labor, Preassembled control console, tubing, freight			1,625.50	1,625.50
			$14,905.00	16,797.86

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION

B. A. McPhillips, Chairman
Geo. A. McMath, Member
Storrs Waterman, Member
E. C. Harms, Jr., Member
Herman Meierjurgen, Member

FROM : AIR QUALITY CONTROL STAFF

DATE : July 11, 1969 for July 24, 1969 Meeting

SUBJECT: Application for Certification of Pollution Control Facility for Tax Relief Purposes, No. T-84.

1. Date Received: April 29, 1969

2. Applicant: Deane E. Reimann, Vice-President
Reimann & McKenney, Inc.
3000 N. W. St. Helens Road
Portland, Oregon 97210

Phone: 226-2696

The facility claimed in this application is located at the company's plant at 3000 N. W. St. Helens Road, Portland. The operation conducted at this plant is to repair, recondition and warehouse steel drums for resale.

3. Facility Claimed: A self-contained secondary incineration unit consisting of an after-burner, secondary combustion chamber, forced draft fan, and automatic controls, designed to incinerate all smoke and unburned particles emanating from a primary furnace in which open top drums are burned. Construction of the facility was completed on August 26, and it was placed in operation on August 28, 1968.

4. Total Installed Cost: $28,600 (Public Accountant's certification attached.)

28 599.88

5. Staff Review: The facility claimed for certification as a pollution control facility is a proprietary unit designed to incinerate the smoke and/or other unburned hydrocarbons emanating from a furnace in which used steel drums are subjected to high temperature as a step in their reconditioning.

On November 15, 1968, Columbia-Willamette Air Pollution Authority witnessed a test-firing of the installation, which was conducted in accordance with procedures established by the Regional Authority. A transmittal from CWAPA states, "The results of this test firing were satisfactory and the installation is approved for use by the Columbia-Willamette Air Pollution Authority."

6. Conclusion: The facility appears to have no other purpose than for air pollution control. The Columbia-Willamette Air Pollution Authority has reported the installation as satisfactory and approved for use.

7. Recommendations: The staff recommends that a pollution control facility certificate reflecting a fair cost of $28,600.00 be issued for this application (T-85).

20599.85

WILSON, MEDLAR & TWIETMEYER

CERTIFIED PUBLIC ACCOUNTANTS

JAY R. WILSON, C. P. A.
JACK L. MEDLAR, C. P. A.
EARL H. TWIETMEYER, C. P. A. (1908-1968)
MELVIN T. NYGAARD, C. P. A.
A. R. MILLAR, C. P. A.

G. E. HODGSON, C. P. A.
PAUL T. ALLEN, C. P. A.
G. BURKE MIMS, C. P. A.
CHARLES M. LOWRY, C. P. A.

620 MAYER BUILDING
1130 S. W. MORRISON STREET
PORTLAND, OREGON 97205
AREA CODE 503
224-5545

February 12, 1969

Reimann & McKenney, Inc.
Portland, Oregon

Gentlemen:

We have reviewed the vendors' invoices comprising the purchase and erection costs of the pollution control facility by Reimann & McKenney, Inc. in 1968, and present the following schedule of costs:

National gas fired burnerator Model 120-X	$22,223.00
Railroad freight charges	1,573.20
Delivery and unloading	208.23
Concrete foundation	375.00
Contract work in hooking up after burner	3,773.89
Wiring after burner	446.56
	$28,599.88

To the best of our knowledge, this schedule includes all the costs involved.

Very sincerely yours,

Wilson, Medlar & Twietmeyer

Certified Public Accountants

JLM:bl

EXHIBIT E

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION

B. A. McPhillips, Chairman
Geo. A. McMath, Member
Storrs Waterman, Member
E. C. Harms, Jr., Member
Herman P. Meierjurgen, Member

FROM : AIR QUALITY CONTROL STAFF

DATE : July 14, 1969 for July 24, 1969 Meeting

SUBJECT: Application for Certification of Pollution Control Facility for Tax Relief Purposes, No. T-90

1. Applicant: Pacific Meat Company
N. Columbia Boulevard & Burrage Street
P. O. Box 17036
Portland, Oregon

The applicant owns and operates a slaughterhouse and rendering plant at the above location.

2. The facility in this application consists of hooding, duct work, and a gas-fired incinerator for collecting and destroying odorous gases from the company's rendering operation.

3. The total certified cost of the facility is $13,378.40. An accountants certification of this figure is attached.

4. Staff Review:

This system was installed in response to a Sanitary Authority order of March 1968. Upon being placed in operation (September 1968), it was judged to be in compliance with that part of the order requiring collection and destruction of rendering odors, and jurisdiction was turned over to Columbia-Willamette Air Pollution Authority. A letter was sent to Columbia-Willamette Air Pollution Authority on June 2, 1969 requesting information on whether the system was being operated satisfactorily. Columbia-Willamette Air Pollution Authority replied by letter of June 16, 1969 that operation is satisfactory and that their records show no reason for denying a tax relief certificate. No product or by-product is recovered.

5. Staff Recommendation:

The staff recommends that a "Pollution Control Facility Certificate" bearing the cost figure of $13,378.40 be issued for the facility claimed in Tax Application T-90.

ISLER, COLLING & McADAMS
CERTIFIED PUBLIC ACCOUNTANTS
BOISE CASCADE BUILDING
1600 S. W. FOURTH AVENUE
PORTLAND, OREGON 97201
AREA CODE 503
TELEPHONE 224-5321

PARTNERS
ROBERT F. ISLER
C. RICHARD COLLING
GARY R. McADAMS
GERALD W. SEAGREN
CLIFFORD V. SANDER
D. BRUCE BUTLER

OFFICES:
PORTLAND
KLAMATH FALLS

May 20, 1969

Pacific Meat Company, Inc.
Kenton Station
Portland, Oregon

As requested, we have reviewed the costs of the pollution control facility completed in 1968, and have prepared the following analysis of the total construction costs:

Wasteco	$ 10,766.70
Sutherland Electric Co.	810.37
Northwest Natural Gas Co.	81.49
Fullman Mechanical Contractors	1,719.84
	$ 13,378.40

In our opinion, the aforementioned schedule and also as set forth in Exhibit C in the Application for Certification of Pollution Control Facility is a true and correct representation of the actual cost of the pollution control facility.

Isler, Colling & McAdams

Isler, Colling & McAdams
Certified Public Accountants

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

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

JUN 1 9 1969

16 June 1969

Air Quality Control
Oregon State Sanitary Authority
1400 SW 5th Avenue
Portland, Oregon 97201

Attn: Mr. C.A. Ayer
Associate Engineer

Gentlemen:

This is in response to your letter of 2 June 1969 requesting information concerning certification of a pollution control facility for tax purposes located at Pacific Meat Company, N. Columbia and Burrage Street, Portland, Oregon.

On 13 June 1969, we inspected the gas fired burner and the associated collection ductwork. The control system, and operation is essentially the same as when jurisdiction was received from your authority 27 September 1968. According to our records there is no information indicating that certification should be denied for reasons outlined in ORS 449.635, item (3) for this particular piece of control equipment.

If we can be of any further assistance, please contact this office.

Very truly yours,

R.E. Hatchard
Program Director

Wayne Hanson
Control Director

WH:rms

Marjorie
McCann

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION

B. A. McPhillips, Chairman
Herman Meierjurgen, Member
Storrs Waterman, Member
E. C. Harms, Jr., Member
Geo. A. McMath, Member

FROM : AIR QUALITY CONTROL STAFF

DATE : July 14, 1969 for Meeting of July 24, 1969

SUBJECT: Application for Certification of Pollution Control Facility for Tax Relief Purposes, No. T-76.

1. Date Received: This application was originally received on March 4, 1969, and was amended by the submission of additional information on May 19, 1969 and June 13, 1969.

2. Applicant: Edwin E. Cone, Partner
Cone Lumber Company
Goshen, Oregon Phone: 746-1601

The facility claimed in this application is located at the Cone Lumber Company plant on the West side of Old Highway 99, ½ mile south of Goshen, Oregon. The plant manufactures salable lumber from hemlock logs. The production process includes barking, sawing, planing and drying.

3. Facility Claimed: Two facilities are claimed for certification:

1) Boiler. A new boiler was constructed to replace a boiler already in existence. Both boilers produce steam which is used in the dry kilns.

2) Hog. The hog is a facility which grinds and cuts slabs and refuse into a ground mixture of wood particles.

Construction of the facilities was completed and operation began on July 13, 1968.

4. Total Installed Cost: 1. (boiler) - $107,352.33
2. (hog) - 12,471.55

(Public accountant's certification attached)

5. Staff Review: Prior to installation of the facilities claimed, Cone Lumber Company burned all residues not required as boiler fuel in a wigwam waste burner which was the source of continued complaints. Due to the high moisture content of hemlock, it was necessary to combine dry planer shavings from kiln dried lumber with the wet sawdust to obtain acceptable boiler fuel. The wigwam burner thus received the remaining dry shavings, the remaining sawdust, all trim ends and all bark.

The elimination of the wigwam burner was made possible by the installation of a new and much more sophisticated boiler capable of burning green sawdust only, together with the installation of a hog to convert all coarse

residues and bark to a consistency salable as hogged fuel.

Not included in the application are a bark bin, conveyor, and shavings bin as required to store marketable residues prior to sale.

The old boiler was sold for $17,300 on an "as is, where is" basis. The staff deems this to be an amount deductible from that amount claimed in the application.

Exhibit D (copy attached) presents an evaluation of the economic return from the sale of sawdust, shavings and hogged fuel. This shows a gross profit of $5,000 per year from the sale of sawdust and shavings and no profit from the sale of hogged fuel. The overall net profit, after amortization of the cost of the facilities required to accomplish sale, would appear to rule out justification of the installation on the basis of economic return.

Survey and monitoring of the performance of the new installation by the Lane Regional Air Pollution Authority and by the Sanitary Authority staff have shown the new installation to be performing within Regional authority and Sanitary Authority regulations, and the wigwam burner having been taken out of service. It is also evident that Cone Lumber Company was in a large measure induced to make the investment as a means of phasing out their wigwam burner through the promotional and technical assistance efforts of the Lane Regional Air Pollution Authority.

6. Conclusion: It appears that the principal purpose of the installation was for air pollution control. Surveys indicate that the installation has been successful not only in eliminating the use of the wigwam burner but in substantially eliminating boiler stack emissions.

A summation of the dollar values represented is as follows:

Boiler -	$107,352.33	
Hog -	$ 12,471.55	
	$119,823.88	(Total cost of claimed facility)
Less	17,300.00	(Sale Price of old boiler)
	$102,523.88	(Net cost of installation)

7. Recommendation: The staff recommends that a pollution control facility certificate reflecting a fair cost of $102,523.88 be issued for this application (T-76).

HERZINGER, RAY, PORTER & CO.
CERTIFIED PUBLIC ACCOUNTANTS
401 TENTH AVENUE, EAST
EUGENE, OREGON 97401

BRUCE J. HERZINGER, C.P.A.
LEONARD L. RAY, JR., C.P.A.
GLEN P. PORTER, C.P.A.
KENNETH P. KELLOGG, C.P.A.
WILLIAM M. ADDISON, C.P.A.
RONALD E. BLIND, C.P.A.

MAILING ADDRESS
P. O. BOX 1478
TELEPHONE
(503) 345-1531

May 15, 1969

Mr. Edwin E. Cone
General Manager
Cone Lumber Company
Goshen, Oregon

Re: Cost Boiler and Hog installations at Cone Lumber Company sawmill location

Dear Mr. Cone:

In connection with and during the course of our examinations of the accounts and records of Cone Lumber Company, we have examined evidences of purchases of machinery and equipment and generally reviewed the procedure for capitalizing costs and expense incurred in the construction of the Company's new Boiler and Hog installations.

We are of the opinion that the capitalized costs of the Boiler, $107,352.33, and of the Hog, $12,471.55, are a materially true and correct representation of the actual cost of these facilities.

Yours very truly,

HERZINGER, RAY, PORTER & CO.

By W. M. Addison

WMA:dlb

CONE LUMBER COMPANY

Exhibit D

Description of recovered products and economic valuation.

Boiler - The new boiler allowed dry sawdust and shavings previously consumed in the old boiler to be available for sale.

	YEARLY
Sales of dry sawdust and shavings -	$10,000
Estimated repairs and maintenance	5,000
Profit	$ 5,000
Cost of Boiler	107,352
Cost of Shavings bins	22,528
Cost of new facilities	$129,880

Hog - The hog grinds previously burned products into saleable hog fuel.

	YEARLY
Sales of hog fuel 1,600 Units @50¢/unit	$ 800
Estimated expenses per year -	
Repairs, electricity & labor to maintain	$ 800
Profit	None
Cost of Hog	$12,472

No return on investment until price of hog fuel rises.

Lumber Co. MANUFACTURERS OF WEST COAST HEMLOCK LUMBER

GOSHEN, OREGON 97401 PHONE Area Code 503 746-1601 • Station Phone 746-8152

RECEIVED

JUN 19 1969

[illegible]

[illegible], 1969

Oregon State Sanitary Authority
Division of Oregon State Board of Health
State Office Bldg.
1400 S.W. 5th Ave.
Portland, Oregon 97201

Attention: [illegible]

RE: Tax Relief Application No. T-7[illegible]
([illegible])

In answer to your [illegible] of [illegible] 1969, [illegible] for $17,800.00 [illegible].

If you have any further questions, please feel free to call.

Very truly yours,

[illegible] LUMBER COMPANY

[signature]

[illegible]

July 15, 1969

B. A. McPhillips, Chairman
Environmental Quality Commission
P. O. Box 571
McMinnville, Oregon

Dear Mr. McPhillips:

I feel that it is most desirable to assure that staff efforts are applied within a policy framework consistent with the views of the Commission. This is especially important at this point in time with respect to the wigwam waste burner program as the timber industries are in the midst of a transition period in the utilization of their residues.

Attached is a report which updates the principal factors upon which staff policy regarding wigwam burners has been based. In content, the policy may be briefly outlined as follows:

1. To promote the phase-out of burners wherever feasible.

2. To promote improvements in combustion efficiency as a means of reducing emissions from those burners which cannot be phased out.

3. To accomplish the above goals through cooperative methods at staff level whenever possible, and by enforcement action at Commission level when found necessary due to lack of constructive response.

An interchange of ideas on the subject should prove most helpful to the staff, and it is suggested that it be scheduled for informal discussion at a luncheon meeting in Grants Pass on July 24, as several wigwam burner problems appear on the agenda of the July 25 meeting in Roseburg.

Very truly yours,

Kenneth H. Spies, Director
Department of Environmental Quality

KHS:HMcK:h
cc: EQC Members

REDUCING THE AIR POLLUTION LOAD FROM WIGWAM WASTE BURNERS

THE STAFF PROGRAM AND ITS IMPLEMENTATION

1. INTRODUCTION

The wigwam waste burner is usually considered to be Oregon's single largest source of air pollution. In order to bring about the earliest possible reduction in the air pollution load generated by this combustion source, it is important that the policy of Environmental Quality and the methods applied in its implementation be based on a realistic assessment of current and future trends in the production and sale of mill residues, and of the alternatives available in any given mill situation. The discussion that follows has been developed by the staff as a result of its studies, and its field work on many individual burner problems.

2. RESIDUE PRODUCTION

In a forthcoming report, "Projected Development in the Timber Economy of the Columbia-North Pacific Region", the U. S. Forest Service has projected that for the years 1965 to 2010, residue production from Oregon's timber industries will decline by approximately 45% (Figure 1). This will be due primarily to a reduction in timber cut, which is already in progress.

As may be seen from the graphic presentation, by 1980 the trend will have become somewhat stabilized at a new level of production. Some authorities disagree with this projection on the basis that public demands will force an increased cut from Federal forest lands. The Forest Service states that this has been taken into account.

The Forest Service projections indicate that the reduction in Oregon will be confined almost entirely to the western part of the state. Timber cut and residue production in Eastern Oregon will continue at approximately the present rate.

3. RESIDUE MARKETS

Concurrently with a decrease in residue production, increasing markets for some residues are anticipated. Sawdust and shavings generated in Western Oregon are expected to be used almost entirely in new particleboard capacity and in pulp production within the next three to five years. The pulp chip market, however, is expected to remain essentially as it is now. At present, the price and the demand for pulp chips is governed largely by the Japanese market and this is not expected to increase again until 1972 or 1973.

The bark market is rather insignificant at present, but an increase in its use as boiler fuel can logically be expected as the market and value of clean wood residues increases.

In Eastern Oregon, some increase in particleboard capacity is anticipated within the near future in the LaGrande, Bend and Klamath Falls areas. This will provide an increase in sawdust and shavings utilization for mills within feasible transport distance of these cities. No appreciable new market for chips or bark is in view for Eastern Oregon.

There is much basis for optimism concerning the ultimate phase-out of Western Oregon wigwam burners from a study of the projections. It is generally assumed that the wigwam burner will still be needed for the disposal of bark after markets have developed for all other residues; however, wood waste fired boilers now consume a volume of hogged fuel considerably greater than all of the bark now being generated. It is thus possible to project that as the market and thus the price of clean wood residues increases, bark will become the least expensive and thus eventually the preferred boiler fuel.

Due to an advantage in transportation costs, Western Oregon will gain most in utilization. The impact on burner phase-out, however, will be somewhat offset by the fact that production in Western Oregon is almost 4½ times as great as in Eastern Oregon.

4. LANDFILL

Pending complete utilization, only two alternatives are now available to the mill without a residue market: "Burn it or bury it". In 1968 approximately 2,240,000 units were burned in Oregon's 378 wigwam burners.

The "bury it" alternative would have required a total of 1700 acres per year if the wastes were piled six feet deep. Its transport would have required two trips per day for 290 chip trucks. In total, this would be a rather prodigious operation. Nevertheless, in terms of an average mill with access to a suitable disposal site, the possibility is reduced to more manageable proportions. The possibility of residue disposal by landfill will thus offer a feasible alternative for mills in remote areas, but most of the mills are concentrated in Western Oregon areas of high population density and land value, and consequently fewer available disposal sites. In view of the difficulty in locating a suitable site and the cost of hauling, only an outright prohibition of the wigwam burner would likely induce the average mill owner to investigate landfill as an alternative to burning.

5. INCINERATION

The alternative to landfill is to continue to burn. Here the impact of increasing utilization will be, (a) to decrease the number of burners, and (b) to reduce the quantity of residues burned in the remaining burners.

The effect will be disproportionate. Large industries with their enhanced marketing and financing capabilities will be able to accomplish phase-out rather soon. Small industries, especially sawmills, will feel the economic pinch of higher log costs and will receive no income from the sale of residues for lack of capital for the installation of utilization facilities. Projections indicate that many sawmills will not survive because the pulp industry will be able to outbid them for the diminishing timber harvest.

6. CONCLUSIONS

The phase-out of wigwam waste burners in Western Oregon appears theoretically possible within the next 3 to 5 years. This will occur due to the laws of supply and demand: increased markets for wood residues in the face of a diminishing supply of logs.

It is not within our province or capability to accelerate the market trends at work, but a realistic air quality control program must be planned in recognition of these trends. The goal must be to add impetus to the phase out of those burners nearing phase-out capability, and to reduce the emissions from those burners remaining in operation.

The phase-out of burners nearing such capability can be induced by enforcement pressure. In many individual mill situations, utilization has progressed to the point where the wigwam burner is used only for scavenging miscellaneous unmarketable clean-up materials. Such burners cannot comply with discharge standards. Enforcement of discharge standards can thus be effective in inducing alternative methods of disposal, as in landfill.

In some mill situations, a market is available for the remaining residues, but inertia or alleged lack of capital have deterred installation of the equipment needed to take advantage of the market. Here again, enforcement of discharge standards has proven effective in motivating the investment.

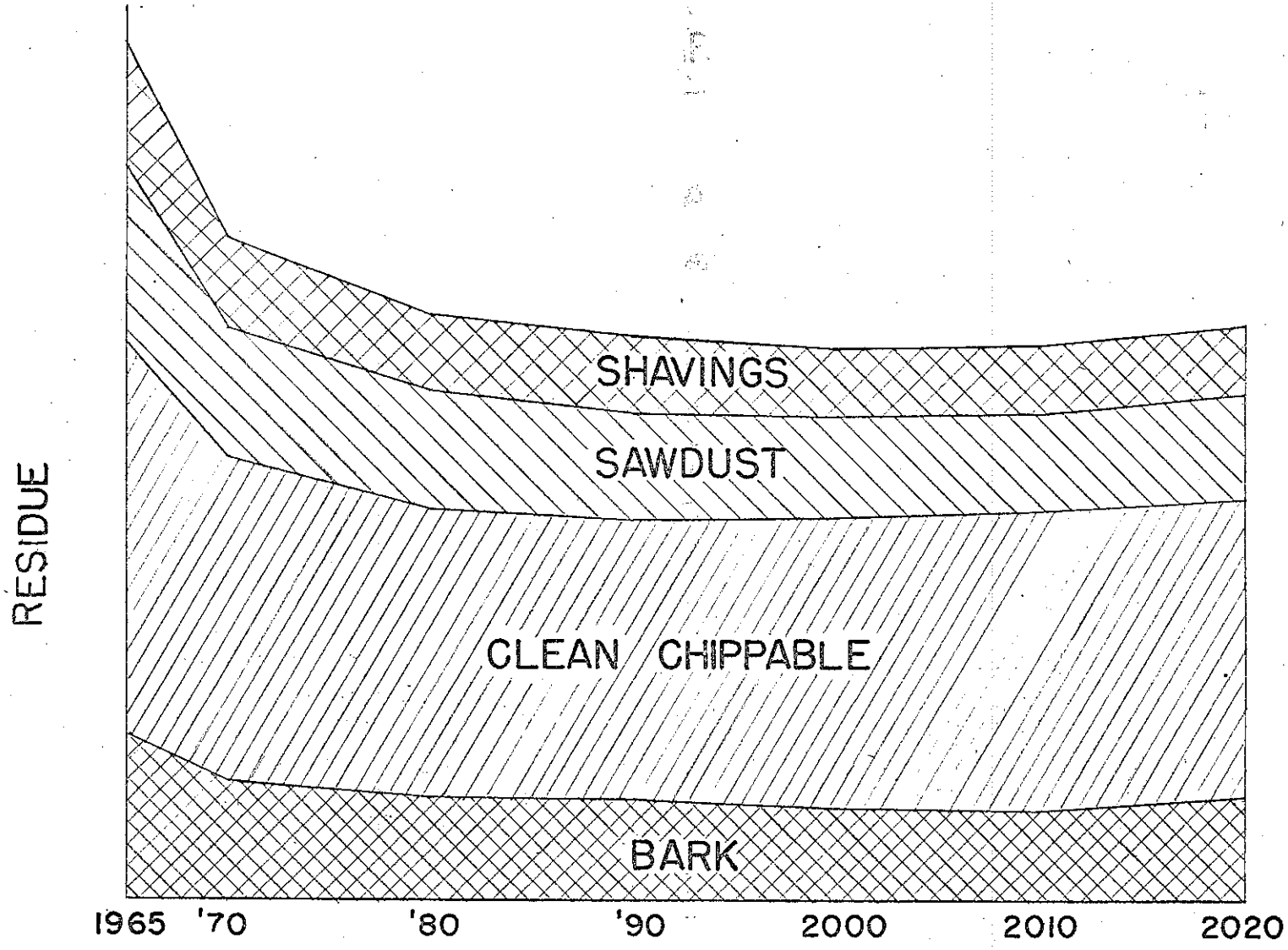
A reduction in the emissions from any combustion source can be accomplished in either of two ways:

1. By improving combustion efficiency.

2. By the installation of contaminant treatment or removal equipment to compensate for inefficient combustion. Such equipment is available, but cost has deterred its use in any known wigwam burner installation in Oregon.

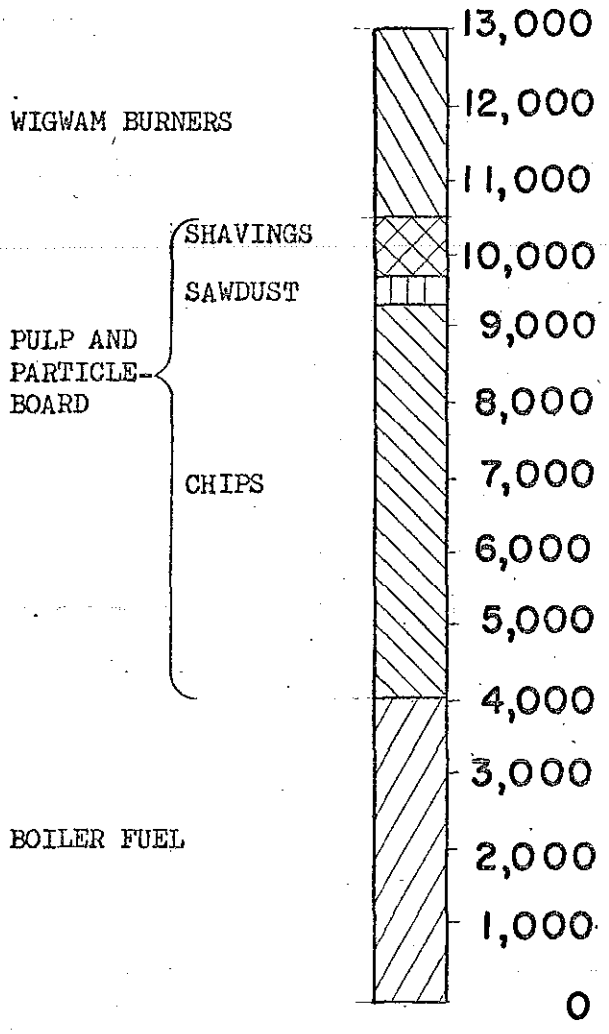
In those instances where burner phase-out is still not feasible, it has been proven in a number of installations that improvements in combustion efficiency will reduce the air pollution load contributed by a wigwam burner to a given airshed. Although not a panacea, correct modification and operation will invariably produce some measure of improvement; the goal in each case should be, "the best attainable".

FUTURE WOOD RESIDUE PRODUCTION IN OREGON



From "A Study of Wood and Bark Residue Disposal in the Forest Products Industries", A Preliminary Report to the 55th Legislative Assembly. Forest Research Laboratory, O.S.U.

Figure 1



DISPOSAL OF WOOD RESIDUES
1967
(THOUSAND DRY TONS)

Figure 2