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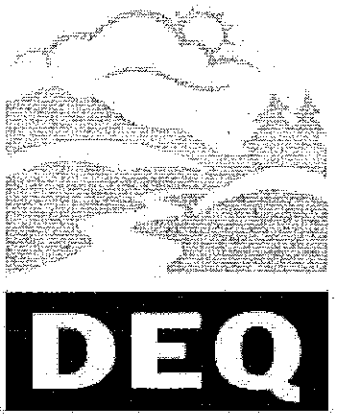
OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS



State of Oregon
Department of Environmental Quality

AGENDA

ENVIRONMENTAL QUALITY COMMISSION MEETING

July 23, 1971

Room 20 State Capitol, Salem, Oregon

9:30 a.m.

A. Comments from the public

B. Minutes of June 4, 1971 meeting

C. Project Plans for June 1971

10:00 a.m.

D. Public hearing regarding sewage disposal for city of Huntington

E. Brooks-Scanlon air quality control

F. Western Kraft, Albany, status report

G. Diamond Fruit and city of Hood River sewage and waste disposal

H. The Dalles Cherry Growers industrial waste disposal

I. Stadelman Fruit Co., The Dalles, industrial waste disposal

J. Petition re: Ford Peterson vs Wallowa County Grain Growers

K. Westport sewerage emergency

2:00 p.m.

L. Public hearing regarding proposed adoption of regulations for sulphite pulp mills

M. Portland Meadows Apartments sewage disposal

N. Reynolds Metals, Troutdale, quarterly status report

O. Robert Dollar Co., Glendale, compliance schedule

P. American Shingle Co., Garibaldi, compliance schedule

Q. Cabax Co., Grants Pass and Kerby - hearings authorization

R. Variances granted by Regions

S. Construction Grants Priorities and State Loans

T. Construction schedules for sewage treatment works

U. Tax Credit Applications

(1)	Cascade Construction Co.	T-221	$88,669.13
(2)	Beltview Dairy	T-199	8,370.96
(3)	Rhodia, Inc. (Chipman)	T-222	311,103.00

V. Gearhart Hotel Properties development proposal

MINUTES OF THE TWENTY-FIFTH MEETING

of the

Oregon Environmental Quality Commission

July 23, 1971

The twenty-fifth regular meeting of the Oregon Environmental Quality Commission was called to order by the Chairman at 9:30 a.m. Friday, July 23, 1971, in Room 20 of the State Capitol, Salem, Oregon. Members present were B.A. McPhillips, Chairman, Arnold M. Cogan, Edward C. Harms, Jr., George A. McMath and Storrs S. Waterman.

Participating staff members were Kenneth H. Spies, Director; E.J. Weathersbee, Deputy Director; Arnold B. Silver, Legal Counsel; Harold M. Patterson, Air Quality Control Division Director; Harold L. Sawyer, J.A. Jensen and Fred M. Bolton, Chief Engineers; James R. Sheetz and C. Kent Ashbaker, District Engineers; Leo L. Baton, Supervising Engineer; F. Glenn Odell, Harold H. Burkitt, C.A. Ayer, T.M. Phillips, F.A. Skirvin and Paul H. Rath, Associate Engineers; and S.C. Gilbert, Assistant Engineer.

PUBLIC POLICY RE: SOLID WASTE MANAGEMENT

The Honorable Tom McCall, Governor, appeared before the Commission. He referred to the fact that William D. Ruckelshaus, Administrator of the Environmental Protection Agency (EPA), had sent him a letter recently commending the state of Oregon for being the first state in the nation to develop a state-wide solid waste management plan. The Governor then reported that on June 25, 1971 he had officially adopted the plan which had been prepared by the Solid Waste Section of the State Board of Health. Next he read and recommended adoption by EQC of the following statement:

PROPOSED STATEMENT OF POLICY

ON SOLID WASTE

July 23, 1971

In accordance with the statutory directives of the legislature as expressed in 1971 House bills 1051, 1185 and 3012, with the approval of the Governor, the Environmental Quality Commission of the State of Oregon has considered the problems concerning the disposal of solid waste, with attention first to the metropolitan areas of the state. In consultation with the Metropolitan Service District comprising Clackamas, Multnomah,

and Washington Counties, and with its concurrence, the commission has adopted a general policy concerning the disposal of solid waste. This policy conforms to the solid waste management plan submitted by the Department of Environmental Quality to the Office of Solid Waste Management of the Environmental Protection Agency, as set out in the Resource Recovery Act of 1970.

In formulating this policy, the commission has found that no method of solid waste disposal currently in use in this state can be continued on a long-term basis and still be consistent with the high value that the people of Oregon place on protecting the public health, cleaning up the air and water, preserving the beauty of the landscape, avoiding waste, and conserving raw materials.

With these considerations in mind the commission, when acting on questions of solid waste disposal, shall place primary emphasis on the salvage, recycling, and reconstitution of solid waste. Incineration of solid waste shall be permitted only where no other method of disposal is feasible. Where burying must be continued, it should be confined only to inert materials for which there is no reuse or other means of disposal.

The costs of any programs adopted pursuant to this policy, in the opinion of the Environmental Quality Commission, should be borne by the revenues gained from the resale of recyclable materials, user charges, special service fees, and garbage disposal fees.

Any system of charges to meet the costs of solid waste disposal should be designed so as to encourage the use of recyclable materials and the separation of waste at the place of business or the household, and to discourage the unnecessary generation of unrecyclable wastes. Charges should be assessed in proportion to the amount of waste generated and the difficulty of disposing of that waste.

Following the reading by the Governor of the above statement it was MOVED by Mr. Harms, seconded by Mr. McMath and carried that the proposed policy statement dated July 23, 1971 concerning solid waste be adopted as the policy of the Environmental Quality Commission.

Mr. Eldon Hout, Chairman of the Metropolitan Service District, was present and stated that he concurs fully the above policy. He thanked the Commission for having adopted it.

Mr. Lloyd Anderson, Public Works Commissioner for the city of Portland, said it is an excellent policy but that its implementation must be realistic and timely. He pointed out that techniques are not yet available for practicable and immediate implementation of such a policy in all cases.

Mr. McPhillips commented that pioneering in environmental matters is nothing new to the people of Oregon because they have been doing it for many years.

Mr. Mel Gordon, Multnomah County Commissioner, was unable to attend the meeting but submitted the following written statement: "While I support efforts to improve the ecology of our state and nation, I believe the public and the legislature should be heard before any official policy of this nature is formally adopted. As I interpret the joint policy statement, there is a potential for great fiscal impact on the public which I believe the public is unaware of. I would therefore recommend full public disclosure followed by a public hearing."

COMMENTS FROM THE PUBLIC

The Chairman then asked if anyone present wished to make any comments or submit a statement regarding subjects not listed on the agenda but relating to environmental matters. No one had any comments or statement.

MINUTES OF THE PREVIOUS MEETING

It was MOVED by Mr. McMath, seconded by Mr. Waterman and carried that the minutes of the twenty-fourth meeting of the Commission held on June 4, 1971 be approved as prepared.

PROJECT PLANS FOR JUNE 1971

It was MOVED by Mr. McMath, seconded by Mr. Waterman and carried that the actions taken by the staff during the month of June 1971 regarding the following 67 municipal sewerage, 1 industrial waste and 11 air quality control projects be approved:

Water Pollution Control

Date	Location	Project	Action
Municipal Projects (67)			
6-1-71	Florence	Sewage treatment plant modifications	Prov. app.
6-1-71	Corvallis	Sewer system study	Approved
6-1-71	Linn County	ARCO complex	Prov. app.
6-2-71	Lake Oswego	Pump station & interceptor	Prov. app.
6-2-71	East Salem S & D	College Park Estates	Prov. app.
6-3-71	Hillsboro	Tualatin Valley Hwy. ext.	Prov. app.
6-3-71	USA (Aloha)	Lenny Park	Prov. app.

Municipal Projects (67)

Date	Location	Project	Action
6-3-71	USA	Westward Park	Prov. app.
6-3-71	USA	S.W. 114th Place	Prov. app.
6-3-71	Portland	Harbor Patrol Base pump sta.	Prov. app.
6-4-71	Black Butte Ranch	Pump station #2 through #7	Prov. app.
6-7-71	Port of Portland	Sewage treatment plant on dredge "Oregon"	Prov. app.
6-7-71	Port Orford	Pump station & sewer line	Prov. app.
6-7-71	Clatsop County	Phillips-Drucker sewage treatment plant	Prov. app.
6-7-71	Carlton	Storm water separation study	Concurrence
6-7-71	USA	King City expansion	Comments sub.
6-8-71	Coos Bay	Sewage treatment plant study	Approved
6-8-71	Coos-Curry County	1980 sewerage plan	Approved
6-9-71	Multnomah County	Service District No. 4 Sylvan Heights	Prov. app.
6-9-71	Oak Lodge SD #1	Sterling Park	Prov. app.
6-9-71	East Salem S & D #1	Four (4) sewer projects	Prov. app.
6-9-71	Douglas County (USFS)	Preliminary report for Tiller Ranger Station	Prov. app.
6-10-71	Salem	Willamette Apts. extension	Prov. app.
6-10-71	USA	Four Seasons No. 8	Prov. app.
6-10-71	East Salem S & D	Greentree Subdivision	Prov. app.
6-10-71	East Salem S & D	Surfwood Villa Subdivision	Prov. app.
6-11-71	ARCO	Chlorination revisions	Approved
6-11-71	Riverview Heights	Sewer extension	Prov. app.
6-11-71	Dundee	Canyon Drive	Prov. app.
6-11-71	Lake Oswego	Wheatherstone Subdivision	Prov. app.
6-11-71	Yamhill	Hawswirths Subdivision	Prov. app.
6-14-71	Portland	Addendum No. 1 (STP)	Approved
6-15-71	USA	Fanno Creek Interceptor (rev.)	Prov. app.
6-15-71	Weston	Chlorine contact chamber	Prov. app.
6-16-71	Diamond Hill	Sanitary sewer extension	Prov. app.
6-16-71	USA	Change Order #1 Beaverton-Rock Creek interceptor	Approved
6-16-71	St. Helens	Change Order No. G-3 (Sec.)	Approved
6-16-71	Cannon Beach	Change Order No. 2	Approved
6-16-71	St. Helens	Change Order No. 5 & 6 (Pri.)	Approved
6-16-71	North Powder	Change Order #4 and 5	Approved
6-16-71	Ontario	Change Orders #1, 2, 3 & 4	Approved
6-16-71	Albany	Plans for "T" top manholes	Prov. app.
6-17-71	Gresham	N.E. 192nd Avenue extension	Prov. app.
6-17-71	Oak Lodge SD	Extension off Laurie Avenue	Prov. app.
6-17-71	Molalla	Sewers and pump station	Prov. app.
6-17-71	North Bend	Addendum No. 1 and Change Order No. 1, 2 and 3	Approved
6-17-71	Lake Oswego	Addendum Nos. 1 and 2	Approved
6-18-71	Gardiner San. D.	Sewage collection system and pump station	Prov. app.

Municipal Projects (67) continued

Date	Location	Project	Action
6-18-71	Clackamas County Service Dist. #1	Louise Ann Subdivision	Prov. app.
6-21-71	USA	Five sewer extension projects	Prov. app.
6-22-71	Heppner	Rassmusen & Lott subd.	Prov. app.
6-22-71	Dundee	Canyon Court revisions	Approved
6-22-71	Lebanon	Seven extension projects	Prov. app.
6-22-71	Gresham	Newell Park Subd.	Prov. app.
6-22-71	Gresham	N.E. Kane Dr.-N.E. 23rd St. and Kane Rd. Lateral #4	Prov. app.
6-22-71	Hillsboro	Rock Creek sewage treat. plant	Comm. sub.
6-23-71	Cottage Grove	Weyerhaeuser interceptor	Prov. app.
6-23-71	Moro	Change Orders #1-4	Approved
6-28-71	Corvallis	Goodnight Lane extension	Prov. app.
6-28-71	Jefferson	Grice Subdivision	Prov. app.
6-28-71	Bear Creek Valley Sanitary Authority	Coral Garden Subdivision	Prov. app.
6-29-71	Corvallis	Sewage treatment report	Prov. app.
6-29-71	Salem	Corki Acres and Liberty Gardens No. 5	Prov. app.
6-30-71	West Linn	Farview Subdivision	Prov. app.
6-30-71	Lake Oswego	Condo-Lea Phase II	Prov. app.
6-30-71	Medford	Alcan Drive sewers	Prov. app.
6-30-71	Newberg	Sewer extension (Hwy. 99-Hulet Lane)	Prov. app.

Industrial Waste Projects (1)

*7-8-71	Gladstone	Bigger-N-Better Poultry pretreatment facility	Approved

Air Quality Control

Date	Location	Project	Action
6-7-71	Morrow County	Heppner Lumber Co. Proposal to phase out WWWB	Approved
6-7-71	Deschutes County	Rapp Small Animal Clinic, Bend. Request to install new pathological animal incinerator	Add. inf. req.
6-8-71	Klamath County	Klamath Lumber Company, Chiloquin. Proposal to phase out WWWB	Approved
6-15-71	Jackson County	Cheney Forest Products, Central Point. Plans and specifications to modify WWWB	Cond. app.
6-16-71	Coos County	Bohemia Lumber Co., Elkside. Request for time extension to October 1, 1971, for WWWB phase out	Approved

* Inadvertently included in the June project plans.

Air Quality Control - continued

Date	Location	Project	Action
6-17-71	Hood River County	Gorge Lumber Co., Cascade Locks. Proposal to phase out WWWB	Approved
6-18-71	Josephine County	Brown Bros. Lumber Co., Grants Pass. Plans and specifications to modify WWWB	Add. inf. req.
6-18-71	Malheur County	Ore-Ida Foods, Inc., Ontario. Plans and specifications to construct controlled atmosphere incinerator manufactured by Wasteco, Inc.	Add. inf. req.
6-26-71	Douglas County	Mining-Minerals Mfg. Company, Riddle. Plans and schedules for attaining compliance with current emission regulations	Cond. app.
6-30-71	Douglas County	Hub Lumber Company, Roseburg. Plans and specifications for modification to WWWB	Add. inf. req.
6-30-71	Jackson County	Fir Ply, Inc., White City Plans and specifications for modification to WWWB	Add. inf. req.

PUBLIC HEARING RE: CITY OF HUNTINGTON SEWAGE DISPOSAL

Proper notice having been given as required by statute and administrative rules, the public hearing in the matter of the sewerage system and sewage treatment works owned and operated by the city of Huntington was called to order at 10:00 a.m. by the Chairman with all members of the Commission being present.

Mr. James R. Sheetz, District Engineer, was sworn in by Mr. Silver as witness for the Commission. He recounted the Department staff's many but unsuccessful attempts to get the city to install the required chlorination facilities.

Two exhibits were introduced consisting of photocopies of two letters dated September 25, 1969 and October 13, 1970 received by the Department from Ronald M. Blakley, consulting engineer for the city, and two waste discharge permits, Nos. 622 and 862, issued by the Department to the city.

Mr. Sheetz read the compliance schedules contained in the two waste discharge permits and testified that the city had thus far failed to comply with them. He described the chlorination requirements that must be met by the city in order to protect the quality of the water in the receiving stream which is the Burnt River, a tributary of the Snake River.

Mr. Ronald M. Blakley, consulting engineer, then testified for the city. He reported that engineering plans for the chlorination facilities had been completed by his office since the June meeting of the Commission and that as a consequence the project will be ready for bids as soon as funds become available. He stated further that the city is hoping that it can get some financial assistance from the Farmers Home Administration (FHA). He mentioned the water supply needs of the city and said the Council still wants to combine the two projects so as to reduce financing costs. He estimated that the construction costs would be $15,163 for the sewage chlorination project and $284,391 for the water supply project. He said this constitutes a serious financial problem for the city which has a population of only slightly more than 600 and a low assessed valuation.

In response to questions by the Chairman, Mr. Blakley said the bond election referred to in his letter of October 13, 1970 had never been held because the water supply project plans had not been completed, and that the present schedule for construction of the chlorination project is dependent upon the receipt of a grant from FHA.

In reply to a question by Mr. McMath he said that no bond election has yet been scheduled. He claimed that the city still owes some $31,000 on the original sewage treatment plant bond issue.

Mayor E.L. Stevenson was also present to represent the city. He stated that the total tax revenue of the city is only about $18,000 per year and that the tax rate is the highest in Baker County. He commented about the water supply needs of the city pointing out that for about two and one-half weeks this last spring they were without water. He said that well supplies have all failed and that now they get their water from the Burnt River. He stated further that the present sewer user charge is $2.50 per connection per month, that there are about 100 connections and that the revenue from this charge provides no surplus for additional construction.

It was pointed out by Mr. Harms that an increase of $1.00 per month in the sewer user charge would finance the required chlorination project.

It was then MOVED by Mr. Harms, seconded by Mr. McMath and carried that the city of Huntington be ordered to construct and provide disinfection

facilities to insure that the effluent treated by the city's sewage treatment works receives disinfection equivalent to that obtained with a chlorine residual of 1.0 mg/liter after 60 minutes contact time at the average design flow prior to its being discharged to the Burnt River. In making this motion Mr. Harms suggested that the city apply to DEQ for a state loan and grant and that the Department work with the city in the development of specific sewer user charges that will produce sufficient revenue for repayment of the loan.

TAX CREDIT APPLICATIONS

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

(1) It was MOVED by Mr. Waterman, seconded by Mr. Harms and carried that a pollution control facility tax credit certificate bearing the cost figure of $88,669.13 be issued to the Cascade Construction Company for the facility claimed in Tax Credit Application No. T-221.

Mr. Cogan questioned the advisability of issuing this tax credit certificate in view of the fact that additional facilities remain to be installed in order to meet air quality standards. Therefore, he voted "no".

(2) It was MOVED by Mr. Harms, seconded by Mr. McMath and carried that a pollution control facility tax credit certificate be issued to Harley S. Belt for the facility claimed in Tax Credit Application No. T-199, such certificate to show an actual cost of $8,370.96 with 80% or more allocated to pollution control.

(3) It was MOVED by Mr. Waterman, seconded by Mr. Cogan and carried that pursuant to the 1967 Act a pollution control facility tax credit certificate bearing the actual cost of $311,103.00 be issued to Rhodia, Inc. (Chipman Division) for the facility claimed in Tax Credit Application No. T-222.

BROOKS SCANLON AIR QUALITY CONTROL

At the EQC meeting on June 4, 1971 it was requested of Brooks-Scanlon officials that they submit at the July meeting comments relative to the economic impact resulting from reducing mill operation as an alternative

solution to the air pollution problem. By letter dated June 29, 1971, Mr. M.P. Hollern, President, had reported that to solve the pollution problem they would have to reduce lumber production by one-third to one-half and would have to lay off 150 to 200 employees. He said there is serious doubt that such operation would remain economically viable. It would also cause disruption of employment among the company's contractors, suppliers and customers.

Mr. Hollern was at the meeting to represent the company.

It was MOVED by Mr. Harms, seconded by Mr. McPhillips and carried that the report be filed as submitted.

ROBERT DOLLAR CO., GLENDALE, COMPLIANCE SCHEDULE

Mr. T.M. Phillips presented the staff report pertaining to the wigwam burner phase-out program proposed by the Robert Dollar Company of Glendale, Oregon. The proposal includes the creation of a new industry - the production and packaging of decorative (large chunk) bark. It also calls for phasing the wigwam burner out of operation by January 1, 1972 but with some use during the fall of 1972, depending upon market conditions.

Mr. Tom H. Mehl, III, Assistant Manager, was present to represent the company.

It was MOVED by Mr. Harms, seconded by Mr. Cogan and carried that the staff recommendations be approved and adopted.

A copy of the staff memorandum report dated July 15, 1971 has been made a part of the Department's permanent files in this matter.

WESTERN KRAFT, ALBANY, PROGRESS REPORT

Mr. Ayer presented the following report pertaining to the status of the Western Kraft Pulp Mill at Albany:

"The Western Kraft pulp mill at Albany for a number of years has been a source of complaint and concern for the Commission and a number of citizens of the state.

In letters dated March through April, 1969, Mr. C.R. Duffie, Vice President, outlined a company proposal for expansion of pulp production and for effecting a substantial reduction in atmospheric emissions at the Albany

plant. After a detailed review of the project and long discussions, the Sanitary Authority at the April 25, 1969, meeting approved the expansion and control program with a number of limitations.

While the project is not totally complete and still is to be considered in start-up stages, a number of citizens have expressed words of commendation from their observations and it is appropriate that the staff advise you of the status.

Western Kraft has completed installation of a new recovery furnace and electrostatic precipitator. The furnace, control equipment and procedures, while still in start-up, have given indications that when the installation is functioning with no malfunction, significant reductions in odor and particulate will result.

The public has commented on improved performance and reduced odors experienced at times in the past month or so."

DIAMOND FRUIT AND CITY OF HOOD RIVER SEWAGE AND WASTE DISPOSAL

Mr. Rath presented the staff's memorandum report dated July 20, 1971 regarding the matter of waste treatment and disposal for the Diamond Fruit Company plant located at Hood River. A copy of the report has been made a part of the Department's permanent files in this matter. He said that in May 1971 it had been decided by the company and the city of Hood River to build joint sewage and waste disposal facilities which according to the city's waste discharge permit are to be completed by July 1, 1972.

Mr. D.J. Branton, City Engineer, discussed the problem of financing the project which is estimated to cost $1,687,000. He stated they have applied to EDA for a federal grant and they hope to hear shortly from that agency.

Mr. R.B. Leavens was present to represent the company. He stated that they had started in 1969 to make a study of their waste treatment needs. He claimed they have been operating at a loss for the last 5 years. In 1969 they had a big crop but the quality was poor. In 1970 they suffered extensive frost damage. He said it will cost them $5 per ton for waste disposal at Hood River compared to only $1 per ton at Vancouver and that the cost of waste disposal will be twice the cost of irrigation.

In response to a question Mr. Rath said the final design for the joint treatment works had not yet been started.

During the noon recess Mr. Rath conferred with the city and company officials including Mayor William Pattison and Councilman Dr. Robert Wymore and immediately after the meeting had been reconvened Mr. Branton submitted the following proposal:

"(1) The City will immediately tender to Diamond Fruit a conditional agreement based upon an 85% grant offer. Mr. Leavens indicates that he feels he can obtain the approval of his board to execute such an agreement.

(2) The City will proceed to push with EDA to get a commitment from them and upon receiving a commitment from EDA, and Diamond Fruit's ratification of the agreement, the city will immediately initiate a bond sale based on only the EDA moneys, but with reference to the possibility of state DEQ participation. In other words, if we can obtain a 60% grant from EDA, we will hold a bond sale for the remaining 40%. We would hope that the state can see its way clear to assist us in the intervening time.

(3) The City will also at this time authorize final plans and specifications preparation with a specified completion date not to exceed 150 calendar days. We feel this is about the minimum time we can reasonably expect to get plans completed on a project of this size. We will further specify that upon completion of the plans that they will be immediately submitted to EDA and DEQ for their review and approval."

Mr. Branton explained that the 150 days for completion of the plans would be from the time the city receives the EDA commitment and the company ratifies the agreement. He said a meeting with EDA would be held early in August. He estimated that if everything goes as expected it should be possible for them to complete the construction of the joint treatment works and to have them in operation by December 1972.

It was MOVED by Mr. Harms, seconded by Mr. Cogan and Mr. Waterman and carried that the staff draft a proposed time schedule based on the above proposal and present it to the EQC members at the August meeting.

THE DALLES CHERRY GROWERS AND STADELMAN FRUIT COMPANY

Mr. Ashbaker presented staff reports dated July 23, 1971 regarding the matter of waste treatment and disposal for the two processing plants located at The Dalles and owned and operated by The Dalles Cherry Growers and Stadelman Fruit, Inc., respectively. Both plants according to their present waste discharge permits are supposed to have secondary treatment in operation by September 1, 1971 but neither one has yet started construction or even completed preparation of plans.

Mr. Don V. Agidius, Manager, was present to represent The Dalles Cherry Growers. He said they want to do what is right and necessary but it is a matter of time, cost and availability of land. He said they are trying to acquire some 4-1/2 to 5 acres from the UPRR for installation of their own treatment ponds.

Mr. James C. Goff, Plant Manager for Stadelman Fruit Company, said they had hoped to connect to the city sewerage system. He discussed financial difficulties of the company and stated that they had requested a parcel of land from the city for pretreatment facilities. He thought they could develop a time schedule within 30 days.

It was MOVED by Mr. Cogan, seconded by Mr. Waterman and carried that renewal permits not be granted to either The Dalles Cherry Growers or to Stadelman Fruit Company and that at the next meeting of the Commission the staff submit a firm time schedule of compliance which will result in secondary treatment or equivalent facilities being installed by July 1, 1972.

Mr. McMath abstained from voting because of a conflict in interest. Mr. Harms who had been out of the room briefly voted "aye".

The meeting was recessed at 12:10 p.m. and reconvened at 1:40 p.m.

PETITION RE: FORD PETERSON vs WALLOWA COUNTY GRAIN GROWERS

A petition dated June 24, 1971 and prepared by Charles J. Merten had been received asking that DEQ take certain actions to abate and prevent alleged pollution caused by the Wallowa Grain Growers Corporation operations at Enterprise, Oregon. The petition was submitted in behalf of Mr. and Mrs. Ford Peterson, P.O. Box 459, Enterprise, Oregon.

Mr. Sheetz, who had made an inspection of the area on July 20, 1971, presented a report of his findings dated July 23, 1971, a copy of which has been made a part of the Department's permanent files in this matter. He reported that little or no pollution was observed at the time of the survey.

Mr. Charles Merten was present and contended further that the DEQ and EQC should take legal action against the corporation.

Mr. Harms stated that this appears to be a matter of private rather than public interest and although it meets the test of the statute which defines the waters of the state he said he thinks DEQ and EQC should not become involved in matters of this kind because of limited staff. He said we have plenty to do to protect the public interest and since this is essentially a civil matter the Peterson's rights can be protected adequately at law.

It was then MOVED by Mr. Harms, seconded by Mr. Waterman and carried that EQC assume no jurisdiction in this matter.

WESTPORT SEWERAGE EMERGENCY

Mr. S.C. Gilbert presented a staff report dated July 16, 1971 regarding the sewage disposal problems in the Westport area of Clatsop County. A copy of said report has been made a part of the Department's permanent files in this matter. It contains the recommendation that under the provisions of ORS 451.430(c) the EQC certify to the Clatsop County Court that current sewage disposal practices in the Westport area require immediate action by the court to protect the public health, safety and general welfare of the community and that an "emergency" exists in the Westport area due to the inadequate sewage disposal.

It was MOVED by Mr. Harms, seconded by Mr. Waterman and Mr. McMath and carried that the staff recommendation be adopted and an emergency be declared to exist in the Westport area.

PUBLIC HEARING RE: SULFITE PULP MILL REGULATIONS

Proper notice having been given as required by statute and administrative rules, the public hearing in the matter regarding the proposed adoption of regulations for sulfite pulp mills was called to order by the Chairman at 2:05 p.m. on July 23, 1971, in Room 20, State Capitol, Salem, Oregon. All members of the Commission were present.

Mr. F.G. Odell presented a staff memorandum report dated July 22, 1971, covering the levels of sulfur dioxide at the Marion County Court House sampling station as measured by the Mid-Willamette Valley Air Pollution Authority during an 8-month period ending June 30, 1971. The report stated that national ambient air standards for SO_2 as promulgated by EPA were not exceeded at the station located 20 feet above ground level and some 500 yards from the Boise Cascade sulfite pulp mill.

Mr. C.A. Ayer reviewed comments from CWAPA regarding the proposed regulations as set forth in the DEQ staff memorandum dated July 16, 1971. He mentioned that both the Boise Cascade pulp mill at Salem and the Publishers Paper Company pulp mill at Oregon City are located in problem areas, that federal agency representatives had indicated their acceptance of the proposed regulations, and that 22 lbs/ton of pulp produced is thought to be about the best that can be accomplished with present technology.

Mr. James W. Tindall, Councilman, was present and read a resolution adopted by the Salem City Council on July 12, 1971 to the effect that DEQ be encouraged to establish regulations on emissions from sulfite mills that will employ the highest and best technology in the proper treatment of sulfite emissions and that it is the continuing desire of the City Council to improve the livability of this community through improved handling of sulfite emissions. He said the City Council over the years had received numerous complaints and petitions regarding the SO_2 emission from the Boise Cascade pulp mill.

Mr. Jim Fahlstrom, Resident Manager for the Boise Cascade Sulfite Pulp Mill in Salem, read a prepared statement for that company. He said they would do everything possible to meet the proposed standards, if adopted, but he could not predict with absolute certainty that they could meet the 22 lbs/ton standard. He recommended that the standard be raised to 30 lbs. of SO_2 per ton of pulp produced.

Mr. Richard M. Taylor, representative of the Oregon TB and Respiratory Disease Association, stated he thinks the regulations are reasonable and attainable. He recommended their adoption. He also read a letter dated

July 23, 1971 signed by Elizabeth Wieting, Chairman of the Oregon/Washington Coalition for Clean Air, protesting that more citizen participation had not been invited in the drafting of the proposed regulations. In a letter dated July 22, 1971 addressed to Mr. Spies she had stated that the Technical Committee of the Coalition had reviewed the proposed regulations and had found them to be reasonable and attainable and therefore she stated that they had the full support of the Coalition.

Mr. Donald J. Benson, Executive Secretary of the Northwest Pulp and Paper Association, read a prepared statement for that organization. He said that the 22 lbs. limit might not be achievable and, like Mr. Fahlstrom, he recommended a standard of 30 lbs/ton. He pointed out that the SO_2 problem at sulfite pulp mills had been greatly increased by the fact that the mills now had to employ chemical recovery in order to meet water quality requirements.

Mrs. Mabel Shiffer, Executive Director of the Willamette TB and Respiratory Disease Association, presented a prepared statement in which she emphasized the necessity of providing a margin of safety in the setting of SO_2 emission standards. She asked that the Commission require the highest and best treatment to the control of emissions from sulfite pulp mills.

Mr. Fred Wert, a Willamette University student, claimed he had made a study of the Boise Cascade mill at Salem and was convinced that it is technically and economically feasible to meet emission standards much stricter than those proposed by DEQ. He promised to submit evidence that would support his contention.

Mr. David Vargas, Professional Engineer and resident of Salem, asked that EQC adopt the most stringent regulations possible. He claimed that many people are affected by irritating gases. He said he wants faster and more complete control over such sources of air pollution.

It was MOVED by Mr. Cogan, seconded by Mr. McMath and carried that the record of this hearing be kept open for a month and that final action by the Commission be scheduled for the September 1971 meeting.

It was MOVED by Mr. McMath, seconded by Mr. Harms and carried that in section B(1) of the proposed regulations the words "best practicable and reasonable" be replaced with the words "highest and best practicable."

Copies of (1) the proposed regulations dated April 30, 1971, (2) the staff memorandum pertaining to them dated May 3, 1971, (3) the 38-page background report prepared by the staff, (4) the July 22, 1971 staff memorandum pertaining to SO_2 levels measured in Salem, (5) a letter dated July 16, 1971 from Publishers Paper Company, (6) the July 16, 1971 staff memorandum regarding comments by CWAPA, (7) a letter dated July 17, 1971 from the Mid-Willamette Valley Air Pollution Authority, (8) Resolution No. 71-200 adopted by the Salem City Council on July 12, 1971, (9) statement by Jim Fahlstrom of Boise Cascade, (10) letters dated July 22 and July 23, 1971 from Elizabeth Wieting for the Oregon/Washington Coalition of Clean Air, (11) statement by Donald J. Benson for the Northwest Pulp and Paper Assn., (12) statement by Mabel Shiffer and (13) letter dated July 5, 1971 from Mrs. Deane Scarborough with signatures of 63 persons objecting to the SO_2 emissions at Salem have been made a part of the Department's permanent files in this matter.

PORTLAND MEADOWS APARTMENTS SEWAGE DISPOSAL

Mr. Fred Bolton presented a staff report dated July 21, 1971 and prepared by Robert E. Gilbert regarding the proposal to discharge treated sewage effluent into the public waters of Columbia Slough from the existing Portland Meadows Apartments and Northgate Motel owned by Mr. and Mrs. Leonard Richardson. He recommended that the Commission approve the installation of an interim sewage treatment plant with discharge to Columbia Slough to serve only until an area-wide sewerage system is available, that the interim plant serve only the existing apartments and motel units, and that the completion of the 30 roughed-in apartments and proposed expansion of an additional 40-unit motel be delayed until an area-wide sewerage system is available.

It was MOVED by Mr. Cogan, seconded by Mr. Waterman and carried that the staff recommendations be approved and adopted.

REYNOLDS METALS COMPANY, TROUTDALE

Mr. F.A. Skirvin reviewed the staff memorandum dated July 16, 1971 pertaining to the June 1971 quarterly report submitted by the Reynolds Metals Company outlining the progress being made in the installation of atmospheric emission controls at the Troutdale aluminum plant. Mr. Skirvin stated that the staff had concluded that the progress report is acceptable. No action by the Commission was therefore required.

AMERICAN SHINGLE COMPANY, GARIBALDI

Mr. H.H. Burkitt presented the staff report regarding the requested extension in the compliance schedule pertaining to the phase-out of the burning operations at the American Shingle Company mill in Garibaldi.

Mr. Russel Curnutt, President, was present to represent the company.

Mr. and Mrs. David Vanarsdall, residents of Garibaldi, testified at length that the smoke from the burning operations was extremely irritating to Mrs. Vanarsdall and that the alleged air pollution was most injurious to her health.

It was MOVED by Mr. McMath, seconded by Mr. Waterman and carried that the recommendations contained in the staff report of July 16, 1971 be approved but that a public hearing before a hearings officer be scheduled for the week following the August meeting of the Commission or as soon thereafter as a hearings officer and room can be obtained.

CABAX COMPANY, GRANTS PASS AND KERBY

Mr. Ted Phillips read the staff report dated July 16, 1971 covering the present status of the plans of the Cabax Company to solve the air pollution problems associated with the company's two mills located near Kerby and Grants Pass. Because the company had failed to make satisfactory progress in this matter he recommended that public hearings be held.

Mr. Ed Butler, Attorney from Eugene, was present to represent the company. He claimed the company had tried without success to use the bark for production of prestologs and briquets. He said they now plan to install a new and approved wigwam waste wood burner at Kerby at a cost of about $70,000 and to modify the existing burner at Grants Pass. He asked for a 6-month extension of time.

It was MOVED by Mr. Harms, seconded by Mr. Cogan and carried that the staff recommendation be adopted and that a hearing be set before a hearings officer for the week following the August meeting of the Commission or as soon thereafter as a hearings officer and room can be obtained. Mr. Harms commented that if in the meantime satisfactory plans are submitted by the company the hearing can be adjourned.

VARIANCES GRANTED BY REGIONS

The eight (8) variances granted by the regions were discussed briefly by Mr. Odell. Information regarding them had previously been presented in the staff memo dated July 16, 1971. Mr. Odell recommended that all 8 variances be accepted and filed.

It was MOVED by Mr. Waterman, seconded by Mr. McMath and carried that the 8 variances listed in Table I of the July 15, 1971 staff memorandum be accepted and filed.

CONSTRUCTION GRANTS PRIORITIES AND STATE LOANS

Mr. Baton presented a list of 69 applications attached to the staff memorandum of July 14, 1971 for federal and state grants for assistance in financing construction of sewage treatment works during the 1971-1972 fiscal year. Total estimated cost of the 69 projects is $95,164,769 and of this amount some $81,177,115 is considered eligible for grants. If Congress appropriates sufficient funds (it may be between 2 and 3 billion dollars compared to 1 billion in FY '71) all applicants could receive 50% federal (55% in some cases) and 25% state grants but it will probably be late this calendar year before Congress gets around to approving the appropriation bill. In the meantime the applicants will receive at least a 30% state or federal grant.

It was MOVED by Mr. Harms, seconded by Mr. McMath and carried that the construction grant priority list as presented by the staff be adopted.

It was MOVED by Mr. Harms, seconded by Mr. McMath and carried that, except for purchase of bonds which will be considered on an individual basis, it be the policy of the Commission to limit loans to $50,000 with a 20-year term as maximum for repayment of the indebtedness and that there be a pledge

of specific revenue for repayment. In the discussion of this motion it was concluded that special consideration of larger loans might possibly be given in hardship cases.

CONSTRUCTION SCHEDULES FOR SEWAGE TREATMENT WORKS

Mr. J.A. Jensen presented a report dated July 22, 1971 regarding the present status of plans for the following 20 communities which previously had been scheduled to provide secondary treatment of sewage by July 1, 1972 or earlier:

(1)	Arlington	(8)	Garibaldi	(15)	Rainier
(2)	Astoria	(9)	Gold Beach	(16)	Seaside
(3)	Brookings	(10)	Gresham	(17)	The Dalles
(4)	Bunker Hill S.D.	(11)	Hood River	(18)	Umatilla
(5)	Coos Bay	(12)	North Tillamook Co. S.D.	(19)	Waldport
(6)	Coquille	(13)	Portland	(20)	Wheeler
(7)	Eastside	(14)	Port of Portland		

It was MOVED by Mr. Cogan, seconded by Mr. Waterman and carried that the staff recommendations with regard to these construction schedules and deadlines be approved and adopted.

GEARHART HOTEL PROPERTIES DEVELOPMENT PROPOSAL

Mr. S.C. Gilbert pointed out that in March and April 1970 a policy had been adopted by EQC limiting the development of the Clatsop Plains area until a master plan has been adopted for providing sewage collection, treatment and disposal. A formal resolution to that effect had been adopted by EQC on April 24, 1970 and by the State Board of Health on May 20, 1970. He reported that since that time the Clatsop Plains Environmental Quality Committee had been formed and the assistance of Consulting Engineers, CH_2M, solicited to indicate boundaries for establishment of one or more county service districts. The lack of planning funds has greatly delayed the actual development of the required master sewerage plan.

In the meantime the Gearhart Hotel Properties (North Coast Development, Inc.) has proposed to raze the old Gearhart Hotel which has some 104 bedrooms and to replace it with a new 96-unit (140 bedroom) condominium development.

The existing convention facilities adjacent to the hotel would also be razed and new convention facilities would be constructed across the street adjacent to the existing club house which serves the golf course. The proposal also calls for replacing the two septic tank systems serving the hotel and convention complex located to the west and the one septic tank system serving the club house located to the east with one large septic tank system to be located in the golf course area to the east of the present facilities.

The daily sewage load from the present complex has been estimated at 16,800 gpd plus 3,000 gpd for the club house.

The developers have stated that their proposed project will result in no increase in peak flow and no appreciable increase in flow under sustained use. They requested, however, that the new septic tank system be designed with a capacity of 30,000 gpd.

Mr. Larry Dean, Attorney, Mr. Jerry Eischen, Engineer and Mr. Orson Kelly were present to represent the developers.

After considerable discussion it was MOVED by Mr. Cogan, seconded by Mr. Waterman and carried that a waiver be granted to the moratorium and that acceptance be given for construction of a replacement facility that will not produce more than 20,000 gpd of sewage flow.

There being no further business the meeting was adjourned at 5:45 p.m.

Respectfully submitted,

Kenneth H. Spies

Kenneth H. Spies
Director

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

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

Date	Location	Project	Action
7	Morrow County	Heppner Lumber Co. Proposal to phase out WWWB	Approved
	Deschutes County	Rapp Small Animal Clinic, Bend. Request to install new pathological animal incinerator	Additional information requested
8	Klamath County	Klamath Lumber Company, Chiloquin. Proposal to phase out WWWB	Approved
15	Jackson County	Cheney Forest Products, Central Point. Plans and specifications to modify WWWB	Conditional approval
16	Coos County	Bohemia Lumber Company, Elkside. Request for time extension to October 1, 1971, for WWWB phase out	Approved
17	Hood River County	Gorge Lumber Company, Cascade Locks. Proposal to phase out WWWB	Approved
18	Josephine County	Brown Bros. Lumber Company, Grants Pass. Plans and specifications to modify WWWB	Additional information requested
	Malheur County	Ore-Ida Foods, Inc., Ontario. Plans and specifications to construct controlled atmosphere incinerator manufactured by Wasteco, Inc.	Additional information requested
26	Douglas County	Mining-Minerals Mfg. Company, Riddle. Plans and schedules for attaining compliance with current emission regulations	Conditional approval
30	Douglas County	Hub Lumber Company, Roseburg. Plans and specifications for modification to WWWB	Additional information requested
	Jackson County	Fir Ply, Inc., White City Plans and specifications for modification to WWWB	Additional information requested

PROJECT PLANS, REPORTS, PROPOSALS FOR AIR QUALITY CONTROL DIVISION FOR JUNE, 1971. (Cont.)

In Summary there were:

Subject	Totals
Wigwam waste burner phase-out proposals	4
Wigwam waste burner modification plans	4
Applications and plans to install new incinerators	2
Plans and schedules for attaining compliance	1
Total actions processed	11

PROJECT PLANS

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

Date	Location	Project	Action
Municipal Projects (67)			
6-1-71	Florence	Sewage treatment plant modifications	Prov. approval
6-1-71	Corvallis	Sewer system study	Approved
6-1-71	Linn County	ARCO complex	Prov. approval
6-2-71	Lake Oswego	Pump station & interceptor	Prov. approval
6-2-71	East Salem S & D	College Park Estates	Prov. approval
6-3-71	Hillsboro	Tualatin Valley Hwy. ext.	Prov. approval
6-3-71	USA (Aloha)	Lenny Park	Prov. approval
6-3-71	USA	Westward Park	Prov. approval
6-3-71	USA	S. W. 114th Place	Prov. approval
6-3-71	Portland	Harbor Patrol Base pump sta.	Prov. approval
6-4-71	Black Butte Ranch	Pump station #2 through #7	Prov. approval
6-7-71	Port of Portland	Sewage treatment plant on dredge "Oregon"	Prov. approval
6-7-71	Port Orford	Pump station & sewer line	Prov. approval
6-7-71	Clatsop County	Phillips-Drucker sewage treatment plant	Prov. approval
6-7-71	Carlton	Storm water separation study	Concurrence
6-7-71	USA	King City expansion	Comments submitted
6-8-71	Coos Bay	Sewage treatment plant study	Approved

Date	Location	Project	Action
6-8-71	Coos-Curry County	1980 sewerage plan	Approved
6-9-71	Multnomah County	Service District No. 4 Sylvan Heights	Prov. approval
6-9-71	Oak Lodge SD #1	Sterling Park	Prov. approval
6-9-71	East Salem S & D #1	Four (4) sewer projects	Prov. approval
6-9-71	Douglas County (USFS)	Preliminary report for Tiller Ranger Station	Prov. approval
6-10-71	Salem	Willamette Apts. extension	Prov. approval
6-10-71	USA	Four Seasons No. 8	Prov. approval
6-10-71	East Salem S & D	Greentree Subdivision	Prov. approval
6-10-71	East Salem S & D	Surfwood Villa Subdivision	Prov. approval
6-11-71	ARCO	Chlorination revisions	Approved
6-11-71	Riverview Heights	Sewer extension	Prov. approval
6-11-71	Dundee	Canyon Drive	Prov. approval
6-11-71	Lake Oswego	Wheatherstone Subdivision	Prov. approval
6-11-71	Yamhill	Hawswirths Subdivision	Prov. approval
6-14-71	Portland	Addendum No. 1 (STP)	Approved
6-15-71	USA	Fanno Creek Interceptor (rev.)	Prov. approval
6-15-71	Weston	Chlorine contact chamber	Prov. approval
6-16-71	Diamond Hill	Sanitary sewer extension	Prov. approval
6-16-71	USA	Change Order #1 Beaverton-Rock Creek interceptor	Approved
6-16-71	St. Helens	Change Order No. G-3 (Sec.)	Approved
6-16-71	Cannon Beach	Change Order No. 2	Approved
6-16-71	St. Helens	Change Order No. 5 & 6 (Pri.)	Approved
6-16-71	North Powder	Change Order #4 and 5	Approved

Date	Location	Project	Action
6-16-71	Ontario	Change Orders #1, 2, 3 & 4	Approved
6-16-71	Albany	Plans for "T" top manholes	Prov. approval
6-17-71	Gresham	N.E. 192nd Avenue extension	Prov. approval
6-17-71	Oak Lodge SD	Extension off Laurie Avenue	Prov. approval
6-17-71	Molalla	Sewers and pump station	Prov. approval
6-17-71	North Bend	Addendum No. 1 and Change Order No. 1, 2 and 3	Approved
6-17-71	Lake Oswego	Addendum Nos. 1 and 2	Approved
6-18-71	Gardiner San. D.	Sewage collection system and pump station	Prov. approval
6-18-71	Clackamas County Service Dist. #1	Louise Ann Subdivision	Prov. approval
6-21-71	USA	Five sewer extension projects	Prov. approval
6-22-71	Heppner	Rassmusen & Lott Subd.	Prov. approval
6-22-71	Dundee	Canyon Court revisions	Approved
6-22-71	Lebanon	Seven extension projects	Prov. approval
6-22-71	Gresham	Newell Park Subd.	Prov. approval
6-22-71	Gresham	N.E. Kane Dr.-N.E. 23rd St. and Kane Rd. Lateral #4	Prov. approval
6-22-71	Hillsboro	Rock Creek sewage treat. plant	Comments submitted
6-23-71	Cottage Grove	Weyerhaeuser interceptor	Prov. approval
6-23-71	Moro	Change Orders #1-4	Approved
6-28-71	Corvallis	Goodnight Lane extension	Prov. approval
6-28-71	Jefferson	Grice Subdivision	Prov. approval
6-28-71	Bear Creek Valley Sanitary Authority	Coral Garden Subdivision	Prov. approval

Date	Location	Project	Action
6-29-71	Corvallis	Sewage treatment report	Prov. approval
6-29-71	Salem	Corki Acres and Liberty Gardens No. 5	Prov. approval
6-30-71	West Linn	Farview Subdivision	Prov. approval
6-30-71	Lake Oswego	Condo-Lea Phase II	Prov. approval
6-30-71	Medford	Alcan Drive sewers	Prov. approval
6-30-71	Newberg	Sewer extension (Hwy. 99-Hulet Lane)	Prov. approval

Industrial Waste Projects (1)

7-15-71	Gladstone	Bigger-N-Better Poultry pretreatment facility	Approved

PROJECT PLANS

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

Date	Location	Project	Action

Solid Waste Projects (0)

No solid waste plans were reviewed during the month of June, 1971.

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION

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

FROM : AIR QUALITY CONTROL DIVISION

DATE : July 1, 1971

SUBJECT : BROOKS-SCANLON, BEND, OREGON

At the Environmental Quality Commission Meeting at Sunriver on June 4, it was requested of Brooks-Scanlon to submit comment relative to economic effects resulting from diminished use of the old boilers. The attached letter was received relative to this request.

BROOKS-SCANLON, INC.
P O BOX 1171 BEND, OREGON 97701 PHONE: (503) 382-2511

June 29, 1971

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED
JUN 30 1971

AIR QUALITY CONTROL

Environmental Quality Commission
State Department of Environmental Quality
1400 S. W. 5th Avenue
Portland, Oregon 97201

Dear Sirs:

At the June 4, 1971 meeting of the Environmental Quality Commission you asked that we advise you in writing prior to the July meeting of the Commission of the economic effects on Brooks-Scanlon and the local community if we were to stop using the old boilers at our Bend plant. As background information, you have our report of May 21, 1971, your June 1, 1971 staff analysis of the Brooks-Scanlon, Inc. control program and a copy of the statement I made to the Commission on June 4.

If we were required to discontinue the present partial operation of our old boilers, we could not avoid reducing lumber production from our Bend plant by 1/3 to 1/2. Our "new" power plant could provide necessary steam and power for this limited production. However, there is serious doubt whether the operation would remain economically viable and we would have to lay off 150 to 200 employees. This curtailment would also cause disruption of employment among our contractors, suppliers and customers.

We are proceeding with engineering studies to develop plans to supply our total steam requirements while operating in conformity with Department of Environmental Quality regulations. In accord with the action of the Environmental Quality Commission on June 4, 1971, we shall present a program to the Commission for approval no later than September 1971.

Please let me know if you would like additional information.

Sincerely,

Michael P. Hollern

Michael P. Hollern
President

MPH/sh

STATE OF OREGON

ROUTE SLIP

Date 7-1-71

TO: HHM [illegible]
[illegible]

FROM:

CHECK

___ Approval	___ Investigate
___ Necessary Action	___ Confer
___ Prepare Reply	___ Per Telephone Conversation
___ For My Signature	___ For Your Information
___ Your Signature	___ As Requested
___ Comment	___ Note and File
X Initial and Return	___ Return With More Details

COMMENTS:

Memo
Make copies for members
[illegible]
Done 7-1-71

81-125-3007

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION

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

FROM : AIR QUALITY CONTROL DIVISION

DATE : June 1, 1971 for the June 4, 1971 Meeting

SUBJECT: BROOKS-SCANLON, INC., CONTROL PROGRAM

The problems relative to air pollution at Brooks-Scanlon are boiler emissions, both visible and particulate. These visible and flyash emissions create air quality problems in the area.

The company has completed the work as outlined in their letter of November 24, 1970, and described in the staff report on February 5, 1971. With the continued operation of the new and old boilers, the problems of boiler capacity limitations have been more completely determined. Attached is a report from the company's consulting engineer, Mr. W. O. Stevens, that reviews the history of the boilers and the related problems. The company has, in addition to this detailed engineering work, had the stacks from the two (2) new boilers sampled by Metallurgical Engineers, Inc. The results from this sampling program are also attached.

From this data, the company has developed a proposal to further modify the existing boilers. This is a program to add natural gas burners to the new boilers in order to increase the steam generating capacity so as to carry the plant. This is a well thought out proposal, which may result in the plant obtaining compliance with current emission standards, though, as admitted by the company, is a marginal solution to the problem. Copies of each of the aforementioned are included in this report.

A detailed review of the proposal and supporting data, as well as discussions with the company personnel reveal the following deficiencies:

1. The proposal includes the continued use of the old hog fuel boilers with their present uncontrolled flyash emissions as standby equipment. It is impossible to determine at this time the amount of time this equipment will actually be operated, but, anytime the old boilers are operated, flyash emissions will exceed emission standards.

2. The proposal calls for base loading the new boilers with wood residues to 50,000 pounds of steam generation each, and supplementing an additional 25,000 to 30,000 pounds of steam generation with natural gas. It is the opinion of the staff that this distribution of fuel load will be difficult to maintain and the inherent problems of upset conditions at high steam load, 75-80,000 pounds per boiler, will cause emissions to exceed current emission standards a significant portion of the time. An example of the fuel feed distribution problems is the extreme variation in density, moisture, and size characteristics of mixed hog fuel.

3. The elapsed time for implementation of this plan for modifying the new boilers as discussed in #2 above is eleven (11) months. The risk factor for an admittedly marginal solution, that is only designed to barely get into compliance, indicates a more assured solution should be undertaken.

4. The program of installing modulating valves appears to have a beneficial effect on the peak demand requirements of the boilers, that is, to level out steam flows, and will undoubtedly improve visible emissions. At the same time, however, this also appears to increase the total steam flow to the dryers, which will increase the total steam loading and tend to increase the particulate loading.

RECOMMENDATIONS

It is the recommendation of the staff that Brooks-Scanlon, Inc., be instructed to develop a program for complete phase out of the old hog fuel boilers unless proper flyash control equipment is installed. It is further recommended that the company be instructed to undertake a program for more assured and permanent control of emissions, namely, additional boiler capacity.

Attachments

BROOKS SCANLON, INC.
BOILER INSTALLATION

OLD POWER HOUSE

B&W Stirling
1924

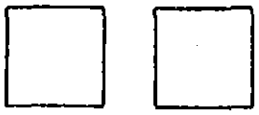
B&W Stirling
1924

Puget Sound Machinery Depot
1940

160 psig
DUTCH OVEN BURNING

NEW POWER HOUSE

B & W Stirling
1968-9



600psig
92,500#/h each SUSPENSION BURNING

May 21, 1971

Mr. H. H. Burkitt
State Department of Environmental Quality
1400 S. W. 5th Avenue
Portland, Oregon 97201

Dear Mr. Burkitt:

In reply to your letter of March 17, 1971, we are now prepared to propose modifications to the new power house which, when complete, will allow us to meet the requirements of sections 21-015 and 21-020 of OAR, chapter 340.

Our proposal is to base load the boilers at approximately 50,000 lbs. of steam per hour per boiler on hog fuel and generate the balance of the steam needed with gas burners firing over the wood. We also propose to level off the steam flow to the kilns and reduce the peak demands with modulating kiln controls.

We do intend to retain the old boilers as standby for use during emergencies and scheduled maintenance periods. As such, we anticipate operating these boilers infrequently and for short periods and do not propose any modification of them.

Included as supporting evidence of the feasibility of this program are the following documents:

1. W. O. Stevens' memorandum "Brooks-Scanlon Power Plant as it Relates to Air Pollution", dated April 23, 1971.

2. Duane Gatherer's memorandum "Results of Sawmill Residue Study", dated May 12, 1971.

3. Contract for Natural Gas Service.

4. Air Quality Survey - Grain Loading Determination, dated May 19, 1971, by Metallurgical Engineers, Inc.

5. Copies of flow charts on kiln #8 before and after installing the modulating control.

6. Timetable.

Sincerely,

Leo Hopper
Production Manager

LH/sh
Enc.

cc: Conley Brooks
R. L. Foote
M.P. Hollern
D. Martin
W. O. Stevens
State (3)

MEMORANDUM

RE: BROOKS-SCANLON POWER PLANT
AS IT RELATES TO AIR POLLUTION

OLD POWER PLANT OPERATION

At the time the new power plant was built, there were installed in the old plant four Babcock & Wilcox Stirling Type boilers set in batteries of two, and two Puget Sound Machinery Depot boilers also set in battery. The Babcock & Wilcox boilers were installed in 1924, while the Puget Sound Machinery Depot boilers were built in 1940. The boilers were designed for 160 psig pressure. In addition to furnishing the steam requirements for operating the sawmill and heating the lumber kilns, they produce the mill's electric power requirements in condensing turbine-generators.

The new power plant did not essentially change the mill's output or performance. The then existing low pressure boilers still had considerable useful life. They were not, however, suitable for burning the available waste wood without creating an air pollution nuisance. The new boilers were necessary to abate the air pollution caused by the low pressure units.

The additional power requirements of the necessary air pollution equipment necessitated modifying the mode and method of power generation, which required a new and different type of generating equipment. The new power plant was built to house the new equipment. The fact that the original power plant is in operable condition is evidenced by its recent ability to produce the mill's requirements for steam and power.

The Tepee refuse burner, which was used to dispose of the wet low grade waste, is no longer in service and the material consumed in the burner must now be burned in the high pressure power plant boilers.

FUEL CONSIDERATION

Modern manufacturing trends and increased utilization of waste wood results in a poorer grade of fuel to the boilers, with increased air pollution problems. Lower grade fuel requires the installation of a more exotic type of boiler, fuel handling, and combustion control equipment.

It can be shown in mills where the logs are deluged with water, as is the case of mills where the bark is removed in a hydraulic barker, the moisture content in the material removed which forms the bulk of the waste wood delivered to the boilers for fuel averages 65% to 67% moisture. The Brooks-Scanlon Mill at Bend cuts Ponderosa pine logs. These logs are subject to blue mold if stored in the normal ambient temperature at Bend for any length of time. To prevent the deterioration of the logs and the degradation of the lumber made from the logs, it is necessary to continuously spray the logs used by the mill with water from the river. Three hundred fifty horsepower is required to pump the water for spraying the logs, in order to reduce the temperature of the log surface below the temperature conducive to the growth of mold. The mill records show that the moisture content of green sawdust from the sawmill runs as high as 65%.

BOILER REQUIREMENTS FOR SATISFACTORY COMBUSTION

It is common knowledge that hot air is a prime requirement to successfully burn wet wood fuel.

The design, setting height, lack of heat recovery equipment to preheat the combustion air, and the absence of cinder collectors, preclude the use of the old boilers for burning fuel of the type and condition available without creating a serious air pollution nuisance.

The three prerequisites for good combustion are time, temperature and turbulence. Good combustion is a must if air pollution is to be held at a satisfactory level. In a boiler the combustible in the fuel must have long enough travel through the combustion chamber before entering the relatively cool convection surfaces, if it is to be completely burned. Every combustible substance has a fixed ignition temperature, at or above which it

will ignite and burn freely. Burning is merely the oxidation of a combustible substance. A thorough mixing is necessary for the oxygen in the air to contact the combustible components in the fuel. Proper mixing is normally the result of turbulent gas flow. For complete combustion, it is necessary to have a sufficient length of gas travel before reaching the boiler convection surfaces as very little combustion takes place beyond this point.

The new high pressure boilers have much larger combustion chambers with longer gas travel than the older low pressure units. They are equipped with air preheaters, superheaters, cinder collectors, overfire air, and more elaborate combustion control equipment. This additional equipment increases the resistance to air and gas flow through the boiler and increases the boiler auxiliary electric power requirements appreciably.

INCREASED POWER REQUIRED TO COMBAT AIR POLLUTION

To be in a competitive position with other mills, it is necessary that the additional power required by the Brooks-Scanlon Mill ~~for air pollution~~ be generated as by-product energy. This is done by installing 600 psig boilers which generate steam at 600 psig with relatively high superheat. The more elaborate steam and power generating equipment requires more complicated and extensive control equipment, which in turn requires more space than was available in the old boilerhouse. A new building was built to protect the power generating, feedwater equipment and controls from the weather. The boilers, together with the auxiliary equipment such as cinder collectors, forced and induced draft fans, air preheater and fuel handling equipment for the boilers, were installed in the open.

To do a satisfactory air pollution abatement job, forced, induced and overfire air is necessary; a cinder collector is also necessary to reduce the particulate matter from the stack to an acceptable limit. These fans were not required in the original boilerhouse equipment and increase the power requirements for the new plant 1040 horsepower.

To maintain the mill's competitive position in the industry, it is necessary that the additional power requirements be generated as by-product power, thereby reducing the cost of the power produced for the mill so that the average cost for the total power

requirements will not exceed previous power costs. By-product power requires that high pressure steam be passed through a steam turbine before supplying the process steam requirements for the mill. High pressure boilers in turn require high pressure feed pumps which increase the amount of power previously used in the low pressure feed pumps for the old boilers.

The mill's lumber output remains essentially the same as before. The generating steam pressure of the turbine-generator was set sufficiently high to develop the electrical power required by the original power plant, plus the additional power now required for air pollution equipment.

POWER PLANT DESIGN CONSIDERATIONS

It is only necessary to refer to a Mollier Chart to realize that as steam is expanded through a steam turbine-generator, the moisture content becomes greater as it approaches the low pressure end of the unit. For reasonable turbine blade life, it is necessary that the moisture content in the low pressure end of the steam turbine be a minimum. The hotter the steam is entering the turbine, the drier it will be in leaving the low pressure end, provided the heat converted to power is the same. In the case of the new plant, 725°F total temperature steam at the boiler superheater outlet was adopted. The superheater tubes in a boiler increase the resistance to gas flow and the power required for the induced draft fan. In the low pressure boilers, where air pollution was not a serious consideration, natural draft was sufficient. In general, where the moisture content in the wood fuel is 58% or more, preheated air is required to maintain proper combustion. The boiler must be designed for the wettest fuel produced, as at some time this fuel will reach the boilers in an unmixed condition and must be successfully burned. An air preheater also increases the resistance to flow in the air and combustion gas circuits, and increases the power required for the forced and induced draft fans.

By virtue of the species of logs cut in the Brooks-Scanlon Mill at Bend, Oregon, the process is unique as compared with most other mills due to the fact that moisture is added to the wood content for the purpose of combatting fungus growth. The addition of water to spray the logs increases the mill power requirements as well as increasing the difficulty in successfully burning the wet wood.

NEW HIGH PRESSURE POWER PLANT

The new power plant has two, 600 pound, 725°F, Babcock and Wilcox Stirling Type boilers designed to produce a maximum of 92,500 pounds per hour with 350°F feed. A 3,500 KW Westinghouse turbine-generator designed for 600 pounds steam at 825°F total temperature is installed. Unfortunately the boilers, turbine-generator and auxiliary equipment are second-hand and were not designed for the same operating conditions. The boilerhouse was built without exterior walls. The boiler feed pumps, combustion control equipment, and other auxiliaries were obtained from different sources and are not entirely compatible. The history of the early operation was a continuous series of disasters. The operators had a full-time job endeavoring to keep the plant on the line and did not have spare time to improve the operation. An inferior job was made of installing the boilers, and as a result in March 1969 the boilers were shut down to repair tube damage. A detailed inspection confirmed that nothing short of boiler rebuilding would insure a reasonable life. Auxiliary fuel handling, fuel distribution to and in the boiler, steam piping, and building enclosure were undertaken at a total cost of $620,000.

A minimum number of new components were purchased. The remaining equipment continued to cause problems. It is gratifying to note the improvement in operation in recent months. The boilers will operate over 70,000 pounds per hour. It has been found, however, that at this high rating a slight malfunction of equipment or plugging due to sticks in the fuel system will result in a pressure drop and production loss.

USE OF OLD BOILERS TO GENERATE STEAM

It has been found that if the new high pressure boiler output is curtailed to not over 60,000 pounds per hour per boiler, the plant operation is much more stable. At 60,000 pounds rating there is a deficiency in peak steam production and it is necessary to produce about 30,000 pounds per hour in the old low pressure boilers. It has been found that operating on this basis production schedules can be maintained and the operating problems are much less. This type of operation reduces the amount of smoke produced and also reduces the particulate matter emitted from the stacks.

It could be argued that it is possible, by adding cinder collectors and air preheaters to the old boilers, to burn the wet wood. Three factors must be considered before this approach can be justified: (1) It must be realized that any investment on the old boilers assumes the age of the boilers at the outset. (2) The configuration and setting height of the old boilers do not provide the prerequisites for good combustion. The installation of cinder collectors would reduce the amount of particulate matter leaving the stacks; they will not, however, collect particles of under one micron which make up smoke. (3) The elimination of the Tepee Burner and the utilization of waste wood for chips and particle board leaves a wood fraction of inferior quality for fuel and additional provisions must be made to burn this inferior wet fuel.

Producing low pressure steam defeats the basic concept of a by-product power plant, increases the fuel burned, pounds of steam produced, operating and maintenance costs and reduces plant production.

INHERENT PLANT OPERATING PROBLEMS

The Bailey bolometers have created problems in monitoring the stacks. Bailey Meter Service Personnel have been engaged in the maintenance and repair of this equipment ever since it was installed. It is hoped that the cause of the problem with the Bailey smoke indicators has been found and can now be corrected so the charts will show true Ringelmann density records.

There are a number of instances where the power plant heat balance can be improved which will result in more stable and satisfactory operation.

In order to produce the maximum kilowatts from the turbine-generator it is necessary to extract steam at 200 pounds pressure, instead of 150 pounds as required by the mill. This entailed installing a 200 to 150 PRV in the extraction line. A safety relief valve is installed downstream from the PRV. No protection was provided when the PRV was installed to protect the turbine casing at the extraction opening. A diaphragm operated valve is now installed which trips the turbine oil circuit should excessive pressure develop in the extraction line. If the 200 to 150 PRV had not been installed, the

safety relief valve would not be isolated from the turbine and there would be no interference or shutdown of turbine operation when the turbine extraction load suddenly drops.

A sudden buildup of pressure in the extraction line apparently is a result of sudden changes in kiln steam requirements. Modulating steam control valves are proposed for the lumber kilns which should prevent the wide fluctuations in kiln steam demand.

It has been suggested that provisions be made to burn natural gas in the high pressure boilers so that their total peak output will be 150,000 pounds per hour and their output on wood fuel can be limited to approximately 50,000 pounds per hour. By base loading the boilers or limiting their output on wood it should be much easier to maintain a satisfactory stack emission. The mill requires a total peak output of 150,000 pounds per hour. This load will cause a more severe operating condition for the furnace grates. With a constant rate of wood feed it should be easier to maintain a uniform height of fuel on the grates, which will help to prevent overheating the grates with the increased heat input to the boiler furnace.

PROGRAM TO FURTHER IMPROVE PLANT OPERATION

Brooks-Scanlon have spared neither time, effort nor expense in their endeavor to be good neighbors and abate air pollution, water pollution and reduce plant noise to a minimum. One of Weyerhaeuser Company's Senior Power Superintendents has been engaged to help train the power plant crew. One of the outstanding acoustical experts in the country has been commissioned to reduce the stack noise.

The State emission standard of 0.1 grains per standard cubic foot is difficult to attain in a wood burning power plant. If the Brooks-Scanlon Bend Power Plant falls short of this goal it will not be due to a lack of conscientious effort on their part.

(3)

CONTRACT

FOR NATURAL GAS SERVICE

THIS AGREEMENT, made and entered into this 29th day of May 19 70, by and between CASCADE NATURAL GAS CORPORATION of Seattle, Wash., its successors and assigns, hereinafter referred to as the Seller, and

Brooks-Scanlon, Inc. of Bend, Oregon

successors, personal representatives or assigns, hereinafter referred to as the Buyer:

WITNESSETH:

WHEREAS, the Seller owns and operates a system for the distribution and sale of natural gas, and the Buyer desires to purchase natural gas from Seller for special purposes as hereinafter described:

NOW THEREFORE, for and in consideration of the mutual covenants, and agreements hereof and other good and valuable considerations, the Seller and Buyer have agreed and do hereby covenant and each agree with the other as follows, to-wit:

Seller agrees to sell and deliver to Buyer and Buyer agrees to purchase and receive from Seller its entire fuel requirements for following property and use:

Firm service for Buyer's plant located on Wilson Avenue, Bend, Oregon, for use in direct fired dry kiln and all other uses as may be required from time to time

subject to the terms and conditions herein stipulated including those on the back hereof, for the term of one (1) year and continuing thereafter from year to year until cancelled by either party hereto having given at least thirty (30) days written notice to the other of its intention to do so

said term to begin on the ____ day ~~of~~ ~~19~~ natural gas becomes available to Buyer's plant located as set forth above.

The price of gas for each month's deliveries shall be as follows:

In accordance with the terms and conditions of Seller's Firm Commercial, Institutional and Industrial Natural Gas Service Rate Schedule No. 311 as may be in effect from time to time in that tariff filed with the Oregon Public Utilities Commissioner. A copy of Schedule No. 311 currently in effect is attached hereto and made a part of this contract.

IN WITNESS WHEREOF, the parties hereto have subscribed their names, the day and year first above written.

ATTEST:

W. B. Scanlon V.P.

WITNESSES:

CASCADE NATURAL GAS CORPORATION

SELLER

By [signature] President

Sales Manager

Brooks-Scanlon, Inc.

BUYER

By Rick Gervais

Title

(2)

Date: May 12, 1971

To: Leo Hopper

From: Duane Gatherer

Subject: Results of Sawmill Residue Study

1. Sawmill Residue Production (Based on 95MM, 25MM, & 20MM = 140MM log scale)

A. Bark

.28 BDT/MBF X 95,000 MBF	=	26,600
.30 BDT/MBF X 25,000 MBF	=	7,500
.14 BDT/MBF X 20,000 MBF	=	2,800
		36,900 BDT/Yr.

B. Sawdust

.30 BDT/MBF X 95,000 MBF	=	28,500
.22 BDT/MBF X 30,000 MBF	=	6,600
.15 BDT/MBF X 30,000 MBF	=	4,500
		39,600 BDT/Yr.

C. Shavings

500#/MBF X 155,000 MBF	=	38,750
Less dry trim ends		- 8,772
		29,978 BDT/Yr.

D. Dry Trim Ends

1.4 MBF surfaced lumber = 1.0 BDU

Trim ends = ave. 1/2" = 1/180 of a 15' board

155 MMBF X 1/180	=	861
861 MBF ÷ 1.4	=	615 BDU
615 BDU X 1.2	=	738 BDT

Trimbacks -

13 MMBF X 10%	=	1.30 MMBF
115 MMBF X 7%	=	8.05
9.35 MMBF ÷ 1.4	=	6,678 BDU
6,678 BDU X 1.2	=	8,014 BDT
8,014 BDT + 738 BDT	=	8,772 BDT/Yr.

E. Coarse Residues

475 BDT/Mo. X 12 Mo. 5,700 BDT/Yr.

Total Production 120,950 BDT/Yr.

2. From Ted Young's memo of 5/4/71, it is "recommended that we not consider alternatives to our sawmill residue utilization program that are dependent on supplies from other Central Oregon sources."

3. Steam Requirements

Steam production required to operate the plant, except for electricity in the small log mill, is 150,000 pounds per hour for 16 hours per day for 5 days a week. Average usage for 24 hours per day for 7 days a week is 130,000 pounds per hour.

New power house requires 1,380 BTU per pound of steam produced at 600 PSI and 750° less 312 BTU produced from the feedwater or 1,068 BTU per pound of steam.

Old power house requires 1,194 BTU per pound of steam produced at 150 PSI and 358° less 127 BTU produced from the feedwater or 1,064 BTU per pound of steam.

A. Present Hog Fuel Usage

New Power House		Old Power House
8,700	BTU/Lb. of wood	8,700
X 65%	Boiler efficiency	X 60%
5,655	BTU/Lb. of wood	5,220
100,000	Pounds of steam produced/M	30,000
876,000	M lbs/yr.	262,800
X 1,068	BTU/lb. of steam	X 1,064
935,568	MM BTU/yr.	279,619.2
÷ 5,655	BTU/lb. of wood	÷ 5,220
165,430	M lbs. of wood/yr.	53,567
÷ 2,000	lbs./ton	÷ 2,000
82,715	Tons/Yr. BDT	26,784
÷ 1.2	Conversions to BDU	÷ 1.2
68,930	BDU/Yr.	22,320
$ 3.00	Cost/BDU	$ 3.00
$206,790	Cost/Yr.	$66,960

Total Cost = $273,750

There are definite environmental problems associated with the operation using this fuel, due to smoke and cinders. Capital costs for cinder collection equipment would be approximately $100,000.

B. Bunker C Fuel Usage — Diesel Oil

(Firm commitment not available)		(Firm commitment available)
154,800	BTU/gallon	140,500
86%	Boiler efficiency	87%
133,128	BTU/gallon	132,235
130,000	lbs. of steam/hr.	130,000
1,138,800	M lbs. of steam/yr.	1,138,800
X 1,068	BTU/lb. of steam	X 1,068
1,216,238,400	M BTU/yr.	1,216,238,400
÷ 133,128	BTU/gal.	÷ 132,235
9,135,857	Gal/yr.	9,197,552
X $ .13	Cost/gal.	X $.124
$1,187,661	Cost/yr.	$1,140,496

Environmentally this fuel is not as desirable as natural gas, but should help overcome the present problems. Capital costs would be approximately $200,000.

C. Natural Gas Fuel Usage

107,500	BTU/Therm
82%	Boiler efficiency
88,150	BTU/Therm
1,216,238,400	M BTU/yr.
÷ 88,150	BTU/Therm
13,785,915	Therms/yr.
X $.053	Cost/Therm (this will increase 15% in 1/72)
$730,654	Cost/yr.

Environmental problems should be overcome by use of this fuel. Capital costs would be approximately $100,000.

D. Stoker Fuel Usage

With the amount of shavings and dry material already committed, there is enough material available to run one stoker fuel machine. This would amount to approximately 10% of the fuel required and would, therefore, not appreciably reduce the cost of fuel. The capital cost is approximately $65,000. With this fuel as a supplement to hog fuel, it is anticipated that wintertime operation and environmental problems would be reduced.

E. Combinations of Fuels

From the above figures, hog fuel in some combination with natural gas would be the most economical and cause the least amount of environmental problems.

4. Brooks-Scanlon Residues Available: (BDT)

A.

Item	Total Production	Saleable	Available Fuel
Bark	36,900	8,000	28,900
Sawdust	39,600	18,000	21,600
Shavings	29,978	21,600	8,378
Trim Ends	8,772	8,772	-0-
Coarse Residues	5,700	-0-	5,700
Total	120,950	56,372	64,578

B. Hog Fuel Only in Power House

Residue production	120,950
Power house usage	109,500
Available to B-W	11,450
Fuel cost	$273,750

C. Hog Fuel (100M/hr.) and Natural Gas (30M/hr.)

Residue production	120,950
Power house usage	82,715
Available	38,235
Committed to B-W	39,500
Shortage	(1,265)
Fuel cost (hog $206,790) (gas $168,752)	$375,542

D. Hog Fuel (88M) and Natural Gas (42M)

Residue production	120,950
Power house usage	72,578
Available	48,372
Committed to B-W	39,600
Saleable (dry chips or bark)	8,772
Fuel cost (hog $181,494) (gas $237,722)	$419,216

E. Hog Fuel (78M) and Natural Gas (52M)

Residue production	120,950
Power house usage	64,578
Available	56,372
Committed to B-W	39,600
Saleable (dry chips and bark)	16,772
Fuel cost (hog $161,445) (gas $292,123)	$453,568

5. Marketability and Capital Costs

A. Bark Sales

Bark can be sold to American Modoc on a contract basis for approximately $.50 per 3 cubic ft. bag, which amounts to $33.50 per unit. Capital costs for the complete operation would be approximately $200,000. Annual gross sales would be about $192,000.

Oregon Pacific Industries, Inc. have also shown an interest in purchasing sized bark for their bagging plant, but have yet to quote a price. Capital costs would be approximately $100,000 because we would not have to install a railroad spur or the bagging facility.

B. Sawdust Sales

There is no excess sawdust available for sale other than what is committed to B-W for $2.50 per BDU. No additional capital costs involved. Annual gross sales should be about $37,500.

C. Shavings Sales

There are no excess shavings available for sale other than what is committed to B-W for $2.50 per BDU. No additional capital costs involved. Annual gross sales should be about $45,000.

D. Dry Chips Sales

Dry chips can presently be mixed with our green chips and sold to Longview Fibre for $13.75 per BDU. Capital costs involved would be approximately $100,000. Annual gross sales would be about $100,500.

E. Other Products

Other products were not investigated, as there appears to be no additional surplus sawmill residues available.

6. Profitability

A. Present Hog Fuel Usage

Fuel cost	$273,750
4 men in old power house	+ 40,000
	313,750
less sales (shavings to B-W - $28,600 - 8,000)	- 20,600
	293,150
Wood cost (11,430 @ $2.50)	28,625
Capital costs $100,000 on 10 yrs.	+ 10,000
Total fuel cost	$331,775

6. Profitability (cont.)

B. Hog fuel (100M) and Natural Gas (30M)

Fuel cost	$375,542
Less sales (shavings & sawdust to B-W - $95,600 - 8,000)	- 87,600
	287,942
Wood cost (38,235 @ $2.50)	95.588
Capital cost $100,000 on 10 years	+ 10,000
Total fuel cost	$393,530

C. Hog Fuel (88M) and Natural Gas (42M)

Fuel cost	$419,216
less sales (shavings & sawdust to B-W - $99,000 - 8,000 Dry chips to Longview - $100,500 - 0)	-191,500
	227,716
Wood costs (48,342 @ $2.50)	120,930
Capital cost $200,000 on 10 years	+ 20,000
Total fuel cost	$368,646

D. Hog Fuel (88M) and Natural Gas (42M)

Fuel cost	$419,216
less sales (shavings & sawdust to B-W - $99,000 - 8,000 bark to American Modoc - $192,000 - $55,000)	-228,000
	191,216
Wood costs (48,372 @ $2.50)	120,930
Capital costs $300,000 on 10 years	+ 30,000
Total fuel cost	$342,146

E. Hog Fuel (78M) and Natural Gas (52M)

Fuel cost	$453,568
less sales (shavings & sawdust to B-W - $99,000 - 8,000 dry chips to Longvies - $100,500 - 0 bark to American Modoc - $192,000 - 55,000)	-328,500
	125,068
Wood costs (56,372 @ $2.50)	140,950
Capital cost $400,000 on 10 years	+ 40,000
Total fuel cost	$306,018

6. Profitability (cont.)

F. Assuming B-W Takes 1/2 of Their Commitment:

Hog fuel (102M) and Natural Gas (28M)

Residue production	120,950 BDT
Power house usage	84,428
Available	36,522
1/2 B-W commitment	19,750
Salable (dry chips and bark)	16,772
Fuel cost (hog $211,070) (gas $157,141)	$368,211
Less sales: (shavings to B-W $49,500 - 8,000 dry chips $100,500 - 0 bark $192,000 - 55,000)	-279,000
	89,211
Wood cost (36,522 @ $2.50)	91,305
Capital cost $400,000 on 10 years	+ 40,000
Total fuel cost	$220,516

G. Assuming B-W Takes 2/3 of Their Commitment:

Hog Fuel (104M) and Natural Gas (26M)

Residue production	120,950 BDT
Power house usage	85,778
Available	35,172
2/3 B-W Commitment	26,400
Salable dry chips	8,772
Fuel cost (hog $214,445) (gas $147,961)	362,406
Less sales: (shavings to B-W $66,000 - 8,000 dry chips $100,500 - 0)	158,500
	203,906
Wood cost (35,172 @ $2.50)	87,930
Capital cost $200,000 on 10 years	+ 20,000
Total fuel cost	$311,836

7. Of the above considerations, it is my opinion that item "G" is the most realistic and should be investigated in detail. Bark sales could be looked into in detail at a later date when there are more accurate figures available on power house natural gas usage, B-W's shavings and sawdust requirements, and actual sawmill production. I have suggested dry chip sales over bark sales in this initial stage for the following reasons:

1. Brooks-Scanlon can get into the dry chip business more readily than into bark sales.

2. Chip prices will increase faster than bark prices.

3. Bark is a more desirable fuel, than dry hogged wood.

4. No predetermined amount has to be specified to sell dry chips, whereas it is necessary in order to sell bark.

5. The capital expenditure for dry chips is approximately 1/2 that for bark.

6. No additional manpower is required for chip sales, where bark conversion will require additional manpower.

7. There are no environmental problems associated with dry chips, where there is a dust and storage problem associated with bark.

DG/sh

cc: Hank Brooks
Frank Cammack
Mike Hollern
Ted Young

METALLURGICAL ENGINEERS, INC

ENGINEERING AND APPLIED SCIENCES

2340 S.W. CANYON ROAD
P.O. BOX 1048
PORTLAND, OREGON 97207
503/228-9663

working with MATERIALS ECOLOGY INDUSTRIAL PRODUCTS AND PROCESSES

CLIENT NO.

TO: Brooks-Scanlon, Inc.
Attention: Mr. Leo H. Hopper,
Production Manager
P. O. Box 1111
Bend, Oregon 97701

REFERENCE NO. 611119

DATE: 5-19-71

SUBJECT: AIR QUALITY SURVEY - GRAIN LOADING DETERMINATION

Memorandum Report

from Daniel Sobala, P.E.
Project Engineer

1. SUMMARY:

We were retained to make an air quality survey with respect to the particulate emission from the two hog fuel fired boilers at the Bend, Oregon facility of Brooks-Scanlon, Inc. Surveys were made on May 10, 11 and 12, 1971 following the procedures outlined in the U.S. Public Health Service publication "SPECIFICATIONS FOR INCINERATOR TESTING AT FEDERAL FACILITIES" and Addendum thereto. These procedures were specified and viewed by the Oregon Department of Environmental Quality.

Our conclusions are:

1.1. Boiler No. 1 conforms to the 0.20 grain per standard cubic foot limit for steam flow rates below 52,000 pounds per hour.

1.2. Boiler No. 2 exceeds the 0.20 grain per standard cubic foot limit for all three steam rates tested.

The results are:

Test No.	Boiler No.	Grain Loading grain/scf	Steam Flow Rate lb / hr
1	1	0.185	51,000
2	1	0.232	54,000
3	1	0.151	49,000
4	1	0.132	46,000
5	2	0.566	49,000
6	2	0.380	57,500
7	2	0.209	47,000

DS:hg

cc: 3

SUBJECT: AIR QUALITY SURVEY - GRAIN LOADING DETERMINATION
REF. NO.: 611119

Facing Figure 1

Figure 1 GRAPHICAL INDICATION OF VALUES

on page 3

The foregoing values are plotted in the facing graph. For the No. 1 boiler, a smooth curve could be drawn through the four test points, indicating consistency in the data. Values on this curve exceed the 0.20 grain/scf limitation at steam flow rates above 52,000 lb/hr.

The three points for the No. 2 boiler exceed the permitted value; two of them by an extremely large amount. Since the two boilers are essentially identical, the grain loading variation between them is, in our opinion, due to the manner of operation. This may be due to power plant instrument errors and/or an improper combustion balance.

A comprehensive report, covering all aspects of the tests, will be deferred until a retesting of boiler No. 2 is made.

If you desire, MEI will be pleased to assist you in making the necessary adjustments to this boiler.

As requested by Mr. Leo Hopper, a copy of this data has been provided the State of Oregon Department of Environmental Quality.

P.O. BOX 1018
PORTLAND, OREGON 97207

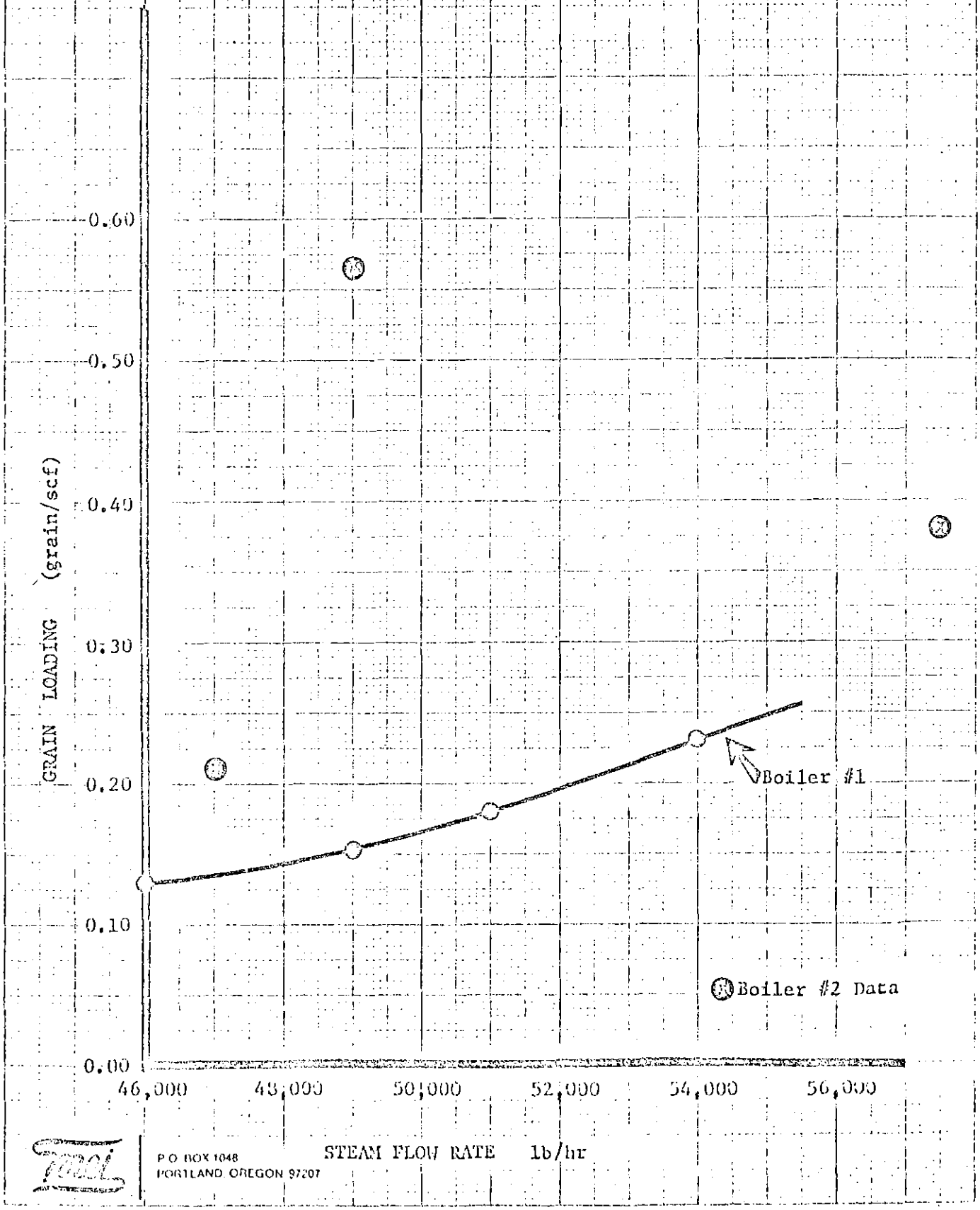
TO: Brooks-Scanlon, Inc.

SUBJECT: AIR QUALITY SURVEY - GRAIN LOADING DETERMINATION

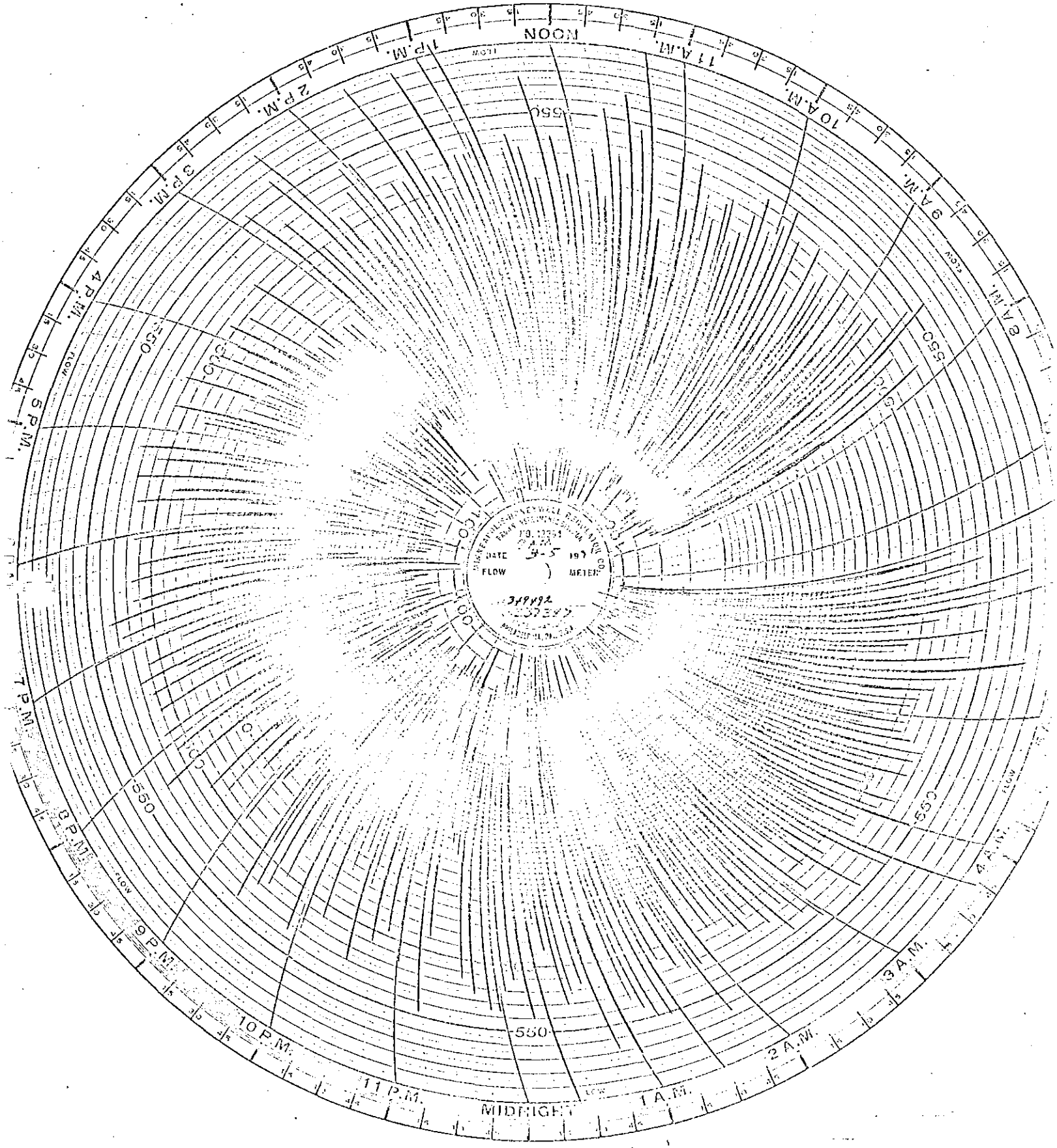
REF. NO.: 611119

PAGE: 3

FIGURE 1



P.O. BOX 1048
PORTLAND, OREGON 97207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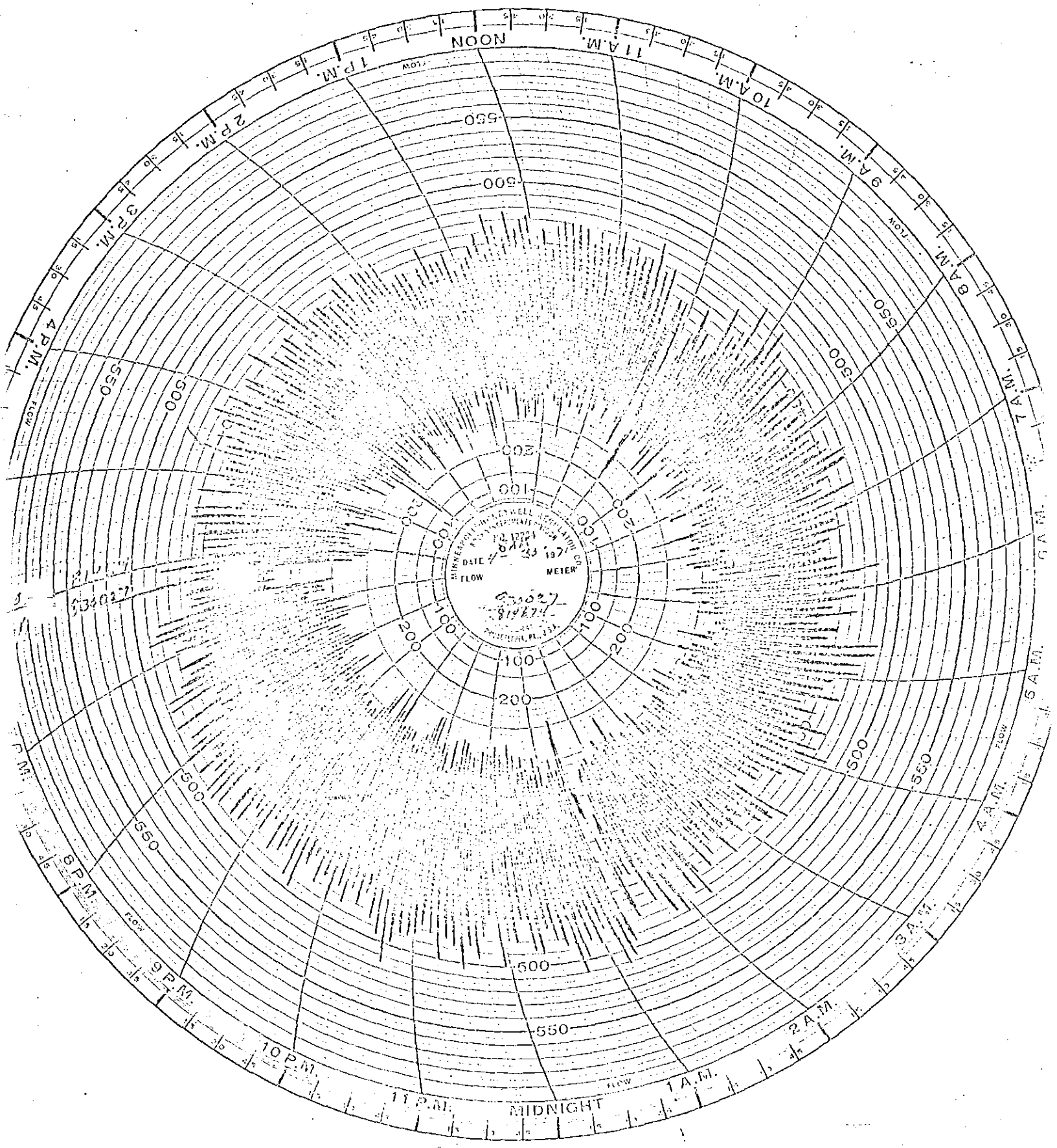
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4 P.M.
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2 P.M.
1 P.M.
FLOW
500
550
200
100
DATE
METER

Timetable for Power House and Dry Kiln Modification

1. Equipment on order - July 1, 1971
2. Estimated delivery of kiln equipment - September 15, 1971
3. Kiln equipment installed - October 15, 1971
4. Estimated delivery of power house equipment - February 1, 1972
5. Power house equipment installed - April 1, 1972
6. Shutdown old power house - April 15, 1972

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION
B. A. McPhillips, Chairman E. C. Harms, Jr., Member
Storrs S. Waterman, Member George A. McMath, Member
Arnold M. Cogan, Member

FROM : AIR QUALITY CONTROL DIVISION

DATE : July 14, 1971 for Meeting of July 23, 1971

SUBJECT: WESTERN KRAFT CORPORATION, ALBANY

The Western Kraft pulp mill at Albany has, for a number of years, been a source of complaint and concern of the Commission and a number of citizens of the State.

In letters dated March through April 1969, Mr. C. R. Duffie, Vice-President, outlined a company proposal for expansion of pulp production and for effecting a substantial reduction in atmospheric emissions at the Western Kraft Corporation, Albany pulp mill. After a detailed review of the project and long discussions, the Sanitary Authority at the April 25, 1969 meeting approved the expansion and control program with a number of limitations.

While the project is not totally complete and could still be considered in the start-up stages, a number of citizens have expressed words of commendation concerning their observations and it is appropriate that the staff advise you of the status.

Western Kraft is to be commended on completing the installation of a new recovery boiler and electrostatic precipitator at its Albany mill. The furnace, control equipment and procedures have reduced the emissions of odorous gases by more than 99%, and the electrostatic precipitator has reduced emissions of solid particulate matter by approximately 80%. The company completed the project a few months ahead of schedule, and by careful attention to operator training has minimized the troubles usually met in breaking in new equipment.

revised

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION
B. A. McPhillips, Chairman E. C. Harms, Jr., Member
Storrs S. Waterman, Member George A. McMath, Member
Arnold M. Cogan, Member

FROM : AIR QUALITY CONTROL DIVISION STAFF

DATE : July 22, 1971 for Meeting of July 23, 1971

SUBJECT : MEASURED LEVELS OF SULFUR DIOXIDE IN SALEM

The Mid-Willamette Valley Air Pollution Authority has recently provided the staff with a draft report on continuous monitoring of sulfur dioxide at the Marion County Courthouse for an 8-month period ending June 30, 1971. The sampling was conducted by the Mid-Willamette Valley Air Pollution Authority staff, using an instrument on loan from the Department of Environmental Quality.

Although the staff has not yet completed a full review of the sampling data, the following conclusions appear to be valid:

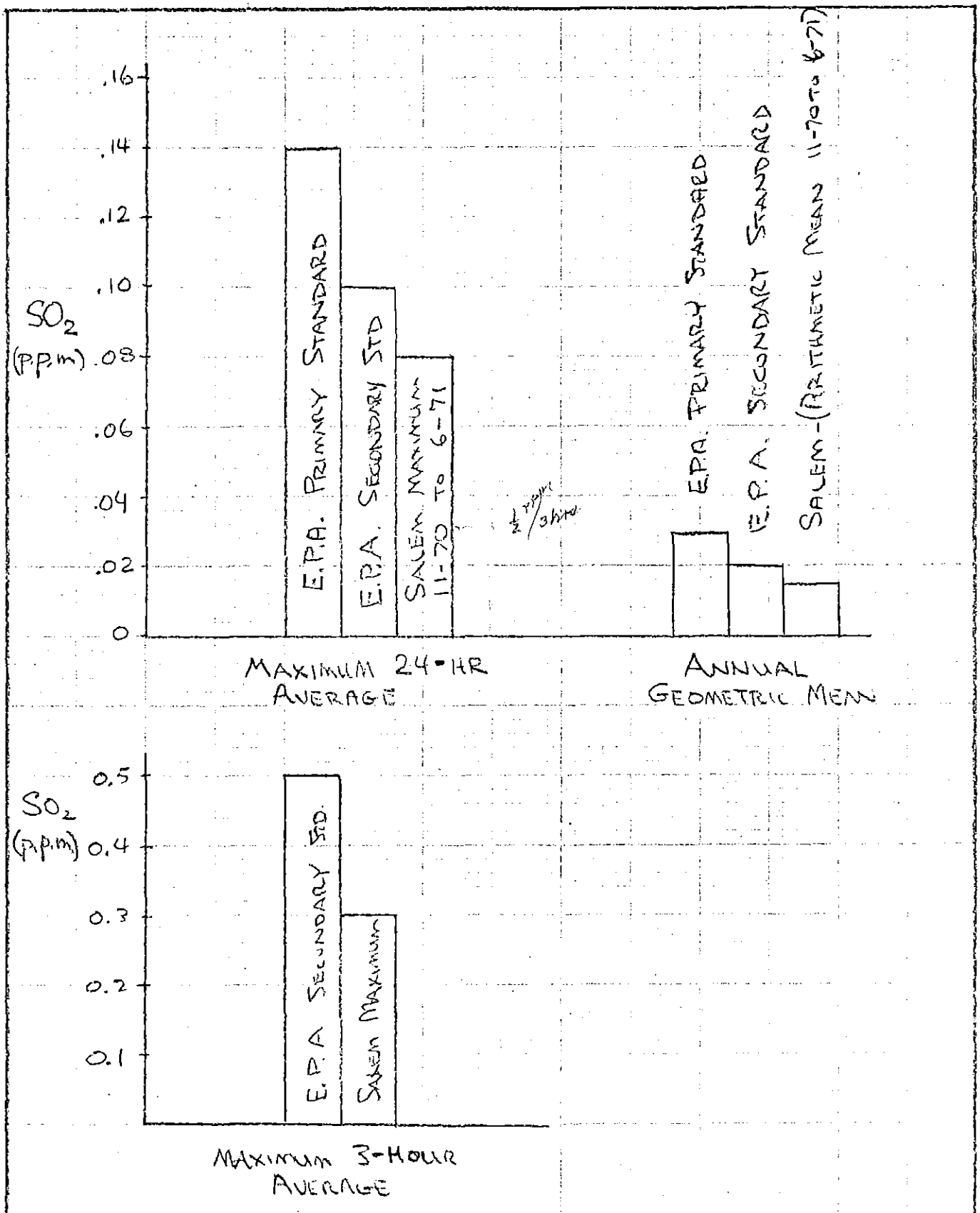
1. National ambient air standards for sulfur dioxide as promulgated by the Environmental Protection Agency, were not exceeded at the site, 20 feet above ground level and some 500 yards from the Boise Cascade sulfite pulp mill. This would indicate that for the period sampled the levels of SO_2 at this site were below those identified with public health effects (primary standard) and with public welfare (secondary standard).

2. The sampling documented numerous instances of nuisance odor conditions, with 73 documented instances of commonly-accepted odor threshold of 0.5 ppm being violated . On 42 occasions a 15-minute average in excess of 0.5 ppm was reached or exceeded. Instantaneous peaks in excess of 2.0 ppm were recorded on 6 occasions, and a maximum 15 minute average in excess of 1.5 ppm was recorded on 2 occasions.

3. Standards of the Mid-Willamette Valley Air Pollution Authority, relative to 15-minute and 8-hour average concentrations, were exceeded on 3 occasions during the period.

4. Additional instrumentation (lead peroxide candles) indicated the probability that higher levels of SO_2 could have been recorded on the courthouse roof some 50 feet higher than the sampling location. It is not possible to determine the amount of the difference, but it is conceivable that violations of the national secondary standards might have been documented had the sampling site been located at the higher elevation.

The attached graph shows comparisons of the recorded maximum values with corresponding national standards.



COMPARISON OF SULFUR DIOXIDE SAMPLING RESULTS AT MARION COUNTY COURTHOUSE WITH NATIONAL AMBIENT AIR STANDARDS OF THE ENVIRONMENTAL PROTECTION AGENCY (E.P.A.)

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION
B. A. McPhillips, Chairman
Storrs S. Waterman, Member
Arnold M. Cogan, Member
E. C. Harms, Jr., Member
George A. McMath, Member

FROM : AIR QUALITY CONTROL DIVISION

DATE : July 19, 1971, for Meeting of July 23, 1971

SUBJECT: PROPOSED SULFITE PULP MILL REGULATIONS

Comment to date regarding the proposed Regulation for Sulfite Pulp Mill has been received from Publishers Paper and the Columbia-Willamette Air Pollution Authority and are attached. Citizen comment is on file with Mr. Spies.

Also attached is staff comment relative to the Columbia-Willamette Air Pollution Authority letter; and copies of the regulation and background report previously furnished members.

PUBLISHERS PAPER TIMES MIRROR

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
JUL 19 1971
AIR QUALITY CONTROL

July 16, 1971

Department of Environmental Quality
Air Quality Control Division
P. O. Box 231
Portland, Oregon 97207

Gentlemen:

Your recent announcement of a public hearing to be held on July 23, 1971 relative to "Proposed Regulations for Sulphite Mills", invited comments. Publishers Paper Co. by this letter, presents its objections to certain of the proposed regulations.

Section C. 2 states that "The total average daily emissions from a sulphite pulp mill shall not exceed 22 pounds of sulfur dioxide per ton of air dried unbleached pulp produced." We believe this level should realistically be set at 30 pounds of sulfur dioxide per ton of air dried unbleached pulp produced. To our knowledge, there is no known method which would make even 30 pounds of SO_2 per ton attainable at this time, or in the near future, considering the production variables which unavoidably occur in full scale, around the clock operations. Suggestions for lower standards have been based primarily on literature or theoretical considerations rather than actual operating equipment on a continuous basis. Even attainment of 30 pounds/ton on a consistent basis within three years presents the formidable challenge of reducing emissions greatly below existing levels. Based on limited ambient monitoring results to date, we feel that ambient standards will be met at the 30 pound level.

We will continue working on projects for bringing the recovery and blow stacks at both our mills to reasonably attainable levels. We would point out that if lower levels are attainable we will work toward that end. Further, the 30 pound standard could be lowered after a hearing not later than December 31, 1973, as provided in Section H. Also, if ambient air standards are exceeded, the emission limits and compliance schedules may be made more restrictive at any time as provided in Section C. 1.

419 MAIN ST., OREGON CITY, OREGON 97045, TELEPHONE (503) 656-5211

Difficulties are being encountered by a variety of agencies and industries in deriving consistent results from existing testing equipment and procedures both as to sulfur dioxide and particulates. This leads us to the conclusion that it will be impossible within sixty (60) days of adoption of the Rule E. 1 to establish a reliable and acceptable monitoring system capable of compliance with Rule E.2.

Yours very truly,

Clifford Mayer
Assistant Mill Manager

ak

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION
B. A. McPhillips, Chairman — E. C. Harms, Jr., Member
Storrs S. Waterman, Member — George A. McMath, Member
Arnold M. Cogan, Member

FROM : AIR QUALITY CONTROL DIVISION STAFF

DATE : July 16, 1971 for Meeting of July 23, 1971

SUBJECT : COMMENTS FROM CWAPA ON THE PROPOSED REGULATION FOR SULFITE MILLS

By letter dated July 9, 1971, Columbia Willamette Air Pollution Authority transmitted comments on some sections of the proposed regulation. The Air Quality Control Division staff feels that those comments merit specific reply, both with respect to the situation of greatest concern to CWAPA (Publishers Paper Oregon City), and as probably being typical of the questions that would be raised by other interested people and agencies. Their comments and our responses are as follows:

1. GENERAL

A. Definitions -

8. Particulate Matter

Columbia Willamette Air Pollution Authority urges that the general definition adopted by the Department of Environmental Quality and by the Environmental Protection Agency be used, in which liquid aerosols would be included, instead of the proposed definition restricted to solid particulate.

The definition was written to relate to the proposed limit of 4 lb/T, to require treatment of a degree comparable to that required in kraft mills (approximately 99%). It is recognized that there may be liquid aerosols, especially acid mists of H_2SO_4 from emissions of SO_3. However, there is no evidence to suggest that they definitely do exist, especially in sufficient quantity to be an ambient problem. The "Special Studies" (Section F) was written to ensure that this potential problem would be explored, and, if necessary, the regulation can be amended to include a limit on SO_3 and SO_3- related emissions. The control strategies for the two types of particulate will differ, in that solid particulate will be controlled by addition of equipment (mechanical collectors, or scrubbers), while control of SO_3 is more likely to be accomplished by controlling furnace operation. It should be noted that the regulation was based on known problems, with suspected problems to be dealt with when sufficient information is available to allow a rational approach.

C. Minimum Emission Standards

CWAPA claims that 22 lb/T is not best present technology - that Environmental Protection Agency has established 9 lb/T as best treatment and as a "standard", being achieved at present with "...efficiently designed chemical recovery systems....". CWAPA further states that all sulfite mills should be required to install tall stacks, basing their contention on the diffusion estimates in the DEQ staff report on the sulfite industry.

One mill, Finch Pruyn's ammonia-based mill at Glenns Falls, New York, possibly is achieving this level, at a cost of generating a suspended particulate fume of ammonium sulfite. One other mill, Great Northern's magnefite mill at Millinocket, Maine may approach 9 lb/T, although the company has reported emissions as averaging 18 lb/T and 500 ppm. The numbers are based on grab samples, not on continuous monitoring. The mill has also reported being compelled to increase the acidity of its scrubbing medium, at a significant penalty in efficiency, in order to dissolve solid particulate deposits in its scrubbers. This is done for several hours at a time, approximately once a week. Incidentally, the "9 lb/T" published in the Federal Register (Vol. 36, No. 67, April 7, 1971) is a suggested criterion for new mills, not a standard.

The Department of Environmental Quality staff considers that, generally 22 lb/T will be sufficient to avoid ambient problems, and that it is best technology especially for an absolute limit (not to be exceeded), taking into consideration normal variations in routine operation. This limit should be attainable with an average concentration of 500 ppm, with variations up to 800 ppm.

A tall stack is a possible part of a control strategy. It is preferable to achieve control at the source - before discharge and without the necessity of depending on the stack. The diffusion estimates were used as a check on the adequacy of best technology (22 lb/T) rather than as a method of selecting an emission limit to meet an ambient standard. For these calculations, a "tall stack" was taken as being 330' high, which is taller than any kraft mill stack in Oregon.

4. Particulate Emissions -

Columbia Willamette Air Pollution Authority claims that a limit of 4 lb/T is less restrictive than regional process weight limits. The Authority also states that plants near large population centers should be required to meet the regional process weight limits as a part of subjecting them to a more restrictive standard when the mills are declared to be in a "recognized problem area".

As was explained in the staff report "Sulfite Pulping - Emissions and Controls", "An emission limit of 4 pounds per ton of sulfite recovery furnaces was written into the proposed sulfite mill emission regulation as being equivalent to the limit on kraft furnaces and requiring an approximately equivalent degree of treatment." The degree of treatment is about 99%. This, of course, applies mostly to magnesium-based mills, in that ammonia-based recovery furnaces should have very minimal particulate discharges. The regulation, of course, is applicable statewide. If there are problems with specific mills within regions, then as a matter of course a more restrictive particulate limit could be considered at the same time that the mill in question is declared to be in a special control area.

E. Monitoring and Reporting

Columbia Willamette Air Pollution Authority desired that the mills should be required to do ambient monitoring, and that the monitoring should include "an emission reduction plan during air pollution episodes".

The implementation plan required by EPA will include planning for episodes, and will include all sources within affected areas. It does not seem appropriate to include such a requirement in a statewide limitation, or at this time, before such an implementation plan has been developed for EPA's review.

2. SPECIFIC COMMENTS - Publishers Paper at Oregon City

Most of CWAPA's comments on this specific source have been covered above. They express concern about poor dispersion, ("prevailing SW winds during atmospheric stagnation periods..."), and claim that, because the plant is in a recognized problem area, it should be subjected to more restrictive emission standards. The ones they suggest are roughly half those proposed in sulfite regulation, plus requiring a tall stack and an emergency emission reduction program "...based on continuous ambient air monitoring". They cite air sampling for SO_2 as indicating the existence of excess concentrations.

The SO_2 sampling, even though "...considered little more than qualitative", confirmed that digester blow pit emissions had an effect on ambient air concentrations. The effect of the recovery furnace on those measurements could not be estimated. Therefore, the staff believes that the blow pit emissions are of at least equal importance to the recovery furnace emissions. In point of fact, stagnation periods are associated with calm or light variable winds, tending north or northeasterly. Southwest winds are associated with winter storm system, at which time the DEQ staff is concerned with transport of SO_2 into the Gladstone and Milwaukie areas. At those times, the recovery furnace and power boiler emissions (when the fuel gas service is interrupted , and the power boilers are on oil) may be more important. The Staff and Publishers Paper Company both are aware that the Oregon City Mill is in a "recognized problem area", and, with or without a formal finding to that effect, the compliance schedule from the mill is expected to recognize the situation.

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

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

9 July 1971

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

Dear Mr. Patterson:

Reference is made to your memorandum of 18 May 1971 requesting comments regarding rules, regulations and standards relating to the emissions from sulfite pulp mills. We had intended to provide these observations and recommendations to you by 15 June but unforeseen delays occurred.

The following observations, comments and recommendations are provided for your consideration:

General

A. Definitions

8. Particulate Matter - This definition is in conflict with OAR 340-25-155, 21-005, and the EPA Particulate Matter definition. The latter two both including solid and liquid matter (except uncombined water) at standard conditions. The intent seems to be exclusive of sulfuric acid mist as a particulate when in fact, this acid mist is one of the most hazardous types of particulate. In keeping with uniformity and equity among sources, the definition of particulate and associated sampling procedures should be uniformly applied to all source classes. Sulfur trioxide and associated sulfuric acid mist studies and specific emission regulations which are mentioned in the regulations should and still could be undertaken even with a definition of particulate matter including sulfuric acid mist.

C. Minimum Emission Standards

1. Mills in recognized problem areas should be subjected to more restricted emission limits based on best practical and reasonable treatment now, in order to meet implementation plan requirements and to avoid possible costly mid-stream changes in compliance programs. Further detailed comments on this follows.

2. A 22 lb. sulfur dioxide per ton of air dry pulp standard does not appear to require highest and best practical control technology nor does it appear adequate to insure acceptable air quality when coupled with typical short stack discharge height of less than 100 feet (as exemplified by DEQ estimated ground level concentrations of SO_2 using the diffusion equations).

   Environmental Protection Agency has published pollutant emission limitations which states may need for an approvable implementation plan (Federal Register, Vol. 36, No. 67, April 7, 1971) which includes a sulfite pulp mill standard of 9 lbs. sulfur dioxide per ton of air dry pulp. EPA notes in this publication "this emission limit is being achieved with efficiently designed chemical recovery systems that are well integrated with the pulp mill and designed for maximum sulfur recovery".

   DEQ estimated ground level concentrations of SO_2 (assuming an emission rate of 20 lbs. SO_2 per ton of air, dry pulp, stack less than 100 ft. and various meteorological conditions) indicate unacceptable air quality would occur from 400 to 5000 meters from a plant site. DEQ's data also reveals that tall stacks (greater than 300 ft.) could maintain acceptable air quality with an emission limit of 20 lbs. of SO_2 per ton. Considering that most kraft recovery units utilize tall stacks, it would appear reasonable that sulfite mill regulations require tall stacks on sulfite recovery units, at least in plant site locations in recognized problem areas, and areas of high population density.

4. The proposed particulate emission standard of 4 lbs. per ton of pulp which appears to be solely based on kraft mill regulations is less restrictive than regional process weight regulations. For a 170 ton plant, proposed DEQ regulations would allow approximately 28 pounds per hour emission rate while regional process weight regulations would allow 12.5 pounds per hour. Sulfite recovery furnace particulate collection equipment is not considered highly efficient in comparison to that used on kraft recovery furnaces. As such, sulfite plants would apparently be able to meet regional process weight regulations and in keeping with the purpose of the proposed regulations, it would appear reasonable to require a more restrictive standard, especially for plants located in high population areas and areas where particulate ambient air standards are not being met.

E. Monitoring and Reporting

A section should be included on ambient air monitoring which would include an emission reduction plan during air pollution episodes. This emission reduction plan would be in keeping with EPA Implementation Plan requirements and could provide immediate protection to the public health and welfare under severe atmospheric stagnation periods.

* * * * * *

Specific Comments - Publishers Paper Mill, Oregon City

Publishers Paper's 170 tons per day sulfite mill in the CWAPA region at Oregon City is located in an area of restricted topography (River Valley terrain with ground level in many areas approaching top of discharge stacks), high population density (over 15,000 residents within 5000 meters of plant site, downtown Oregon City within 1000 meters of plant site) and poor dispersion conditions (prevailing SW winds during atmospheric stagnation periods direct plume towards heart of Oregon City and Gladstone area). In addition, large quantities of sulfur oxides are emitted from other sources in the near proximity of Publishers Sulfite Recovery Furnace. These include Publishers & Crown Z's residual oil fired boilers. Air sampling for SO_2 in the Oregon City area, although considered little more than qualitative, has confirmed excessive SO_2 concentrations. Suspended particulate monitoring for the period May 70 to May 71 have tabulated four month violations of DEQ's particulate standards and six violations of EPA's secondary ambient air standards at the Oregon City Courthouse sampling site.

In light of the above facts, it appears justified to conclude that Publishers Paper Mill in Oregon City is in a recognized problem area and as such, should be subjected to more restrictive (but attainable) regulations which include:

1. A more restrictive SO_2 emission standard (9 #SO_2/ton ADP)
2. A more restrictive particulate standard (2 #part./ton ADP)
3. A taller stack for better plume dispersion (sufficiently above surrounding terrain to prevent exposure to center line plume concentration before adequate dispersion has taken place)
4. An emergency emission reduction program based on continuous ambient air monitoring

We will be glad to discuss these ideas with your staff and hope that some modifications can be made that will achieve a more uniform and equitable control of this specific class of air pollution sources.

Very truly yours,

R. E. Hatchard, Program Director

REH:sm

MICHAEL D. ROACH
Director

MID WILLAMETTE VALLEY
AIR POLLUTION AUTHORITY

2585 STATE STREET / SALEM, OREGON 97301 / TELEPHONE AC 503 / 581-1715

July 21, 1971

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

Attn: Air Quality Control Division

Gentlemen:

RE: PROPOSED REGULATIONS FOR SULFITE PULP MILLS

Specific reference is made to Section C - Minimum Emission Standards, Subsection 1, regarding mills located in recognized problem areas. The staff of the Mid-Willamette Valley Air Pollution Authority feels that the Boise Cascade sulfite mill falls under this category in Salem. A substantial number of complaints and signatures on petitions have been received both by the Authority and the Department of Environmental Quality.

We feel that there is significant evidence to support the Department of Environmental Quality to consider establishing more restrictive emission limits and compliance schedules for the Salem mill. Specific proposed sulfite regulations which should be reviewed in this light are Subsection C-2(a) and Subsection C-2(b). Diffusion calculations indicate that under certain meteorological conditions the proposed 0.2 pounds of sulfur dioxide per minute per ton of unbleached pulp in the blow system will cause significant odor problems in the city of Salem. It is suggested that the Department review the limitations on the blow system for the Salem plant such that odors off the plant property will not be encountered.

Further, it is the Authority's understanding that the recovery system for the Boise Cascade plant can achieve a sulfur dioxide release of 500 parts per million or less. Since this fits into the Department's policy of the highest and best practical treatment, it is suggested that this 500 parts per million limit be placed on the Salem plant recovery system emission.

Because of the significant engineering already accomplished by Boise Cascade, and in light of their present construction, it appears that a compliance date of January 1, 1973 would be feasible, and certainly a July 1, 1973 date could be met rather than the proposed compliance date of July 1, 1974 for the

entire industry.

Further, it should be noted that the proposed particulate emissions standard provides for approximately twice the emission that would be allowed by the Mid-Willamette Valley Air Pollution Authority's process weight standards.

We submit these comments for consideration by the Environmental Quality Commission such that they can make an equitable decision regarding emission limitations for the Salem sulfite pulp mill. If the Authority can supply any assistance in this area, we are most willing to do so..

Sincerely yours,

Michael D. Roach

Michael D. Roach
Director

MDR/st

cc:
C.J. Fahlstrom
Boise Cascade, Salem

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION

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

FROM : AIR QUALITY CONTROL DIVISION STAFF

DATE : May 3, 1971 for Meeting of May 7, 1971

SUBJECT: PROPOSED REGULATIONS FOR SULFITE PULP MILLS

The purpose of this memo is to describe and explain a proposed emission regulation for sulfite mills (in connection with a staff request for authorization to hold a public hearing for adoption of that regulation). The staff requests that the hearing be authorized to be held at the time of the regular July Environmental Quality Commission meeting.

The attached proposed regulation has been drawn to resolve the ambient problems related to sulfur dioxide (SO_2) emissions and to control particulate emissions from sulfite pulp mills by requiring controls or control procedures on the two major sources of SO_2--- blow pits and recovery furnaces. The regulation was developed through a series of technical conferences held by the Oregon-Washington Air Quality Committee and a technical committee representative of the sulfite pulp industry in the Northwest, and on information and data from technical literature.

The regulation, being "tailor-made" for the sulfite industry, has some items peculiar to that industry. A brief explanation of those and of the background of other parts of the regulation is presented below. (Note: "A Report on the Sulfite Pulping Industry" is available for a more detailed explanation of the technical considerations basic to the regulation.)

In the description presented here, the letters and numbers correspond to pertinent sections in the regulation.

Section A. The first section of the regulation deals with definitions, most of which are self-explanatory, however, attention is directed to the following specific definitions:

1, 4, 9: The three major point sources of SO_2 (acid plant, blow system and recovery system) are defined. A plant not recovering cooking chemicals will have an acid plant and blow pit, while a plant recovering chemicals integrates its "acid plant" into a recovery system, so that all plants have two of these sources of sulfur oxide emissions, but none have all three.

7. Other Sources: Includes minor sources which are listed. Essentially, they are pulp washing, liquor handling and storage, condensate handling and storage, and any other vent which may be determined to be a significant source. It is anticipated that if they have a significant effect on the ambient air, regulations will be drawn on them, but for the present there is insufficient information to establish a limit on them, and they are in the study section.

8. Particulate Matter: The definition for particulate matter is written to include only solid products of incomplete combustion and solid fumes like those deliberately generated in magnesium-based recovery furnaces. There may be liquid aerosols, from sulfur trioxide (SO_3) dissolved in water droplets, but they are a separate problem, to be studied separately.

12. Total Reduced Sulfur: It is known that sodium-based recovery systems can emit odorous reduced sulfides, so a provision for measuring them has been included in this regulation.

Section B. Statement of Purpose. This section sets out the overall goals and policies of the Commission relative to sulfite pulp mills in this regulation. It indicates the directions of studies considered necessary for solving the ambient air quality problem, and emphasizes that the effectiveness of the regulation will be judged, and future changes based on attaining desirable air quality.

Section C. Minimum Emission Standards. This section establishes limits on the minimum controls that will be allowed, i.e., the maximum amounts or concentrations that will be tolerated, subject to maintaining acceptable air quality.

1. The first sub-section emphasizes that satisfactory performance is to be judged in terms of ambient air quality, whether or not emission limits are met. Further, it states that in recognized problem areas, tighter limits may be set.

2. This subsection contains the numerical limits on emissions of SO_2. The limits are in terms of mass rates (pounds of SO_2 per ton of pulp), concentration (ppm, SO_2 in gaseous effluents), and minimum collection or treatment requirements. Two sets of limits are proposed, related to the mills' productions. The division is at 110 air dried tons of unbleached pulp produced per day. The reason for this division is that in Oregon all mills over 110 tons/day recover their cook chemicals, and therefore have one extra source (the recovery furnace) which is a large source of SO_2 in terms of pounds of SO_2 per ton, although the concentration is less than that of most fossil-fueled power plants.

Blow pit emissions have less pounds per ton, but during the blow period (5-7 minutes, up to once an hour) the emissions may be much higher on a pounds per minute basis. These will require quite extensive controls or process modifications.

For mills under 110 tons per day, the controls are in terms of control efficiencies with this section pertaining to Crown Zellerbach-Lebanon and Coos Head - Coos Bay.

It should be noted that one of the largest sulfite mills is Menasha Paper Company's Neutral Sulfite Semi-Chemical mill at North Bend. At present, its emissions are minimal, but when the recovery system is installed, it will be affected by the large mill limits, as well as subject to review to determine whether more restrictive limits should be set under the provisions of Section 1.

The numerical limits are as follows:

Total emissions from each sulfite mill shall not exceed 22 lb SO_2 per air-dried, unbleached ton produced. The number represents 20 lb SO_2/Ton from recovery furnaces and 2 lb SO_2/Ton from other sources. The Department of Environmental Quality staff believes, based on diffusion equations relating emission rates to ambient air concentrations, that 20 lb/ton is the maximum rate that may be tolerated to avoid ambient air quality problems.

Blow pit vents shall not emit more than 0.2 pounds of SO_2 per minute per ton of pulp discharged in each blow. The rate is to be averaged over 15 minutes, the time based on the demands of the sampling method. This represented a time rate of emission well below the rate calculated to prevent ambient odors and tastes. It may require either doing away with the digester blow procedure or require extensive collection and treatment.

Emissions from the recovery furnace, acid plant, and other sources are limited to 800 ppm SO_2 on an hourly average. This will require an average over a longer period of time lower than 800 ppm, probably in the neighborhood of 500 ppm. The one-hour average appears to be the shortest time that an upset can be detected and corrected.

3. Mills under 110 tons per day are to install controls of 50% efficiency within one year, and 80% efficiency by December 31, 1975. Controlling the emissions with 80% efficiency should result in roughly the same emissions in terms of lb SO_2/day as from a large mill. The mills are also required to continually monitor the ambient air to ensure that State and Federal air quality standards are not exceeded, as well as a special provision that ambient concentrations shall not exceed 0.8 ppm of sulfur dioxide averaged over five minutes. The 0.8 ppm is at the odor detection threshold. This requirement was included to place the burden of proof on industry that the small mills will indeed cause no significant ambient air problem.

4. The particulate limit, set at 4 pounds per ton of pulp, is the same as on kraft mill recovery furnaces.

The table which follows indicates the controls necessary for compliance.

Section D. Compliance Schedule. The compliance schedule is written to ensure that the Department receives enough information to make a sound judgment on the adequacy of the compliance programs and to demonstrate that time schedules are justified. It is the staff's opinion that the long time taken in developing the regulations has allowed the mills ample time to consider the regulation requirements so that much of the preliminary investigations should be essentially done.

Section E. Monitoring and Reporting. Compliance with these provisions will provide the Department with adequate information to establish compliance and to compare the performance of the various mills. The regulations look to a future time when reliable continual monitoring equipment is available and approved, with the provision that an interim "grab sample" technique, approved by the Department may be used.

Section F. Special Studies. This section will lead to the development of gaseous monitoring and particulate sampling techniques more reliable and informative than those presently used. It is anticipated that the companies will cooperate with each other or with equipment representatives to develop the methods.

The studies of other sources and their control will inventory and develop controls for these sources as warranted by their magnitude.

The studies on sulfur trioxide (SO_3) were alluded to in the discussion of the definition on particulates. SO_3 in water droplet forms an acid mist, which normally would be included in particulate, but there are no data regarding the amount or effect of SO_3 emissions. The purpose of this study is to define the problem. If necessary, appropriate action will be taken based on the studies.

Section G. Exceptions. This exception restricts the regulation to chemical pulping and recovery. SO_2 emissions from power boilers using oil will be dealt with as a class separately for all industries.

Section H. Public Hearing. As in a similar provision in the kraft regulation, this section requires an examination of progress and results and to amend this regulation as indicated by perseverance of ambient problems after the mills have complied with the regulation or as indicated by results of the special studies.

Section I. Notice of Construction. Reiterates the provisions of the Notice of Construction program (OAR 20-020.030) and defines construction, installation and establishment.

Necessary Reductions or Degrees of Treatment Required by the Regulation

SO_2:

	Blow Pit Vent lb/Ton		Recovery Furnace lb/Ton		Recovery Furnace ppm	
	Present	% Reduction	Present	% Reduction	Present	% Reduction
Publishers Paper Oregon City	2½	38	30-35	33-43	800	38
Publishers Paper Newberg	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
	(Reductions probably will not exceed those at Oregon City)					
Boise Cascade Salem	80	97	Projected to be within the required limits			
Crown Zellerbach Lebanon	Under the small mill provision the plant would have to install controls at 50% efficiency in one year, and 80% efficiency by December 31, 1975.		No Recovery		No Recovery	
Coos Head Timber Coos Bay	Same situation as C-Z - Lebanon		No Recovery		No Recovery	
Menasha Paper North Bend	Emissions not measured, but minimal (Neutral Sulfite, Semi-Chemical)		No Recovery		No Recovery	

Particulate:

No data are available for particulate emissions from Publishers' recovery furnaces. Boise Cascade - Salem should have minimal particulate emissions

DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY CONTROL DIVISION

Proposed Regulations for SULFITE PULP MILLS

A. DEFINITIONS:

1. Acid Plant - The facility in which the cooking liquor is either manufactured or fortified when not associated with a recovery furnace.
2. Average Daily Emission - Total weight of sulfur oxides emitted in each month divided by the number of days of production that month.
3. Average Daily Production - Air dry tons of unbleached pulp produced in a month, divided by the number of days of production in that month.
4. Blow System - Includes the storage chest, tank or pit to which the digester pulp is discharged following the cook.
5. Continual Monitoring - Sampling and analysis in a continuous or timed sequence, using techniques which will adequately reflect actual emission levels, ambient air levels, or concentrations on a continuous basis.
6. Department - The Department of Environmental Quality.
7. Other Sources - Means sources of sulfur oxide emissions including but not limited to washers, washer filtrate tanks, digester dilution tanks, knotters, multiple effect evaporators, storage tanks, any operation connected with the handling of condensate liquids or storage of condensate liquids, and any vent or stack which may be a significant contributor of sulfur oxide gases other than those mentioned in emission standard limitations (Section C).
8. Particulate Matter - A small discrete mass of solid matter, including the solids dissolved or suspended in liquid droplets but not including uncombined water.
9. Recovery System - The process by which all or part of the cooking chemicals may be recovered, and cooking liquor regenerated from spent cooking liquor, including evaporation, combustion, dissolving, fortification, and storage facilities associated with the recovery cycle.

10. Sulfite Mill or Mill - A pulp mill producing cellulose pulp using a cooking liquor consisting of sulfurous acid and/or a bisulfite salt.
11. Sulfur Oxides - Sulfur dioxide, sulfur trioxide and other sulfur oxides.
12. Total Reduced Sulfur (TRS) - Hydrogen sulfide, mercaptans, dimethyl sulfide, dimethyl disulfide and other organic sulfides present.

B. STATEMENT OF PURPOSE:

It is the policy of the Commission:

1. To require, in accordance with a specific program and timetable for each operating mill, the best practicable and reasonable treatment and control of emissions from sulfite mills through the utilization of technically feasible equipment, devices and procedures;
2. To require the evaluation of improved and effective measuring techniques for sulfur oxides, total reduced sulfur, particulates and other emissions from sulfite mills;
3. To require effective measuring and reporting of emissions and reporting of other data pertinent to emissions. The Department will use these data in conjunction with ambient air data and observation of conditions in the surrounding area to develop and revise emission standards and air quality standards, and to determine compliance therewith;
4. To encourage and assist the sulfite pulping industry to conduct a research and technological development program designed to progressively reduce sulfite mill emissions, in accordance with a definite program with specific objectives;
5. To establish standards deemed to be technically feasible, reasonably attainable, and necessary for the attaining of satisfactory air quality with the intent of revising the standards as new information and better technology are developed.

C. MINIMUM EMISSION STANDARDS:

1. Notwithstanding the specific emission limits set forth in this section, The Department of Environmental Quality may, after notice and hearing, establish more restrictive emission limits and compliance schedules for mills located in recognized problem areas, for new mills, for mills expanding existing facilities, for mills installing substantial modifications of existing facilities which result in increased emissions; or for mills in areas where it is shown ambient air standards are exceeded.

2. The total average daily emissions from a sulfite pulp mill shall not exceed 22 pounds of sulfur dioxide per ton of air dried unbleached pulp produced and in addition:
   (a) the blow system emissions shall not exceed 0.2 pounds of sulfur dioxide per minute per ton of unbleached pulp (charged to digester) on a 15 minute average.
   (b) Emissions from the recovery system, acid plant and other sources, shall not exceed 800 ppm of sulfur dioxide as an hourly average.
3. Mills of less than 110 ton of air dried unbleached pulp per day may be exempted from the limitations of subsection 2 above provided:
   a) That the schedule of compliance required by Section D demonstrates that a minimum of 50% collection efficiency will be maintained and that compliance will be achieved within 1 year.
   b) That the schedule of compliance required by Section D demonstrates that a minimum of 80% collection efficiency will be maintained and compliance will be achieved no later than December 31, 1975.
   c) That an approved program continually monitors ambient air to demonstrate compliance with State and Federal ambient air standards, and that a five (5) minute concentration of 0.8 ppm of sulfur dioxide is not exceeded.
4. The total emission of particulate matter from the recovery furnace stacks shall not exceed four (4) pounds per air dried ton of unbleached pulp produced.

D. COMPLIANCE SCHEDULE:

Each mill shall proceed promptly with a program to bring all sources into compliance with this regulation, but in no instance shall the compliance be achieved later than July 1, 1974 (except as provided in C, 3(b)). A proposed schedule of compliance with this regulation shall be submitted within one hundred and twenty (120) days following the adoption of this regulation, or as otherwise determined by the Environmental Quality Commission. After receipt of the proposed schedule the Department shall adopt an approved compliance schedule. The proposed schedule shall include:

1. A description of the program to determine the sulfur dioxide emissions from all sources.

2. The dates when specific steps of the program will be completed, including but not limited to:
   a. Engineering study
   b. Purchase of equipment
   c. Erection of equipment
   d. Equipment placed in normal operation (full compliance with regulation)
3. A description of each step in the program, including but not limited to:
   a. Engineering studies including alternative control procedures to be considered and a comprehensive time schedule for their evaluation.
   b. Performance characteristics and estimated efficiences of control devices.
   c. Justification for the time schedule requested.
   d. Reduction in emissions resulting from each completed step.

The approval of a compliance schedule by the Department shall be based upon a showing that the mill is proceeding with all due speed to meet all requirements of this regulation.

E. MONITORING AND REPORTING:

1. Each mill shall submit, within sixty (60) days of the date of adoption, a detailed sampling and testing program and time schedule for approval by the Department.
2. The monitoring equipment shall be capable of determining compliance with the emission limits established by these regulations, and shall be capable of continual sampling and recording of concentrations of sulfur dioxide contaminants from the recovery system.
3. Each mill shall sample the recovery system, blow system, and acid plant for sulfur dioxide emissions on a regularly scheduled basis.
4. Each mill shall sample the recovery furnace stacks for particulate on a regularly scheduled basis.
5. Unless otherwise authorized, data shall be reported by each mill at the end of each calendar month as follows:
   a. Average daily emissions of sulfur dioxides expressed as pounds of

sulfur dioxide per ton of pulp produced from the blow system, recovery system, and acid plant.

b. The daily average and peak concentrations of sulfur dioxides expressed in pounds per hour and expressed in ppm of sulfur dioxide and the number of hours each day that the concentration exceeds 500 ppm.

c. The average daily production of unbleached pulp and the maximum daily production.

6. Each mill shall furnish upon request of the Department, such other pertinent data as the Department may require to evaluate the mill's emission control program. Unless otherwise prescribed, each mill shall report immediately to the Department abnormal mill operations which adversely affect the emission of air contaminants.

7. All measurements shall be made in accordance with techniques approved by the Department. Interim procedures may be approved for use prior to completion of the studies required by Section F.

F. SPECIAL STUDIES:

Special studies of the nature described below and having prior approval of the Department shall be conducted at each mill or through cooperation among mills. The proposed program and timetable shall be submitted to the Department within 90 days of adoption of this regulation.

1. Develop and recommend satisfactory measuring technique for particulates from recovery furnace stacks.
2. Evaluate and report the emission and control methods of sulfur dioxide from other sources within the mill.
3. Evaluate and report the emission of sulfur trioxide from recovery furnace and acid plants.
4. Evaluate as required by local conditions emissions of TRS.
5. Develop and recommend satisfactory continual monitoring techniques for SO_2 emissions from recovery systems and blow pit vents.

G. EXCEPTIONS:

These regulations do not apply to open burning or power boiler operations conducted at sulfite pulp mills unless such boilers are an integral part of the sulfite process or recovery system.

H. PUBLIC HEARING:

A public hearing may be held by the Department not later than December 31, 1973, in order to review current technology and adequacy of these regulations.

I. NOTICE OF CONSTRUCTION AND SUBMISSION OF PLANS AND SPECIFICATIONS:

1. Prior to the construction, installation, or establishment of a sulfite mill, a notice of construction shall be submitted to the Department as required by OAR 340, Sections 20-020 and 20-030.
2. Addition to, or enlargement, or placement of a sulfite mill or any major alternation therein shall be construed as construction, installation, or establishment.

DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY CONTROL DIVISION

SULFITE PULPING - EMISSIONS AND CONTROL

A Background Report for Sulfite Pulp Mill Regulations

1. THE PROCESS:[1][a]

The sulfite pulping process uses a sulfurous acid-bisulfite salt solution to attack the lignin in wood chips, either freeing the cellulosic fibers entirely or making it easier to mechanically reduce the chips to fiber. In Oregon, the process is used almost exclusively for pulping hemlock, with small amounts of hardwood being an exception.

The pulping of hardwood is an exception to general industry practice in a number of ways which will be described separately. The following description relates to the more general pulping of softwoods in conventional equipment.

Sulfite pulping is done in batch digesters, which are large cooking vessels of up to 6,000 cubic feet and 20 tons chip capacity. After the chips and cooking liquor are charged (loaded), the vessels are sealed and steam-heated to 90-100 pounds per square inch (psi). After the chips have been cooked to a point which is dependent on the type of pulp desired, the pressure in the digester is relieved to about 40 psi, a valve at the bottom of the digester is opened and the pulp is blown under the remaining pressure into a blow pit. Spent sulfite liquor containing half the weight of the chips, drains from the pulp and steam vapors and gases may also escape at this time. The pulp is diluted and passes on to knotting (screening to remove knots) and washing processes.

Hardwood is being pulped at one Oregon mill in a neutral sulfite semi-chemical (NSSC) process, using a low-strength cook liquor and a continuous digester. The chips are cooked just enough to soften them, with the balance of the pulping being done by mechanical means. Emissions from the digestion and cook-liquor preparation are very minimal. Western Kraft at Albany is building an NSSC system which probably will pulp softwood.

In the past, the spent sulfite liquor has been held for some treatment for water quality purposes and, subsequently, released to a receiving stream. More stringent effluent and water quality standards have compelled sulfite mills to initiate cooking-chemical recovery, which is done by evaporating the spent liquor, incinerating the solids which remain, then collecting the cooking chemicals in a series of mechanical particulate collectors and in scrubbers. These chemicals are dissolved in water and the concentration adjusted to desired levels, thus regenerating the cooking liquor.

Atmospheric emissions are from three major sources: blow pit vent stack, acid-making plant and recovery furnace stacks. There may be additional discharges from the knotters and washers, although these may be minor. If cooking chemical recovery is practiced, there will be no acid making emission separate from the recovery furnace emissions.

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[a] Footnotes are included in a Bibliography, Appendix III.

2. BLOW PIT EMISSIONS AND CONTROLS:

To use the term "sulfite process" for all six mills in Oregon may be misleading by implying more uniformity than actually exists. The end use of pulps produced ranges from fine paper, almost a rayon pulp to corrugating medium, a semi-chemical pulp still containing much lignin used for the corrugated inner section of cardboard. Each pulp use demands a specific cooking liquor composition and cook cycle (combination of time, temperature and pressure).

2.1 Digestion:

The purpose of digestion is to dissolve the lignin (wood sugar) matrix that supports the cellulosic fibers. In the sulfite processes, the lignin is dissolved by sulfite ions ($SO_3^=$). Cooking liquor is a solution of sulfurous acid (H_2SO_3) and a bisulfite salt ($MHSO_3$ - where M is sodium, ammonium, magnesium or calcium). The bisulfite, by its limited solubility keeps the cook liquor at a reasonable constant concentration of sulfite (buffers the liquor). As sulfite is consumed by reacting with lignin, more sulfite is made available by the dissociation of bisulfite. The procedure may be represented as:

$$MHSO_3 \text{ yields } M^+ + HSO_3^- \text{ yields } H^+ + SO_3^=$$

The reason for trying to keep the concentration constant is that the mills must have uniform pulp quality. By adjusting the concentrations, pulp quality can be varied from a product that must be mechanically reduced to a pulp after being merely softened by digestion (semi-chemical, or chemi-mechanical pulps) to the "dissolving grades", which are pure cellulose, suitable for making rayon. The total SO_2 determines how much of the wood will be digested (determines the yield). The balance between free and combined sets the pH and thus the pulp quality (strength, by the nature of chemical degradation of cellulosic fibers; brightness and bleachability by how much lignin is removed without also dissolving too much cellulosic material).

The following Tables indicate the range of cook liquors in commercial use. The terms used in Table II are:

- % Combined = weight percent of SO_2 as bisulfite salt, $MHSO_3$
- % Free = weight percent of SO_2 as sulfurous acid, H_2SO_3
- % Total = total weight percent of SO_2 in cook liquor
- pH = acidity of cook liquor (Note: low pH is a high acidity)

Table I

Sources and Emissions in Sulfite Mills

Source	Contaminant Emitted
Blow Pit	SO_2, Water Vapor and Drops
Knotters, Washers	SO_2
Recovery Furnace	SO_2, Particulate (solid and liquid), SO_3
Acid Plant	SO_2, SO_3, Liquid Particulates possible

Table $II_{(2)}$

Illustrative Sulfite Cook Liquor Composition

		SO_2, Percent of Solution			
Commercial Name	Pulp Use	Combined	Free	Total	pH
Acid Sulfite	Rayon, fine paper	1	3	4	1.8
Bisulfite	Newsprint	2	2	4	4.3
NSSC, or Bisulfite monosulfite	Corrugating medium	3	1	4	6.7

Chemical usages in pulp production are shown in Table III below, with numbers expressed in terms of pounds per ton of pulp produced:

Table III (3)

Typical Cook Liquor Chemical Usage
lbs of material per ton of pulp

Process	Water	Chips	Base	Sulfur Dioxide Free	Sulfur Dioxide Total	Cook Strength, % Total SO_2 in Water	Pulp
Ammonia-base Acid Bisulfite	19000	3600	110 (NH_3)	1200	1600	8.4	1 ton
Magnesium-base Bisulfite	13000	3700	245 (MgO)	340	675	5.2	1 ton
Neutral Sulfite Semi-Chemical	2400	2400	70-100 (Na_2CO_3)		220-280 ($NaHSO_3$)		1 ton

The amount of SO_2 that would be released to the atmosphere, if there were no controls, when a digester is blown is approximately the free SO_2 present in the cook liquor at the end of a cook. This quantity, in turn, is influenced by, but not strictly proportional to, the free SO_2 in the cook liquor charged into the digester with the chips. The lack of proportionality is largely related to the pressure relief, during the cook and just prior to blowing the digester. Three Oregon mills illustrate the range of actual emissions with the use of water sprays and minimum blow pressures to achieve some amount of control: (4)

Type and Process and Pulp Use	Blow Pit Emission, lb SO_2/ton	Precent Free SO_2 in Cook liquor
Acid Bisulfite, making fine paper	80	8
Bisulfite, making newsprint	2½	2.5
NSSC, making corrugating medium	0	0

Note: Theoretically, an uncontrolled calcium-based newsprint mill will liberate 150 lb/T.

As will be pointed out in more detail in the discussion of the blow cycle which follows, the important feature of blow pit emissions is that during the peak of the blow (the four to six minutes after opening the digester during which the digester is emptied of pulp and the maximum emissions of water vapor and sulfur dioxide are experienced), the mass emission rate of sulfur dioxide (lbs. SO_2/min.) may equal or exceed the continuous emission rate from the recovery furnace, and the concentration will also be higher. On the other hand, emissions from the NSSC process are almost neglible.

2.2 Blow Cycle:

The blow cycle itself merits a certain amount of detailed attention. There is some relief (gas escapement) from digesters at the time they reach their maximum temperature. This high-pressure, or top relief, prevents the development of unsafe pressure within the digester (generally within the range of 80-90 psi), and prevents pulp degradation by limiting the severity of pulping conditions. These gases are relieved to "accumulators", sprayed chambers where steam is condensed and SO_2 redissolved for subsequent reuse as cook liquor.

When the cook is nearing completion, additional relief in preparation for the blow is done, lowering the digester to 40 psi over atmospheric pressure. This minimum pressure has been reported to be required to ensure a "clean blow", one in which all the pulp is blown from the digester. The pulp is usually blown "uphill", from the bottom of the digester up perhaps five-ten feet into the blow pit. The liquor is passing from a pressurized to an atmospheric regime and its initial temperature is above the boiling point, so that steam "flashes" to bring the temperature down. In like manner, the sulfur dioxide is more soluble at elevated pressure, and is flashed off to reach equilibrium solubility at blow pit conditions. Air displaced from the blow pits followed by visible vapor and, concurrently or a little later, invisible SO_2 may be emitted. The spent liquor drains and the pulp is removed to prepare the blow pit for the next blow.

The two largest batch sulfite mills in Oregon have six digesters each, enough so that one is blown each hour. The smallest mill blows once every four hours. The peak flows and concentrations that have been reported to the Department staff last for five-six minutes. This time dependence of the discharge makes the "lbs. SO_2/Ton" reported from digesters and recovery furnaces not strictly comparable, especially in evaluating their impact on the ambient air around sulfite mills. The following Table IV shows the relationship between recovery furnace and blow pit emissions:

Table IV

Sulfur Dioxide Emissions (4)

	Recovery Furnace			Blow Pit Vent		
	lb/T	lb/min	ppm (dry)	lb/T	lb/min	ppm (wet)
Magnefite	30	3.6	800	2.5	4.0	1500+
Acid Bisulfite,	17	2.3	230	80	167	15000

Note: Bisulfite Recovery furnace data reported by the vendor to EPA, who then relayed the data to the DEQ. The vendor's guarantee is only in terms of "able to emit no more than 500 ppm for 15 minutes". The 17 lb/T - 230 ppm apparently is a design basis only, to enable meeting that guarantee.

Table IV is based upon the assumption that substantially all of the sulfur dioxide reported in the "lb/T" column is emitted during the five-six minute peak of the blow cycle. Due to the interent nature of the test method, the

measurement is a 15 minute average which may not reflect all the SO_2 released during the peak. There is a further consideration. The higher concentration in the blow pit vent gases will govern the ambient concentrations noted up to a certain distance. Beyond that distance, the mass rate of SO_2 emitted becomes more important. Thus, even with indicated equal mass emission rates, ambient monitors located within a few blocks of the magnefite mill showed peaks which could be related to blows, and complaints from residents in the vicinity of the mill confirm that at those locations the blow pit exhaust has a greater impact. Because of the long sampling period, and also because of the high time rate of release (lb/min) and concentrations, comparing emissions in terms of lb SO_2/ton from recovery furnaces and blow pits is not valid.

A summary of basic features of sulfite mills in Oregon is presented in Table V.

2.3 Control Approaches:

The control of blow pit emissions, as with other emissions, can be based on a number of approaches. Among these are:

1. Change of process i.e., convert to kraft, or cease pulping
2. Retention in spent liquor
3. Scrub SO_2 from exhaust gases after coming out of solution.

2.3.1 Changing Process:

Changing process has been accomplished by at least four sulfite mills in the Northwest: Boise Cascade at Vancouver, Washington, Crown Zellerbach at West Linn, Fibreboard and Crown Zellerbach at Port Angeles having ceased sulfite pulping some years ago.

2.3.2 Preventing Release:

It is possible, theoretically, to prevent the release of SO_2 by neutralizing the pulp in the digester. A trial a few years ago was successful in raising the pH from 5 to 5.5, at which point the pulp severely darkened. (4).

Some work has been done to attempt to contain the SO_2 within the mills' acid system, using the top and side reliefs described previously. These efforts have been directed toward relieving as much SO_2 as possible into accumulators (vessels with sprays), and reusing the resulting acid solution for cook liquor make-up. The efforts have been carried to the point of relieving digesters to 30 psi and repressurizing to 40 psi with steam. Trials intending to relieve further were reported to have been unsuccessful for the following reason: the gases were relieved, both for top and side relief, through a screen around the neck at the top of the digester. When the pressure dropped below about 30 psi, significant amounts of fiber were entrained in steam, plugging the screens. Further relief is impossible under those conditions.

Table V

Sulfite Pulp Mills In Oregon (4)

Mill	Base	Type of Cook	No. of Digesters	Capacity Tons/Day	No. of Blows Per Day	SO_2 Emissions Blow Pit lb/T	Blow Pit ppm	Recovery lb/T	Recovery ppm, dry
Publishers									
Oregon City	Magnesium	Bisulfite	6	170	22-24	2½ avg.	1500+ peak	30	800
Newberg	Magnesium	Bisulfite	4	180	16-17	Not Measured		Not Measured	
Boise Cascade									
Salem	Ammonia	Acid Bisulfite	6	200	22-24	80	15,000		500*
Crown Zellerbach									
Lebanon	Ammonia	Bisulfite and Neutral Bisulfite	3	100	9	6-20	Unknown	No Recovery	
Coos Head Timber									
Empire	Calcium	Bisulfite	2	80	5	Not Measured		No Recovery	
Menasha									
North Bend	Sodium	Neutral Sulfite Semi-Chemical	1	260	Continuous Digestion	Very Minimal		No Recovery	

*Installation to be completed July, 1972

If it were possible to relieve the digesters essentially to atmospheric pressure, then the blow pit emissions of sulfur dioxide would be reduced, proably, to negligible levels. In some existing mills, digesters are dumped, rather than blown, into tanks directly under the digesters. Emissions from the dump tanks have been reported to be under 0.01 lb SO_2/Ton of pulp at one mill. However, the system at that mill is vented to the recovery furnace scrubber. Each blow effects scrubber efficiency significantly.

One sulfite mill in Maine has achieved nearly total control of its blow pit emissions by altering its method of emptying digesters (5). Essentially, the mill, Great Northern Paper Company at Millinocket, Maine, withdraws one-third of the cooking liquor at the end of a cook, then replaces it with water from the pulp washers. The pulp and liquor are then cooled from 329°F to 203°F., and pumped to the blow pit. Being below the boiling point, water in the spent liquor does not flash off and SO_2 does not come out of solution. In brief communications with the technical director of the plant, it was stated that there was practically no odor of SO_2 in the blow pit vent.

This kind of modification appears to be applicable to mills in Oregon. Information available to the DEQ staff on costs is limited, but there have been indications that converting from blow to pump-out systems is comparable to costs of converting to dump systems or to the addition of manifold and scrubbing systems. A lack of space may prevent installation of this type of system, or make it very expensive. Also, there is an approximately 20% loss of pulping capacity because of longer blow cycles.

Finch, Pruyn and Company, Glenns Falls, New York, converted to continuous digestion resulting in a "closed system" which eliminates emissions by preventing exposure of spent liquor to the atmosphere (5).

2.3.3 Scrubbing:

Another approach is to scrub the SO_2 from the blow pit exhaust gases. To do so requires that blow pits be enclosed or manifolded and a scrubber designed and built. No small part of the problem is that the system has to be designed for the maximum gas and vapor flow which may be many times the average gas flow, and, likewise, for peak concentrations of SO_2. In one mill of 800 tons per day, such a system was installed in 1948 for economic recovery (4). There are other parameters to be considered. The scrubbing medium, for greatest efficiency, should be alkaline. The obvious choice is the base used at a given mill, for example, a magnesium hydroxide slurry at a magnesium-based mill.

To do otherwise would create another problem --- that of disposing of the scrubber effluent. Ammonia-based plants have an additional consideration. The use of ammonium hydroxide leads to the emission of ammonia or of an ammonium sulfite particulate.

A tabulated comparison of scrubbing, dumping and pumping is presented below:

TABLE VI

Comparison of Blow Pit Controls

System	Advantages	Disadvantages
Retention in Spent Liquor		
Dump System	Minimal emissions even at peak	Major rebuild required to install sunken blow pits. Some loss of capacity by lengthening cook cycle. Requires major changes within digesters and relief systems.
Pump System	Minimal emissions even at peak. Possibly less drastic digester modification than for dump system.	May require extensive rebuild of digesters. Some capacity penalty.
Scrubbing	Adding on, requires least alteration of existing digesters and blow systems.	May require reinforcement of blow pits to allow high pressures. Must be sized for peak flows and concentrations rather than average, or will not eliminate peak discharge.

Current emissions from Northwest pulp mill blow pits known to the DEQ staff are tabulated in Table VII.

Some additional information has been submitted to the Oregon-Washington Air Quality Committee, on controlling emissions from small mills. Crown Zellerbach, Lebanon, has indicated that a blow pit (vent) scrubbing system could be installed to scrub blow gases with about 50% efficiency, or to a rate of 5000 pounds of SO_2 per day (50 lb/Ton for that mill) (6). Scott Paper, Anacortes, indicated that for $100,000, a "water drenching, plus blow stack showering" system could be installed (7). No projected emission data submitted (on grounds that adequate data for an accurate estimate were not available), but Crown Zellerbach did state, "It is expected that such a system would adequately meet the ambient standards for SO_2 which are clearly a requirement irrespective of emission levels."

Table VII

Present Blow Pit Emissions From Sulfite Mills

Mill	Process	Peak Concentration ppm wet	Average Mass Emission lb SO_2/Ton	Controls
Publishers Paper Oregon City (4)	Bisulfite	1500	2½	Low Pressure Relief Stack Sprays
Boise Cascade Salem (4)	Acid Bisulfite	15000	80	Low Pressure Relief Stack Sprays
Weyerhaeuser Longview,Wn.(8)	Bisulfite		0.01	Dump Digester Vent dump tank to Recovery Furnace Absorber
Scott Paper Everett, Wn. (8)	Acid Sulfite	870(a) Peaks "much higher than average" values	1-5	Scrubbers on Manifolded blow pits
Georgia-Pacific Bellingham,Wn. (8)	Bisulfite	1400(b)	20(b)	Stack Scrubber
Great Northern Millinocket, Me.(5)	Bisulfite	Nil(c)	Nil(c)	Pumped out Digesters
Finch Pruyn Glenns Falls,N.Y. (5)	Bisulfite	None(d)	None(d)	Continuous Digester

(a) Reported average for 35 minutes blow cycle. Peak concentrations much higher than this.

(b) Caustic scrubber recently added that substantially reduced emissions. Scrubbing liquor sent to NSSC plant on site.

(c) Based on subjective observation, not on actual measurements.

(d) Use of continuous digester eliminates discharge to a blow pit.

Possibilities of connecting blow pit vents to recovery furnace scrubbers have not been considered promising because of the anticipated effects of peak flow rates and concentrations on the scrubbing efficiencies. A relatively large surge chamber would be required to contain the total volume of blow gases plus (inert) air present in the pits when the digester is blown. It is felt, by industry, that the mixture of blow gas and inert air would be so diluted with respect to SO_2 that the efficiency of the scrubbers would be impaired.

2.4 Summary of Digester Emissions:

Depending on the specific sulfite process, emissions from uncontrolled blow pit vents can be up to 150 lb SO_2/ADT. The addition of low pressure relief and sprays in the vent has reduced emissions to rates varying from 2½ to 80 lb SO_2/Ton, again dependent on the process. Installation of a gas collection and scrubber system could reduce the emissions from any process to 3 - 5 lb SO_2/ADT, but probably would not eliminate concentration peaks in the neighborhood of 1500-2000+ ppm SO_2. For a comparable cost, digesters can be converted to dump or pump-out systems which reduce the emissions to less than 0.1 lb/SO_2/ADT, at the same time eliminating the troublesome high-concentration peaks, providing space is available for a new system, and not including the cost of lost production or adding a digester to make up the loss.

3. RECOVERY CYCLES:

The purpose of a recovery cycle is to separate the (inorganic) cooking chemicals from dissolved wood sugars in the spent cooking liquor and to prepare fresh cooking liquor from the recovered chemicals. The basic cycle presently used includes these steps:

a. Evaporate spent liquor until the solids content is sufficient to support combustion.

b. Incinerate the evaporated liquor.

c. Separate, by mechanical collectors and/or scrubbers, the cooking chemicals from the flue gas.

d. Dissolve the collected chemicals (usually done at the same time as the separation of Step c).

e. Add make-up chemical, or "fortify" the reconstructed cook liquor to desired strengths.

3.1 The Cycle in Detail:

The spent liquor (after the pulp has been cooked, blown and washed) contains roughly half the dry weight of wood originally charged to the digesters, plus almost all of the cooking chemicals originally added with the chips. On a weight basis, the spent liquor is approximately 12% solids, 88% water. The spent liquor must be evaporated to a strength of 50-60% solids before it can be incinerated.

During incineration, the sulfur is burned to sulfur dioxide. If the mill uses a magnesium base, the magnesium is oxidized to magnesium oxide (MgO). Ammonia (NH_3) in ammonia-based mills, burns to nitrogen and water. Sulfur dioxide and MgO are recoverable, SO_2 in scrubbers and MgO in multiple cyclones. The SO_2 scrubbers use a medium composed of a solution of the base (magnesium hydroxide made by dissolving the collected MgO, or ammonium hydroxide from a fresh supply). The scrubber effluent is a weak cook liquor which need only be fortified in a tower which contacts the effluent with SO_2 from a sulfur burner to fully regenerate the strong cooking liquor. There are scaling problems with precipitated magnesium sulfite ("monosulfite"). If the scrubbing system is made more efficient by increasing the concentration of magnesium hydroxide, ($Mg(OH)_2$) the scaling problem becomes more severe. At Great Northern - Millinocket, the scrubbers are de-scaled once a week, by decreasing the $Mg(OH)_2$. During the descaling time, the emissions of SO_2 are greatly increased.

There is another recovery system for sulfite mills based on sodium. One such system is operating in Hoquiam, Washington. In this process, instead of generating a particulate which has to be removed from the flue gas, a molten smelt of sodium sulfide (Na_2S) is produced (in a reducing atmosphere), drained out the bottom of a furnace and dissolved. An interesting variation of this process, the "cross-recovery"system, is used for sodium-based NSSC mills located near kraft mills. The spent liquor from the NSSC digester is mixed with kraft black liquor and the two are recovered together.

The capital investments for sodium and ammonium recovery systems are close enough so that the choice of which to use is based on the relative prices of ammonia and sodium carbonate or sodium hydroxide. If any one of the three sulfite mills in Oregon not currently recovering should choose to do so in the future, the choice of systems would be based on conditions at that time.

3.2 Emissions and Controls:

Data available to the Department staff and for which the test methods are known, for emissions from recovery furnaces, are shown in Table VIII.

The original proposal for the recovery system at Publishers, Oregon City envisioned an SO_2 emission of above 400 ppm, which would have been 10.2 lb SO_2/Ton (9). Boise Cascade's proposed NH_3-based system for Salem was designed around a parameter of a maximum of 500 ppm in the exit flue gases (10).

The controls on recovery furnaces, for the present, are based on contacting SO_2 with an alkaline medium. The only current exception is the sodium-based recovery furnace, which recovers chemicals as a smelt. In other processes, the purpose of the furnace is to oxidize the chemicals and entrain them in the flue gas, and at the same time incinerate wood sugars and lignous sulfonates. The scrubbing media are solutions or suspensions, and contact with SO_2 is effected by increasing the surface

Table VIII

Recovery Furnace Emissions

Mill	Base	Type	Emissions SO_2 ppm	SO_2 lb/Ton	Particulate gr/SCF	Particulate lb/Ton	Control Method
Existing							
Weyerhaeuser (8) Longview, Wn.	MgO	Bisulfite	---	30-53	0.03-0.05[a]	1.5-2.4	Packed towers
Weyerhaeuser (8) Cosmopolis, Wn.	MgO	Bisulfite	---	19	0.1-0.2	4.7-11.3	Packed towers
ITT-Rayonier (8) Hoquiam, Wn.	Sodium	Acid Bisulfite	300(avg)	17	0.05	5.3	None[b]
Finch Pruyn (5) Glenns Falls, N.Y.	NH_3	Bisulfite	50-200	10	(NH_4SO_3 fume noted - No data available)		Perforated plate towers
Great Northern(5) Millinocket, Me.	MgO	Bisulfite	500	10-20	No Data	No Data	Triple Venturi
Publishers (4) Oregon City	MgO	Bisulfite	800	27-35	No Data	No Data	Triple Venturi
Proposed Systems Design Data							
Crown Zellerbach Camas, Wn. (8)	MgO	Bisulfite	---	18	0.1	2.1	4-stage Venturi (first stage cooling)
Boise Cascade (4) Salem	NH_3	Acid Bisulfite	500[d]		Should be minimal		Perforated plate tower
Scott Paper (8) Everett, Wn.	NH_3	Acid Bisulfite		20-25	0.2-0.3[c]	12.2-18.2	Packed towers

[a] Probably low. Sample caught on filter, does not account for losses in probe. Further error from non-ideal sampling.

[b] Recovery of chemicals is in the form of a molten smelt instead of as SO_2 in the flue gas.

[c] Salt-water logs contribute to high particulate loadings.

(d) Company's specification to vendor.

area of the medium either by distributing it over an inert matrix (packed towers) or by inducing turbulence (venturis), with perforated plate towers being a combination of these two approaches.

The scrubbing system must be oriented toward aiding the regeneration of cook liquor. If a mill is based on ammonia, using a sodium-based scrubbing medium would not only be prohibitively expensive, but also create a problem of disposal of a contaminated effluent. This limits the applicability of otherwise worthwhile control designs on an industry-wide basis.

The staff believes that it is reasonable to conclude that Publishers, Oregon City, should be able to reduce the current reported sulfur dioxide emissions below 30-35 lb SO_2/Ton and 800 ppm. It may require substantial rebuilding of their existing triple-venturi system in lieu of merely increasing the pressure drop through the system, or it may require addition of a fourth stage. More possibilities may arise from experience at Publishers' new system at Newberg (11).

The design for Boise Cascade, Salem, an ammonia-based system, indicates an emission of 17 lb SO_2/Ton (12), but the validity of this projection is not known, and won't be until the system is operating.

For air pollution abatement, the emission rates of interest are: (a) the theoretical minimum attainable; (b) highest and best practicable treatment, the best controls possible within the limits of each mill's economic position and operation demands; (c) emission rates low enough to prevent ambient SO_2 levels over ambient standards; and (d) emission rates low enough to prevent odor and nuisance problems. Theoretically, if a mill installed a scrubber large enough and used enough water, the SO_2 emissions would be reduced to zero, but the scrubber effluent would be so dilute with respect to SO_2 that the entire cooking chemical usage would have to be made up anew. The point is not trivial, in that before the emissions reached zero, the amount of scrubber effluent probably would exceed the mill's water demand, and the effluent would be a potential water pollution problem. Practical degrees of treatment, abating air pollution without causing other problems and achieving minimum emissions with the amount of scrubbing medium available, must determine the optimum allocation of resources. To date, insufficient information has been presented to the Department of Environmental Quality to allow the staff to determine that optimum allocation. The staff has relied on such emission data as are available considered in relation to ambient data and the incidence of complaints to estimate the maximum emission rates tolerable. It will then be each mill's responsibility to decide the manner of achieving those levels.

Based both on technical capability and on ambient considerations which are discussed in somewhat more detail below, the staff concluded that an emission limit in the neighborhood of 20 lb SO_2 per air dry ton of

pulp should be the maximum allowable emission rate from recovery furnaces. Even though it is based more on ambient considerations that on present "state of the art" performance, it is still the staff's responsibility to attempt to determine whether this limit is within technical and economic feasibility. The emission data of Table VIII are the best data available for making this judgment. From those data, it is concluded that 20 lb SO_2/Ton is a reasonable limit that should not be exceeded, i.e., does allow for variations above the average.

3.3 Particulate Emissions and Controls:

Magnesium and sodium based mills which practice recovery have a potential for being sources of particulate emissions.

Magnesium-based mills may emit a fume of MgO, which partly dictates the type of scrubber to be used. Low strength acids allow the use of packed towers, but for higher strengths (newsprint, fine paper and dissolving grade pulps), particulate matter tends to collect in regions of low turbulence within the tower and eventually plug it. This consideration led to the development of venturi scrubbers which have sufficient turbulence to prevent clogging. Emissions have been reported in the range of 0.1-0.2 grains/ft^3, equivalent to 4.7-11.3 lb/Ton from a non-magnefite mill. One magnefite mill, to be built in Washington, anticipates emissions to be approximately 2.1 lb/Ton.(8)

A sodium-based mill in Washington has reported emissions in the neighborhood of 5.3 lb/Ton.

The ammonia in the scrubbing medium at an ammonia-based mill can react with SO_2 or SO_3 to form an ammonium sulfite or sulfate fume (the ammonia in incinerated spent liquor burned to N_2 and H_2O.) The choice of scrubbing medium pH will affect fume formation considerably, in that at high pHs (strongly alkaline), there is more NH_3 vapor to form a fume. At low pHs (acid), the fume formation is prevented, but scrubbing efficiency suffers. This is another compromise situation, in that use of a strong ammonia scrubbing medium can greatly minimize emissions of SO_2, but at the same time lead to increased formation of fume.

Salt from salt-water borne logs can contribute to particulate loading. Presently, this is more a problem in Washington mills than in Oregon.

The data on particulate emissions from new sulfite recovery furnaces is nil, and the extreme range for old furnaces not helpful for determining an appropriate limit reflecting good current technology. An

analogy with kraft furnaces, for which new controls are capable of limiting emissions to 2 lb/Ton, is not entirely accurate due to differences in design and function. An emission limit of 4 lb/Ton on sulfite recovery furnaces was written into the proposed sulfite mill emission regulation as being equivalent to the limit on kraft furnaces and requiring an approximately equivalent degree of treatment.

4. MINOR SOURCES:

The minor sources of emission include knotters, washers and acid plants. Knotters are screens for removing uncooked knots from pulp. The washers are much like rotary filters, and their purpose is to wash spent liquor from the pulp. Accurate data are not available, but the emissions are believed to be on the order of up to a few pounds of SO_2 per ton of pulp. If hooded closely enough to limit in-flow of room air, these could be ducted to existing absorbers. If not, a scrubber on the vents need not be too complex.

For plants not recovering chemicals, the acid plant can be a significant source. In these plants, sulfur is burned to SO_2, the SO_2 quenched and adsorbed in towers. Calcium-based mills use Jenssen towers, two stages of absorption in limestone-filled towers with SO_2 and water flowing countercurrently. Other plants use inert packing or gridwork, and absorb SO_2 in an appropriate alkaline medium. Uncontrolled emissions can be 12 lb SO_2 per ton, controllable to 3 lb/Ton or less, with a scrubber. Plants with recovery systems burn sulfur for a make-up, but the SO_2 is introduced with the flue gas into the recovery absorbers and thus emissions show up as part of the furnace emissions.

5. MEASURING AND MONITORING:

5.1 Introduction:

Determining either the concentration or the mass emission rate of a contaminant depends on these operations:

a. Withdrawing a sample of flue gas which is representative of the total gas stream.

b. Collecting, with known efficiency, the contaminants in a form susceptible to accurate analysis.

c. Analyzing and reporting the amount of contaminant collected.

d. Relating the amount of material found by analysis to the total amount in the gas stream or total amount emitted in a given time period.

5.2 Source Testing for Sulfur Oxides:

5.2.1 Sulfur Dioxide

Sulfur dioxide is emitted from blow pits, recovery furnaces and acid tower stacks. Stack conditions will vary from stack to

stack, depending on the source and process conditions, but moisture contents may vary from 5 to 50 percent and sulfur dioxide concentrations from 100 to 300,000 ppm. Sampling methods first employed for SO_2 were batch-type wet chemical methods, but continuous SO_2 analysis is rapidly replacing batch sampling for reasons discussed below:

5.2.2.1 Batch-type sulfur dioxide methods:

Most batch-type source tests for sulfur dioxide depend upon adsorption/reaction of SO_2 in an impingers or bubblers. One such method has been approved by the Washington-Oregon Committee on an interim basis. The recommended train is shown in Figure 5.1 A portion of flue gas is drawn through a probe and into contact with the reagent to remove sulfur dioxide; the gas then passes through a pump and meter to measure the volume of sampled gas. After chemical analysis of the impinger solutions, contaminent concentration can be calculated and applied to the total stack volume flow rate to determine mass emission. Table 5-1 lists some common batch-type methods.

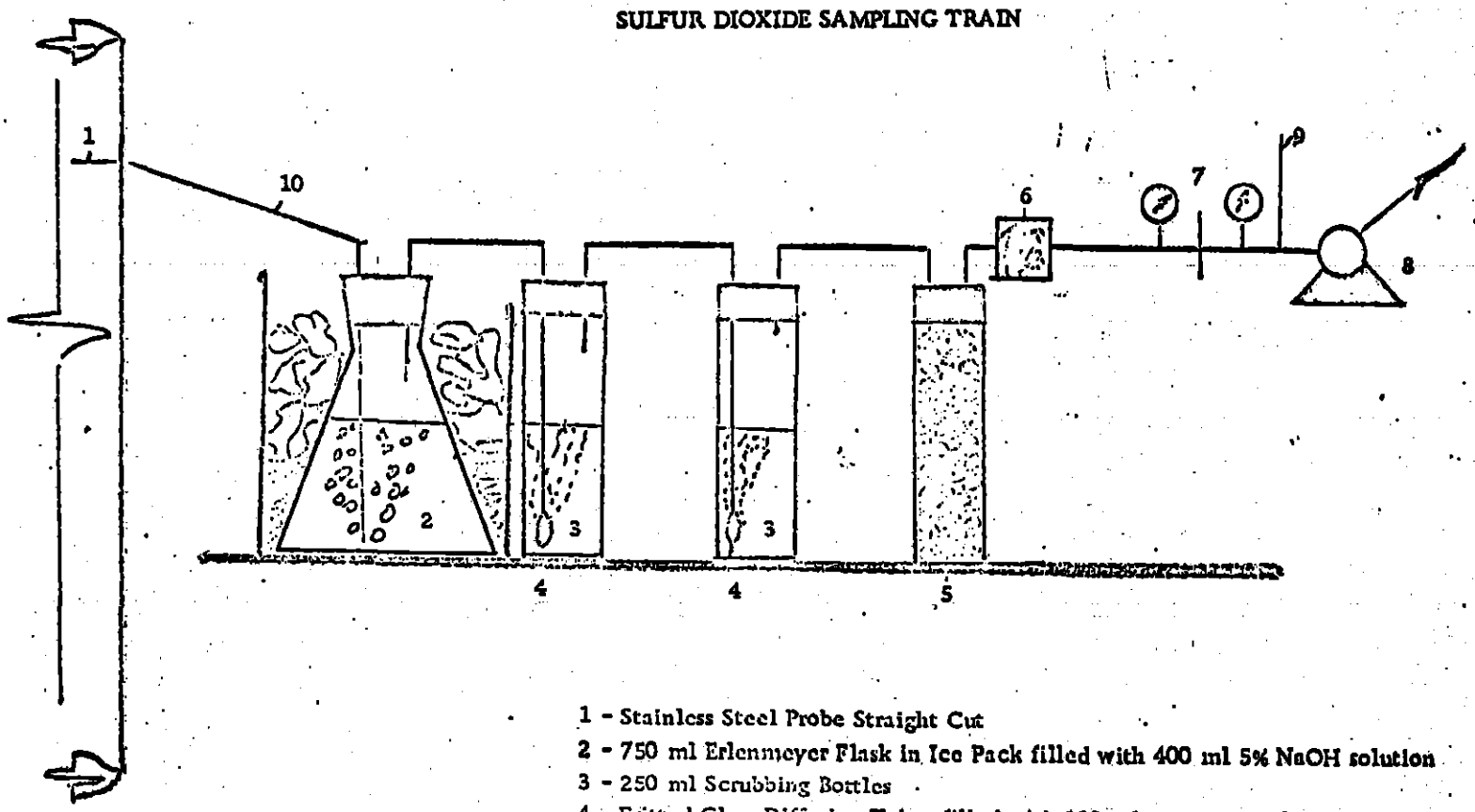
Table 5-1

Batch-Type Source Sampling

Method	Absorbing Agent	Analysis
Reich Test	Kl Starch Solution	Color Change
Modified Reich Test	Kl - KlO_3 Starch Solution	Color Change
Modified Reich Test	Caustic	Kl - KlO_3
Peroxide Test	Hydrogen Peroxide	Acid Titration

Because such batch methods are time consuming and give limited amounts of data, the trend in emission monitoring has been towards continuous monitoring of sulfur dioxide emissions. Development of such a monitor promises to not only yield information of emissions but also serves to inform process operators of upsets of malfunctions in equipment and aid in their prompt correction. Similar continuous sulfur monitors in the kraft pulping industry has had this effect. Several continuous methods that have been tried or now being developed are listed in Table 5-2.

Figure 5-1
SULFUR DIOXIDE SAMPLING TRAIN



1 - Stainless Steel Probe Straight Cut
2 - 750 ml Erlenmeyer Flask in Ice Pack filled with 400 ml 5% NaOH solution
3 - 250 ml Scrubbing Bottles
4 - Fritted Glass Diffusion Tubes filled with 100 ml 5% NaOH solution
5 - 250 ml Scrubbing Bottle Filled with dessicant
6 - Glass Wool Filter
7 - 2 Liter per minute Orifice with Guages or Dry Gas Meter
8 - Vacuum Pump
9 - Thermometer
10 - Polypropylene Tubing

Table 5-2

Continuous Source Samplers for SO_2

Method	Remarks
Infra-red Detectors	Water and CO_2 may interfere
Ultra-violat	Expensive
Coulimetric Titrators	High maintenance
Conductivity	Other acid gases may interfere (such as SO_3= NO_2=)

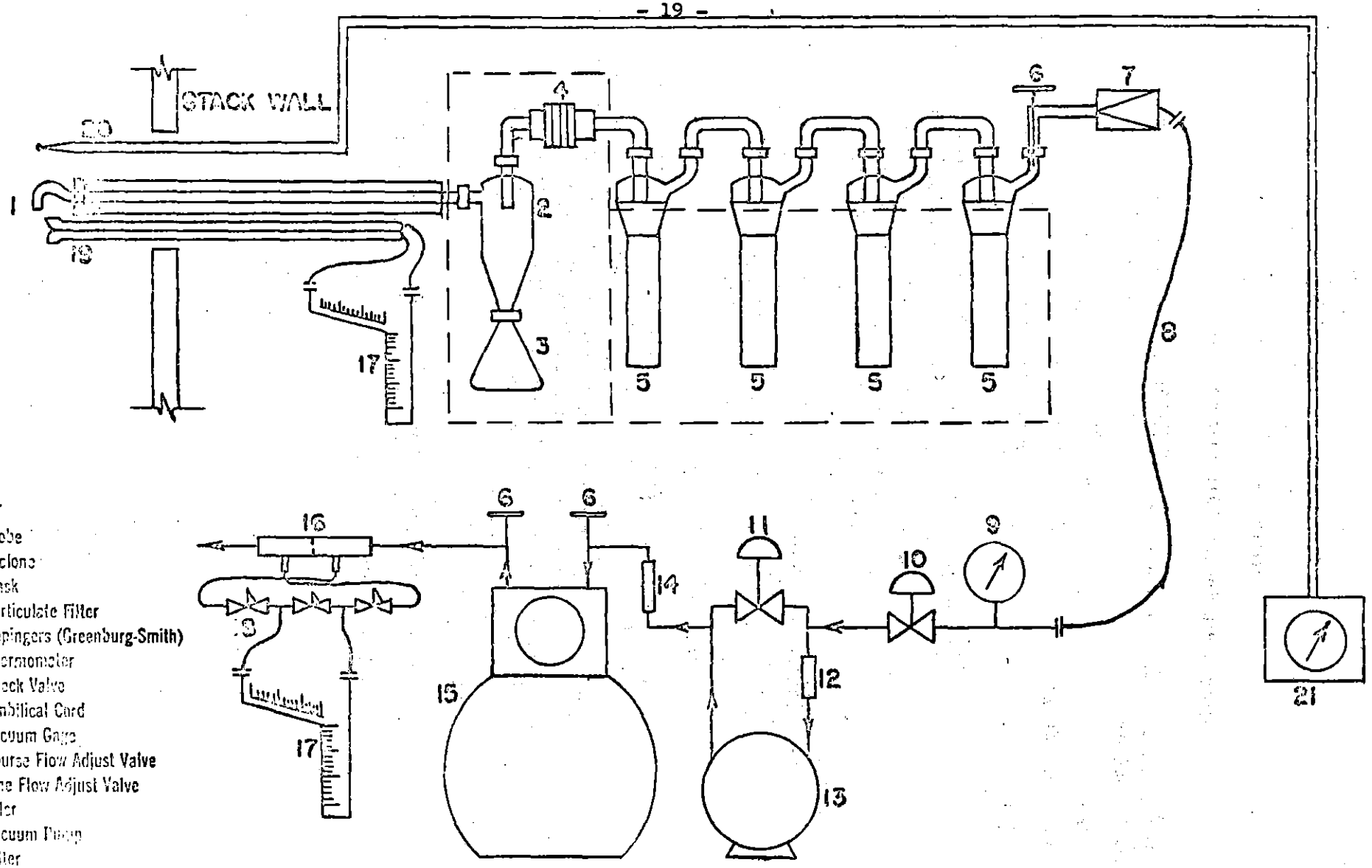
Most of these methods depend upon withdrawing a sample of flue gas; several attempts have been made to scan the entire stack with an infra-red or ultra-violet detector, but have been unsuccessful because of interference with particulate matter in the stack.

5.2.2 Sulfur Trioxide (SO_3):

Sulfur trioxide will be present almost entirely as H_2SO_4 mist or may react with the base to form a particulate sulfate, in acid plant or recovery furnace stacks. Blow pit emissions are free of sulfur trioxide in any form.

Sampling methods for the acid mists have not been developed specifically for the sulfite industry, although acid mist determinations, such as the Shell method, the Monsanto method and the Chemical Construction Company method have been developed for sulfuric acid plant emissions. These methods employ filters of various types to collect the mists, which are then washed and titrated to determine the acid content. Sampling must be done isokinetically to avoid bias in sampling particles of various sizes.

One modification of these methods is shown in Figure 5-2. (RAC Unit) Collection occurs in the cyclone, glass fibre filter and impingers.



1) Probe
2) Cyclone
3) Flask
4) Particulate Filter
5) Impingers (Greenburg-Smith)
6) Thermometer
7) Check Valve
8) Umbilical Cord
9) Vacuum Gage
10) Course Flow Adjust Valve
11) Fine Flow Adjust Valve
12) Oiler
13) Vacuum Pump
14) Filter
15) Dry Gas Meter
16) Orifice Tube
17) Incline Manometer
18) Solenoid Valves
19) Pitot
20) Thermocouple
21) Pyrometer

FIGURE 5-2

PROPERTY OF
RESEARCH APPLIANCE Co. ALLISON PARK, PA.

TOLERANCES DEC. ± FRACT. ±	TITLE SAMPLE FLOW SYSTEM		
	DWG. NO. 128	MAT'L	SCALE
NO. REQ'D	DRAWN BY R.G.	APPR.	DATE 4-23-80
FINISH		JIG NO.	ART NO.

The system employs a heated filter and probe to avoid consendation of water vapor in the sample line. If it appears that sulfuric acid and the sulfate particulate are both present in the recovery system stack, then separation may be possible by heating the filter to at least 300°F to volatilize the sulfuric acid and pass through the filter as a gas and condense out in the impingers. Particulate present as the sulfate should collect on the filter where a weight difference would be used to determine particulate emissions.

5.2.3 Particulates:

Particulate sulfates, sulfites and chlorides are present in recovery furnaces and plant stacks.

Like the other pollutants sulfur dioxide and sulfur trioxides, standardized methods have not been developed. Some have employed water scrubbers in impingers and analyzed solutions for residues after evaporation. This method has a number of drawbacks including chemical reactions in the liquid media that may change the apparent concentration as well as the fact that acid mists, if present, would also appear as residue, i.e., no separation is possible.

6. AMBIENT EFFECTS:

Complaints of odors have been received from areas over ten miles from sulfite mills. Odors close in (under 1000 feet) have been noted by the Department staff to be over-powering, and complaints from the same area have confirmed existence of similar observations. Historically, there have been complaints of property damage including both materials (metal) and vegetation (ornamental) damage.

The complaints from in close proximity to Publishers Paper Company's mill at Oregon City have mentioned mostly short-term, repetitive conditions associated with digester blow cycles. Further away (as far as two miles and over), an evaluation of the complaints indicate that when meteorological conditions directed or confined the plume toward the complainant, the conditions were steady, and no peaks distinguished. Under these conditions it is not possible to distinguish which source, blow pit or recovery furnace, is the major source of SO_2 affecting those complainants.

Ambient monitoring with Beckman Acralyzer has been accomplished by the Columbia-Willamette Air Pollution Authority at two locations in Oregon City. Due to sampling difficulties, the data must be regarded as little more than qualitative, but indications are that over spans of an hour or more, proposed ambient air standards for SO_2 were not often exceeded. Peak concentrations well above the odor treshold did occur, lasting for under a quarter of an hour. Peak values were estimated at 0.5 to 1.0 ppm. These data confirm observations to the effect that the digester blow pit vent is the major

source of ambient effects at relatively short distances from the mills.

Boise Cascade at Salem does not yet have a recovery furnace in operation, so that all complaints received relate to blow pit emissions.

There have been complaints of "pulp mill odors" in the North Bend-Coos Bay area. The source has not been precisely identified, as to being either of two mills, the treatment lagoon associated with one of them, or the mud flats, which from natural processes can be a source of sulfides and SO_2.

Diffusion estimates applicable to mills in the Willamette Valley were made by the Department of Environmental Quality staff to arrive at an estimate on their impact on the ambient air. Three emission rates were considered, reflecting current convention practice. They were:

		lb SO_2/ADT	lb SO_2/min.
a.	Good Control	17	4.9
b.	Moderate Control	30	10.7
c.	Poor Control	45	16.8

for a 170 Ton/Day mill

These represent concentrations ranging from 700 ppm to 2700 ppm. For these calculations the mill site was considered a point source (as though all emissions were discharged through a single stack). Two stack heights were used: 100 feet, representative of current practices; and 330 feet, representative of taller stacks as used in many kraft mills. Meteorological conditions typical of summer afternoons, cloudy days/night, clear mornings and, for the low emission rate, calm, foggy conditions were chosen as covering the most common conditions in the Willamette Valley.

The method of analysis is similar to that outlined in a PHS publication titled "Workbook of Atmospheric Dispersion Estimates". It is generally understood and accepted that the method yields estimates of downwind, ground level, plume center-line concentrations and downwind distances to areas of maximum concentrations, averaged over a ten minute period. They do not yield a precise prediction of these concentrations, nor will they alone yield an estimate of instantaneous peaks.

On that basis, a mill emitting at the lowest rate through a 100' stack would still exceed odor and taste thresholds in all meteorological classes considered. If a tall stack is used, the maximum ground level concentration would be one-fifth to one-tenth the commonly accepted taste threshold of 0.4 ppm except in calm, foggy weather when even a tall stack approaches threshold.

Peak concentrations for shorter time periods may be estimated using the "two-tenths power" ratio, which indicates that the ratio of concentrations for the same point over different times is inversely proportional to the ratio of times raised to the 0.2 power, or:

$$\frac{C_1}{C_2} = \left(\frac{T_2}{T_1}\right)^{0.2}$$

By this ratio, the ten minute average yields shorter term results as follows:

For these times	Multiply 10 minutes' average by:
5 minutes	1.15
1 minute	1.58
¼ minute	2.0

Maximum 10 and 5 minute averages from these estimates are presented in Table X, and a more complete presentation of concentrations at various distances for 10, 5 and 1 minute averages in Table XI.

Table X

Ten and Five Minute Maxima Estimates, ppm SO_2 in Ambient Air
Maximum Ground Level Concentrations

	Ten Minute Average		Five Minute Average	
	100' Stack	330' Stack	100' Stack	330' Stack
Summer Afternoon:				
Low Emission (20 lb SO_2/Ton)	0.76	0.08	0.88	0.09
Medium Emission (30 lb SO_2/Ton)	1.82	0.19	2.10	0.22
High Emission (45 lb SO_2/Ton)	3.04	0.32	3.50	0.37
Cloudy Day/Night				
Low Rate	0.67	0.05	0.77	0.06
Medium Rate	1.61	0.11	1.85	0.13
High Rate	2.68	0.18	3.08	0.21
Clear Morning				
Low Rate	0.85	0.05	0.88	0.06
Medium Rate	2.03	0.06	2.33	0.07
High Rate	3.38	0.10	3.83	0.11
Calm, Foggy Weather				
Low Rate	5.31	0.34	6.10	0.39

These estimates indicate that at an emission rate of 20 lb SO_2/ADT, which is near the rate reported for recovery furnaces alone, a tall stack is required in order to eliminate taste and odor nuisance from SO_2 emissions. At greater emission rates, not even a tall stack could prevent a nuisance condition during calm, foggy weather.

These estimates would be acceptable for Salem, Lebanon and Newberg, but not for Oregon City because of its restrictive topography. Also, in at least one of the principal wind directions, the ground level at Oregon City is at the same elevation as the top of the stacks, i.e., stack height approaches zero.

7. SOURCES OF INFORMATION:

Most of the emission data reported in this document originated from tests made at mills in Oregon and Washington in the past year. In a field as unsettled as sulfite mill control, the technical literature provides no consistent and comparable test results to serve as a starting point for evaulating possible control systems. In these situations, there is a tendency to seize upon "nuggets", isolated bits of data. For example, over a year ago, it would have seemed valid to state that a magnefite recovery system would be capable of limiting emissions to 400 ppm and 8 pounds of SO_2 per ton. Those emissions were based on pilot plant studies and computer simulations based on some equilibrium data. The actual installation, as noted above, significantly exceeded these predictions. A paper published a year ago in a Canadian technical journal predicted emissions of 4 pounds SO_2/Ton from a recovery furnace plus 14 lbs SO_2/Ton from the digester area, but neither number substantiated by any test, and, indeed, the system described never has been built. Staff practice has been to regard such numbers, and also test results published without thorough description of the sampling method, as being of a lower reliability than data from existing installations derived from known test methods.

CONCLUSIONS:

1. Performance of recovery systems appears capable of limiting emissions to 20 lb SO_2/Ton regardless of particular pulping system used. At this rate, a concentration limit of 500 ppm wet basis appears reasonable.

2. Blow pit vent emissions can be reduced to trace amounts. If a regulation were to allow some emissions, then a peak, instantaneous concentration in the vent gases of no more than 500 ppm appears reasonable and necessary to control severe odors. Due to the periodic nature of the discharge, a limit in terms of lb SO_2/Ton is not comparable to the recovery furnace limit.

3. Coulometric titrators, like those used in kraft mills, appear to be useful for monitoring SO_2 emissions. This appears valid, even granting that major problems remain and that therefore the devices probably would not be in operation 100% of the time.

Table XI

Estimated Ground Level Concentrations of SO_2
Concentrations in ppm

Low Emission (20 lb SO_2/Ton)

	Summer Afternoon						Cloudy Day/Night						Clear Morning					
	10 Min.Ave.		5 Min.Ave.		1 Min.Ave.		10 Min.Ave.		5 Min.Ave.		1 Min.Ave.		10 Min.Ave.		5 Min.Ave.		1 Min.Ave.	
Distance Meters	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack
200	0.76M		0.88M		1.2													
400	0.47		0.54		0.74		0.55		0.63		0.87							
600	0.25		0.29		0.40		0.67M		0.77		1.06		0.11		0.13		0.18	
800	0.14	0.08M*	0.16	0.09*	0.22	0.12*	0.60		0.69		0.95		0.40		0.46		0.63	
1000	0.10		0.12		0.16		0.50		0.58		0.79		0.61		0.70		0.96	
1500							0.32		0.37		0.51		0.85M		0.98		1.34	
2000							0.22		0.25		0.35		0.84		0.98		1.33	
2500							0.17		0.19		0.27		0.74		0.85		1.18	
3000							0.12	0.05M*	0.14	0.06M*	0.22	0.08M*	0.65		0.75		1.03	
4000													0.50		0.58		0.79	
5000													0.40		0.46		0.62	
10000													0.19		0.22		0.30	
15000													0.12		0.14		0.19	
20000														0.05M*		0.06M*		*0.0

2000 Meters = 1.24 Miles

M = Maximum Value

Heavy vertical line indicates distance span over which taste/odor treshold is exceeded

*Only the maximum is indicated when all values are below 0.1 ppm.

Table XI

Estimated Ground Level Concentrations of SO_2
Concentrations in ppm

Medium Emission (30 lb SO_2/Ton)

	Summer Afternoon						Cloudy Day/Night						Clear Morning					
	10 Min.Ave.		5 Min.Ave.		1 Min.Ave.		10 Min.Ave.		5 Min.Ave.		1 Min.Ave.		10 Min.Ave.		5 Min.Ave.		1 Min.Ave.	
Distance Meters	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack
200	1.82M		2.10M		2.38M													
400	1.14		1.31		1.80		1.32		1.52		2.09							
600	0.59	0.18	0.68	0.21	0.93	0.28	1.61M		1.85		2.54		0.26		0.30		0.41	
800	0.34	0.19M	0.39	0.22	0.54	0.30	1.55		1.78		2.45		0.95		1.09		1.50	
1000	0.23	0.16	0.26	0.18	0.36	0.25	1.22		1.40		1.93		1.46		1.68		2.31	
1500	0.11		0.13		0.17		0.76		0.88		1.20		2.03M		2.33		3.20	
2000							0.53		0.61		0.84		1.98		2.28		3.22	
2500							0.40	0.10	0.46	0.12	0.63	0.16	1.78		2.04		2.82	
3000							0.29	0.11M	0.33	0.13	0.46	0.17	1.57		1.81		2.48	
4000							0.20	0.10	0.23	0.12	0.32	0.16	1.21		1.39		1.91	
5000							0.14		0.16		0.22		0.95		1.09		1.50	
10000													0.46		0.53		0.73	
15000													0.28	0.06M*	0.32	0.07*	0.44	0.09*
20000													0.20		0.23		0.32	

2000 Meters = 1.24 Miles

M = Maximum Value

Heavy vertical line indicates distance span over which taste/odor threshold is exceeded

* Only maxima are indicated when all values are below 0.1 ppm.

Table XI

Estimated Ground Level Concentrations of SO_2

Concentrations in ppm

High Emission (45 lb SO_2/Ton)

Distance Meters	Summer Afternoon						Cloudy Day/Night						Clear Morning					
	10 Min.Ave.		5 Min.Ave.		1 Min.Ave.		10 Min.Ave.		5 Min.Ave.		1 Min.Ave.		10 Min.Ave.		5 Min.Ave.		1 Min.Ave.	
	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack
200	3.04M		3.50		4.80													
400	1.90	0.10	2.18	0.11	3.00	0.16	2.20		2.53		3.48							
600	0.98	0.30	1.13	0.35	1.55	0.47	2.68M		3.08		4.08		0.44		0.51		0.69	
800	0.56	0.32M	0.64	0.37	0.89	0.51	2.40		2.76		3.80		1.58		1.82		2.50	
1000	0.38	0.26	0.44	0.30	0.68	0.41	2.04		2.34		3.22		2.44		2.80		3.84	
1500	0.18	0.14	0.21	0.16	0.28	0.22	1.26	0.10	1.45	0.11	1.99	0.16	3.38M		3.88		5.35	
2000	0.10	0.10	0.11	0.11	0.16	0.16	0.88	0.14	1.01	0.16	1.39	0.22	3.30		3.80		6.00	
2500							0.66	0.16	0.76	0.18	1.04	0.25	2.96		3.40		4.68	
3000							0.48	0.18M	0.55	0.21	0.76	0.28	2.62		3.00		4.15	
4000							0.34	0.16	0.38	0.18	0.54	0.25	2.02		2.32		3.18	
5000							0.24	0.14	0.27	0.16	0.38	0.22	1.58		1.82		2.50	
10000													0.76		0.87		1.20	
15000													0.46	0.10M	0.53	0.11	0.73	0.16
20000													0.34		0.39		0.54	

2000 Meters = 1.24 Miles

M = Maximum Value

Heavy vertical line indicated distance over which taste/odor threshold is exceeded.

Table XI

Estimated Ground Level Concentrations of SO_2
Concentrations in ppm

Low Emission Rate (20 lb SO_2/Ton)

Distance Meters	summer Afternoon						Cloudy Day/Night						Clear Morning					
	10 Min.Ave.		5 Min.Ave.		1 Min.Ave.		10 Min.Ave.		5 Min.Ave.		1 Min.Ave.		10 Min.Ave.		5 Min.Ave.		1 Min.Ave.	
	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack	Short Stack	Tall Stack
200	0.16		0.18		0.25													
400	4.36		5.00		6.90													
600	5.31M		6.10		8.40													
800	4.77		5.48		7.55													
1000	4.03		4.65		6.38													
1500	2.50	0.18	2.87	0.21	3.95	0.28												
2000	1.74	0.28	2.00	0.32	2.75	0.44												
2500	1.28	1.32	1.47	0.37	2.06	0.51												
3000	0.96	1.34M	1.10	0.39	1.52	0.54												
4000	0.66	0.30	0.76	0.35	1.04	0.47												
5000	0.48	0.27	0.55	0.31	0.76	0.42												
10000	0.17	0.14	0.20	0.16	0.27	0.22												
15000	0.10	0.08	0.12	0.09	0.16	0.13												
20000	0.06	0.06	0.07	0.07	0.09	0.09												

2000 Meters = 1.24 Miles

M = Maximum Value

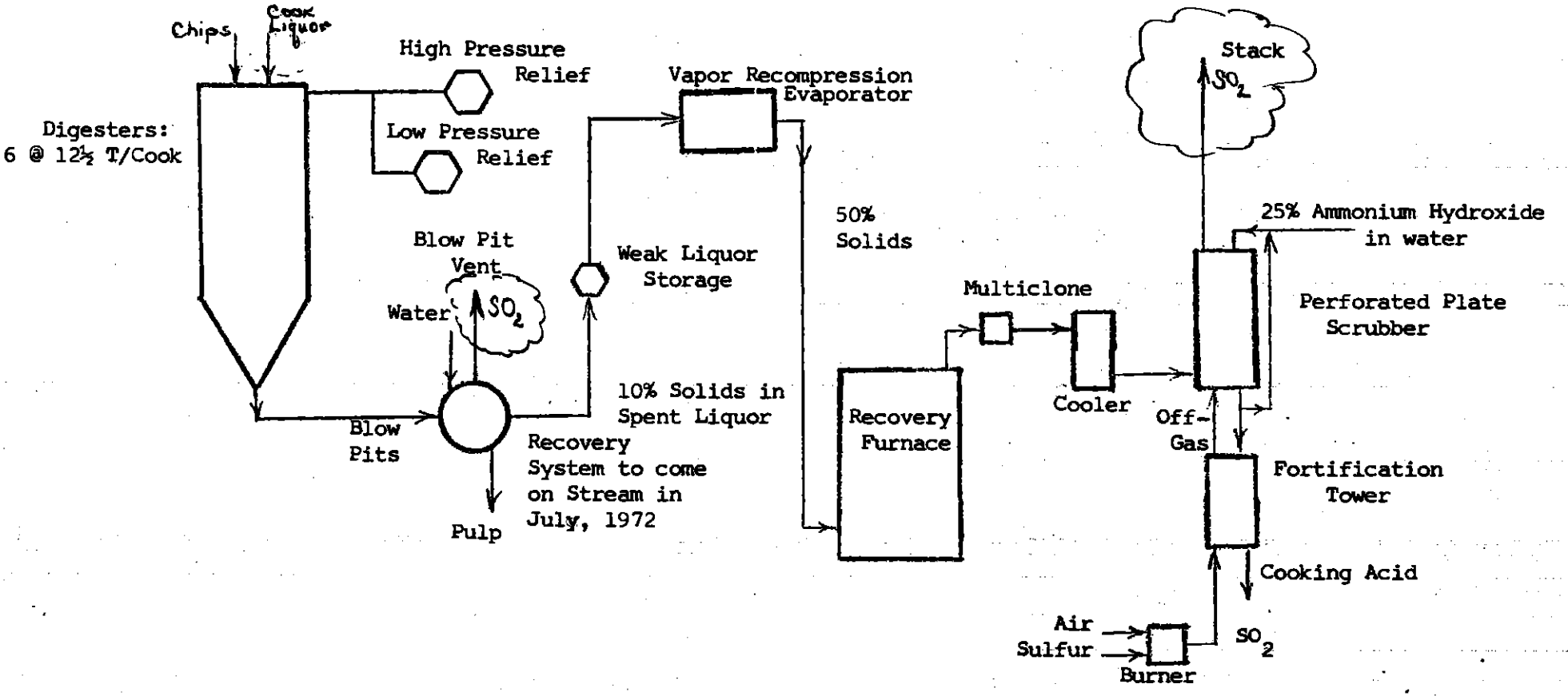
Heavy vertical line indicated distance over which taste/odor threshold is exceeded.

Appendix I

Flow Diagrams of Sulfite Mills in Oregon

These diagrams show the basic equipment used at each sulfite mill in Oregon, and indicate the major flows of liquors and pulp.

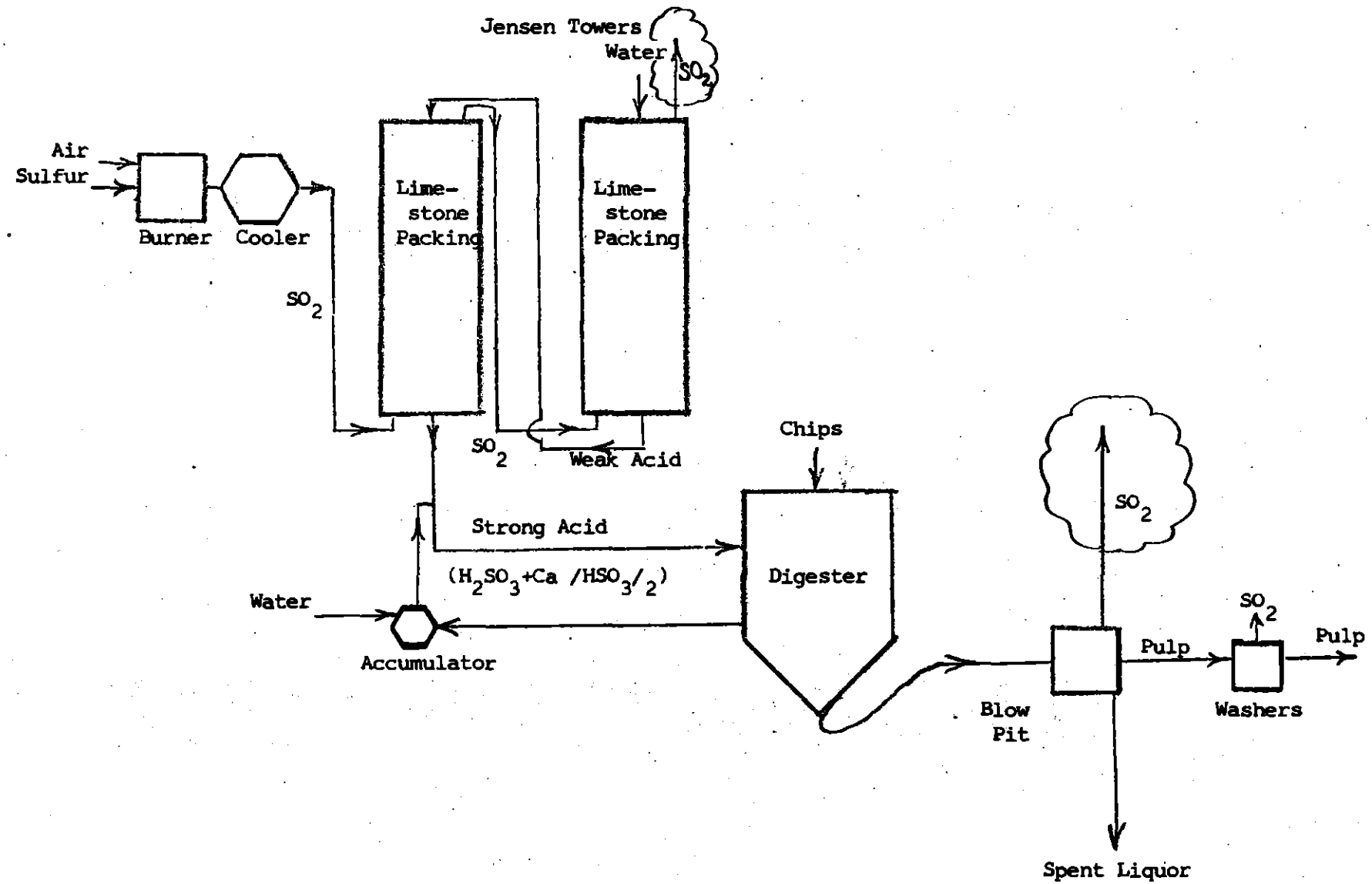
The flow diagrams are:



Boise Cascade Corporation
Salem

Ammonia-base Acid Bisulfite

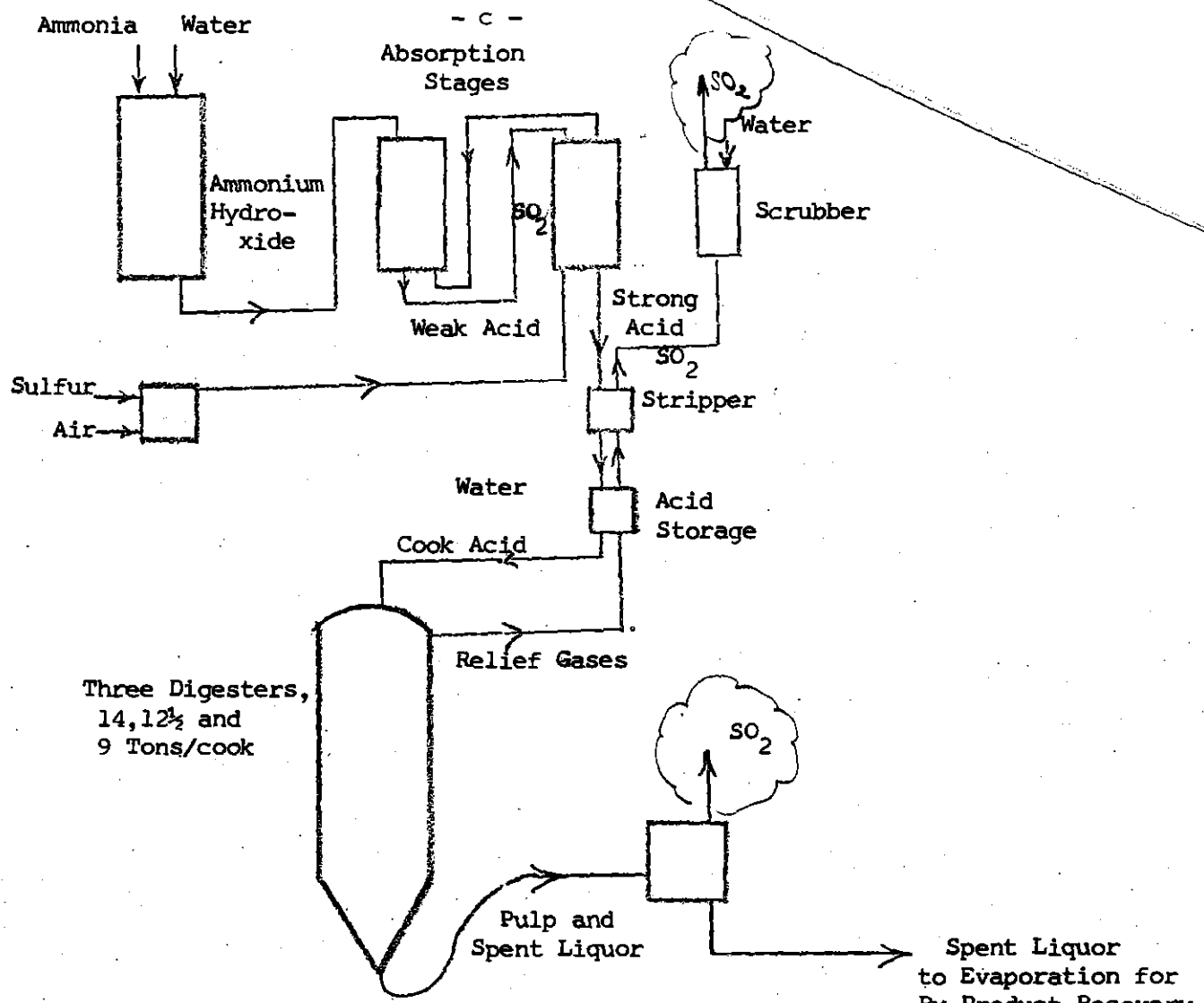
Represents emission to atmosphere



Coos Head Timber Company
Coos Bay

Calcium-base Sulfite Process

Denotes emission to atmosphere

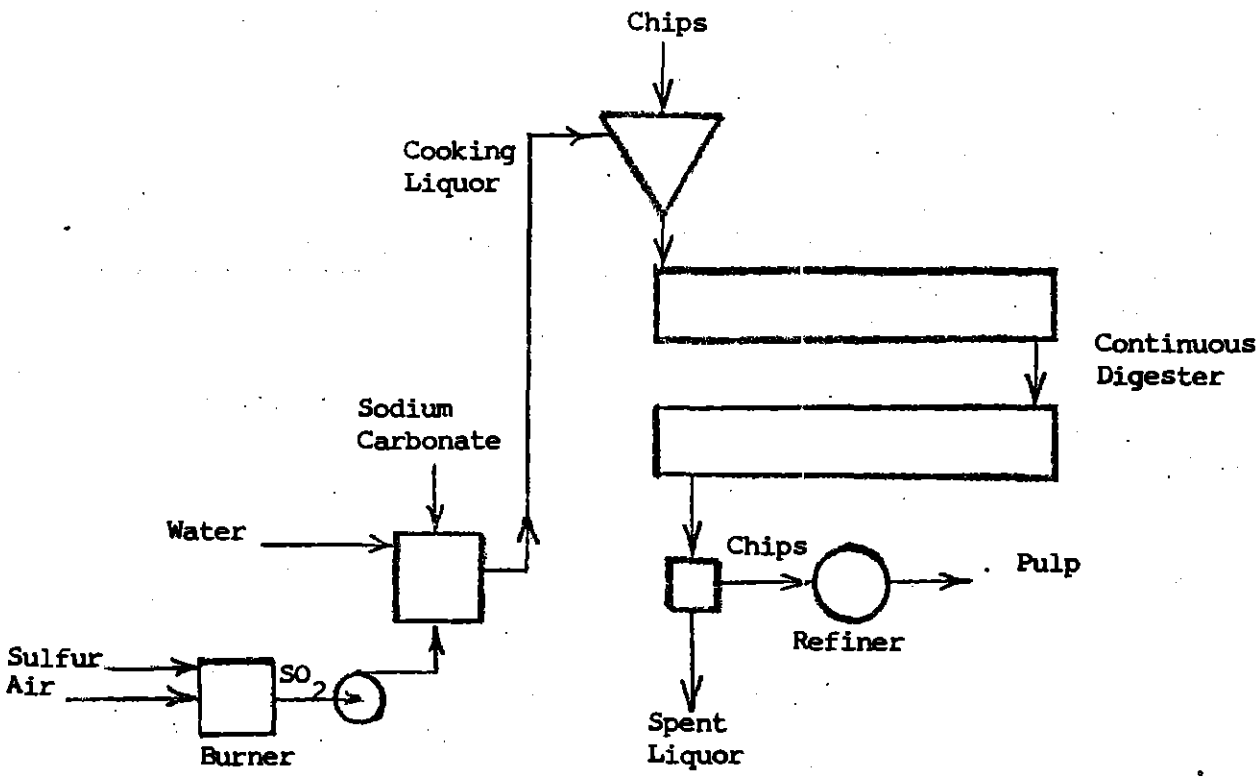


Crown Zellerbach

Lebanon

Ammonia-Base

Acid Bisulfite and Bisulfite-Monosulfite
(Near Neutral Sulfite)



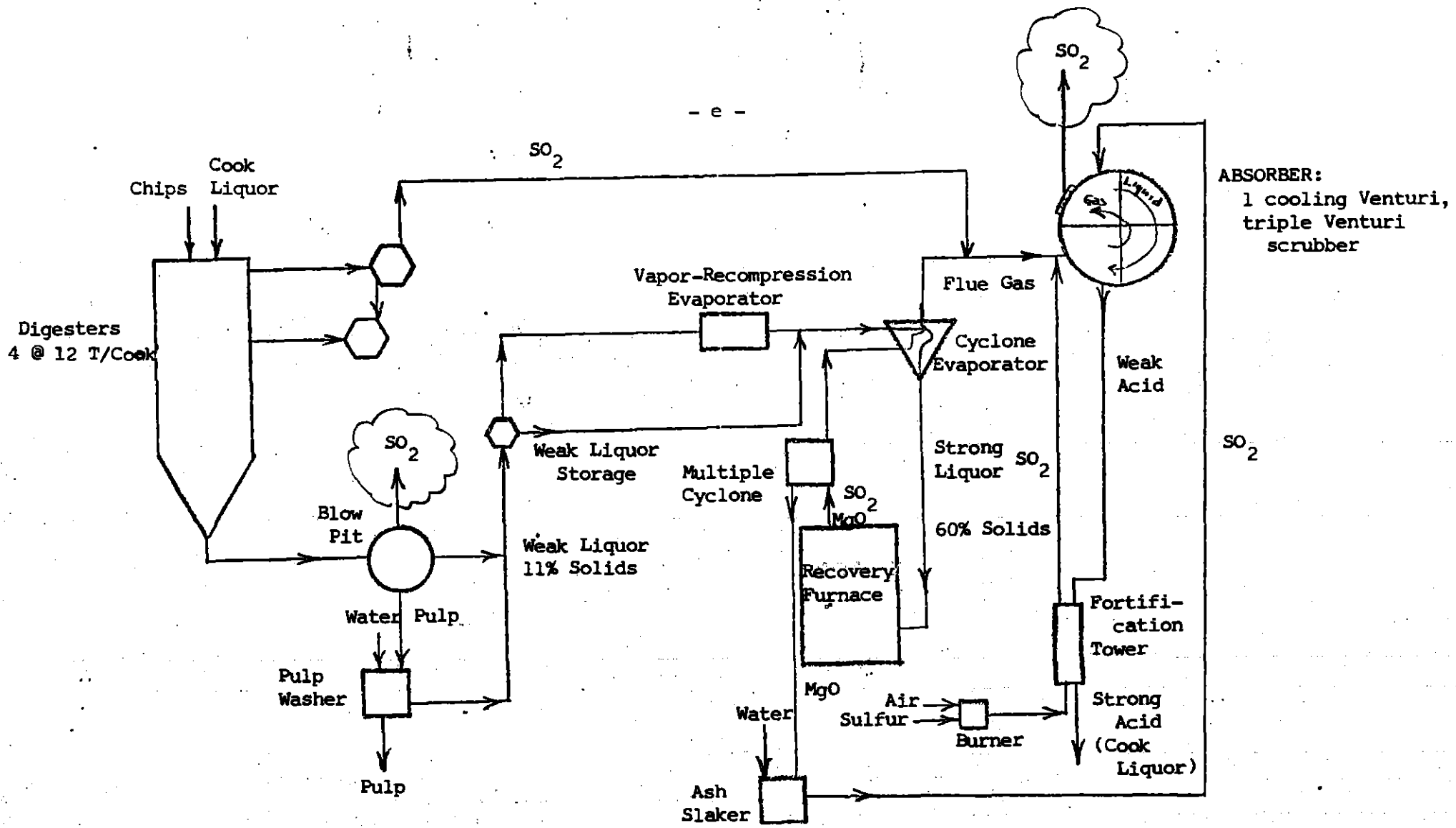
Cooking Liquor Preparation:

1. Water is "gasses up" with sulfur dioxide
2. Sodium Carbonate is added to pH 9

Menasha Paper
North Bend

Neutral Sulfite Semi-Chemical Pulping Process

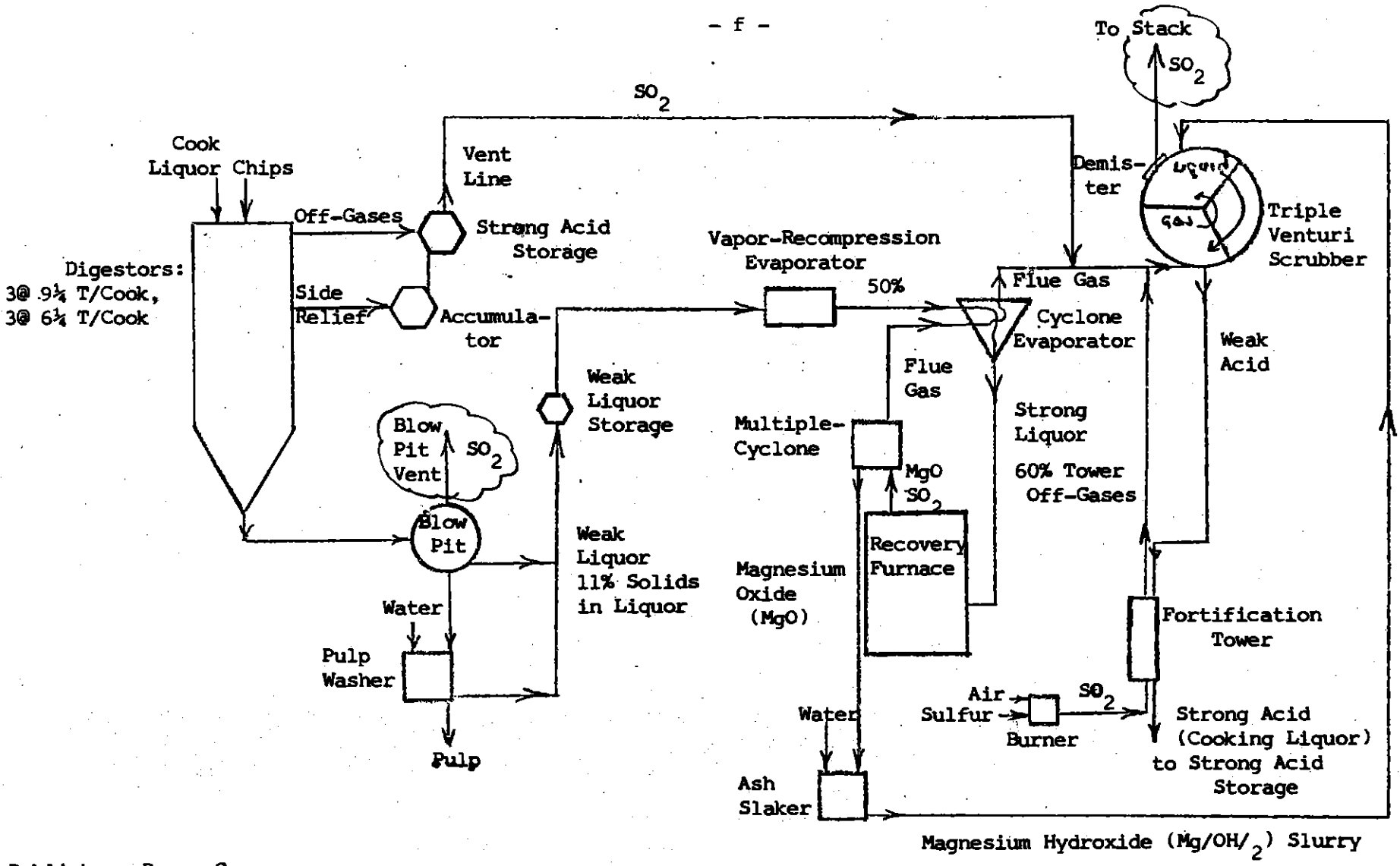
CAA 20 IV 71



Publishers Paper Company
Newberg

Magnefite Pulping and Recovery Process

Denotes emission to atmosphere

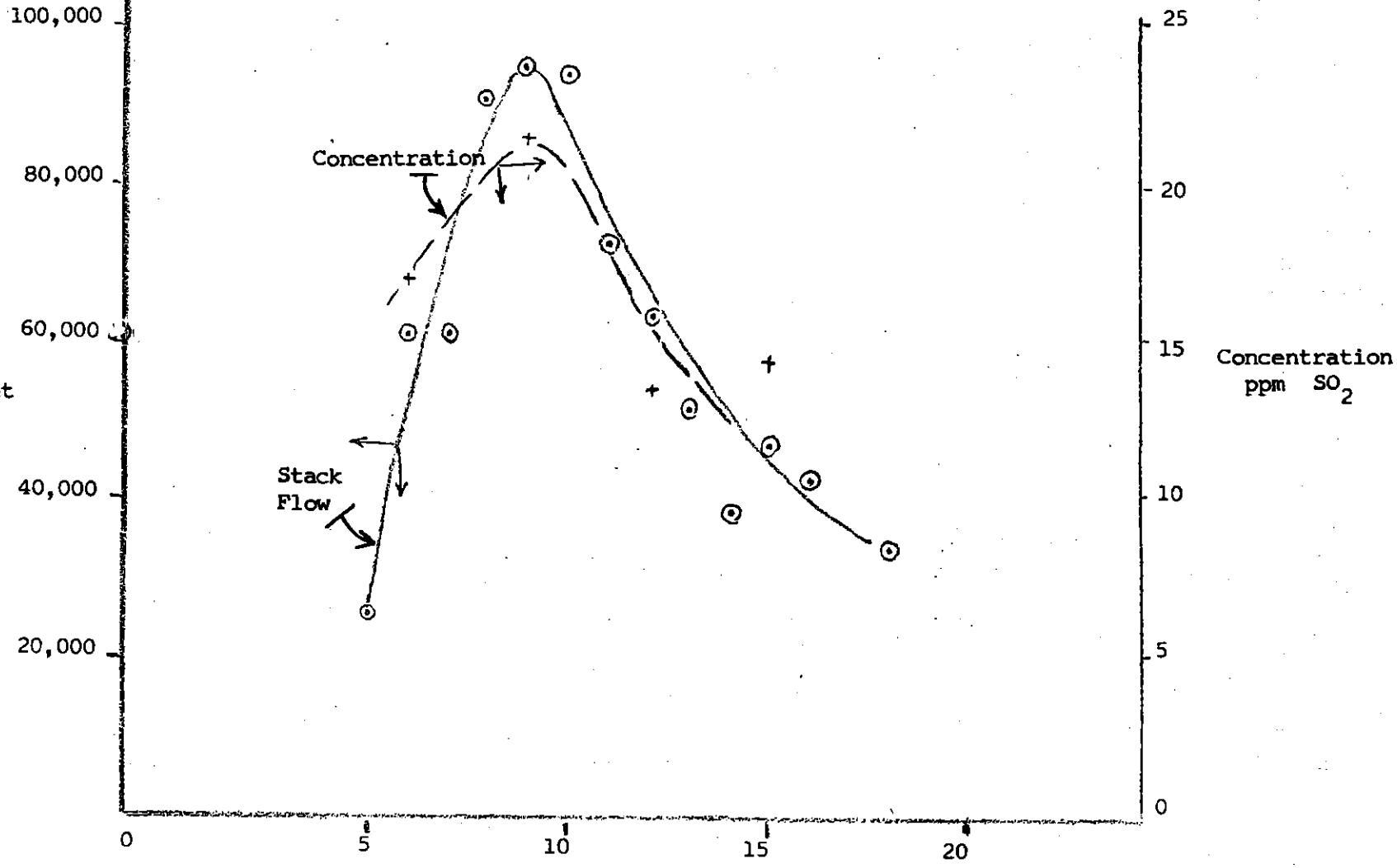


Publishers Paper Company
Oregon City

Magnefite Process

Denotes emission to atmosphere

Stack Flow and Concentration
in
Blow Pit Vent over one Blow Cycle
Test made by Washington Department of Ecology
at
Scott Pater - Anacortes, Wash. Dec., 1961



APPENDIX III

Bibliography and Footnotes

1. Rydholm, Sven A.: Pulping Processes, Interscience Publishers, New York, 1965. pp 439-576 are a general discussion of sulfite pulping.

2. Rydholm, p. 469

3. Hendrickson, E.R., J. E. Roberson, N. B. Koogler: Control of Atmospheric Emissions in the Wood Pulping Industry, NAPCA-DHEW Contract No. CPA 22-69-18, Final Report. pp 3-59a, 3-61a, 3-69a, 3-71a.

4. Reported to Oregon Department of Environmental Quality.

5. Reported to EPA staff, information subsequently relayed to Oregon DEQ. Information confirmed in telephone conversation between DEQ staff and mill staff.

6. Letter, H. R. Amberg to Oregon-Washington Air Quality Committee, Nov. 6, 1970.

7. Letter, R. I. Thieme to Oregon-Washington Air Quality Committee, November 18, 1970.

8. Reported to Washington Department of Ecology.

9. Letter, Roger O. Smith, Mill Manager, to E. J. Weathersbee, Oregon State Sanitary Authority, October 16, 1968.

10. Bid specification supplied by Boise Cascade to Oregon DEQ, January 22, 1971.

11. Theoretical and pilot plant discussions of scrubbing in magnefite recovery systems are found in:

    a) Markant, H. P.; McIlroy, R. A.; Matty, R. E., Absorption Studies, MgO_2- SO_2 Systems, published by The Babcock and Wilcox Co., 1962.

    b) Clement, J. L., MgO Recovery System - Design and Performance, presented at TAPPI Engineering Conference, September 1965.

12. Information supplied by vendor to EPA, subsequently relayed to DEQ. This performance is not guaranteed.

13. Keef, R. C. Magnesium Bisulfite Recovery Startup. TAPPI, Vol. 54, No. 4, pp 564-568. Describes the system, and states that recovery furnace stack emissions are under 500 ppm. No description of sampling procedure.

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION
B. A. McPhillips, Chairman — E. C. Harms, Jr., Member
Storrs S. Waterman, Member — George A. McMath, Member
Arnold M. Cogan, Member

FROM : AIR QUALITY CONTROL DIVISION

DATE : July 16, 1971 for Meeting of July 23, 1971

SUBJECT : REYNOLDS METALS COMPANY, TROUTDALE - STATUS REPORT

The Reynolds Metals Company schedule for complying with the Primary Aluminum Plant Regulation, OAR Chapter 340, Sections 25-255 through 25-290, was conditionally approved by the Environmental Quality Commission on March 5, 1971.

A major condition of the Environmental Quality Commission's approval was the submission of quarterly reports by the company on efforts to develop methods to achieve 20% opacity (Ringelmann 1) or less from all sources on or before January 1, 1975, as required by Section 25-265. The initial report was due before June 30,1971.

The company did report to the Department of Environmental Quality on June 17, 1971 concerning development efforts made during the period March to early June, as well as those anticipated during the next quarterly period.

A summary of these efforts by source area is as follows:

1. Carbon Bake Plant - A total of 3 devices have been applied. A confidential device appears promising and will be evaluated further. The other two devices were unsuccessful. A fourth device will be evaluated in the future.

2. Potrooms - A wet scrubber was tested. The results indicated a high efficiency but a moist plume was evident. A total of 5 additional devices will be tested.

3. Anode Paste Plant - Two devices are scheduled for testing in this area.

4. Rodding Room - The company has submitted a proposal for installing a baghouse in this area.

The company concluded its progress report by indicating that it was confident that it would be able to commit itself to the necessary control programs by September 1972 for achieving compliance by January 1, 1975.

In addition to the report described above, Reynolds Metals Company has submitted the emission testing, forage fluoride and ambient-air fluoride data as required in the Monitoring and Reporting Sections, 25-275 and 25-280.

The company reported June 17, 1971 that the Special Studies efforts required in Section 25-285 were about 30% completed. In addition, these efforts would be approximately 70% completed by the end of September 1971 with total completion occuring during the summer of 1972.

STAFF CONCLUSIONS

The staff has reviewed the information reported by the company and while definitive schedules have not been completed on all aspects the staff concludes that the progress report is acceptable.

The staff will continue to receive quarterly progress reports for meeting visible emission standards and prepare for the comprehensive review of Reynolds Metals Program by September 1972 as conditioned in the Environmental Quality Commission approval of March 5, 1971.

No action of the Commission is requested at this time.

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY INTEROFFICE MEMO

To: AQC Files Date: June 17, 1971

From: FAS

Subject: REYNOLDS METALS CO., TROUTDALE

The following is a summary of a conference with H. M. Patterson, H. H. Burkitt and F. A. Skirvin of the DEQ and H. Zeh, Chief Chemist and H. Shiver, Chief Engineer of Reynolds Metals Co., Troutdale. This meeting which amounted to a quarterly progress report was held in the State Office Building on June 17, 1971 and dealt with the status of the company efforts to comply with the DEQ Primary Alumin um Plant regulation (OAR, Ch. 340, Sec. 25-255 through 25-290) and the EQC's action of March 5, 1971 (hereto attached). In addition to this meeting, the company has submitted the monthly monitoring reports as required in OAR, Ch. 340, Section 25-275 and 25-280.

SPECIAL STUDIES

Mr. Zeh reported that the special studies effort was 25% to 33% completed. He expects to be within 66% to 75% of completion at the end of the current quarter (July through September). It was stated that completion of this effort would occur during the summer of 1972. Mr. Zeh did not present any detailed information or results of efforts to date.

EMISSION STANDARD

Several major efforts have and will be attempted to develop the necessary processes and procedures to achieve compliance with the opacity limitation by January 1, 1975 as required by OAR, Ch. 340, Sec. 25-265.

Carbon Bake Plant

1. Ceilcote Scrubber - did remove some particulate, but would not meet 20% opacity.

2. Krebs-Elbair Scrubber - was not successful.

3. Confidential Device - looks promising on both HC's and particulates. Will have more to report on this by next quarterly report.

4. Micropul ESP (Wet) will be evaluated in the near future.

Rodding Room

1. Preparations have been made for testing emissions.

2. Plans have been made to install a baghouse on the Electromelt furnace.

Anode Paste Plant

1. John Mansville filter will be tested on belts from mixer.

2. Confidential Device - will also be tested here.

Potrooms

1. Krebs-Elbair - tests results indicated 94 to 96% efficiency with a visible moisture plume.

2. The following devices will be tested:

   a. Fiber-Dyne scrubber

   b. Ceilcote scrubber

   c. Ceilcote scrubber with ionization chamber

   d. Research Cottrell flooded disc scrubber

   e. Micropul ESP (Wet)

Mr. Zeh concluded his report by stating that he was confident that the company would be able to commit itself to the necessary control programs by September 1972.

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION
B. A. McPhillips, Chairman E. C. Harms, Jr., Member
Storrs S. Waterman, Member George A. McMath, Member
Arnold M. Cogan, Member

FROM : AIR QUALITY CONTROL DIVISION STAFF

DATE : July 15, 1971 for Meeting of July 23,1971

SUBJECT: THE ROBERT DOLLAR CO. - GLENDALE, OREGON
WIGWAM BURNER PHASE-OUT PROGRAM

Due to the extended time and because this plan is unique, the proposal from Robert Dollar Co. is presented to the Environmental Quality Commission for approval. (The proposal is attached.)

Background:

The Robert Dollar veneer plant and sawmill is located on the northern edge of the town of Glendale in Douglas County. Glendale is located approximately 25 miles north of Grants Pass and 10 miles west from Interstate 5.

During 1970, the Company, through the improved utilization of residues, shut down three of the four wigwam waste burners at the Glendale plant. The remaining 80 foot wigwam is in very poor physical mechanical condition.

Current Program:

The current proposal by the company represents the creation of a new industry in Glendale, that is - the production and packaging of decorative bark. The company currently has projected commitments for bagged bark to eastern markets through at least July of 1972, but these have not been finalized pending approval of the overall schedule and plan by the Commission.

In addition to the decorative bark utilization program, the company has negotiated sales agreements for the disposal of plywood trim and sawdust to Roseburg Lumber Company's new particle board plant located in Dillard which is some 25 miles to the north.

The company proposes to phase-out the wigwam waste burner by January 1, 1971 but also contemplates the necessity of some use during the fall of 1972 depending on the extent of market developments.

RECOMMENDATION

The staff would recommend that the Commission accept the proposal from Robert Dollar Company since it represents an acceptable form of wood residue utilization, but, with the following conditions:

1. The wigwam waste burner is to be removed from service at the time the decorative bark plant is put "on-stream". At the same time, the contract with Roseburg Lumber Company will be initiated for the sale of plywood trim and sawdust. These two programs are to be implemented not later than January 1, 1972.

2. If the sale of decorative bark does not develop sufficiently to allow continued utilization of all bark during the last six months of 1972, the wigwam waste burner may be reactivated without modification for the disposal of bark only. The company would agree to notify the Department in writing of the intended date that the wigwam waste burner was to be put into service and the expected duration of operation (not exceeding December 31, 1972 without modification).

3. If the wigwam waste burner is required for the disposal of residue after December 31, 1972, the burner will be replaced with a wigwam waste burner properly sized, following the criteria developed by the Forest Research Laboratory at Oregon State University and will be operated in compliance with applicable emission standards.

4. All sanderdust will be diverted to the hogged-fuel bin by January 1, 1972. If the sanderdust hogged fuel mixture creates a boiler stack emission problem, the company would agree to install suitable sanderdust firing equipment. Such equipment shall be approved by the Department prior to installation.

5. Any proposal to landfill wood residues must have Department approval. Such proposal would be submitted, listing the quantities, types and reasons for justifying this method of disposal. Any approval from this Department would specify the specific conditions to prevent degradation to the total environment.

6. In the event that any of the above utilization plan does not materialize, or the start-up of the wigwam waste burner is deemed necessary for any other reason than 2. above, the company shall submit plans and specifications for the replacement of the burner within sixty (60) days of burner start-up and will complete the burner replacement within an additional sixty (60) days.

THE ROBERT DOLLAR CO.

FOREST PRODUCTS DIVISION

HEAD OFFICE
311 CALIFORNIA STREET
SAN FRANCISCO 4

AREA CODE 503
TELEPHONES
OFFICE 832-5050 SALES 832-5820
GLENDALE, OREGON

July 6, 1971

Department of Environmental Quality
State Office Building
1400 SW 5th Ave.
Portland, Oregon 97201

Attention: Mr. T. M. Phillips, Associate Engineer
Air Quality Control Division

Gentlemen:

Our plans for eliminating use of our wigwam waste burner are as follows:

1) Construct decorative bark plant. Plant to utilize bark produced at our barker. Construction to begin upon signing of sales contract for material, and plant to begin operation no later than Jan. 1, 1972. Fines and other unuseable material are to be burned in our existing boiler.

2) Sell Plywood Trim to Roseburg Lumber Company - Sales to be contingent upon start-up of Roseburg's new flakeboard line about Sept. 1, 1971. See attached letter and contract from Roseburg Lumber Co.

3) Sell sawdust to Roseburg Lumber Co. Sales to begin sometime after start-up of new flakeboard plant. Again see the attached Roseburg Lumber Co. documents.

4) Induce sanderdust into our hog fuel bin. Burn sanderdust mixed with hog fuel in our existing boiler. Complete construction and begin operation by Sept. 1, 1972.

5) Induce veneer clean-up scraps and bark slabs into fuel bin via hog and air system or landfill if volume generated after Jan. 1, 1972 does not warrant hog installation.

We do believe our plan will eliminate use of our wigwam burner; however, because the forest products industry is plagued by a cyclical market we must retain two alternatives:

1) Short term market shutoff of outlets:
landfill all waste not utilized

2) Long term market shutoff or major change in market makeup:
modify existing burner or a replacement burner to meet state standards

We hereby respectfully submitt this plan for your approval.

Very truly yours,
THE ROBERT DOLLAR CO.

T. H. Mehl, III
Assistant Manager

Encl.
THM:jh

ROSEBURG LUMBER CO.

P.O. BOX 1088 · ROSEBURG, OREGON 97470 PHONE (503) 679-8741

June 15, 1971

Mr. Buck Mahl
General Manager
Robert Dollar Lumber Company
Glendale, Oregon

Dear Buck:

Mr. John Banducci mentioned to me you requested information on the start-up of the new flakeboard line and would like to know approximately when we will be in position to take your plytrim and sawdust.

The construction of the new plant is progressing very well. Expected start-up time appears to be mid to late August. Shortly after start-up we expect to take your plytrim. Sawdust will be phased into the board and used as soon as possible.

Yours truly,

ROSEBURG LUMBER COMPANY
FLAKEBOARD DIVISION

Robert J. Crawford
Manager

RJC/nb

WOOD SHAVINGS AGREEMENT

THIS AGREEMENT, made this 14th day of April, 1960 by and between THE ROBERT DOLLAR CO. hereinafter called "Seller", and DOUGLAS FIR PLYWOOD CO., a Delaware Corporation, hereinafter called "Buyer";

WITNESSETH

In consideration of the mutual agreements hereinafter set forth, the parties hereto agree as follows:

1. On the terms and subject to the conditions set forth in this Agreement, the Seller hereby agrees to sell and the Buyer hereby agrees to purchase the entire output including P.W. trim etc. here, when applicable, produced by the Seller at its plant located at Glendale, Oregon. Material purchased hereunder shall be free of bark, char, rot, needles, metal and other objectionable material.

2. The unit of measurement for material under this Agreement is that quantity which contains two thousand (2,000) pounds of bone-dry wood called a bone-dry ton and designated by the symbol "BDT", which means either bone-dry ton or bone-dry tons, depending on the context. At its Dillard, Oregon flakeboard plant Buyer shall determine the weight of each delivery of material by weighing the loaded truck and deducting the tare weight. Buyer shall determine the bone-dry wood content of the material in each delivery by taking a representative sample and determining the percentage of bone-dry wood therein by the customary laboratory procedures. The percentage so determined shall be multiplied by the weight in pounds and the product shall be divided by 2,000 to determine the BDT in the delivery. Buyer's determinations and its records thereof shall be available for inspection by Seller at Buyer's plant at reasonable times.

3. At all times, parties delivering material to Buyer shall keep and maintain at his expense public liability and property damage insurance within the limits of not less than $100,000.00 for the death or injury of any one person in any one accident and $300,000.00 for the death or injury of more than one person in the same occurrence, and $300,000.00 property damage, and shall furnish evidence of such insurance to the Buyer.

4. Buyer will pay to Seller for all material sold hereunder

$6.50 dollars per B.D.T. f.o.b. delivered to Buyer at Dillard, Oregon,

or dollars per B.D.T. for material at Seller's Plant.

Title to all material shall pass to Buyer at the time the materials are unloaded at the

Buyer's Flakeboard Plant. Payment shall be made by Buyer to Seller on or before the 10th day of each month for all material delivered the previous month.

5. The initial term of this Agreement shall be for a period of six (6) years commencing on the date of this Agreement and expiring on the sixth anniversary of such date, provided, however, that said term shall not so expire unless Buyer or Seller has given to the other party at least twelve (12) months previous written notice of its intention to terminate. If said twelve (12) months notice shall not have been given, this Agreement shall continue in force from year to year until terminated by either Buyer or Seller giving to the other party at least twelve (12) months previous written notice of its intention to so terminate.

6. During the term of this agreement either party may request an adjustment in the price paid hereunder to become effective on the anniversary date of this contract. This request must be made at least 60 days prior to the anniversary date. The party receiving the notice agrees to meet and negotiate a price for the next year. At the anniversary date if no agreement has been reached, then notwithstanding the provisions of Paragraph 5, either party may terminate this Agreement by giving six (6) months written notice to the other party. The price paid during this period shall be the price in effect at the time notice of termination was tendered.

7. If Seller should shut down its plant producing the material sold hereunder or if the Buyer should shut down its flakeboard plant, the acting party shall not be liable in any manner for refusing to deliver or accept material, as the case may be, during the period of such shutdown. If for any reason Seller should curtail the operation of its mill producing material sold hereunder, Seller will continue to deliver such reduced quantity of material as it may produce. If for any reason Buyer should curtail the operation of its flakeboard plant Buyer may reduce the BDT which it is required to purchase under this Agreement proportionately to the percentage of curtailment.

8. Seller shall be excused for failure to tender and deliver material to Buyer, and Buyer shall be excused for failure to accept delivery of material from Seller, in the event, to the extent, and during the time that such failure is caused by fire, flood, natural casualties, extreme weather conditions, riot, civil commotion, war, government regulations, strikes, lockouts, acts of God, or by any other cause, whether or not of a similar nature, beyond its reasonable control.

9. If either party should fail or neglect to perform or observe any of the agreements contained herein on its part to perform or observe, and such default shall continue for thirty (30) days or more after written notice of such failure or neglect shall be given by the other party, then in such event the other party may, by written notice, terminate this Agreement and all rights of such party hereunder. It is

agreed that the remedies given herein are not exclusive and are without prejudice to any other remedy available, and that in addition thereto the parties hereto shall have all other remedies available at law or in equity.

10. The address of Seller to which all notices to Seller shall be mailed is:

The Robert Dollar Co.
Glendale, Oregon

The address of Buyer to which all notices to Buyer shall be mailed is:

Douglas Fir Plywood Co.
P. O. Box 1088
Roseburg, Oregon 97470

Any notice required to be given hereunder shall be sufficiently given if made in writing and mailed by certified mail, return receipt requested, at any United States post office addressed as above provided, and shall be deemed to have been given on the second day following mailing. Any party may change its address for purposes of this Agreement to any other address located in the United States of America by given written notice of such change of address to the other party in the manner herein provided for giving notice.

11. Failure by either party at any time to require strict performance by the other of any provision hereof shall not be deemed to constitute a waiver of any breach of the provisions hereof, nor shall it constitute a waiver of any succeeding breach or a waiver of this non-waiver clause.

12. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and assigns.

IN WITNESS WHEREOF, each party hereto has caused this instrument to be signed by its duly authorized officer the day and year first above written.

THE ROBERT DOLLAR CO.

(CORPORATE SEAL)

By _____
Seller/ President.

_____
Secretary

DOUGLAS FIR PLYWOOD CO.

(CORPORATE SEAL)

By _____
Buyer

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION
B. A. McPhillips, Chairman — E. C. Harms, Jr., Member
Storrs S. Waterman, Member — George A. McMath, Member
Arnold M. Cogan, Member

FROM : AIR QUALITY CONTROL DIVISION

DATE : July 16, 1971

SUBJECT: AMERICAN SHINGLE COMPANY - GARIBALDI, TILLAMOOK COUNTY

only Industrial Location 1950

American Shingle Company is located in the center of the downtown area of Garibaldi. The company produces cedar shingles and shakes. Residues from the manufacturing process are conveyed to a metal shed where they are burned without any control. This enclosure only confines the fire from burning adjacent logs, grass, etc. and somewhat prevents wind-blown sparks from igniting other fires.

A trailer court, marina, and town buildings are all located within several hundred feet of this source. Local residents have long suffered from the smoke emitted from this shed when the prevailing winds blow out of the southwest.

This operation has been the source of complaints from local residences. The cedar smoke has even affected one resident to the extent that living in the community has become impossible. Garibaldi had a population of 1050 at the time of July, 1969, census.

On August 14, 1970, the staff met with Mr. Russel Curnutt, the company president, and informed him that this operation, relative to residue disposal, was not in compliance with current regulations. On August 17, 1970, the Department requested that the company forward a proposal for the abatement of this operation prior to October 30, 1970.

The letter received from the company, dated October 14, 1970, stated that the company felt it could do something by July 12, 1971. Further correspondence with the company in November, December, and April confirmed this July date for phase-out of the waste burner.

Inspections during March and April revealed continued heavy visible emissions from the burning of residues.

Continued complaints were received in April and July, 1971.

On July 6, 1971, a letter was sent to the company requesting the phase-out of the burner be verified.

The attached letter received from the company, dated July 12, 1971, outlined the progress made to date and requested an appearance before the Commission to appeal for an extension of thirty (30) days to complete the phase-out of this burning operation.

Recommendation

It is recommended that an extension be granted until the August Commission meeting and, if the burner phase-out is not completed by the August Commission meeting, that a public hearing be authorized and the company be required to show cause why the Environmental Quality Commission should not enter an order requiring the company to terminate the use of the burning shed.

American Shingle Co.

SHINGLES, SHAKES AND THEIR SPECIALTIES

GARIBALDI, OREGON
PHONE 322-3586

July 12, 1971

T. M. Phillips
Associate Engineer
Air Quality Control Division
Department of Environmental Quality

Dear Sir:

Last October when I first wrote you about changing my waste disposal method, I was sure that between January and July there would be a stretch of at least 30 - 40 days of good weather somewhere in those months, either clear cold weather or clear weather in the spring. We have not had over 3 or 4 good days at a stretch so far this year on the coast.

I have done what work I could do between storms.

I have:

1. rebuilt the conveyor under the mill.
2. 85 to 90% completed the cross conveyor for loading the truck.
3. bought a dump truck to haul the material to O.W. Plywood.
4. Renovated another dump truck.
5. Completed 65% of the wiring for the cross conveyor.
6. arranged with O. W. to take the bulk of my waste, and with Grimes fuel Co. to take the larger chunks.

I believe that I have made reasonable progress in this matter, considering that this is 90% outside work and how miserable the weather has been these last few months.

American Shingle Co.

SHINGLES, SHAKES AND THEIR SPECIALTIES

GARIBALDI, OREGON
PHONE XXX 322-3586

I would like to appear at your next D. E. C. meeting July 23 and beg for a thirty day extension; hoping that I could get two good weeks of weather out of the thirty days.

Yours truly,

Russell C. Curnutt

RC:gc
cc:1

Mr. H. H. Baskett
Quality Control
1400 S.W. 5th Ave.
Portland, Oregon

"The Frog Pond"
Garibaldi, Oregon
July 16th, 1971

Charlotte M. Brown
P.O. Box 151
Garibaldi, Oregon

Dear Sir:

I am purposely writing this letter to you on one of my regular advertising folders, the reverse side should give you some idea of the scope and value of my business in Garibaldi. Further, I will be exhibiting my 225,000.00 Oriental Collection at the University of Washington in Ellensburg this fall.

During the past year it has become increasingly intolerable to have a pall of smoke hanging over the town discouraging tourists & buyers. It is utterly impossible to open the windows in my residence because of the smoke, always blown in this direction & entire main street by prevailing winds.

It is my understanding that the hearing on further operation of American Shingle Co. is to be held on July 23rd. I simply cannot leave my business to appear in person but wish to make it doubly clear to the board that we can no longer tolerate this pollution.

American Shingle Co. has been illegally operating past the legal time designated and I can only construe the fact that their telephone is never answered to diversionary tactics.

I am a signer of the petition against their further operation. It should not be necessary for the citizens of this community to file suit when this condition has been brought to the attention of the board.

Very truly yours,
Charlotte M. Brown

People Who Live in Glass Houses Should Come to See Me

I Have Everything to Match!

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INCLUDING GOLD, APRICOT, BUTTERSCOTCH, RAINBOW

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DURAND
LALIQUE
BRISTOL
STEUBEN
VASELINE
LATTICINI
SANDWICH
CRANBERRY
MILLE FIORE
PEACH BLOW

CAMEO
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BURMESE
EPERGNES
CORALINE
CARNIVAL
MARY GREGORY
STAINED WINDOWS
VENETIAN MIRRORS

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PRATT - - - SITZENDORF - - - BELLEEK

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BOWL & PITCHER SETS

CRUETS
MAJOLICA
JEWEL BOXES
MUSTACHE CUPS
NAPKIN RINGS (animal and flower motifs)

JEWELRY

AMBER, PRECIOUS STONES, CRYSTAL, JET, GOLD, SILVER, AND JADE, JADE, JADE!

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STAFFORDSHIRE
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SEMISI MAYA ORIGINAL PAINTINGS

The Frog Pond

702 GARIBALDI AVENUE
GARIBALDI, OREGON

ANTIQUES *DECORATORS' ITEMS* *FINE ARTS*

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION

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

FROM : AIR QUALITY CONTROL DIVISION STAFF

DATE : July 16, 1971 for Meeting of July 23, 1971

SUBJECT: STATUS REPORT, CABAX MILLS, JOSEPHINE COUNTY

Cabax Mills operate a sawmill in Kerby, approximately 30 miles southwest of Grants Pass on Highway 199 and a planing mill in Grants Pass. Emission sources at the Kerby mill are a wigwam waste burner and boiler plant. A wigwam waste burner is operated at the Grants Pass mill for disposal of planer shavings and trim ends.

KERBY

Background:

Complaints from residents of Kerby concerning smoke, fallout, cinders, flyash, and sawdust date from September, 1954.

In the early part of 1959 the mill burned. Notification was sent from the Board of Health to the company on September 11, 1959, that plans as related to emissions must be submitted to the Department prior to rebuilding the plant.

Complaints continued to be received during the 1960's. On June 6, 1969, a petition was received bearing 34 signatures. At the July 24, 1969 meeting, the problem was brought to the Commission's attention. During the remaining months of 1969 complaints continued to be received. Twice during 1969, on August 20 and October 8, letters were sent to the company requesting compliance schedules.

A meeting was held with representatives of Cabax on September 23, 1969 to establish a program to improve the operation of the burner.

During 1970, the complaints continued. Four times during 1970 requests were made for a schedule of compliance, either for phase-out of the burner or modification. By November, 1970, the company had begun to obtain engineering studies to determine what was required to improve the burner and boiler operation.

During 1971, several additional studies were made for the correction of the emission problems. Two more requests for a schedule were made and one more meeting with the company was held.

Current Status:

The visible emissions from the boiler plant and the wigwam waste burner continue to be in excess of current emission standards. Four separate construction or engineering firms have been contacted by the company. No program or schedule has been submitted to the Department. The conditions have not improved.

GRANTS PASS

Background:

On September 17, 1970, a letter was sent to the company requesting a schedule of phase-out or modification for the wigwam burner be established. Additional requests for compliance schedules were sent December 4, 1970, February 4, 1971, and June 16, 1971. Pictures and Ringelmann readings were obtained during the period in addition to a meeting with representatives of the company to stress the need for action.

Current Status:

No improvements have been made in the operations of the burner and no progress has been established to attain compliance.

RECOMMENDATIONS:

Since the company has failed to develop any program for the abatement of excessive boiler and wigwam waste burner emissions at the Kerby and Grants Pass mills, it is recommended that a public hearing be authorized for the purpose of requiring the company to show cause why the Environmental Quality Commission should not enter an order requiring the company to submit an orderly program of compliance for both the Kerby and Grants Pass mills, developed by a registered professional engineer with current Oregon registration. It is further suggested that this order set forth a time schedule requiring plans and specifications to be submitted to the Department within 30 days after adoption of the order and that construction work be completed within 90 days after adoption of the order.

CABAX MILL - KERBY

Sept. 16, 1954	Complaint of fallout
Jan. 13, 1955	Letter from Department to mill regarding excessive emissions and data from fallout station
Sept. 11, 1959	Letter from Board of Health to Cabax that plans must be submitted before reconstruction
May 5, 1964	Complaint of smoke and flyash
June 6, 1964	Complaint of cinders and smoke
Oct. 29, 1964	Complaint of fallout
Dec. 1, 1964	Letter from State Fire Marshal - flyash causing more of a nuisance than a fire hazard
Dec. 7, 1964	Letter from AQC that the District Engineer would investigate
May 22, 1969	Complaint of fallout
May 27, 1969	Letter from AQC that the District Engineer would investigate
May 29, 1969	Report of District Engineer 's investigation - problem severe
June 1, 1969	Complaint petition 34 signatures - sawdust and cinders
June 13, 1969	Letter from AQC - the matter will be investigated
August 5, 1969	Complaint of fallout and smoke
Aug. 16, 1969	Complaint of fallout
Aug. 14, 1969	Letter from AQC - the matter had been presented to the Commission on July 24, 1969
Aug. 20, 1969	Letter from AQC to Cabax requesting compliance schedule
Sept. 9, 1969	Letter from Cabax questioning any violation
Sept. 10, 1969	Complaint of fallout
Sept. 11, 1969	Complaint of smoke and fallout
Sept. 17, 1969	Letter from AQC to Cabax to set up meeting
Oct. 2, 1969	Report of meeting with Cabax and of a meeting with two of the complainants. Ringelmann chart
Oct. 8, 1969	Letter from AQC to Cabax regarding meeting and plans to improve the operation
Dec. 17, 1969	Letter from attorney representing several people inquiring what is to be done
Dec. 24, 1969	Letter from AQC to attorney outlining recent history and plan to review burner after repairs done
April 3, 1970	Complaint - smoke, cinders, sawdust
Apr. 30, 1970	Memo to files from District Engineer - Cabax emissions bad
June 3, 1970	Letter from AQC requesting compliance schedule
July 9, 1970	Memo to files from District Engineer - Cabax bad burner and boiler stacks
July 15, 1970	Letter from Cabax - changing saws, not possible to predict phase-out
July 29, 1970	Letter from AQC to Cabax requesting phase-out or modification schedule
August 4, 1970	Memo to files from District Engineer - burner and boilers bad
Sept. 17, 1970	Letter from AQC to Cabax requesting phase-out or modification schedule
Nov. 3, 1970	Letter from Cabax - problems with modification plan due to poor condition of burner

Dec. 9, 1970	Letter from AQC to Cabax requesting modification schedule
Dec. 29, 1970	Letter from Cabax - Lausmann has made study, quotation from Mill Owners Const., contacted McKenzie Engr. No schedule
Feb. 4, 1971	Letter from AQC to Cabax - must have schedule by March 8, 1971
Feb. 4, 1971	Letter from Cabax outlining what McKenzie Engr. will do - will submit report in three weeks
Feb. 12, 1971	Memo to files from District Engr. - boiler and burner bad - Ringelmann #5
Feb. 5, 1971	Ringelmann Chart and picture
Feb. 9, 1971	Ringelmann Chart
Feb. 18, 1971	Ringelmann Chart
March 10, 1971	A Letter from McKenzie Engr. that final report will be made by March 26, 1971
May 6, 1971	Memo to files regarding telephone call from Cabax
May 21, 1971	Complaint
June 10, 1971	Letter from Cabax - two proposals being sent to Mr. Barker in Eugene for consideration
June 16, 1971	Letter from AQC to Cabax - must have schedule by July 1, 1971

CABAX MILL - GRANTS PASS

Apr. 30, 1970	Mr. Leo Baton observed Cabax Mill-Grants Pass to be very active.
Sept. 17, 1970	Letter sent to Cabax, Grants Pass - setting up schedule as follows: Preliminary plans submitted Nov. 2, 1970; Final Plans submitted Nov. 16, 1970; Installation complete Jan. 4, 1971; Check out and inspection Jan. 15, 1971
Oct. 13, 1970	Burner was inspected - Ringelmann #$\frac{1}{2}$, #1, #1$\frac{1}{2}$, #2 was indicated
Oct. 14, 1970	Burner was inspected - Ringelmann #3$\frac{1}{4}$, #4, #4$\frac{1}{2}$ and #1$\frac{1}{2}$ was indicated. Ringelmann Chart
Nov. 6, 1970	Letter was sent to Cabax Mills with Registration Forms
Dec. 9, 1970	Letter was sent to Cabax Mills stating that since the Jan. 4, 1971 date could not be met, a new schedule would have to be determined by Cabax
Dec. 29, 1970	Letter received from Cabax stating that they have several firms studying their problem
Dec. 30, 1970	Burner inspected - Ringelmann #4 and #5 indicated
Feb. 4, 1971	Letter sent to Cabax Mills requesting schedules be submitted for both
Jan. 20, 1971	Picture
Feb. 5, 1971	Ringelmann Chart and picture
Mar. 29, 1971	Picture
June 10, 1970	Ringelmann Chart and picture
June 16, 1971	Request schedule of compliance

CABAX MILLS

LUMBER DIVISION
TELEPHONE 503-476-6696 • TWX 503-440-0470
P.O. BOX 377 • GRANTS PASS, OREGON 97526

PLYWOOD DIVISION / GENERAL OFFICE
TELEPHONE 503-342-4401 • TWX 503-485-0466
P. O. BOX 449 • EUGENE, OREGON 97401

July 21, 1971

Mr. T. M. Phillips, Associate Engineer
Air Quality Control Division
State Office Building
1400 S. W. 5th Avenue
Portland, Oregon 97201

Dear Mr. Phillips:

In accordance with our telephone conversation on July 20, 1971, I am enclosing the Notice of Construction and Application for Approval for a new burner with the Lausmann air pollution control system, to be erected at our Kerby, Oregon plant.

Mr. Edward A. Butler of the law firm of Butler, Husk & Gleaves will attend the hearing on July 23 to present our position, and to answer any questions.

Yours very truly,

CABAX MILLS

By D. R. Barker
Donald R. Barker
President

DRB/nc
Encls. 2

TO : MEMBERS OF THE ENVIRONMENTAL QUALITY COMMISSION
B. A. McPhillips, Chairman
Storrs S. Waterman, Member
Arnold M. Cogan, Member
E. C. Harms, Jr., Member
George A. McMath, Member

FROM : AIR QUALITY CONTROL DIVISION

DATE : July 15, 1971, for Meeting of July 23, 1971

SUBJECT: REGIONAL VARIANCES SUBMITTED FOR FILING

Eight (8) variances have been submitted by Regional Authorities for filing with the EQC. They are summarized in Table I, and complete documentation as submitted by the Regions is attached as an appendix.

The staff has reviewed the variances and concluded that, with one possible exception, the variances are properly conditioned and have been granted in the best interests of the overall air quality program. The one on which the staff has reservations is the variance extension granted to Cedarwood Timber Company by the Columbia-Willamette Air Pollution Authority.

Cedarwood Timber Company is a small cedar mill in Vernonia that operates a wigwam burner in violation of CWAPA standards. While operating on a variance from January 18, 1971, to June 30, 1971, the firm failed to submit to CWAPA a regional progress report. It has otherwise not submitted any proposal or made progress toward compliance with CWAPA rules. The CWAPA order extending the variance contains no requirements for interim measure.

The staff does not have sufficient information at the present time to determine whether Cedarwood Timber Company has a practicable or economically feasible alternative to operation of its wigwam burner.

It is anticipated that the CWAPA staff will have this information by December 31, 1971, when the variance expires and will have it available in the event that a further extention is requested.

If the variance is renewed by CWAPA after December 31, 1971, the EQC will, under the variance review law that will become effective by that time, be able to approve, revoke, or modify the variance as it sees fit according to the situation.

Under present law the Commission's options are limited to two: either accepting the variance as is; or adopting an order directing CWAPA to not renew the variance. Based on the lack of information at this time, and on the advantage of flexibility that the new law will provide, the staff recommends that this variance be accepted and filed, and further consideration given in the event it is renewed after December 31, 1971.

The staff, therefore, recommends that all eight (8) of the Regional variances, listed in Table I attached, be accepted and filed.

Table I

Summary - Variances Granted by Regional Authorities

AGENCY & FIRM	REGARDING	EXPIRATION
Columbia-Willamette Air Pollution Authority:		
#37 C & L Lumber Co. Eagle Creek	Wigwam burner phase-out	12/31/71
#38 City Brass Foundry Portland	Continue use of present plant until new facility is completed	12/31/71
#30 Columbia County	Domestic open burning (Extension of previous variance)	9/31/71
Cedarwood Timber Co.	Wigwam burner (Extension of previous variance)	12/31/71
Mid-Willamette Valley Air Pollution Authority:		
Stuckert Lumber Co. Idanha	Wigwam burner phase-out	10/31/71
Hull-Oakes Lumber Co. Monroe	Wigwam burner phase-out	12/31/71
Lester Shingle Co. Sweet Home	Wigwam burner phase-out	7/30/71
Three-Pack Shingle Co. Sweet Home	Wigwam burner phase-out	7/30/71

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

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

29 June 1971

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

Attention: Mr. K. A. Spies, Director
Department of Environmental Quality

Gentlemen:

Please be informed that at the 18 June 1971, it was the Order of the Board of Directors that a variance be granted to C & L Lumber Company to operate a wigwam waste burner at Eagle Creek, Oregon for a period of time not beyond 31 December 1971, under certain conditions.

The variance and supporting material are submitted for your review in accordance with the provisions of ORS 449.880.

For the Program Director.

Very truly yours,

Jack Lowe
Administrative Director

JL:sm
Enclosures: Variance #37
C & L Lumber Co. letter, 30 April 1971
CWAPA Memorandum, 3 June 1971
Minutes of Advisory Committee Meeting, 3 June 1971
Minutes of Board of Directors Meeting, 18 June 1971

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

IN THE MATTER OF	)	VARIANCE
	)	
VARIANCE TO	)	INCLUDING No. 37
	)	
HERMAN CLASSEN and THOMAS A. CLASSEN, a Partnership dba C and L LUMBER CO.	)	FINDINGS AND ORDER

FINDINGS

I

The Board of Directors has previously determined that all wigwam waste burners within the Authority but not within a special restricted area should be in compliance with emission standards contained in Rule 7 by not later than 30 June 1971.

II

By letter dated 30 April 1971, the C and L Lumber Co. set forth the progress made and the expenditures of monies thus far in an effort to comply with the 30 June 1971 compliance date and further stated in said letter and orally to the Advisory Committee that it is not financially feasible for the said C and L Lumber Co. to make sufficient alterations in operations to eliminate the said wigwam waste burner prior to 31 December 1971.

III

That the Advisory Committee having before it the petition for variance, having heard the oral statement of the petitioner and reports and recommendations of the staff, recommended that the Board of Directors grant the requested Variance to C and L Lumber Co.

ORDER

NOW THEREFORE, it is hereby ordered that a VARIANCE be granted to Herman Classen and Thomas A. Classen, a partnership, doing business as C and L Lumber Co. to operate a wigwam waste burner at Eagle Creek, Oregon in violation of emission standards contained in Rules of Columbia-Willamette Air Pollution Authority for a period of time not beyond 31 December 1971 subject to the following conditions:

1. The operation of the wigwam waste burner shall comply with the provisions of Oregon Administrative Rules, Chapter 340, Section 25-020.

2. C and L Lumber Co. shall on or before 1 September 1971 furnish to Columbia-Willamette Air Pollution Authority a written report setting forth with specificity progress made toward compliance with the emission standards contained in Rules of Columbia-Willamette Air Pollution Authority and the anticipated compliance date.

Entered at Portland, Oregon the 18th day of June 1971.

/S/ Francis J. Ivancie

Chairman, Board of Directors

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

Attorney

C. and L. LUMBER CO.

Route 1 Box 37A
EAGLE CREEK, OREGON 97022
Phone (503) 637-3021

April 30, 1971

ROUTING	
To	Noted by
WH	WH
JB	
JB	JB
From:	
Action:	

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

Gentlemen:

This is in reference to your letter of January 29, 1971, with a follow-up letter of April 20, 1971.

Our program of compliance with the Authority has been initiated and progressed to the degree that we no longer burn any bark and burn very little sawdust--about one or two units per day.

During the summer of 1970 we built a steel bin for our sawdust. This bin is 80% complete and we plan to complete it this summer. With the installation of a blower (already purchased) and the completion of the bin we will burn no sawdust. So far we have approximately $5000 in this bin and blower project.

The elimination of the bark burning was done the first two weeks of February, 1971. We had to shut the mill down during this time because this entailed the building a new conveyor under the barker and elimination of a conveyor going to the burner. This project was completed at a cost of approximately $5500--not counting loss of income for the two weeks when we were down.

The final stage, to completely eliminate the burner, is the installation of a hog or hammermill and bin for unbarked slabs and slabs too big for our chipper. For six months we have been looking for a hog or hammermill that we can afford and that will do the job. Our search includes local auctions, auctions and sales in Seattle, Medford, and Grants Pass as well as new and used equipment dealers. We are still looking and are confident that we willfind one in the near future. My estimate of the total cost for purchase of hog, building of bin and conveyor, and installation is in the neighborhood of $5000 to $6000.

My reasons for giving CWAPA the approximate cost of these projects are:

1) Being a small independent sawmill we don't have the money to hire an engineering firm to design the equipment or to hire a building contractor to install it. We do it all in our own shop and we build as we accumulate funds. This is slow, but we do make steady progress.
2) Our funds are pretty low now because of a two week shut down for the bark project, and because of income tax paid April 15.
3) The remaining work to be done can be almost entirely done while we are sawing or on week ends with a minimum of lost production time.

Therefore we propose the following:

1) We be given a six month extension for the removal of our burner, i.e., until December 31, 1971.

C. and L. LUMBER CO.
Route 1 Box 37A
EAGLE CREEK, OREGON 97022
Phone (503) 637-3021

2) With this extension we will be able to continue sawing during our best production period (good weather, no frozen logs, more daylight, good employee attitude because of better working conditions). This will allow us to accumulate cash to complete the project and will eliminate that remaining 5-10% of refuse that is giving us (you and C&L) a headache.

Hopefully we will not be forced into spending much needed operating capital on this final portion of the project at this time. We are confident that with mutual cooperation and understanding we can generate the needed money, continue to operate, and comply by December 31, 1971.

Very truly yours,

Thomas A. Classen

Thomas A. Classen

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

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

3 June 1971

MEMORANDUM

TO: Board of Directors

FROM: R. E. Hatchard, Program Director

SUBJECT: Variance Request, C. & L. Lumber Company
Eagle Creek, Clackamas County

Gentlemen:

On 15 January 1971 the Board of Directors of the Columbia-Willamette Air Pollution Authority adopted a wigwam waste burner compliance program for those burners located outside the Special Control Areas. In accordance with this program, compliance is to be attained by 30 June 1971.

On 30 April 1971, C. & L. Lumber Company of Eagle Creek, Oregon submitted the attached request for a variance from Rule 7, Emission Standards, of the Columbia-Willamette Air Pollution Authority Rules. As stated in the letter submitted by Mr. Tom Classen, Partner, C. & L. Lumber Company has initiated a compliance program to eliminate the wigwam burner. To date, the mill has eliminated the burning of bark at the cost of approximately $5,000.00 in February 1971 and expect to discontinue the burning of sawdust this summer. To completely eliminate the use of the burner will require the installation of a hogger or hammer mill for unbarked slabs or slabs too big for their chipper. Mr. Classen estimates this will cost an additional $5,000 to $6,000.

In order to procure equipment and complete the modification of his mill, Mr. Classen has requested a variance until 31 December 1971 to complete the phase out of his burner. During this period, Mr. Classen has voluntarily agreed to reduce the operation of his burner to three days per week.

Because this company has completed two-thirds of the compliance program and based upon the facts submitted concerning the completion of this program, it is the staff's recommendation that the variance request be granted.

Respectfully submitted,

R. E. Hatchard

R. E. Hatchard
Program Director

REH:tbs
Attachment

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

ADVISORY COMMITTEE MEETING
3:00 p.m., Thursday, 3 June 1971
Portland Water Service Building

Present: Advisory Committee

Mr. Darrel Johnson, Chairman
Mr. Walter Nutting, Vice Chairman
Mr. Jason Bailey
Mrs. Elaine Cogan
Mr. Remi Coussens
Mr. Robert Dow
Mr. TonyyFederici
Mr. Fritz Fleischer
Mr. Charles Haney
Thomas L. Meador, M. D.
Mr. Craig Royer
Hollister M. Stolte, M. D.
Mr. Carleton Whitehead
Mr. Ed Winter

Staff: Mr. Wayne Hanson, Deputy Program Director
Mr. Jack Lowe, Administrative Director
Mr. Emory Crofoot, General Counsel

Others: Mr. Lee Riley, Oregon Brass Foundry
Mr. Thomas Classen, C & L Lumber Company
Mr. Ron Householder, Department of Environmental Quality

Minutes

Chairman Johnson called the meeting to order, welcomed the new members and asked each member present to introduce himself for the benefit of the new members present. Mr. Johnson then briefly explained the background of the Committee and its activities. He also reminded the members of the luncheon to be held with the Board of Directors on 4 June 1971. Mr. Haney moved, Mr. Nutting seconded and the motion carried to approve the minutes of the 6 May 1971 meeting as recorded.

Request for Variance - City Brass Foundry

Mr. Hanson gave the Committee the background information on this company, stating it was a small company with limited emissions but due to its location, the emissions do give rise to public complaints. On 16 April 1970 the Authority accepted a schedule for compliance from this company which stated the company would be in compliance with our rules by 28 February 1971; this to be accomplished by the Company moving its facilities to a new location and installing some control equipment. The move was not accomplished as planned, however, and the Company is now requesting a variance to operate in violation of the emission standards until 31 December 1971, at which time the move will be complete. To change the operation at the present location to bring it into compliance would be extremely expensive and the staff agrees with the Company that this expense would not be justified. Mr. Hanson stated it was the recommendation of the staff that the variance be granted.

Mr. Lee Riley, President of Oregon Brass Foundry, stated that he had experienced a bad accident which put him out of commission for about seven months, this coupled with his inexperience at constructing new buildings and limited funds did not allow him to complete his move as planned.

The Advisory Committee then questioned Mr. Riley and Mr. Hanson concerning the emissions from the operation, the problems of moving the plant to an industrial area in Tualatin and air pollution controls to be installed. After further discussion, Mr. Federici moved, Mr. Haney seconded and the motion carried to recommend to the Board of Directors that a variance be granted to Oregon Brass Foundry to operate in violation of Authority emission standards until 31 December 1971.

Request for Variance - C & L Lumber Company

Mr. Hanson gave the Committee some background information on this company, stating that at a cost of $5,000 the Company has eliminated the burning of bark and expects to discontinue burning sawdust during this summer. An additional $5,000 to $6,000 will be needed for the installation of a hogger to completely eliminate the use of the wigwam waste burner and thereby bring the C & L Lumber Company into compliance with our rules. Mr. Classen, owner of this mill, has requested a variance to operate in violation of the rules until 31 December 1971. During this period he has agreed to reduce the operation of his burner to three days per week.

Mr. Hanson stated it was the staff recommendation that this variance be granted, as this company has completed two-thirds of the compliance program and is making a sincere effort to obtain compliance as soon as possible. Also he pointed out that this mill is outside the Special Control Areas and the Board of Directors has granted variances to mills which are inside Special Control Areas.

Mr. Classen stated that his company has been working towards elimination of the burner for a number of years, as he feels there is no way a wigwam waste burner can operate without smoke. Members of the Advisory Committee asked Mr. Classen and Mr. Hanson several questions concerning this request. In answer to Mr. Federici's inquiry, Mr. Hanson stated there were other mills which had made considerably less effort to comply and had been granted variances. After further discussion, Mr. Nutting moved, Mr. Haney seconded and the motion carried to recommend to the Board of Directors that a variance be granted to C & L Lumber Company to operate their wigwam waste burner in violation of Authority rules until 31 December 1971, with the provision that a progress report be made to the staff on or before 1 September 1971. It was added this recommendation was made by the Committee because of the sincerity of purpose of this company, that this company had made some progress towards compliance and that this company is not within a Special Control Area, and therefore further from populated areas than some burners.

Mr. Hanson outlined the history of the wigwam burner compliance program and stated he felt by the end of June 1971, of the 32 burners previously operating in the region, only 3 or 4 would still be in operation. Mr. Bailey asked if the staff could bring a report to the next Advisory Committee meeting concerning the wigwam burners in compliance or not in compliance by 30 June 1971. In answer to Mr. Haney's inquiry, Mr. Hanson stated one mill attempted to modify their burner to operate in compliance with the Authority standards. These modifications were successful in eliminating smoke emissions except during the shutting down period of the burner, but a particulate problem remains, as the burner still operates in violation of the particulate emission standard.

Motor Vehicle Emission Control Program

Mr. Johnson introduced Ron Householder, supervisor of the motor vehicle control program of the Department of Environmental Quality, who had been asked by the staff to attend this meeting to answer any questions the Committee might have concerning motor vehicle control.

In answer to Mrs. Cogan's inquiry, Mr. Householder stated that the Department of Environmental Quality does have exclusive jurisdiction over motor vehicles, but the question of the Benjamin Franklin parking structure is yet undecided. He stated their attorney was in the process of determining just what their legal responsibility was in this matter. He added their concern was more for over-all city planning, rather than one particular structure.

In answer to Mr. Johnson's inquiry concerning what the Department of Environmental Quality is doing about motor vehicle emissions, Mr. Householder gave a brief explanation of the Federal emission control program which has been underway since 1963.

Mr. Nutting asked about a program to test emissions from motor vehicles. Mr. Householder said there was a question as to whether this type of testing should be done. The Federal standards are average standards, not minimum standards. The testing that is done by the Federal government is a time-consuming and expensive procedure. Other, shorter tests are being developed and one such test is in use in California. Mr. Householder stated the Federal program is causing a reduction in the total emission output. He stated that the data from the CAMP station at 718 W. Burnside has shown a reduction in the number of times the Federal carbon monoxide ambient air standard has been exceeded.

Mr. Whitehead commented that although the number of times the Federal carbon monoxide ambient air standard has been exceeded is less than in previous years, the fact remains that it is exceeded a large number of times each year. He stated there were two ways for a public agency to fulfill its responsibility; one is for the agency to do the minimum that the law requires; the other way is the agency takes its assignment of controlling air pollution and restoring air quality and takes such initiative that is not denied the agency by law. Mr. Whitehead added that he felt the obligation of CWAPA and the Department of Environmental Quality is to take those actions that are not denied to them to determine what the impact of the Benjamin Franklin parking structure and other buildings which are proposed is going to have on the air quality of our city.

Mr. Householder stated that the Department of Environmental Quality does not think the new car program is going to achieve compliance with the ambient air quality standards within the time framework allowed by the Federal implementation plan.

Mr. Nutting pointed out that progress is being made and we should not create hysteria; control of motor vehicles and mass transit programs will not happen overnight.

At Mr. Johnson's request, Mr. Crofoot explained his opinion on the petition filed by the Northwest Environmental Defense Center. This was that CWAPA was not required by statutes to hold a hearing on this matter and could do so only on a voluntary basis, to receive evidence as to the impact of the parking structure on the air quality of downtown Portland. If CWAPA did hold a hearing and the evidence was that this structure would make it difficult for EQC to write implementation plans, then CWAPA would be obligated to go to the City Council and ask them to revoke their action of granting the land use permit. The petition also asked CWAPA to prohibit construction; CWAPA has no rule which would allow them to do this.

Considerable further discussion was held and Mr. Johnson thanked Mr. Householder for attending the meeting and answering questions for the Committee.

Open Burning

Mr. Hanson gave a brief preliminary report on the 47-day residential open burning period. He stated 55,806 burning permits were issued; 30,000 in Multnomah County; 11,000 in Clackamas and 14,000 in Washington Counties. In many areas only one burning permit was issued to an individual for the entire 47-day period. There were 8 days when burning was prohibited during that period. There was relatively good atmospheric disperion during the burning period. CWAPA received 600 complaints from neighbors of people burning. The evaluation of monitoring data has not been completed to determine any changes during this period. Mr. Hanson said that checking with solid waste disposal departments of the counties disclosed that there was no large reduction in roadside dumping. A full report will be forthcoming by 18 June 1971.

Legislation

Mr. Johnson asked Mr. Crofoot to give a brief summary on legislation which has passed or was likely to pass concerning air pollution. Mr. Crofoot reviewed the status of and highlights of many of these bills. After the Legislative session is complete, Mr. Crofoot will prepare a written summary of all bills of interest to air pollution control.

The meeting was adjourned at 5:15 p.m.

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

BOARD OF DIRECTORS MEETING
9:30 a.m., Friday, 18 June 1971
Portland Water Service Building

Present:

Board of Directors: Francis J. Ivancie, Chairman
Fred Stefani, Vice-Chairman
A. J. Ahlborn
Burton C. Wilson, Jr.

Staff: R. E. Hatchard, Program Director
Wayne Hanson, Deputy Program Director
Emory Crofoot, General Counsel
Jack Lowe, Administrative Director

Minutes

The meeting was called to order by Chairman Ivancie and the minutes of the 21 May 1971 meeting were accepted as recorded.

Awards and Recognition

In recognition of outstanding leadership and cooperation with the Authority's program for improving air quality, Chairman Ivancie presented Good Citizen Awards to the following organizations: Ideal Food Market, Beaverton; Chaney Lumber Company, Boring; and Canby Blacktop Paving Inc., Canby. Mrs. Margaret Chaney accepted the award for Chaney Lumber, Mr. Bill Johnnie accepted the award for Canby Blacktop Paving, Inc. and Mr. Bill Mineau accepted the award for Ideal Food Market.

1971-72 Budget - Adoption of Resolution

Mr. Hatchard directed the Board's attention to copies of Resolution No. 16, adopting the budget for the period 1 July 1971 through 30 June 1972 and making appropriations. He stated that Federal and State grant funds for this period have been appropriated. Mr. Crofoot explained that the ratio of monetary amounts to be contributed by the counties had been adjusted from the 1970-71 budget to put these amounts on a two-thirds parity basis. Commissioner Wilson moved, Commissioner Stefani seconded and the motion carried setting the annual county contributions, beginning 1 July 1971, as Multnomah County: $67,200; Clackamas County: $14,283; Columbia County: $2,475; and Washington County: $13,581. Mr. Crofoot stated he will prepare a resolution for each of the counties ratifying the action of the Board in setting the revenue amounts. Chairman Ivancie then asked that the roll be called on Resolution No. 16, adopting the budget and making appropriations. Resolution No. 16 was adopted unanimously.

Compliance Proposal - Oregon Steel Mills

Mr. Hanson gave a brief history of this plant's air pollution control actions, stating that there is considerable public interest in the emissions from Oregon Steel Mills. He introduced Mr. Bob Neumeister of Oregon Steel Mills who explained the initial phases of their compliance program and stated that to bring the plant into compliance would cost between $830,000 and $1,250,000. Mr. Neumeister explained the plant is a borderline facility in terms of modern technology so any capital investment must be considered extremely carefully. He stated Oregon Steel Mills is asking the Board to approve their proposal to submit their final decision concerning their specific plans to bring the plant into compliance with Authority rules by 17 September 1971, with a progress report to be submitted by 15 August. Mr. Hanson stated the staff had studied the matter and recommended approval of the proposal. Chairman Ivancie asked the Board for questions of Mr. Hanson or Mr. Neumeister and there being none, he stated the Board would accept this proposal, based on the staff recommendation, and expect a firm proposal for compliance from Oregon Steel Mills at the 17 September 1971 meeting of the Board.

Request for Variance - City Brass Foundry

Mr. Haney, a member of the Advisory Committee, reported that the Advisory Committee had considered the request for a variance from City Brass Foundry. He stated that City Brass Foundry is a very small foundry, with limited emissions, but due to its location, the emissions do give rise to public complaints. Mr. Lee Riley had appeared before the Advisory Committee to explain why his company was unable to meet a schedule previously set that would have brought his plant into compliance. Personal misfortunes and unexpectedly high construction costs prevented them from completing their plans to build a new plant at Tualatin. Mr. Haney stated they do still plan to move the plant and install the equipment required to control emissions in compliance with Authority rules, by 31 December 1971. It is the recommendation of the Advisory Committee that this variance be granted.

Mr. Hanson added that City Brass Foundry in their present location would be economically unable to bring the plant into compliance. It is the recommendation of the staff that this variance be granted. Commissioner Wilson moved, Commissioner Ahlborn seconded and the motion carried to grant a variance to City Brass Foundry to operate the old plant in violation of Authority rules until 31 December 1971.

Request for Variance - C & L Lumber Company

Mr. Haney reported on the Advisory Committee's consideration of the variance request from C & L Lumber Company to operate their wigwam burner in violation of Authority rules until 31 December 1971. This company is outside the special control areas and has been making a sincere effort to bring their operation into compliance. Mr. Haney pointed out that mills inside the special control areas have been granted variances. He stated it is the recommendation of the Advisory Committee that this variance be granted, with the provision that a progress report be submitted on or before 1 September 1971 to the Advisory Committee and to the Board of Directors. Mr. Hanson added that C & L Lumber

Company has actively been working towards compliance, having eliminated the burning of bark, with plans to eliminate burning sawdust this summer and they have agreed to limit burning to three days a week until the final installations can be completed and the burner eliminated entirely. It is the staff recommendation this variance be granted.

Commissioner Stefani moved, Commissioner Ahlborn seconded and the motion carried to grant a variance to C & L Lumber Company to operate their wigwam waste burner in violation of Authority rules until 31 December 1971, with a report to be submitted 1 September stating the progress made toward eliminating the burner.

Chairman Ivancie commended the Advisory Committee for their careful consideration of these variance requests.

Staff Report - 47-day Open Burning Variance

Chairman Ivancie stated that at the recent joint meeting of the Board of Directors and the Advisory Committee, he had suggested that the Advisory Committee could undertake a study of the open burning question in order to bring some firm recommendations to the Board of Directors for future consideration. He further stated the Chairman of the Advisory Committee had accepted the suggestion.

Mr. Hanson then reviewed a staff report previously mailed to the Board of Directors concerning the 47-day residential open burning moratorium. In reviewing the general results of the open burning variance with Authority staff, solid waste and fire district personnel, it is believed the variance did provide a low cost, convenient method to dispose of some solid waste; there was some reduction of accumulated material on individual properties; there was little or no improvement in promiscuous dumping. Problems were encountered by misuse of fire permits to burn prohibited material, inability to enforce conditions of the permits and inequities were noted to individuals who had previously disposed of similar material by other means and to commercial and landclearing operators.

Mr. Hatchard stated that the Authority's requirement for minimum open burning must be conditioned with the alternative means of disposal that are available. In the staff and Advisory Committee consideration of the open burning question, he suggested public hearings be held in each county so the people have full knowledge of what's being proposed and what the alternatives are.

In answer to Chairman Ivancie's inquiry, the Board agreed that holding public hearings on the open burning question was a good idea. Commissioner Stefani suggested that these be held by the Advisory Committee, as part of their study. It was agreed to ask the Advisory Committee to present their study to the Board of Directors at their meeting 17 September 1971.

Analysis of New State Legislation

Mr. Crofoot briefly reviewed the 1971 legislation concerning air pollution control, as follows:

SB 38 - Field Burning: This bill provides for a reduction in field burning as a mobile incinerator is developed. The reduction will be determined by a five-man committee which will also administer a fund coming from 35¢ per acre of fields burned for research and development in smoke management. The bill also established a final cut-off date of 1 January 1975 for all seed grass and cereal grain field burning in the Willamette Valley.

SB 350 - Regional Jurisdiction: This law permits the regional authorities to petition the Environmental Quality Commission for the regional authority to take jurisdiction of a class of sources retained by the EQC.

HB 1066 - Operating Permits: This bill authorizes the EQC to establish an operating permit system for classes of air contaminants and air contaminant sources.

HB 1067 - Vehicle Emission Control: This bill gives the Environmental Quality Commission authority to establish vehicle emission standards and to approve systems for the control of vehicle emissions. The bill also authorizes EQC to license inspectors to inspect a vehicle emission control system. The bill further provides that a person applying for registration or re-registration of his vehicle must furnish the Division of Motor Vehicles with a certificate from a licensed inspector that the vehicle meets the requirements of EQC regulations. The bill also makes it unlawful to operate a vehicle not equipped with the required system or which does not meet required standards.

HB 1504 - Civil Penalties and Emergency Procedures: The civil penalties portion of the bill authorizes EQC to classify violations and adopt a schedule establishing the amount of civil penalty due for violations of air or water pollution and solid waste laws, not to exceed $500 per day. The emergency procedures portion of the bill provides that when it appears to EQC that air or water pollution is presenting an imminent or substantial endangerment to the health of persons, the Governor may direct EQC to issue an order prohibiting the pollution.

HB 1567 - Slash Burning: This bill requires the State Forestry Department in cooperation with federal and state agencies, land owners and organizations which will be affected thereby to formulate a plan for slash burning and smoke management from slash burning. The plan must be submitted to and approved by EQC before being put into operation.

HB 1570 - Variances: The bill amends the current statute to provide that variances granted by regional authorities must be submitted to EQC for approval, denial or modification of variance terms, such action to be taken within 60 days.

HB 1573 - Bonds and Undertakings: This bill allows regional authorities to file injunctions, appeals and other matters of litigation without furnishing a bond or undertaking.

HB 1574 - Vehicular Traffic Control: This bill allows EQC and regional authorities to adopt rules regulating, limiting or prohibiting vehicular traffic when the pollution from such traffic presents an imminent and substantial endangerment to the health of persons.

HB 1575 - Injunctions: This bill provides that EQC and regional authorities may institute suits for injunction to abate or restrain threatened or existing pollution of the air which requires action to protect the public health, safety or welfare.

HB 1887: Deletes the statutory requirement that the Director of the Department of Environmental Quality be a professional engineer.

Variance Extension Request - Columbia County

Mr. Hatchard stated that the Board of County Commissioners of Columbia County has asked for a 90-day extension of their variance for open burning. It is the recommendation of the staff that this variance extension be granted. By the end of this period, the study of the open burning question and possible rules changes will be accomplished. Commissioner Ahlborn moved, Commissioner Stefani seconded and the motion carried to grant a 90-day variance extension to 1 October 1971 from the open burning rules of the Authority to Columbia County.

Advisory Committee Rural Representation

Mr. Hatchard stated that several of the Commissioners and members of the staff have noted the representation of rural interests on the Advisory Committee is limited. He added that Darrel Johnson, Chairman of the Advisory Committee, has stated that it would be very helpful for a rural member to be added to the Advisory Committee. Commissioner Ahlborn stated that he would like to nominate Mr. Gail Haakinson to serve on the Advisory Committee, representing the rural area of Columbia County. Commissioner Ahlborn moved, Commissioner Wilson seconded and the motion carried to appoint Mr. Gail Haakinson to the Advisory Committee.

The meeting was adjourned at 10:45 a.m.

At the invitation of Commissioner Ahlborn, the next regular meeting of the Board of Directors will be at 9:30 a.m., 16 July 1971, in the Circuit Court Room on the 2nd floor of the Columbia County Courthouse annex, St. Helens, Oregon.

KHS ✓ To: HMP

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

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

29 June 1971

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

Attention: Mr. K. H. Spies, Director
Department of Environmental Quality

Gentlemen:

Please be advised that at the 18 June 1971 meeting of the Board of Directors it was the order of the Board that the open burning variance granted to Columbia County terminating 30 June 1971 be extended for an additional 90-day period terminating 30 September 1971.

The variance and supporting material are submitted for your review in accordance with the provisions of ORS 449.880.

For the Program Director.

Very truly yours,

Jack Lowe

Jack Lowe
Administrative Director

JL:jl
Enclosures
Variance No. 30 (Extension)
Columbia County Board of Commissioners letter, 10 June 1971

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

IN THE MATTER OF	)	VARIANCE EXTENSION
VARIANCE TO	)	INCLUDING No. 30 (Extension)
COLUMBIA COUNTY	)	FINDINGS AND ORDER

FINDINGS

I

At the regular meeting, 19 February 1971, the Board of Directors granted to Columbia County for the benefit of the inhabitants of special restricted areas of such county a variance from Rule 6, Section 6.2 (3) (a) permitting the open burning of domestic rubbish to and including 30 June 1971.

II

An original variance was granted for the reason that as represented by Columbia County methods of solid waste disposal of domestic rubbish other than by open burning were being developed. That such development is not yet completed and an extension of said variance through 30 September 1971 is needed.

III

The request of the extension of the variance involved would not be detrimental to the public health, safety or welfare of the inhabitants of the special restricted areas of Columbia County.

ORDER

NOW THEREFORE, it is hereby ordered that Variance No. 30 granted to Columbia County by the Board of Directors 19 February 1971 authorizing certain limited open burning is hereby extended for a period to and including 30 September 1971.

Entered in Portland, Oregon the 18th of June 1971.

/S/ Francis J. Ivancie
Chairman, Board of Directors

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

Attorney For

BOARD OF COMMISSIONERS
ST. HELENS, OREGON 97051
PHONE 397-4322

June 10, 1971

Board of Directors
Columbia-Willamette Air Pollution Authority
1010 N. E. Couch
Portland, Oregon

Gentlemen:

It is our understanding that the variance of open burning granted for the Columbia County area will terminate on June 30, 1971. Because of the fact that the solid waste disposal situation in Columbia County is still a serious matter, especially since burning in disposal dumps has been terminated, we feel it necessary to permit a certain amount of open burning to dispose of a limited amount of household rubbish.

It is our understanding that the Authority will review and give further consideration to the open burning situation, and will consider this matter in September 1971.

Therefore, the Board of Commissioners of Columbia County sincerely request an extension of the open burning variance for an additional ninety-day period.

Further consideration has been given to the letter and suggestions from Mr. Hatchard relative to financial participation by Columbia County. Definite action in this regard is in abeyance until the adoption of the county budget, which will follow the public hearing to be held on June 17.

Yours truly,

COLUMBIA COUNTY BOARD OF COMMISSIONERS

_____ Chairman

_____ Commissioner

_____ Commissioner

NWB:gs

cc: Mr. Emery Crowfoot
CWAPA Advisory Committee

KHS ✓ To: HMP

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

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

28 June 1971

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

Attention: Mr. K. H. Spies, Director
Department of Environmental Quality

Gentlemen:

At its regular meeting 18 June 1971, the Board of Directors granted a variance to City Brass Foundry to continue its operation at its present location through 31 December 1971.

A copy of the variance and related material are submitted for your review in accordance with the provisions of ORS 449.880.

For the Program Director.

Very truly yours,

Jack Lowe

Jack Lowe
Administrative Director

JL:jl
Enclosures
Variance #38 to City Brass Foundry
City Brass Foundry letter of 18 March 1971
City Brass Foundry letter of 3 June 1971
CWAPA Memorandum of 3 June 1971
Minutes of Advisory Committee Meeting, 3 June 1971
Minutes of Board of Directors Meeting, 18 June 1971

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
JUN 30 1971
OFFICE OF THE DIRECTOR

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

IN THE MATTER OF	)	VARIANCE
	)	
VARIANCE TO	)	INCLUDING No. 38
	)	
CITY BRASS FOUNDRY, A Corporation	)	FINDINGS AND ORDER

FINDINGS

I

City Brass Foundry petitioned for a variance to operate a foundry at 3025 S. W. First Avenue, Portland, Oregon in violation of emission standards contained in Rules of Columbia-Willamette Air Pollution Authority.

II

It was represented by the petition and the oral statements of Lee Riley, President of City Brass Foundry, that a new foundry is being constructed adjacent to the City of Tualatin which will be completed on or before 31 December 1971; said new foundry will be constructed and operated in compliance with Rules of Columbia-Willamette Air Pollution Authority. That upon completion of the new foundry the operation at 3025 S. W. First Avenue, Portland, Oregon will be discontinued.

III

It was further represented that it would not be economically feasible to control the present operation in compliance with the Rules of the Columbia-Willamette Air Pollution Authority for a short period of time.

IV

That the Advisory Committee having before it the petition for variance, having heard the oral statements of the petitioner and the reports and recommendations of the staff, recommended that the Board of Directors grant the requested variance to City Brass Foundry.

ORDER

NOW THEREFORE, it is hereby ordered that a VARIANCE be granted to City Brass Foundry, a corporation, to operate a foundry at 3025 S. W. First Avenue, Portland, Oregon in violation of the emission standards contained in Rules of Columbia-Willamette Air Pollution Authority for a period of time not beyond 31 December 1971.

Entered at Portland, Oregon the 18th day of June 1971.

/S/ Francis J. Ivancie
Chairman, Board of Directors

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

Attorney For

March 18, 1971

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

Gentlemen:

Subject: Schedule Of Compliance

Your representative, Mr. Dan M. Holmes, called on us a couple days ago concerning our compliance with the Schedule which we signed last April.

Unfortunately, I misplaced the Schedule Of Compliance and consequently did not notify you of the problem we have had.

It was our intention to be located in our new building in Tualatin by February 28th, as we had previously informed you. However, due to many problems which we have encountered in conjunction with our building, we are behind schedule. This new building being the first project of this kind upon which we have embarked has presented many problems which we did not anticipate. Being a small concern with limited manpower and few assets it is necessary that we use every care in our construction to be certain the money we spend is done so wisely so that we may exist with the new burden which we will incur. Due to our inexperience in building projects we have fallen into many traps concerning the design and type of facility the building will include. We are at last getting our figures correlated to our capability of paying and have hopes of being able to start construction within the next sixty to ninety days. The original figure given us by our architect was approximately seventy per cent higher than we had planned, and we have been spending a great deal of time reducing these figures to one which we feel is feasible for our economic capabilities.

It appears to us that we should either be in our new facility and away from our present address by September 1st or so close to this date that it will be just a matter of days until we have accomplished our aim.

You may rest assured that we are not intentionally dragging our feet in this respect because we are extremely anxious to have the use of our new facilities and will bend every effort to comply with this new date. We will sincerely appreciate your consideration in view of our problem.

Sincerely yours,

CITY BRASS FOUNDRY

Lee Riley, President

CITY BRASS FOUNDRY

Custom and Production Castings

June 3, 1971

Mr. Wayne Hanson, Control Director
Columbia - Willamette Air Pollution Authority
1010 N. E. Couch Street
Portland, Oregon 97232

Dear Mr. Hanson:

Subject: Schedule Of Compliance

This letter is to request a variance in accordance with Rule 9 of your Authority Rule for Emission Standards Rule 7 until December 31, 1971.

The reasons for our request are because of circumstances beyond our control -- excessive building costs and availability of adequate water.

As related in our letter of March 18, 1971, our originally estimated budget was exceeded by 70% when our architect provided us with our first quotation. We have through a process of elimination arrived at a new figure which is within our means.

A solution to our water problem has been found through the annexation to the City of Tualatin. A petition for annexation should be in the hands of Tualatin officials by June 11.

We are confident that we shall be able to move out of our present location and into our new facility by December 31, 1971.

Our new plant will be located on the Tualatin-Sherwood Highway at a point now just west of the Tualatin City limits. This area is designated M-1 and is suited to our kind of operation. We are sure we shall create no ecological problems.

Your consideration of our request will be greatly appreciated.

Yours sincerely,

CITY BRASS FOUNDRY

Lee Riley

Lee Riley
President

RECEIVED
JUN 3 1971
COLUMBIA - WILLAMETTE
AIR POLLUTION AUTHORITY

LR:db

ROUTING	
To	Noted by
Date:	
Filed:	

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY
1010 N. E. COUCH STREET PORTLAND, OREGON 97232 PHONE (503) 233-7176

3 June 1971

MEMORANDUM

TO: The Board of Directors

FROM: R. E. Hatchard, Program Director

SUBJECT: Variance Request

City Brass Foundry
3025 SW 1st Avenue
Portland, Oregon

Gentlemen:

City Brass Foundry is a small foundry employing an average of nine employees with primary production consisting of job order castings in aluminum, bronze or a related alloy. The foundry operates at maximum five gas fired crucible furnaces, each with a capacity of 350#/hr. While heating the material and pouring the metal into sand molds, fumes are emitted to the foundry atmosphere with some fume escaping from roof monitors to the ambient air. The other source of air pollution within the plant consists of odors emitted from a core oven which has resulted in public complaints to our agency from the immediate neighborhood.

In March 1970 our engineering staff conducted a plant survey of the facilities and it was their opinion although emissions from the foundry were somewhat limited, due to the close proximity of private residences, the fumes were sufficient to create public complaints. In discussing the problem with management, our staff was informed it was the intention of City Brass Foundry to discontinue operation at the existing facilities and construct a new plant near Tualatin. Recognizing the expense of installing adequate air pollution control equipment to eliminate the problem and the physical location of the plant, it was our staff opinion such costs were not justified at the existing facility. Based on this information, on 16 April 1970 our agency accepted a schedule for compliance submitted by City Brass Foundry in which it was agreed the company would be in compliance with our rules by 28 February 1971, compliance to be accomplished by discontinuance of plant operations at the existing location.

On 18 March 1971, following a visit by a member of our staff, we received the attached letter from City Brass Foundry, which in essence states the anticipated move to their new facilities had not been accomplished because of higher than anticipated construction costs. On 21 April 1971, a conference was held in our office with Mr. Riley of City Brass Foundry to review contracts, building plans and other pertinent information, so the matter could be satisfactorily resolved. Following a review of the submitted

information and discussions with our staff, City Brass Foundry submitted the attached variance request from the emission standards of our rules until 31 December 1971.

Our staff has reviewed this request and it is our opinion the anticipated move will be completed by 31 December 1971 and sufficient information has been supplied to satisfy the variance requirements as outlined in Rule 9. Therefore it is our recommendation that the variance be granted as requested.

Respectfully submitted,

R. E. Hatchard

R. E. Hatchard

REH:jl
Attachment

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

ADVISORY COMMITTEE MEETING
3:00 p.m., Thursday, 3 June 1971
Portland Water Service Building

Present: Advisory Committee

Mr. Darrel Johnson, Chairman
Mr. Walter Nutting, Vice Chairman
Mr. Jason Bailey
Mrs. Elaine Cogan
Mr. Remi Coussens
Mr. Robert Dow
Mr. TonyyFederici
Mr. Fritz Fleischer
Mr. Charles Haney
Thomas L. Meador, M. D.
Mr. Craig Royer
Hollister M. Stolte, M. D.
Mr. Carleton Whitehead
Mr. Ed Winter

Staff: Mr. Wayne Hanson, Deputy Program Director
Mr. Jack Lowe, Administrative Director
Mr. Emory Crofoot, General Counsel

Others: Mr. Lee Riley, Oregon Brass Foundry
Mr. Thomas Glassen, C & L Lumber Company
Mr. Ron Householder, Department of Environmental Quality

Minutes

Chairman Johnson called the meeting to order, welcomed the new members and asked each member present to introduce himself for the benefit of the new members present. Mr. Johnson then briefly explained the background of the Committee and its activities. He also reminded the members of the luncheon to be held with the Board of Directors on 4 June 1971. Mr. Haney moved, Mr. Nutting seconded and the motion carried to approve the minutes of the 6 May 1971 meeting as recorded.

Request for Variance - City Brass Foundry

Mr. Hanson gave the Committee the background information on this company, stating it was a small company with limited emissions but due to its location, the emissions do give rise to public complaints. On 16 April 1970 the Authority accepted a schedule for compliance from this company which stated the company would be in compliance with our rules by 28 February 1971; this to be accomplished by the Company moving its facilities to a new location and installing some control equipment. The move was not accomplished as planned, however, and the Company is now requesting a variance to operate in violation of the emission standards until 31 December 1971, at which time the move will be complete. To change the operation at the present location to bring it into compliance would be extremely expensive and the staff agrees with the Company that this expense would not be justified. Mr. Hanson stated it was the recommendation of the staff that the variance be granted.

Mr. Lee Riley, President of Oregon Brass Foundry, stated that he had experienced a bad accident which put him out of commission for about seven months, this coupled with his inexperience at constructing new buildings and limited funds did not allow him to complete his move as planned.

The Advisory Committee then questioned Mr. Riley and Mr. Hanson concerning the emissions from the operation, the problems of moving the plant to an industrial area in Tualatin and air pollution controls to be installed. After further discussion, Mr. Federici moved, Mr. Haney seconded and the motion carried to recommend to the Board of Directors that a variance be granted to Oregon Brass Foundry to operate in violation of Authority emission standards until 31 December 1971.

Request for Variance - C & L Lumber Company

Mr. Hanson gave the Committee some background information on this company, stating that at a cost of $5,000 the Company has eliminated the burning of bark and expects to discontinue burning sawdust during this summer. An additional $5,000 to $6,000 will be needed for the installation of a hogger to completely eliminate the use of the wigwam waste burner and thereby bring the C & L Lumber Company into compliance with our rules. Mr. Classen, owner of this mill, has requested a variance to operate in violation of the rules until 31 December 1971. During this period he has agreed to reduce the operation of his burner to three days per week.

Mr. Hanson stated it was the staff recommendation that this variance be granted, as this company has completed two-thirds of the compliance program and is making a sincere effort to obtain compliance as soon as possible. Also he pointed out that this mill is outside the Special Control Areas and the Board of Directors has granted variances to mills which are inside Special Control Areas.

Mr. Classen stated that his company has been working towards elimination of the burner for a number of years, as he feels there is no way a wigwam waste burner can operate without smoke. Members of the Advisory Committee asked Mr. Classen and Mr. Hanson several questions concerning this request. In answer to Mr. Federici's inquiry, Mr. Hanson stated there were other mills which had made considerably less effort to comply and had been granted variances. After further discussion, Mr. Nutting moved, Mr. Haney seconded and the motion carried to recommend to the Board of Directors that a variance be granted to C & L Lumber Company to operate their wigwam waste burner in violation of Authority rules until 31 December 1971, with the provision that a progress report be made to the staff on or before 1 September 1971. It was added this recommendation was made by the Committee because of the sincerity of purpose of this company, that this company had made some progress towards compliance and that this company is not within a Special Control Area, and therefore further from populated areas than some burners.

Mr. Hanson outlined the history of the wigwam burner compliance program and stated he felt by the end of June 1971, of the 32 burners previously operating in the region, only 3 or 4 would still be in operation. Mr. Bailey asked if the staff could bring a report to the next Advisory Committee meeting concerning the wigwam burners in compliance or not in compliance by 30 June 1971. In answer to Mr. Haney's inquiry, Mr. Hanson stated one mill attempted to modify their burner to operate in compliance with the Authority standards. These modifications were successful in eliminating smoke emissions except during the shutting down period of the burner, but a particulate problem remains, as the burner still operates in violation of the particulate emission standard.

Motor Vehicle Emission Control Program

Mr. Johnson introduced Ron Householder, supervisor of the motor vehicle control program of the Department of Environmental Quality, who had been asked by the staff to attend this meeting to answer any questions the Committee might have concerning motor vehicle control.

In answer to Mrs. Cogan's inquiry, Mr. Householder stated that the Department of Environmental Quality does have exclusive jurisdiction over motor vehicles, but the question of the Benjamin Franklin parking structure is yet undecided. He stated their attorney was in the process of determining just what their legal responsibility was in this matter. He added their concern was more for over-all city planning, rather than one particular structure.

In answer to Mr. Johnson's inquiry concerning what the Department of Environmental Quality is doing about motor vehicle emissions, Mr. Householder gave a brief explanation of the Federal emission control program which has been underway since 1963.

Mr. Nutting asked about a program to test emissions from motor vehicles. Mr. Householder said there was a question as to whether this type of testing should be done. The Federal standards are average standards, not minimum standards. The testing that is done by the Federal government is a time-consuming and expensive procedure. Other, shorter tests are being developed and one such test is in use in California. Mr. Householder stated the Federal program is causing a reduction in the total emission output. He stated that the data from the CAMP station at 718 W. Burnside has shown a reduction in the number of times the Federal carbon monoxide ambient air standard has been exceeded.

Mr. Whitehead commented that although the number of times the Federal carbon monoxide ambient air standard has been exceeded is less than in previous years, the fact remains that it is exceeded a large number of times each year. He stated there were two ways for a public agency to fulfill its responsibility; one is for the agency to do the minimum that the law requires; the other way is the agency takes its assignment of controlling air pollution and restoring air quality and takes such initiative that is not denied the agency by law. Mr. Whitehead added that he felt the obligation of CWAPA and the Department of Environmental Quality is to take those actions that are not denied to them to determine what the impact of the Benjamin Franklin parking structure and other buildings which are proposed is going to have on the air quality of our city.

Mr. Householder stated that the Department of Environmental Quality does not think the new car program is going to achieve compliance with the ambient air quality standards within the time framework allowed by the Federal implementation plan.

Mr. Nutting pointed out that progress is being made and we should not create hysteria; control of motor vehicles and mass transit programs will not happen overnight.

At Mr. Johnson's request, Mr. Crofoot explained his opinion on the petition filed by the Northwest Environmental Defense Center. This was that CWAPA was not required by statutes to hold a hearing on this matter and could do so only on a voluntary basis, to receive evidence as to the impact of the parking structure on the air quality of downtown Portland. If CWAPA did hold a hearing and the evidence was that this structure would make it difficult for EQC to write implementation plans, then CWAPA would be obligated to go to the City Council and ask them to revoke their action of granting the land use permit. The petition also asked CWAPA to prohibit construction; CWAPA has no rule which would allow them to do this.

Considerable further discussion was held and Mr. Johnson thanked Mr. Householder for attending the meeting and answering questions for the Committee.

Open Burning

Mr. Hanson gave a brief preliminary report on the 47-day residential open burning period. He stated 55,806 burning permits were issued; 30,000 in Multnomah County; 11,000 in Clackamas and 14,000 in Washington Counties. In many areas only one burning permit was issued to an individual for the entire 47-day period. There were 8 days when burning was prohibited during that period. There was relatively good atmospheric disperion during the burning period. CWAPA received 600 complaints from neighbors of people burning. The evaluation of monitoring data has not been completed to determine any changes during this period. Mr. Hanson said that checking with solid waste disposal departments of the counties disclosed that there was no large reduction in roadside dumping. A full report will be forthcoming by 18 June 1971.

Legislation

Mr. Johnson asked Mr. Crofoot to give a brief summary on legislation which has passed or was likely to pass concerning air pollution. Mr. Crofoot reviewed the status of and highlights of many of these bills. After the Legislative session is complete, Mr. Crofoot will prepare a written summary of all bills of interest to air pollution control.

The meeting was adjourned at 5:15 p.m.

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

BOARD OF DIRECTORS MEETING
9:30 a.m., Friday, 18 June 1971
Portland Water Service Building

Present:

Board of Directors: Francis J. Ivancie, Chairman
Fred Stefani, Vice-Chairman
A. J. Ahlborn
Burton C. Wilson, Jr.

Staff: R. E. Hatchard, Program Director
Wayne Hanson, Deputy Program Director
Emory Crofoot, General Counsel
Jack Lowe, Administrative Director

Minutes

The meeting was called to order by Chairman Ivancie and the minutes of the 21 May 1971 meeting were accepted as recorded.

Awards and Recognition

In recognition of outstanding leadership and cooperation with the Authority's program for improving air quality, Chairman Ivancie presented Good Citizen Awards to the following organizations: Ideal Food Market, Beaverton; Chaney Lumber Company, Boring; and Canby Blacktop Paving Inc., Canby. Mrs. Margaret Chaney accepted the award for Chaney Lumber, Mr. Bill Johnnie accepted the award for Canby Blacktop Paving, Inc. and Mr. Bill Mineau accepted the award for Ideal Food Market.

1971-72 Budget - Adoption of Resolution

Mr. Hatchard directed the Board's attention to copies of Resolution No. 16, adopting the budget for the period 1 July 1971 through 30 June 1972 and making appropriations. He stated that Federal and State grant funds for this period have been appropriated. Mr. Crofoot explained that the ratio of monetary amounts to be contributed by the counties had been adjusted from the 1970-71 budget to put these amounts on a two-thirds parity basis. Commissioner Wilson moved, Commissioner Stefani seconded and the motion carried setting the annual county contributions, beginning 1 July 1971, as Multnomah County: $67,200; Clackamas County: $14,283; Columbia County: $2,475; and Washington County: $13,581. Mr. Crofoot stated he will prepare a resolution for each of the counties ratifying the action of the Board in setting the revenue amounts. Chairman Ivancie then asked that the roll be called on Resolution No. 16, adopting the budget and making appropriations. Resolution No. 16 was adopted unanimously.

Compliance Proposal - Oregon Steel Mills

Mr. Hanson gave a brief history of this plant's air pollution control actions, stating that there is considerable public interest in the emissions from Oregon Steel Mills. He introduced Mr. Bob Neumeister of Oregon Steel Mills who explained the initial phases of their compliance program and stated that to bring the plant into compliance would cost between $830,000 and $1,250,000. Mr. Neumeister explained the plant is a borderline facility in terms of modern technology so any capital investment must be considered extremely carefully. He stated Oregon Steel Mills is asking the Board to approve their proposal to submit their final decision concerning their specific plans to bring the plant into compliance with Authority rules by 17 September 1971, with a progress report to be submitted by 15 August. Mr. Hanson stated the staff had studied the matter and recommended approval of the proposal. Chairman Ivancie asked the Board for questions of Mr. Hanson or Mr. Neumeister and there being none, he stated the Board would accept this proposal, based on the staff recommendation, and expect a firm proposal for compliance from Oregon Steel Mills at the 17 September 1971 meeting of the Board.

Request for Variance - City Brass Foundry

Mr. Haney, a member of the Advisory Committee, reported that the Advisory Committee had considered the request for a variance from City Brass Foundry. He stated that City Brass Foundry is a very small foundry, with limited emissions, but due to its location, the emissions do give rise to public complaints. Mr. Lee Riley had appeared before the Advisory Committee to explain why his company was unable to meet a schedule previously set that would have brought his plant into compliance. Personal misfortunes and unexpectedly high construction costs prevented them from completing their plans to build a new plant at Tualatin. Mr. Haney stated they do still plan to move the plant and install the equipment required to control emissions in compliance with Authority rules, by 31 December 1971. It is the recommendation of the Advisory Committee that this variance be granted.

Mr. Hanson added that City Brass Foundry in their present location would be economically unable to bring the plant into compliance. It is the recommendation of the staff that this variance be granted. Commissioner Wilson moved, Commissioner Ahlborn seconded and the motion carried to grant a variance to City Brass Foundry to operate the old plant in violation of Authority rules until 31 December 1971.

Request for Variance - C & L Lumber Company

Mr. Haney reported on the Advisory Committee's consideration of the variance request from C & L Lumber Company to operate their wigwam burner in violation of Authority rules until 31 December 1971. This company is outside the special control areas and has been making a sincere effort to bring their operation into compliance. Mr. Haney pointed out that mills inside the special control areas have been granted variances. He stated it is the recommendation of the Advisory Committee that this variance be granted, with the provision that a progress report be submitted on or before 1 September 1971 to the Advisory Committee and to the Board of Directors. Mr. Hanson added that C & L Lumber

Company has actively been working towards compliance, having eliminated the burning of bark, with plans to eliminate burning sawdust this summer and they have agreed to limit burning to three days a week until the final installations can be completed and the burner eliminated entirely. It is the staff recommendation this variance be granted.

Commissioner Stefani moved, Commissioner Ahlborn seconded and the motion carried to grant a variance to C & L Lumber Company to operate their wigwam waste burner in violation of Authority rules until 31 December 1971, with a report to be submitted 1 September stating the progress made toward eliminating the burner.

Chairman Ivancie commended the Advisory Committee for their careful consideration of these variance requests.

Staff Report - 47-day Open Burning Variance

Chairman Ivancie stated that at the recent joint meeting of the Board of Directors and the Advisory Committee, he had suggested that the Advisory Committee could undertake a study of the open burning question in order to bring some firm recommendations to the Board of Directors for future consideration. He further stated the Chairman of the Advisory Committee had accepted the suggestion.

Mr. Hanson then reviewed a staff report previously mailed to the Board of Directors concerning the 47-day residential open burning moratorium. In reviewing the general results of the open burning variance with Authority staff, solid waste and fire district personnel, it is believed the variance did provide a low cost, convenient method to dispose of some solid waste; there was some reduction of accumulated material on individual properties; there was little or no improvement in promiscuous dumping. Problems were encountered by misuse of fire permits to burn prohibited material, inability to enforce conditions of the permits and inequities were noted to individuals who had previously disposed of similar material by other means and to commercial and landclearing operators.

Mr. Hatchard stated that the Authority's requirement for minimum open burning must be conditioned with the alternative means of disposal that are available. In the staff and Advisory Committee consideration of the open burning question, he suggested public hearings be held in each county so the people have full knowledge of what's being proposed and what the alternatives are.

In answer to Chairman Ivancie's inquiry, the Board agreed that holding public hearings on the open burning question was a good idea. Commissioner Stefani suggested that these be held by the Advisory Committee, as part of their study. It was agreed to ask the Advisory Committee to present their study to the Board of Directors at their meeting 17 September 1971.

Analysis of New State Legislation

Mr. Crofoot briefly reviewed the 1971 legislation concerning air pollution control, as follows:

SB 38 - Field Burning: This bill provides for a reduction in field burning as a mobile incinerator is developed. The reduction will be determined by a five-man committee which will also administer a fund coming from 35¢ per acre of fields burned for research and development in smoke management. The bill also established a final cut-off date of 1 January 1975 for all seed grass and cereal grain field burning in the Willamette Valley.

SB 350 - Regional Jurisdiction: This law permits the regional authorities to petition the Environmental Quality Commission for the regional authority to take jurisdiction of a class of sources retained by the EQC.

HB 1066 - Operating Permits: This bill authorizes the EQC to establish an operating permit system for classes of air contaminants and air contaminant sources.

HB 1067 - Vehicle Emission Control: This bill gives the Environmental Quality Commission authority to establish vehicle emission standards and to approve systems for the control of vehicle emissions. The bill also authorizes EQC to license inspectors to inspect a vehicle emission control system. The bill further provides that a person applying for registration or re-registration of his vehicle must furnish the Division of Motor Vehicles with a certificate from a licensed inspector that the vehicle meets the requirements of EQC regulations. The bill also makes it unlawful to operate a vehicle not equipped with the required system or which does not meet required standards.

HB 1504 - Civil Penalties and Emergency Procedures: The civil penalties portion of the bill authorizes EQC to classify violations and adopt a schedule establishing the amount of civil penalty due for violations of air or water pollution and solid waste laws, not to exceed $500 per day. The emergency procedures portion of the bill provides that when it appears to EQC that air or water pollution is presenting an imminent or substantial endangerment to the health of persons, the Governor may direct EQC to issue an order prohibiting the pollution.

HB 1567 - Slash Burning: This bill requires the State Forestry Department in cooperation with federal and state agencies, land owners and organizations which will be affected thereby to formulate a plan for slash burning and smoke management from slash burning. The plan must be submitted to and approved by EQC before being put into operation.

HB 1570 - Variances: The bill amends the current statute to provide that variances granted by regional authorities must be submitted to EQC for approval, denial or modification of variance terms, such action to be taken within 60 days.

HB 1573 - Bonds and Undertakings: This bill allows regional authorities to file injunctions, appeals and other matters of litigation without furnishing a bond or undertaking.

HB 1574 - Vehicular Traffic Control: This bill allows EQC and regional authorities to adopt rules regulating, limiting or prohibiting vehicular traffic when the pollution from such traffic presents an imminent and substantial endangerment to the health of persons.

HB 1575 - Injunctions: This bill provides that EQC and regional authorities may institute suits for injunction to abate or restrain threatened or existing pollution of the air which requires action to protect the public health, safety or welfare.

HB 1887: Deletes the statutory requirement that the Director of the Department of Environmental Quality be a professional engineer.

Variance Extension Request - Columbia County

Mr. Hatchard stated that the Board of County Commissioners of Columbia County has asked for a 90-day extension of their variance for open burning. It is the recommendation of the staff that this variance extension be granted. By the end of this period, the study of the open burning question and possible rules changes will be accomplished. Commissioner Ahlborn moved, Commissioner Stefani seconded and the motion carried to grant a 90-day variance extension to 1 October 1971 from the open burning rules of the Authority to Columbia County.

Advisory Committee Rural Representation

Mr. Hatchard stated that several of the Commissioners and members of the staff have noted the representation of rural interests on the Advisory Committee is limited. He added that Darrel Johnson, Chairman of the Advisory Committee, has stated that it would be very helpful for a rural member to be added to the Advisory Committee. Commissioner Ahlborn stated that he would like to nominate Mr. Gail Haakinson to serve on the Advisory Committee, representing the rural area of Columbia County. Commissioner Ahlborn moved, Commissioner Wilson seconded and the motion carried to appoint Mr. Gail Haakinson to the Advisory Committee.

The meeting was adjourned at 10:45 a.m.

At the invitation of Commissioner Ahlborn, the next regular meeting of the Board of Directors will be at 9:30 a.m., 16 July 1971, in the Circuit Court Room on the 2nd floor of the Columbia County Courthouse annex, St. Helens, Oregon.

KHS

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

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

7 June 1971

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

Attention: Mr. Kenneth Spies, Secretary

Gentlemen:

Please be advised a hearing was held before the Board of Directors of this Authority in Hillsboro, Oregon on 21 May 1971, to determine whether a variance of the emission standards granted to Charles E. Miller, DBA, Cedarwood Timber Company, Vernonia, Oregon, for operation of a wigwam waste burner should be revoke due to failure to submit a written report on progress towards compliance, on or before 15 April 1971.

Based upon the information and evidence developed at the hearing, it was the decision of the Board not to revoke the variance but to extend it for an additional six months. A copy of the Order of the Board is enclosed for your information.

For the Program Director.

Very truly yours,

Jack Lowe
Administrative Director

JL:sm
Enclosure: Order of the Board

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

IN THE MATTER OF	)	
	)	
VARIANCE REVOCATION	)	ORDER
	)	
CHARLES E. MILLER,DBA	)	INCLUDING FINDINGS AND CONCLUSIONS
	)	
CEDARWOOD TIMBER COMPANY	)	

F I N D I N G S

I

Charles E. Miller, DBA, Cedarwood Timber Company was previously notified by order of the Board of Directors more than 15 days prior to the hearing to appear and show cause, if any existed, why the variance granted to the Charles E. Miller, DBA, Cedarwood Timber Company 18 January 1971 to operate a wigwam waste burner at Vernonia, Oregon should not be revoked.

II

Charles E. Miller, DBA, Cedarwood Timber Company has not complied with the conditions of the variance requiring a written progress report to be filed with the Authority on or before 15 April 1971.

III

The evidence was developed through Commissioner Ahlborn and C.E. Miller that it would be uneconomical for C.E. Miller, DBA, Cedarwood Timber Company, to operate the wigwam waste burner at Vernonia, Oregon in compliance with the emission standards contained in Rules of Columbia-Willamette Air Pollution Authority by 30 June 1971 and that the variance previously granted should be extended to 31 December 1971

C O N C L U S I O N S

I

Notwithstanding the failure of C. E. Miller, DBA, Cedarwood Timber Company to comply with all the conditions of the previously granted variance, said variance should not be revoked but should be extended for additional six months.

O R D E R

IT IS HEREBY ORDERED the variance previously granted to C. E. Miller, DBA, Cedarwood Timber Company to operate a wigwam waste burner at Vernonia, Oregon in violation of emission standards contained in Rules of Columbia-Willamette Air Pollution Authority for a period not beyond 30 June 1971 is extended to and including 31 December 1971.

Entered at Hillsboro, Oregon the 21st day of May 1971.

S/Francis J. Ivancie
Chairman

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

BOARD OF DIRECTORS MEETING
10:00 a.m., Friday, 21 May 1971
Conference Room, Hillsboro City Hall

Present

Board of Directors: Francis J. Ivancie, Chairman
Fred Stefani, Vice-Chairman
A. J. Ahlborn
Ben Padrow
Burton C. Wilson, Jr.

Staff: R. E. Hatchard, Program Director
Wayne Hanson, Deputy Program Director
Emory Crofoot, General Counsel
Jack Lowe, Administrative Director
John Kowalczyk, Technical Director

Minutes

The meeting was called to order by Chairman Ivancie. Commissioner Wilson moved, Commissioner Stefani seconded and the motion carried to approve the minutes of the 16 April 1971 Board of Directors meeting.

Advisory Committee Recommendations

Mr. Carleton Whitehead, member of the Advisory Committee, reported on the 6 May 1971 meeting of the Committee. He stated that in response to the Board's request, the Committee has suggested five additional members for the Advisory Committee; these are: (1) Mrs. Don Rushmer, an active member of the Citizens for Clean Air organization; (2) Mrs. Arnold Cogan, President of the Portland Chapter of the League of Women Voters; (3) Mr. Steven McCarthy, a Portland attorney who was one of Governor McCall's campaign aides in the environmental field; (4) Mr. Jason Bailey, a graduate of University of Oregon Law School, now retired and serving as a pro tem municipal court judge; (5) Mr. Robert Dow, former Chief Engineer for the Port of Portland, now with the City of Portland, Public Works Department.

Mr. Whitehead also suggested that Dr. John Donnelly, formerly the Health Officer for Multnomah County and now with the Oregon State Board of Health, be retained on the Advisory Committee, in addition to Dr. Walter Goss who is the new Multnomah County Health Officer. Mr. Whitehead added the part-time employment of the Health Officer from Columbia County makes it impossible for him to attend meetings, and retaining Dr. Donnelly on the Committee would not unbalance the health agency representation.

After some discussion, Commissioner Padrow moved, Commissioner Wilson seconded and the motion carried to accept the recommendations of the Advisory Committee and the nominees to the Advisory Committee.

Reporting further on the Advisory Committee meeting of 6 May, Mr. Whitehead stated that since the Committee is assuming additional responsibility, they had agreed to contact members who had missed meetings to determine if they were willing and able to continue to serve on the Committee in light of the additional responsibilities. Mr. Whitehead reported that the Committee, in conjunction with the staff, has established a procedure for initial review of variance requests, in response to the Board's request.

Mr. Whitehead stated that the Advisory Committee had considerable discussion concerning the role of the Environmental Quality Commission and the Columbia-Willamette Air Pollution Authority in meeting the Federal ambient air standards. The Committee told the staff they felt that action should be taken as soon as possible so that the implementation plan for these Federal standards can be made as effective as possible.

He stated that the staff presented a report, "Air Quality Aspects of the City of Portland Downtown Study Project". The Committee had briefly discussed the report, stating its primary concern was the flow of traffic. The Advisory Committee felt that in the phase II portion of this report, not only the flow of traffic, but any other land use which affects the pollution levels should be considered.

Public Hearings on Revocation of Variances

There was a court reporter present and Mr. Crofoot, General Counsel, conducted the public hearings. The results of these hearings were as follows:

Walter A. Koch Lumber Company: This company has not operated their wigwam burner since December 1970 and stated if the mill ever does resume operation, the burner will be operated in compliance with Authority rules. Commissioner Padrow moved, Commissioner Wilson seconded and the motion carried to revoke the variance granted to Walter A. Koch Lumber Company.

Milwaukie Plywood Company: This company is installing machinery that will completely discontinue the use of the wigwam burner by 2 July 1971. Commissioner Stefani moved, Commissioner Padrow seconded and the motion carried to accept the letter from Milwaukie Plywood stating they will be in compliance by 2 July 1971.

Cedarwood Timber Company: Mr. Charles Miller, doing business as Cedarwood Timber Company, stated it was financially impossible for him to modify his burner to bring it into compliance with Authority rules or install other machinery which would eliminate the use of the burner. After some discussion, Commissioner Ahlborn moved, Commissioner Stefani seconded and the motion carried to grant Cedarwood Timber an additional six months variance with the condition that Mr. Miller do everything he can to upgrade his burner during this time.

Avison Lumber and Molalla Tie Companies: Notification was received from these companies that they would be in compliance by 30 June 1971. Commissioner Wilson moved, Commissioner Stefani seconded and the motion carried to not revoke the variance to Avison Lumber Company. Commissioner Stefani moved, Commissioner Padrow seconded and the motion carried to not revoke the variance to Molalla Tie Company.

Wigwam Waste Burners - Staff Report

Mr. Hanson reported that the following wigwam burners will be in compliance by 30 June 1971: Mt. Hood Lumber, Macpherson Lumber, Larkin Lumber, Air King Manufacturing, and Forest Grove Lumber. C & L Lumber Company is asking for an extension of time in which to comply.

LaMere Industries - Request for Variance

John Kowalczyk stated this company, the manufacturer of the Destroilet, a gas-fired incinerator-type toilet, has requested a variance from emission standards of the Authority rules. The staff recommends the variance be denied because engineering evaluation shows the unit incapable of attaining compliance with particulate emission standards; the Department of Environmental Quality has stated the incinerator type toilet was the source of unpleasant odors causing numerous complaints and has not approved the units for use after 1 January 1971; and alternate means of disposal are available in the form of chemical toilets and septic tanks.

Mr. Donald Frankel, President of the firm, presented his variance request to the Board, stating why he felt the request should be granted. Copies of his request had previously been sent to the Board for their review.

After some discussion, the Board agreed to instruct the staff to work with the Department of Environmental Quality to come up with a position on this question and determine if a rule change is necessary. The Board felt they did not have sufficient background information to act on the variance request and since the installation of these units would be primarily in areas outside of our region, the state agency is perhaps the one with the responsibility.

Western Foundry Company

Mr. Crofoot explained that at the 19 March 1971 meeting, the Board ordered Western Foundry to appear and show cause why the Board should not enter an order requiring compliance of the Foundry with Authority rules. On 12 May Western Foundry agreed to a stipulation that this Board enter an order requiring that the cupola at the Western Foundry Company be in compliance with the standards of this Authority by 15 December 1971 and the other sources of pollution in the plant be in complete compliance with emission standards by 1 June 1972. Commissioner Padrow moved, Commissioner Wilson seconded and the motion carried to accept the stipulation and the order based on the stipulation be entered by the Board requiring control of the cupola by 15 December 1971 and complete control by 1 June 1972.

Northwest Environmental Defense Center - Petition to the Authority

Mr. Crofoot stated that at the 16 April 1971 Board of Directors meeting the Northwest Environmental Defense Center filed a petition with the Authority. At the request of the Board, Mr. Crofoot prepared an opinion as to whether or not the Board had the legal authority and jurisdiction to grant the relief requested in the prayer of the petition. Copies of this opinion had been mailed to the Board prior to this meeting. The petition in effect alleges that by the construction of the Benjamin Franklin parking structure there would be sufficient number of additional automobiles added to the downtown core area

of the City of Portland to cause violation of the current ambient air standards which have been promulgated by the Environmental Quality Commission and the new ambient air standards promulgated by the Environmental Protection Agency. When this Authority was organized, the Environmental Quality Commission retained jurisdiction over several source classes, one of them being motor vehicles. This Authority cannot therefore control traffic or motor vehicles except on a voluntary basis. Mr. Crofoot stated that the Authority could enact a rule to control construction of such structures; however, at the present time such a rule is not in existence. In essence, the opinion says that this Authority has no power to act on the petition except on a voluntary basis.

Commissioner Padrow pointed out that in Mr. Crofoot's opinion it does state the Authority has the legal power to conduct a hearing and receive evidence on the question of the construction and use of the proposed parking structure and the effect, if any, this would have on the ability of the Environmental Quality Commission to produce an implementation plan to meet Federal ambient air carbon monoxide standards. If the evidence adduced shows an adverse affect to the quality of the environment, the Board would be required to seek the cooperation of the City of Portland Council to revoke the permission previously granted to construct the proposed structure.

Commissioner Ivancie asked if the Department of Environmental Quality could hold this hearing and make determinations, since it has jurisdiction over motor vehicles. Mr. Crofoot stated he believed that would be the more proper forum for the hearing.

Mrs. Elizabeth Wieting, representing the Coalition for Clean Air, stated that 10 days prior to filing this petition with the Columbia-Willamette Air Pollution Authority, a similar petition was filed with the Environmental Quality Commission, at which time the Environmental Quality Commission told the NW Environmental Defense Center the poition should be taken to Columbia-Willamette Air Pollution Authority, as it was a local problem. Commissioner Ivancie stated he could not agree with that statement, since the Environmental Quality Commission has jurisdiction over motor vehicles.

Mr. Bill Williamson, President of the Northwest Environmental Defense Center, stated that this petition was prompted by the promulgation of the Federal ambient air standards and the apparent inability of the Portland metropolitan area to meet these standards. He added that at a minimum, his group would ask the Columbia-Willamette Air Pollution Authority to join with the NW Environmental Defense Center in asking the Environmental Quality Commission to hold a hearing on this matter.

Mr. Hatchard pointed out that the Department of Environmental Quality has begun to develop implementation plans for the Federal standards.

After considerable discussion, Commissioner Stefani moved, Commissioner Ahlborn seconded and the motion carried to accept the opinion of the General Counsel that we have no authority in this matter and to table the matter.

Commissioner Padrow moved, Commissioner Wilson seconded and the motion carried to request the Environmental Quality Commission to hold a public hearing on carbon monoxide levels in downtown Portland.

Staff Training - PNWIS-APCA Workshop

Authorization was requested for John Kowalczyk and Tom Bispham to attend a one-day workshop in Olympia, Washington on 27 May, concerning Hog Fuel Boilers, at a cost of $28.00. There were no objections from the Board; the authorization was granted.

Public Hearing on the Budget

Commissioner Wilson stated that the Washington County Budget Committee has stricken the line item for the Columbia-Willamette Air Pollution Authority, as the County lacks the necessary funds. He added this was not a statement that they were withdrawing from the Authority, but it would certainly happen if nothing transpires to prevent it. The County is working on finding some way to make it possible for the County to remain in the Authority.

Commissioner Ahlborn stated his budget committee has recommended the item be stricken also because of lack of funds.

Chairman Ivancie suggested that each of these Commissioners suggest to their Budget Committees that perhaps they can budget for one-half the amount, giving a six month's period of time to come up with the other half or make other arrangements. A large amount of Federal grant funds could be lost by either of these counties not paying the annual contribution to the Authority.

Air Pollution Control Association Meeting

Authorization was requested for Emory Crofoot to attend the Annual Meeting of the Air Pollution Control Association, 27 June to 1 July, at a cost of $514. Commissioner Padrow moved, Commissioner Stefani seconded and the motion carried to grant this authorization.

Forest Grove - Variance Request

Mr. Harry Sherman, City Manager, Forest Grove, presented a request for a variance on behalf of Cornell Construction Company, who have removed several large piles of stumps from a construction site in Forest Grove. There is no dump in Washington County which will take this material. After considerable discussion, Commissioner Wilson moved, Commissioner Ahlborn seconded and the motion carried to grant a variance to Cornell Construction to open burn these stumps within the 10 remaining days for the relaxation of the burning ban period.

Fire Chief Don McEvoy of District 1, Washington County, stated he felt it was unfair to grant this contractor a variance when there were many, many others all through the county who would have to dispose of their land clearing debris in some way other than burning.

Wayne Hanson stated that the staff was definitely opposed to the granting of this type of variance. The problem of solid waste disposal exists throughout the four-county region and should possibly be considered by the Advisory Committee.

The meeting was adjourned at 1:00 p.m.

MICHAEL D. ROACH
Director

MID WILLAMETTE VALLEY AIR POLLUTION AUTHORITY

2585 STATE STREET / SALEM, OREGON 97301 / TELEPHONE AC 503 / 581-1715

June 28, 1971

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

Dear Mr. Patterson:

At the June 15, 1971 regular monthly meeting of the Board of Directors of the Mid-Willamette Valley Air Pollution Authority several variances from our Rules and Regulations were granted to wigwam burner operators.

In accordance with ORS 449.880, a copy of each variance is attached for your review. To facilitate review by your staff and by the Environmental Quality Commission each variance is accompanied by a report which explains the conditions considered in granting the variance requests.

These reports and their attachments include:

(1) Robert M. Stuckart and Stuckart Lumber Co.
(2) Ralph Hull and Hull-Oakes Lumber Co.
(3) Lester Shingle Co.
(4) Three-Pack Shingle Co.

I would be happy to provide additional information or to provide clarification of the above reports.

Sincerely yours,

Michael D. Roach

Michael D. Roach
Director

MDR/DM/st

encl.

TO : Environmental Quality Commission
FROM: Mid-Willamette Valley Air Pollution Authority
DATE: June 28, 1971

SUBJ: REPORT ON VARIANCE GRANTED TO ROBERT M. STUCKART AND STUCKART LUMBER CO.

Negotiations for a compliance schedule for this firm's wigwam burner began in November, 1969. A schedule was received on April 29, 1970, which stated we "will take the burner out" by June 30, 1971. In July, 1970, the firm reported that they had stopped burning sawdust. At this same time, this Authority learned that Stuckart Lumber, jointly with several other North Santiam area operations, was considering a bark products processing plant.

Further progress reports were received, as required, in October, 1970, January and April, 1971. The reports until April reported that several alternatives for bark disposal were under consideration. In April, however, the firm reported that they were planning on a bark boiler.

A staff report made at the May meeting of the Authority is attached. The firm requested an extension in the compliance date from June 30, to October 1, 1971, while the staff recommended that a hearing date be set to consider issuing an order to comply. The Board decided to hold an informal hearing for Stuckart Lumber Co., at the June meeting.

At this June meeting, another staff report was made (also attached) which supports a variance request and which lists supporting data. The Board then granted a variance for the period June 30, 1971, to October 31, 1971.

A copy of this variance is attached.

Attachments:

(1) Staff Report - May 14, 1971
(2) Staff Report - June 15, 1971
(3) Variance - June 18, 1971

TO : Board of Directors
FROM : Staff
DATE : May 14, 1971

SUBJ : STUCKART LUMBER CO., IDANHA

This firm has made reasonable attempts to comply by June 30, but will not be in compliance. Until March, the firm participated in a joint study of a bark products plant in the North Santiam canyon area. With the abandonment of that concept, they became committed to constructing a bark-fired boiler plant, dry-kilns, and lumber planer at Lyons.

Ground-breaking occurred May 1, as soon as the weather allowed. A boiler is presently being fabricated by Larry Whelon Assoc. in Portland. Components of the boiler will begin arriving on site June 1. The boiler and kiln will be on-line October 1. A hog and bunker will be installed at Idanha and the bark hogfuel will be trucked to Lyons for use in the boiler. Estimated cost of the boiler is $200,000 with the other equipment costing considerably more. Under this present plant, the Idanha wigwam will be torn down in October, requiring a three-month extension beyond the present compliance date.

Therefore, the staff recommends that a date be set to hold a hearing to consider issuing an order to Stuckart Lumber to comply.

TO : Board of Directors
FROM: The Staff
DATE: June 15, 1971

SUBJ: Staff Report on Stuckart Lumber Co., Idanha

Mr. Robert M. Stuckart, President of Stuckart Lumber Co., has requested an extention from June 30, 1971, to October 31, 1971, to shutdown the firm's wigwam burner. He states that this time period is necessary to get all the required equipment delivered and in operation. Since the May meeting, this request has been resubmitted as a variance request.

The staff recommends that Stuckart Lumber Co. be granted a variance from the rules and regulations of the Authority from June 30, 1971, to October 31, 1971, so that their wigwam may be operated while they install systems to phase out that wigwam.

In support of this recommendation, we offer these facts:

1. When submitting this present compliance schedule, this firm decided on shutting down their wigwam rather than modifying it. This commitment has not changed. Sincere efforts have been made to meet the present compliance schedule.

2. The staff believes it was impractical for this firm to have considered wigwam modification in 1970 or now in 1971, since they have hemlock bark and other wastes which are exceedingly difficult to burn in wigwams.

3. Several alternatives to the presently proposed compliance project were examined and abandoned at a time (March, 1971) which left insufficient time to comply by June 30, 1971.

4. The staff believes it was impractical for the firm to have committed themselves to the present project in 1970 when apparently better alternatives, such as a joint venture bark products plant, were still under consideration.

5. Our evaluation of the proposed compliance system, though not yet complete, indicates that this system (a bark boiler) will not create new compliance problems.

6. Our evaluation of the timing of proposed compliance projects indicates that it would be optimistic to believe the entire system will be operating by the end of the variance period. The staff does believe that the wigwam could be shut down on October 31, 1971.

7. The staff believes that adherence to the present compliance date of June 30 would be unreasonable.

BEFORE THE MID-WILLAMETTE VALLEY

AIR POLLUTION AUTHORITY

In the Matter of the Application for Variance of ROBERT M. STUCKART, dba Stuckart Lumber Co.	)))))	ORDER GRANTING VARIANCE

This matter coming on regularly to be heard before the Board of Directors of the Mid-Willamette Valley Air Pollution Authority on the 15th day of June, 1971 upon the written application of ROBERT M. STUCKART, dba Stuckart Lumber Company, of Idanha, Oregon, for a variance from the emission standards of the Mid-Willamette Valley Air Pollution Authority in the operation of a wigwam burner at Idanha, Oregon; and the Board having considered the recommendation of its staff and finds that the conditions of ORS 449.810 (1) have been met in that the applicant has submitted plans to the Staff for a bark burning boiler and auxiliary equipment and is going forward with the installation of such equipment and is making good progress in phasing out of its wigwam burner, and by reason of such circumstances strict and immediate compliance with the rules of the Authority would be burdensome and impractical, Now Therefore,

On Motion duly made, seconded and passed it was resolved by the Board as follows:

IT IS HEREBY ORDERED that the application for variance be and the same hereby is granted commencing with the date of this Order to and including the 31st day of October, 1971.

IT IS FURTHER ORDERED that a copy of this Order shall be forthwith filed with the Environmental Quality Control Commission pursuant to ORS 449.880.

Dated this 19 day of June, 1971.

MID-WILLAMETTE VALLEY AIR POLLUTION AUTHORITY

By _____
Chairman

Attest:

_____
Director

TO : ENVIRONMENTAL QUALITY COMMISSION
FROM : Mid-Willamette Valley Air Pollution Authority
DATE : June 28, 1971

SUBJ : REPORT ON VARIANCE GRANTED TO RALPH HULL and HULL-OAKES LUMBER CO.

Negotiations for a compliance schedule for this firm's wigwam burner began in June, 1969. The firm began investigating modified wigwams. Following a series of meetings, a schedule of compliance was submitted in April, 1970 which proposed to install systems to utilize chips, sawdust, planer shavings, and bark hogfuel by June 30, 1971. This sawmill specializes in producing long timbers up to 85 feet in length. All the mill equipment can handle these long lengths and heavy weights. Beginning in July, 1970, the mill has been extensively rebuilt to completely utilize all the various types of sawmill waste by-products.

Progress reports on these installations were made, as required, in July and December, 1970, and in April, 1971. By the time of this last report, the firm stated that they had spent over $400,000.

A staff report made at the May Board meeting is attached. The firm requested an extension in the compliance date from June 30 to December 31, 1971, while the staff recommended that a hearing date be set to consider issuing an order to comply. The Board decided to hold an informal hearing for Hull-Oakes Lumber Co. at the June meeting.

At this June meeting, another staff report was made (also attached) which supports a variance request and which lists supporting data. The Board then granted a variance for the period June 30, 1971 to December 31, 1971.

A copy of this variance is attached.

Attachments:
Staff report - May 14, 1971
Staff report - June 15, 1971
Variance - June 18, 1971

TO : Board of Directors
FROM : Staff
DATE : May 14, 1971

SUBJ : HULL-OAKES LUMBER CO., MONROE

This firm has converted from very little utilization to nearly full utilization in the past year. $400,000 has been reportedly spent on a log debarker, associated log handling decks, conveyor changes, air transfer equipment, and truck loading bins. The firm has encountered delays in "debugging" this system, however.

An early break down in the debarker caused several months delay. Though all bark and chippable wood are now removed from the wigwam, final installations to remove all sawdust and planer shavings and certain other wastes are behind schedule.

The firm has requested that the compliance date be extended to December 31, 1971. Therefore, the staff recommends that a date be set to hold a hearing to consider issuing an order to Hull-Oakes Lumber Company to comply.

TO : Board of Directors
FROM : Staff
DATE : June 15, 1971

SUBJ : HULL-OAKES LUMBER CO.

Mr. Ralph Hull of Hull-Oakes Lumber Co. has requested that he be granted a variance from the Rules and Regulations of the Authority from June 30, 1971 to December 31, 1971, so that he may operate his wigwam burner until the remaining projects presently underway can be completed.

His letter of June 9, 1971 details those projects presently underway which will allow complete phase-out of the wigwam. He has stated that it is to his own economic advantage to complete these projects as soon as possible.

The staff recommends that this variance request be approved for these reasons: (1) This firm has made considerable progress during the compliance schedule; all major projects are complete and operating; considerable expenditures have already been made. (2) The firm has started all remaining projects necessary to comply; adequate evidence has been submitted to demonstrate that the delays in completing the remaining work were unavoidable and unforeseen. (3) Adherence to the present compliance date of June 30, 1971 would be unreasonable.

BEFORE THE MID-WILLAMETTE VALLEY

AIR POLLUTION AUTHORITY

In the Matter of the Application for Variance of RALPH HULL, dba Hull-Oaks Lumber Co.	)	ORDER GRANTING VARIANCE

This matter came on regularly to be heard before the Board of Directors of the Mid-Willamette Valley Air Pollution Authority on the 15th day of June, 1971, upon the written application of RALPH HULL, dba Hull-Oaks Lumber Co., for a variance from the Air Pollution Control Standards in the operation of his wigwam burner at Monroe, Oregon; and the Board having considered the recommendation of its staff and finds that the conditions of ORS 449.810 (1) have been met in that the said firm in cooperation with the staff of the Authority has made good progress towards phasing out the burner within six months, and by reason of such circumstances strict compliance with the rules of this authority would be burdensome and impractical; Now Therefore,

On Motion duly made, seconded and passed, it is resolved by the Board as follows:

IT IS HEREBY ORDERED that the application for variance by RALPH HULL, dba Hull-Oaks Lumber Co., is hereby granted commencing with the date of this Order to and including the 31st day of December, 1971.

IT IS FURTHER ORDERED that a copy of this Order shall be forthwith filed with the Environmental Quality Control Commission, pursuant to ORS 449.880.

DATED this 18 day of June, 1971.

MID-WILLAMETTE VALLEY AIR POLLUTION AUTHORITY

By _____
Chairman

Attest:

_____
Director

TO : Environmental Quality Commission
FROM : Mid-Willamette Valley Air Pollution Authority
DATE : June 28, 1971

SUBJ : REPORT ON VARIANCE GRANTED TO LESTER SHINGLE CO.

Discussion of compliance programs for this wigwam burner began in October, 1968. Negotiations for a compliance schedule began in December, 1969. Proposed schedules were disapproved as being inadequate in March and May, 1970, Board meetings. A formal hearing was held June 30, 1970 and an order to comply by June 30, 1971 was issued on July 24, 1970. Copies of the Findings of Fact and Order and of the Order are attached.

Lester Shingle Co. was the only shingle or shake mill that did not submit an adequate schedule of compliance by April 30, 1970, and thus was the only mill to receive an Order to Comply. The other producers were, however, required to submit progress reports at three-month intervals. They did not do this.

Therefore, in October the Board directed the staff to inform these other operators that: (1) June, 1971 was a final compliance date and that the Board would not accept variance requests after that date, and (2) that the periodic progress reports must be submitted and that specific compliance plans and installation schedules must be submitted by March 1 or a public hearing would be held in March to determine how they intended to comply.

Mr. Lester was aware of this development and attended the December 16, 1970 Board meeting where seven cedar shingle and shake mill operators stated they could not comply, despite the fact that they had signed schedules of compliance. Copies of these Board minutes are attached to this report.
At this meeting the Board reaffirmed its stand requiring a specific compliance plan by March 1. Only a few producers submitted plans on March 1; therefore, eleven cedar mill wigwam operators were invited to the March 16, 1971 Board meeting, including Lester Shingle. Some mills now stated they would comply, or, at least, that they could at some time comply.
The staff recommended that all these mills remove certain, if not all, wastes from their wigwams by June 30 and that some extensions until December 30, at the latest, be considered to deal with the remaining wastes. The Board tabled any action until April, so as to allow comments to be made by the operators.
Copies of these Board minutes are attached.

Again, only a few producers had responded by the April 20 Board meeting, and only a few operators attended the meeting.
The Board then directed the staff to prepare another report indicating those mills attempting to comply and those that were not.

A copy of this staff report and the minutes of the May 14 Board meeting are attached. At this meeting, Lester Shingle stated they intended to comply, had ways of complying, and would comply by October, 1971. You will note that one variance request by Interstate Shingle Co. was denied at this meeting.

Finally, at the June 15 Board meeting Lester Shingle Co. presented a request for a variance from June 30 to July 30, 1971, to complete compliance installations. This request was granted and a copy of the variance is attached.

Attachments:

Findings of Fact and Order - July 24, 1970
Board minutes - Dec. 16, 1970
Mar. 16, 1971
May 18, 1971
Staff report - May 14, 1971
Variance - June 18, 1971

BEFORE THE BOARD OF DIRECTORS OF THE
MID-WILLAMETTE VALLEY AIR POLLUTION AUTHORITY

In the Matter of LESTER SHINGLE CO.	)	
	)	FINDINGS OF FACT
Concerning Air Pollution in Linn County, State of Oregon.	)	

This matter coming on regularly to be heard before the Board of Directors of the Mid-Willamette Valley Air Pollution Authority on June 30, 1970, the Lester Shingle Co. appearing by Melvin Lester, one of its owners, and waiving appearance by attorney, and the Authority being represented by Cecil H. Quasseth, its attorney. Thereupon testimony and evidence was received and the hearing was concluded, and the Board took the matter under advisement. The Board having fully considered the evidence and testimony submitted, now makes the following:

FINDINGS OF FACT.

1. That during the period December 2, 1969, to May 29, 1970, air contaminants were being emitted from the wigwam waste burner of the Lester Shingle Co. at Sweet Home, Oregon, resulting from the burning of wood wastes from cedar shingle production at said plant.

2. That notices of violation were issued and reported to the owners and operators of the said Lester Shingle Co.

3. That specific observations were made at the site by the staff of the Authority on December 2, 1969, May 13, 1970, and May 29, 1970.

4. That the discharge of said air contaminants by the company were in excess of the limitations prescribed by Section 15-005, 15-010 and 16-120 of the Rules and Regulations of this Authority.

And, based upon said findings of fact, the Board now makes the following:

CONCLUSIONS OF LAW

1. That the air pollution caused by emission of air contaminants by the Lester Shingle Co. from its wigwam waste burner is contrary to and in violation of Rules 15-005, 15-010 and 16-120 of this Authority and the policy of the State of Oregon as expressed in ORS 449.765.

2. That an order will be entered, ordering and directing the Lester Shingle Co., its owners, agents and employees to abate the pollution of the air by ceasing to burn wood waste products in its wigwam waste burner without full compliance with the standards of this Authority on or before June 30, 1971.

UPON Motion duly made, seconded and passed, the foregoing FINDINGS OF FACT were adopted by the Board of Directors this 21 day of July, 1970.

MID-WILLAMETTE VALLEY AIR POLLUTION AUTHORITY

By: [signature]
Chairman

ATTEST

[signature]
Director

BEFORE THE BOARD OF DIRECTORS OF THE

MID-WILLAMETTE VALLEY AIR POLLUTION AUTHORITY

In the Matter of Lester Shingle Co.	)	
	)	ORDER
Concerning Air Pollution in Linn County, State of Oregon.	)	

This matter coming on regularly to be heard before the Directors of the Mid-Willamette Valley Air Pollution Authority on June 30, 1970, the LESTER SHINGLE CO., appearing by Melvin Lester, one of its owners, and waived appearance by attorney and the Authority being represented by Cecil H. Quaaseth, its attorney. The Board of Directors having made and entered its Findings of Fact and Conclusions of Law, Now Therefore, Based Thereon,

IT IS HEREBY ORDERED by the Mid-Willamette Valley Air Pollution Authority as follows:

1. That Melvin L. Lester and Stanley L. Lester and the Lester Shingle Co. be and they are hereby ordered and directed to refrain from discharging air contaminants from their wigwam waste burner, situated at their plant near Sweet Home, Linn County, Oregon, until full compliance with the rules and standards of this Authority applying to such emissions are effected.

2. That paragraph 1 of this Order shall be effective and final as of June 30, 1971.

3. That the Director of this Authority is hereby directed to serve a true copy of this Order, together with a copy of the Findings of Fact pertaining thereto to the persons above mentioned.

DATED at Salem, Oregon, this 29 day of July, 1970.

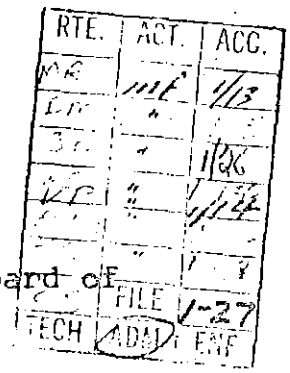
Attest:

Director

MID-WILLAMETTE VALLEY AIR POLLUTION AUTHORITY

By

Chairman



MID-WILLAMETTE VALLEY AIR POLLUTION AUTHORITY
Room 129, Marion County Courthouse
OFFICIAL BOARD MINUTES
December 16, 1970

Chairman Hildebrand called the December meeting of the Board of Directors to order at 1:30 p.m.

ROLL CALL

Board Members Present:
Commissioner Henry Hildebrand
Commissioner Melvin Hawkins
Commissioner Harry Carson, Jr.
Commissioner Morris Majors
Commissioner Floyd Mullen
Councilman John Buck
Councilman James Tindall

Staff Members Present:
Michael D. Roach, Director
Dean McCargar, Air Specialist
Allan Mick, Chief, Technical Services
Cecil Quesseth, Attorney
Dorothy Scheele, Secretary

Visitors Present:
Ed Reynolds, Oar Lumber Co., Lebanon
John Wills, Wills Brothers Shingle Company, Mill City
Bill Aschoff, Advisory Council, Albany
Richard Newberg, And-Rich Shingle, Willamina
Andrew Newberg, And-Rich Shingle, Willamina
Sally Newberg, Newberg Shingle Company, Lacomb
R.C. Roles, Interstate Shingle Company, Independence
G.J. Roles, Interstate Shingle Company, Independence
Mel Lester, Lester Shingle Company, Sweet Home
Walt Kaufman, Three Pack Shingle, Foster
Allen Morrison, Oregon Statesman, Salem
Charlotte Holmes, League of Women Voters, Salem

READING OF MINUTES

Commissioner Majors MOVED the November minutes be approved as mailed. Councilman Buck SECONDED, the Motion CARRIED.

WIGWAM WASTE BURNERS--COMPLIANCE SCHEDULES EXPIRED

Dean McCargar presented the staff report on Wigwam Waste Burner operators whose schedules of compliance have expired.

Hardwood Components, Mehama, submitted a schedule in April, 1970, and in September requested an extension until April, 1971, saying that Longview Fibre Company, Longview, Washington, would purchase their chips after April 1, 1971. It was the staff's recommendation that the Board approve the requested extension provided that evi-

dence of adequate progress and installation of necessary equipment is seen so that compliance dates can be met as of April 1, 1971.

Commissioner Carson MOVED to accept the staff's recommendation. Commissioner Hawkins SECONDED, the Motion CARRIED.

OAM Piling, Sheridan - In February, 1970, the staff received a Schedule of Compliance stating that the burner was to be modified or shut down by September 1970. In August, the Manager stated in a letter that the burner would not be modified and that "additional possibilities would be explored." More information was requested by the staff, but was not received. On December 8, 1970, a letter was received saying the burner was shut down; that waste was being sold as hog fuel or to farmers; and that until February 14, 1971, some burning might be done, on approval of the Authority staff, while better transportation was arranged. Mr. McCargar recommended the Board approve this request.

Commissioner Carson MOVED to accept the staff's recommendation. Commissioner Majors SECONDED, the Motion CARRIED.

Newberg Shingle, Lacomb - This firm was one of the first to submit a Schedule for Compliance to the Authority. In August, Mrs. Newberg reported that she could not dispose of the waste as anticipated and an extension until December 31, 1970, was approved. Mrs. Newberg was called upon and stated that after talking to many people, she finds she has no solution or program to dispose of wastes.

The Staff recommended that with no plans in sight, an extension would be of no value and that a public hearing be scheduled. Mr. McCargar stated that some cedar mills have come into compliance by selling wood wastes to campgrounds and parks for firewood; that hogged waste can also be used for fuel and chipped waste for pulping

Discussion from the floor and other cedar mill operators contended that Oregon State University is working on solutions but the mills cannot put in the facilities until they know what the wastes will be used for.

Councilman Tindall suggested that perhaps the staff could be directed to come up with a suggestion for markets that were not being explored by these operators.

Michael Roach commented that the staff had previously been instructe to stay out of the economics of these situations. Solutions other than utilization included modifying the wigwams or installing approved incinerators. He stated that the staff and Board reviewed these alternatives when the industry-wide compliance deadline was designated, that this compliance date was set over a year ago, and that the operators were notified and could have combined their efforts to come into compliance with that deadline. He also stated that should the Authority find new solutions, the operators would be notified.

Councilman Tindall then MOVED that Newberg Shingle submit a compliance program by March 1, 1971 and full compliance be obtained by June 1, 1971. Commissioner Hawkins SECONDED, the Motion CARRIED.

Michael Roach inquired if the Motion could be ammended to include the provision that if schedules are not obtained by March 1, 1971, then a public hearing be held. The ammendemnt was approved.

U.S. Plywood-Champion Papers, Idanha - This firm submitted a program to modify their burner to comply by December 31, 1970. This schedule was provisionally approved provided plans were received well in advance of the December date. Word was not received from U.S. Plywood until a meeting was held in the offices of the Authority on December 15, 1970, at which time a representative stated that funds have been appropriated for the project. Mill Owners Supply of Eugene will provide plans and do the installation work. The wigwam modification will be completed near the end of the year. if plans are approved and equipment can be procured in that short time.

The staff recommended that an extension to March 1, 1971, be granted for this schedule provided the following steps are followed:

1. Adequate plans are reviewed by December 30, 1970.
2. All necessary installations are completed by January 30, 1971.
3. Compliance be accomplished by March 1, 1971.

The staff further stated that if U. S. Plywood fails to comply with these recommendations that a public hearing be scheduled.

Commissioner Carson MOVED to accept the staff's recommendation. Councilman Tindall SECONDED, the Motion CARRIED.

WIGWAM WASTE BURNERS WITH NO SPECIFIC PLANS OR PROGRESS REPORTS

Mr. McCargar presented the staff report on each of these wigwam operators and each operator made a statement to the Board.

Interstate Shingle, Independence - This firm submitted a schedule initially proposing a Lausmann burner but finally proposing to shutdown the burner. They had investigated hogging and chipping but had reported no progress until after the last Board meeting. They then proposed a WASTCO incinerator. The staff reported that this would probably be a satisfactory but also a very costly solution and they questioned whether this was the right decision.

Mr. Gilbert Roles spoke for the firm. He said they were prepared to order the incinerator. They would rather sell hogfuel but there was no market; if they chipped, they could only eliminate half the waste and they could not afford investing in both an incinerator and in chipping. He stated they had no space available to land fill even part of their waste.

The staff concluded that Interstate Shingle now had presented some

specific progress toward compliance and that no further action was necessary.

Wills Bros. Shingle, Mill City - This firm submitted a schedule proposing to hog and landfill their waste, but no progress had been reported. Requests for reports had been sent in September and December.

Mr. John Wills stated that he had no program, that there was no solution, that he could only comply by shutting down. He stated that every solution was a losing proposition, such as sending chips to Longview, Washington, and that no shingle mill had the necessary capital. He said his accountants would decide for him whether it was cheaper to quit or to landfill waste. He said he had land available, but landfill just bought some more time rather than providing a solution.

After discussion, the Board decided to hear the other operators before hearing a motion.

H & H Cedar, Lyons - This firm submitted a schedule that did not propose a specific plan to comply but did state an intention to quit burning. No progress reports had been received, though request were made in September and December. No representative of the firm was present.

Oar Lumber Co., Lebanon - This firm originally had a schedule in 1968 to improve the wigwam but this was not successful. Their new schedule proposed to comply or to shut down the entire mill. One progress report, which reported no progress, was made in September.

Mr. Reynolds stated he had no solution, that there was no hogfuel market and that he would loose money on chips.

Three-Pack Shingle, Foster - This firm submitted a schedule proposing no specific plan, but indicating a possible fuel market. One progress report was made in September, indicating that they were trying to get Willamette Industries to buy their fuel.

Mr. Kaufman said he was too small to buy a hog and that Willamette Industries did not want the fuel anyway. The staff suggested that the Board might send a letter to Willamette Industries to help Mr. Kaufman dispose of his waste.

And-Rich Shingle, Willamina - This firm submitted a schedule proposing to stop burning, but by no specific plan. No progress reports had been made.

Mr. Newberg said he had no plan.

Rollie Shandy, Independence - This firm submitted a schedule which was not very clear and had not been clarified. No progress reports had been submitted. No representative of the firm was present.

Councilman Tindall MOVED that the seven mills be given until March 1, 1971, to bring in their programs for compliance and to show activity, and that the Authority otherwise set a public hearing date before June 30, 1971. Commissioner Carson SECONDED, the Motion CARRIED.

Following the motion, there was discussion by the Board and from the floor as to possible courses of action to find solutions. Chairman Hildebrand asked if it would not be beneficial for these operators as a group to work together to work out this problem. He offered the assistance of the staff.

VARIANCE REQUEST--M.O. Salmon & Sons, Albany

Michael Roach presented the staff report on M.O. Salmon and Sons, stating the Mr. Salmon is requesting a variance to burn on his property. A field check made on October 21, 1970, revealed that the debris is located next to the borrow pit for the road construction project that Mr. Salmon contracted to do. The staff, in checking with the operation, felt that since burning would be in violation of the Rules and Regulations and the dumping of the debris in the borrow pit is feasible, the variance request be denied.

Mr. Salmon was called upon and stated that being in the flood area of the Willamette River is his main concern at the present time. If the area should flood, all of the debris would be in the main steam of the river and he would be liable for suit.

After discussion and with the possibilities of burying the debris, Councilman Tindall MOVED to accept the staff's recommendation to deny the variance. The Motion was SECONDED by Commissioner Hawkins. The Motion CARRIED.

METEOROLOGICAL STUDY AND CONTRACT

Allan Mick, of the Authority staff, presented the meteorological study, stating that last year a contract was drawn up between the Authority and the Department of Atmospheric Sciences at Oregon State University to study the back log of meteorological data. Reviewing the phases of the contract, he reported that Dr. Hewson, of OSU, visited the entire meteorological network and offered suggestions on sampling sites. The data handling has been evaluated and made compatible with other regional systems; all data is being put in a data bank at OSU, using the same format, resulting in more efficient flow of information. Mr. Mick reported on the funds contributed by the Authority and other regions and the new contract for $4000. He also reported that the Department of Atmospheric Sciences has completed a survey of the ventilation system for the valley in a program involving tetroon flights and other forms of research.

PLAN REVIEW AND CONSTRUCTION APPROVAL

Mr. Roach presented the plan review and construction approval since last meeting, stating that Boise Cascade Homes, McMinnville,

Corvallis Gazette Times, Corvallis, Valley Oil Company, Salem; have all been granted approval of plans. No firms were recommended for disapproval. No Board action necessary.

COURT PROCEEDINGS

Mr. Roach stated that in the last month one conviction was reported for open burning of building debris, the fine was $25, the Linke court case is pending in Yamhill County. He also stated that the State Police issued a citation in Benton County to a lumber company for open burning. No Board action necessary.

OTHER

Mr. Roach requested the Advisory Council appointments be postponed until January.

Commissioner Majors suggested that the Advisory Council Members be encouraged to take part in the Board Meetings.

Discussion took place on the duties of the Advisory Council. Mr. Roach stated that when the council was formed, the members were asked what phases of air pollution they wished to pursue. The Council delegated to stay within the areas of public information.

Councilman Tindall suggested that a condensed report be made to the Board of the Advisory Council's activities for the previous month.

NEXT TIME AND PLACE OF MEETING

The next meeting of the Board of Directors will be held in Room 129 of the Marion County Courthouse at 1:30 p.m. on January 19, 1971.

Mid-Willamette Valley Air Pollution Authority
Room 129 Marion County Courthouse
OFFICIAL BOARD MINUTES
March 16, 1971

Commissioner Henry Hildebrand called the March meeting of the Board of Directors to order at 1:30 p.m.

ROLL CALL

Board Members Present:
Commissioner Henry Hildebrand
Commissioner Melvin Hawkins
Commissioner Harry Carson, Jr.
Commissioner Morris Majors
Commissioner Floyd Mullen
Councilman James Tindall
Councilman Wm. McClenaghan

Staff Members Present:
Michael D. Roach
Dean McCargar
Cecil Quesseth
Dorothy Scheele

Visitors Present:
Donald Ketchum, Split Cedar Products, Detroit
E.E. Reynolds, Oar Lumber Co., Lebanon
John A. Wills, Wills Bros. Shingle Co., Mill City
Gilbert Roles, Interstate Shingle, Independence
Frank Barker, Red Cedar Shingle Bureau, Winlock, Wash.
V.G. Peterson, Red Cedar Shingle Bureau, Seattle, Wash.
Bunk Newberg, And-Rich Shingle, Willamina
Richard E. Newberg, And-Rich Shingle, Willamina
Mel Lester, Lester Shingle, Sweet Home
Stanley Lester, Lester Shingle, Sweet Home
Jan Davies, Oregon Statesman Salem
E.B. Hietala, H & H Cedar Products, Lyons
Mrs. Newberg, Newberg Shingle Co., Lacomb

READING OF MINUTES

Commissioner Majors MOVED the February minutes of the Board of Directors be approved as mailed. Commissioner Hawkins SECONDED the Motion CARRIED.

PUBLIC HEARING - 1971-72 FISCAL BUDGET

Commissioner Hildebrand called the Budget Hearing to order and explained that since this was the meeting of the levying body it was not necessary to have the roll call of the budget committee members read. He called for the reading of the minutes of the budget committee.

Councilman McClenaghan MOVED the minutes be approved as mailed, Councilman Tindall SECONDED the Motion CARRIED.

Mr. Roach was clled upon to review the budget and necessary details. He stated that the final amounts have now been set. The county's participation is less than previously discussed due to the fact that state participation of 50 percent of additional monies for the increase had not been included. This makes Benton County's participation $6,469; Linn County, $8,626; Marion County, $18,139; Polk County $4,228; Yamhill County, $4,821; State of Oregon, $22,516 Federal Grant $90,000; for a total of $157,549. These figures were duly published on February 27 and March 6, 1971, in accordance with the local budget law.

Commissioner Hildebrand called for comments from any person speaking for or against the budget. Receiving no comments, he then declared the budget hearing closed and stated a motion for adoption of the budget would be in order.

Commissioner Hawkins MOVED to adopt the 1971-72 budget and resolution for appropriations as presented and approved by the budget committee.*(Resolution Attached) Councilman Tindall SECONDED the Motion CARRIED. Commissioner Mullen cast an abstaining vote.

After concluding the budget hearing, Commissioner Hildebrand called the regular meeting of the Board of Directors back to order and called upon Dean McCargar of the Authority staff to present the first item of business.

CEDAR MILL HEARING

Mr. McCargar presented a staff report on wood-waste burning by cedar product mills. A summary of the Authority's enforcement activities on wigwams since 1968 was given, along with a collective view of the types and amounts of wastes utilized or burned at these cedar product mills, and with an individual report for each mill.

Mr. McCargar stated that fifteen mills together produced about 90 units per day of waste (one unit = 200 cubic feet, or about 2 tons green weight). About half of this waste was solid wood materials and half was fine materials such as sawdust and cedar tow. Overall, one-third of this waste is not burned, with four mills not burning at all, and with two mills burning no cedar tow. He stated that individual reports for eleven mills listed some of the alternatives to burning this remaining waste.

INTERSTATE SHINGLE, Independence

The staff report indicated that two meetings had been held since December to discuss a proposed incinerator but that no decision had been made to purchase this unit.

Mr. Gilbert Roles stated that he wanted to have more details on this incinerator to be certain that it was approved by the Authority. Mr. McCargar explained that Mr. Roles wanted the staff

to approve the unit before he ordered it, but that approval required review of detailed plans, and that the manufacturer would not supply such plans until they had an order. The manufacturer had agreed, however, to provide a performance bond specifying that payment for the unit was contingent on the Authority approving the plans for, and the operation of, the unit.

Mr. Roles then stated he would still be out $15,000 for a foundation for the unit, though he would be saved the $75,000 cost of the incinerator. He stated that he would install a chipper and a hog if he could find a hogfuel market.

Councilman McClenaghan, Commissioner Hildebrand and Commissioner Hawkins all commented that, concerning the risks in any particular control concept, the Authority was interested in good faith and honest attempts to comply. They stated that if a concept failed, reasonable time would be allowed to try something different, but that the possibility of being closed down faced anyone who simply refused to make any effort to comply.

RED CEDAR SHINGLE AND HANDSPLIT SHAKE BUREAU, SEATTLE

Two personnel from this association of 250 cedar mills in the U.S. and Canada offered comments.

Mr. Pete Peterson Bureau Manager, stated that seeking solutions to wigwam burning was a high priority activity of the Bureau. He stated that O.S.U. had researched agricultural uses for cedar wastes for them but that they had declined to do further research. The University of Washington had shown interest in further studies He pointed out the small size of his industry compared to pulp mills, sawmills, plywood mills, but emphasized the large employment for the small amount of cedar logs processed. He suggested that the art of incineration was primitive but fast developing and he cautioned local operators not to invest too readily in new incinerators and wigwams. He mentioned a wigwam demonstration the Bureau was scheduling.

Mr. Barker Bureau President explained the cost factors involved with cedar mills, He said an average mill was worth only $50,000 and had a longevity of four or five years. He said profit margins on shingles were always low. He said that a $50,000 investment in chipping or better incineration could not be authorized He said cedar chips could not be sold in the U.S. and that hogfuel had a seasonal market at best.

Mr. Barker answered questions about the use of cedar chips in Canada and the transportation problems of marketing chips in the Olympic Peninsula of Washington. He also mentioned the variances given cedar mills in that area.

LESTER SHINGLE, Sweet Home

The staff report relates that this mill already baled cedar tow and suggested some alternatives available to dispose of the re-

maining wood.

Mr. Mel Lester explained that his mill had been rebuilt following a fire last year. He has rebuilt the conveyers to collect about one-third more sawdust and tow for baling.

He disagreed with the suggestion that he could burn cedar waste to provide heat for his shingle kilns, since his last fuel bill had only amounted to $130. He stated most of his shingles were shipped green to California, but that shingles going east were dried. He reduces a square of shingles 60 lbs by drying, saving $1.70 a hundred weight shipping costs.

Mr. McCargar asked whether he could chip or sell his waste as fuel to Willamette Industries. Mr. Lester said he did not have enough wood now to chip but that he might if he started up some shake machines. He stated that Willamette Industries had offered to take his waste material as fuel, using their own hog. He would only have to truck the waste across the street. He thought this was his "only way out."

WILLS BROS. SHINGLE, Mill City

The staff report indicates that this mill was not utilizing cedar tow, which it could easily do, and that the mill had investigated hogging the remaining waste, or disposing of fuelwood.

Mr. John Wills stated that his problem was an economic one. With a $50-70,000 mill, he could generate some capital, but with a $40-50,000 hog or chipper he would lose money. He said the closest cedar chip market was Longview, though the Albany pulp mill may use cedar chips in the future. He mentioned that two Portland mills (C.G. Long, Goucher) were hogging but that their markets were piecemeal. He said cedar has disadvantages as mulch--the wrong color, high inflammability in the summer--and as animal bedding--the high moisture in winter causes respiratory problems in poultry.

Mr. Wills said that he could take his cedar tow out of the wigwam, that baling tow was fairly inexpensive though the market was seasonal.

Later in the hearing Mr. Wills mentioned that members of the Marion County solid waste committee had contacted him. That committee had investigated storing or landfilling cedar wastes but after learning of the volume of material and of the potential leachate problems they had dropped the idea.

Mr. Wills also questioned the idea of selling firewood, since in essense this would be shifting from controlled burning to uncontrolled burning. He then also stated that after spending several thousand dollars "running around seeking answers" that there was no market other than this redistribution out of wigwams into parks and campgrounds. He said this would only work

if lily pads and other fir wood did not go to the parks and if they had to take cedar.

SPLIT CEDAR PRODUCTS, Detroit

The staff report indicated that this mill had planned to sell fuel wood to one park but had been underbid. Other parks in the area provided the only other alternatives.

Mr. Donald Ketchum stated that he guessed he had been underbid by someone else but had not seen any of the bids. He had been told cedar burned too fast and that fir was preferred. He said none of the private residences would use cedar if fir was available.

Mr. Ketchum said that the park had taken the cedar free last summer. They picked up two four-cord truck loads per day. He said his mill, Wills Bros., and H & H Cedar, together, could not supply all of the Forest Service campgrounds in the area. He said that the fuel to be used at the Detroit Lake Campground was pond lilies from U.S. Plywood's veneer plant at Idanha whereas U.S. Plywood was supposedly installing an approved wigwam, he did not have an alternative like that available.

Councilman McClenaghan suggested that the Authority might contact the Oregon State Highway Department to see if they could'nt go out of their way to use cedar at the Detroit Lake Campground.

Mr. McCargar restated the staff's position that fuelwood sales were the only alternative for this remote mill, that this would not increase the fuelwood used in the area but would only displace other fuels and that the minute a more economic use became available for cedar wastes they would go to the new market.

H & H CEDAR, Lyons

The staff report indicated one alternative for this mill--hauling fuelwood to any of the eight government campgrounds within a ten mile radius.

Mr. E.B. Hietala stated that he did not have any method presently available to stop burning. He did suggest that if a campground would take the wood, he might be able to haul wood to them.

Commissioner Hawkins stated that the most feasible thing for Mr. Hietala to do would be to haul wood to campgrounds until research developed better things to do with cedar wastes: he supported the staff proposal that cedar mills use campground fuelwood markets.

AND-RICH SHINGLE, Willamina

The staff report indicated that this mill would shut-down their wigwam if they obtained a Small Business Administration loan to rebuild.

Mr. Andrew Newberg stated that he had obtained the SBA loan, that he would be baling tow and selling fuelwood. He explained how he had to use the influence of Oregon's Senators to obtain the loan.

Councilman McClenaghan asked if Mr. Newberg had'nt also tried to use congressional influence to open up firewood markets at government parks. Mr. Newberg said that would be his next step. He then added that he could not agree with some of the other members of his industry in that selling cedar firewood was better than continuing to use a wigwam.

OAR LUMBER CO., Lebanon

The staff report indicated that this was the only sawmill in the region that did not utilize any waste, that they could easily take sawdust out of the wigwam, and that various alternatives were possible to dispose of slabwood.

Mr. E.E. Reynolds stated that he could possibly take the sawdust out, but that you cannot do anything without spending money. He said he might be able to afford it after a few months with a good lumber market.

NEWBERG SHINGLE, Lacomb

The stff report indicated that this shake mill and sawmill has investigated chipping and could also remove sawdust from the wigwam but that some residues would still remain.

Mrs. Newberg explained that her sawmill ran about 10,000 board feet of logs per day, producing five big truck loads of waste per day, and that the shake mill produced three truckloads of fuelwood per day. She did not believe she could haul all of this waste off. She also stated that a chipper installation did not solve the whole problem, since some waste would still remain. She said that her banker recommended against buying a chipper, let alone buying both a chipper and a hog to solve all of the problem.

Mrs. Newberg said she did believe she could remove the sawdust from the burner. She had not been able to interest people in cedar fuelwood, even though she ran advertisements in three newspapers. Most people have switched to electricity and oil because of wood shortages during severe winters.

THREE PACK SHINGLE, Foster

The staff report indicated that the owner had suggested that he could separate his cedar tow for sale and that the Willamette Industries' boilerplant next door might take the wood as fuel.

Mr. Walt Kaufman, the owner,was not present to offer comments.

DEAN MORRIS SHAKES & CEDAR PRODUCTS; Lebanon
HINES SHINGLE MILL, Philomath

The staff report indicated that these mills had in the past open burned their waste that Dean Morris is located directly across the road from the Lebanon city dump and might use landfill disposal, and that Hines Shingle Mill could use drop-box service for landfill or fuelwood markets.

Neither Mr. Morris nor Mr. Hines were present.

STAFF RECOMMENDATIONS FOR CEDAR MILLS

1. That sawmill sawdust and shingle mill tow and sawdust were types of wastes that do not require processing and which should have available markets; the staff therefore recommended that the following mills remove this waste from their wigwam burners by June 30, 1971:

Oar Lumber
Newberg Shingle (Sawmill sawdust)
Wills Brothers Shingle
Three-Pack Shingle
And-Rich Shingle

2. That it was not in the best interest of the community or of the Authority to require that any mill cease operating if that firm was making progress toward utilization of their remaining waste material.

3. That the following firms did have the following available disposal methods:

a. Sawmill Waste

Oar Lumber	)Conversion of sawmill slabs
Newberg Shingle	)to fuelwood or other products

b. Shingle Mill Waste

Interstate Shingle	)Disposal without processing or
Lester Shingle	)with processing for hogfuel,
Wills Bros. Shingle	)fuelwood animal bedding, or
Three Pack Shingle	)other products, or for incin-
And-Rich Shingle	)eration

c. Shake Mill Waste

Newberg Shingle	)
Hines Shingle	)Haulaway to landfill or storage
H & H Cedar	)site or to cordwood or fuelwood
Dean Morris Shakes	)markets
Split Cedar	)

4. The use of "improved" wigwams was not recommended

5. That the compliance date of June 30, 1971, be extended as late as December 30 1971 for those firms listed above which make satisfactory reports of progress on June 30, September 30, and December 15 1971.

6. That investigations of additional, alternative uses and disposal methods for cedar wastes be considered reasonable progress if detailed outlines of such investigations or development programs were provided to the Authority.

BOARD ACTION ON CEDAR MILLS

Councilman McClenaghan recommended circulating the staffs recommendations to the mill owners and operators for a brief period to obtain their comments. Commissioner Mullen supported the staff proposed extension in the compliance deadline. Commissioner Carson suggested that such comments be compiled and submitted to the Board and the operators before the next meeting. Hawkins then MOVED to table action on the recommendations until the April Meeting. Commissioner Majors SECONDED, the Motion CARRIED.

ADVISORY COUNCIL REPORT

Mr. Bill Aschoff, Chairman of the Advisory Council, reported on the meeting held on March 10, 1971. He reported two suggestions put forth by the Advisory Council for the Board's consideration.

During the last month, the Council ran a survey on the proposed burning ban to go into effect on July 1, 1971. There was general consensus that the ban should be modified to allow prunings, clippings, and trimmings to be burned on days indicated by the Director of the Air Pollution Authority with stipulation that the Authority staff prepare instructions for the fire department as to how to burn properly with the least amount of smoke.

The second recommendation was that monthly board meetings be made more inviting to the general public by open discussion for the first half hour of the meeting for non-agenda items so that anyone having air pollution problems to discuss with the board, may be free to do so.

Discussion was held on the recommendations with discussion channeled to the open burning ban.

Commissioner Mullen MOVED to adopt the recommendation for an open meeting for the first half hour of each board meeting. Commissioner Hawkins SECONDED the motion, stipulating that it was on a trial basis; the Motion CARRIED.

It was the consensus of the Board that modification of the burning ban be considered at a later time.

PLAN REVIEW AND CONSTRUCTION APPROVAL

Mr. Roach reported that the Authority was never notified that the

River Bend Sand and Gravel plant was under construction, which is a requirement of the Rules and Regulations. The plant was contacted after they went into operation for specific plans on controlling dust from their operations. The Authority was not satisfied with the plans. But since that time, a letter was received and plans were presented and approved. It was agreed that dust control shall be accomplished on the access road to the plant site by paving by June 1, 1971 and dust control accomplished by watering, oiling and some other manner on the plant site.

Mr. Roach stated that this particular item did not need Board action, but it did present a problem that has been occurring more frequently. Companies are going into operation without approval from the Air Pollution Authority.

After discussion, it was agreed that copies of the regulations for reporting new and modified plans for construction approval be sent to the building inspectors and planning and zoning committees in the counties so that the Authority could be informed when new construction took place.

OTHER

Mr. Roach requested approval of the 1971-72 Federal Grant Application for $90,000 and for the Board to authorize Commissioner Hildebrand to sign the application.

After discussion Commissioner Carson MOVED for approval and authorization. Commissioner Majors SECONDED; the Motion CARRIED.

NEXT TIME AND PLACE OF MEETING

The next Board of Directors meeting will be held in Room 129 of the Marion County Courthouse on April 20, 1971, at 1:30 p.m.

MID-WILLAMETTE VALLEY AIR POLLUTION AUTHORITY
OFFICIAL BOARD MINUTES
Room 129, Marion County Courthouse
May 18, 1971

Chairman Hildebrand called the Board of Directors meeting to order at 1:30 p.m.

ROLL CALL

Board Members present:
Commissioner Henry Hildebrand
Commissioner Melvin Hawkins
Commissioner Harry Carson, Jr.
Commissioner Floyd Mullen
Councilman James Tindall
Councilman Wm. McClenaghan

Staff Members present:
Michael D. Roach
Dean McCargar
Cecil Quesseth
Dorothy Scheele

Visitors present:
Marilyn May, George Fox College, Student, Newberg
Frank S. Barker, Shakertown Corp., Washington
Gilbert Roles, Interstate Shingle, Independence
Jo-n A. Wills, Wills Bros. Shingle Co., Mill City
Tom Burgess, Hobin Lumber Co., Corvallis
Donald Walker, Cedar Lumber Inc., Mill City
Harry Bartels, U.S. Plywood, Eugene
Robert Freres, Freres Lumber Co., Lyons
James Frank, Frank Lumber Co., Inc., Mill City
Doug Highberger, Frank Lumber Co., Inc., Mill City
Farris Benton, Benton Cedar, Idanha
Sally Newberg, Newberg Shingle, Lacomb
Mel Lester, Lester Shingle Co., Sweet Home
Bill Aschoff, Advisory Council, MWVAPA, Albany

MINUTES OF APRIL MEETING

Councilman McClenaghan MOVED the April minutes be approved as mailed. Commissioner Mullen SECONDED; the Motion CARRIED.

PUBLIC FORUM

Commissioner Hildebrand invited comments from the audience on air pollution issues not covered on the agenda. No one from the audience spoke.

STATUS OF WIGWAM WASTE BURNERS OTHER THAN CEDAR MILLS

Mr. Roach reported on the status of the enforcement activities on the wigwam burners up to this date. He then introduced George Duncan, attorney, representing Mr. Jefferson Lumber Company.

Mr. Duncan reported that his office had been in contact with the Authority on several occasions during 1969 and 1970 as counsel for Mt. Jefferson Lumber Company. He stated that his client has expended considerable sums of money in consideration of the compliance date of June 30, 1971. It is his reason to now to believe that certain mill operators who originally agreed to the compliance date will now apply for an extension, or, if denied, will refuse to comply. This causes considerable concern, particularly when sums have been expended for necessary equipment and additional monthly cost to operate the control machinery.

He stated that all parties should have one particular date by which to comply so that one would not acquire an economical profit over another. He contended that all parties should be required to meet the compliance date without exception.

Seven wigwam operators reported that they would shut down their burners on approximately June 30, 1971. These firms were reported as being: 3G Lumber Co, Wren; Taylor Lumber Co., Sheridan; Burkland Lumber Co., Turner; Clear Lumber Co., Sweet Home; Willamette Industries, Griggs; Hardwood Components, Mehama, Clemons Forest Products, Philomath. No action was recommended.

Hull Oakes Lumber Co., Monroe

The staff reported that this firm had reportedly spent $400,000 on waste utilization equipment but could not comply by June 30, 1971, and that the firm had requested an extension until December 31, 1971 to completely phase out the wigwam. After considerable discussion, the Board decided to hear the staff report on Stuckart Lumber Co. before acting on this staff recommendation.

Stuckart Lumber Co., Idanha

The staff reported that this firm had begun installation of a bark-fired boiler plant, dry kilns, and a planer mill at Lyons, that the wigwam at Idanha would be phased out in October and the bark trucked to Lyons. Since compliance would not be achieved by June 30, the staff recommended that a date be set for a hearing to consider issuing an order to comply. After more discussion of these two firms, Commissioner Hawkins MOVED and Councilman McClenaghan SECONDED that the Authority hold a hearing for Hull Oakes Lumber Co. and Stuckart Lumber Co. at the regular monthly meeting on June 15, 1971. The Motion CARRIED.

Cedar Lumber Inc., Mill City

The staff reported that this firm had investigated several possible methods to comply but were not prepared to shut down their wigwam. The staff recommended that a date be set to consider issuing an order to Cedar Lumber Inc. to comply. Mr. Dan Walker was present but declined to speak. Commissioner Carson MOVED and Councilman Tindall SECONDED the motion that the staff recommendation be

accepted and that Mr. Roach set a date in July for a hearing on Cedar Lumber Inc. The Motion CARRIED.

Green Veneer Inc., Idanha

The staff reported that this firm's wigwam has been modified along the O.S.U. guidelines, that visible emissions had been fairly well controlled, but that a particulate emission test indicated emission in excess of allowable standards. The staff proposed to keep this unit under strict surveillance to insure compliance with the Authority's rules and regulations. Councilman Tindall MOVED and Councilman McClenaghan SECONDED a Motion to adopt the staff's recommendation. The Motion CARRIED.

North Santiam Plywood, Mill City

The staff reported that this wigwam was also modified along O.S.U. guidelines but had not been fully evaluated yet. The staff proposed to thoroughly evaluate this unit prior to June 30 and thereafter to keep it under strict surveillance to insure compliance with the Authority's rules and regulations. Councilman Tindall MOVED, Councilman McClenaghan SECONDED a motion to adopt the staff recommendations. The Motion CARRIED.

U.S. Plywood - Champion Papers Inc., Idanha

The staff reported that this wigwam was modified along the O.S.U. guidelines, but only recently, well beyond dates agreed to on the Schedule of Compliance. Very limited checks on visible emissions had been made; one sample of particulate emission indicated excessive emissions. The staff proposed to complete the present evaluation and request final adjustments before June 30 and to thereafter keep the unit under strict surveillance to insure compliance with the rules and regulations of the Authority. Both Councilman McClenaghan and Harry Bartels, of U.S. Plywood, questioned Mr. McCargar about a statement in the staff report about difficult working conditions during the sampling. Mr. McCargar explained that this referred to the 1000° temperature beside the sampling platform. Councilman Tindall MOVED and Councilman McClenaghan SECONDED a Motion that the recommendations of the staff be approved. The Motion CARRIED.

CEDAR MILL WIGWAM STATUS REPORT

Wills Bros. Shingle Mill, Mill City

Mr. McCargar reported that Mr. Wills intended to comply and would install a hog. The staff requested authorization to negotiate a new schedule for compliance to allow time to complete these installations. Mr. John Wills stated that he would install a cedar tow baler by June 30 but that he would need additional time for a hog installation. He expressed concern that in a few years he would also need controls for dust pollution and noise pollution. Commissioner Hawkins MOVED and Councilman McClenaghan SECONDED

that a time schedule for all the required installations be brought to the next meeting of the Authority. The Motion CARRIED.

H & H Cedar, Mill City

The staff reported that is was likely that Mr. Heitala could obtain a firewood contract with a campground. The staff requested authorization to negotiate a new schedule of compliance to allow time to convert to this new disposal program. Commissioner Carson MOVED and Commissioner Hawkins SECONDED that the staff's recommendation be accepted and that another report be given to the Board at the June meeting. The Motion CARRIED.

Split Cedar Products, Detroit

The staff reported that this firm would cease operating June 30 and be relocated in Eastern Oregon. No action was recommended.

Benton Cedar Products, Idanha

Mr. McCargar reported that this mill had resumed operation under new owners after a long shut down. The staff recommended that the firm be directed to cease using their wigwam by June 30. Mr. Ferris Benton stated that there was no market for his waste. After several questions by Mr. Quesseth, Mr. Benton acknowledge that before he began operating the mill early this year he was aware that all wigwam operators had a June 30 compliance deadline. Councilman Tindall MOVED and Commissioner Carson SECONDED that the staff's recommendation be supported. The motion CARRIED.

Newberg Shingle Mill, Lacomb

The staff reported that Mrs. Newberg planned to purchase and install a chipper, that possible uses for the remaining wastes had been mentioned and some of these might prove feasible. The staff recommended that additional time be allowed to evaluate the proposed chipper system and to develop additional systems to phase out the wigwam. Mrs. Newberg then said that she would install the chipper just as fast as she could but that she couldn't assure the Board that she could eliminate the wigwam. Councilman McClenaghan MOVED and Commissioner Mullen SECONDED a motion to grant an extension on the present schedule of compliance until October 1, 1971. Mr. McClenaghan explained that this date was not proposed to be a final compliance date, that further extensions could possibly be granted, but that a review of the progress should be made in October. The motion CARRIED.

Dean Norris Shakes and Cedar Products, Lebanon

The staff reported that this mill had not burned since February of 1971 and would not burn again. No action was recommended.

And-Rich Shingle, Willamina

The staff reported that this mill would not again burn and would be rebuilt so as to utilize all wastes. No action was recommended.

3 Pack Shingle, Foster

Mr. McCargar reported that Mr. Kaufman said that he would probably stop operating June 30, but that he might haul his waste to Willamette Industries' boiler plant. A letter dated May 14 indicated a strong possibility that Willamette Industries could use the waste. The staff requested authorization to negotiate a new schedule of compliance to allow time to convert to a new disposal system. Commissioner Hawkins MOVED and Commissioner Carson SECONDED that the staff's recommendations be approved and that another report be made at the June meeting. The Motion CARRIED.

Lester Shingle Co., Sweet Home

The staff reported that this firm had no plan to follow the order of the Authority to comply by June 30, that Mr. Lester had alternatives but that he was not pursuing them. The staff recommended that the order to comply by June 30 be enforced. Mr. Lester then spoke. He asked why an extension was being given other mills but not to him. Mr. McCargar explained the the order to comply had been issued because Lester Shingle Co. would not submit an acceptable schedule of compliance a year ago. Mr. Lester said he would probably have to shut down. When questioned by Mr. McClenaghan, Mr. Lester stated that he would eventually comply but not on June 30. After more questions from the Board, Mr. Lester finally agreed he could possibly comply by October 1, 1971. Mr. McClenaghan MOVED and Commissioner Hawkins SECONDED that Lester Shingle submit a plan at the June 15 meeting of the Authority whereby the Authority could consider granting a variance until October 1, 1971 from the present order to comply. Mr. McClenaghan suggested that if a variance was granted the Authority would probably stipulate that monthly reports be submitted demonstrating reasonable progress toward compliance. The Motion CARRIED with Commissioner Carson opposing.

Oar Lumber Co., Lebanon

The staff reported that Mr. Reynolds had requested an extension until October 30, 1971, but that the mill would probably then shut down; this same situation has existed for three years. The staff recommended that a date be set for a hearing to consider issuing an order to Oar Lumber to comply. Councilman Tindall MOVED and Councilman McClenaghan SECONDED a motion that the staff recommendation be accepted and that Mr. Roach set a date in July for a hearing on Oar Lumber Co. The motion CARRIED.

Interstate Shingle Co., Independence

The staff reported that since the last meeting, this firm had changed ownership to Shakertown Corporation. A letter dated May 14, 1971 from Mr. Frank Barker, President of both Interstate Shingle and Shakertown Corp., was read which requested a variance from the rules and regulations of the Authority until May 15, 1972 on the basis that there was no economically feasible alternative to wigwam disposal of waste. The staff recommended that the variance request be denied and that a date be set for a hearing to consider issuing an order to the firm to comply with the rules and regulations of the Authority.

Commissioner Carson MOVED and Commissioner Mullen SECONDED that the variance request be deferred to the next meeting. In the discussion, Mr. Barker stated that he had seven mills in Washington and that he had seven one-year variances. He suggested that the Washington authorities knew no better than he did what to do and that rather than shut the mills down, they had granted variances. Mr. Barker said he was just as prepared to pursue the variance request now as he would be in June. Commissioner Carson then WITHDREW his motion.

Mr. Roach stated that the staff had reviewed this firm's wigwam problems for two years and that the Authority had already had a number of hearings on this mill. He stated it would be a definite economic disadvantage to all the firms in compliance or proposing compliance if this firm received the proposed variance, since all cedar mills competed on the open market for logs. He mentioned that the previous owners had suggested various alternatives. Councilman McClenaghan asked Mr. Barker if the incinerator concept was feasible. Mr. Barker said that it was not feasible. Councilman McClenaghan then asked if, when he bought the mill, he recognized the requirements of this Authority, and, if he did so, then what did he plan to do to comply. Mr. Barker insisted that he planned to ask for a variance.

Mr. Tindall then MOVED and Commissioner Hawkins SECONDED that the staff's recommendation be adopted. Mr. McClenaghan suggested that the variance request be disposed of. Mr. Tindall WITHDREW his motion. Mr. McClenaghan MOVED to deny the request for a variance. Commissioner Mullen SECONDED. The Motion CARRIED.

Councilman Tindall MOVED and Commissioner Hawkins SECONDED that the staff's recommendation be adopted to hold a hearing in July to consider issuing an order to Shakertown Corporation and Interstate Shingle to comply with the Rules and Regulations of this Authority. The motion CARRIED.

METEOROLOGICAL PROJECT REVIEW - OREGON STATE UNIVERSITY

Mr. Roach introduced Dr. Lars Olsson of Oregon State University, who presented slides on the ventilation of the Columbia-Willamette valleys. Dr. Olsson described the accomplishments of the contractual agreement between the Department of Atmospheric Sciences and the Mid-Willamette Valley Air Pollution Authority for last year.

HOG-FUEL BOILER WORKSHOP

Mr. Roach requested authorization for Dean McCargar and himself to attend the hog-fuel boiler workshop to be held in Olympia on May 27. The workshop is to acquaint interested individuals of the alternatives for waste disposal and also the uses of this waste for productive purposes. Councilman McClenaghan MOVED to approve the authorization. Commissioner Carson SECONDED and the Motion CARRIED.

PLAN REVIEW

Mr. Roach reported that there were no disapprovals. No Board action required.

ADVISORY COUNCIL REPORT

Bill Aschoff reported on activities of the May Council meeting. He stated that discussion was held on the residential backyard burning ban. Another item of discussion was the visual aide packet that Marilyn May, a student from George Fox College, is working on. The packet is a slide presentation that will be distributed to the high schools and other interested organizations in the jurisdiction of the Authority. Mr. Aschoff again offered the Council's assistance to the Board in any capacity that would be helpful.

OTHER

Mr. Roach introduced Miss Marilyn May to the Board, explaining that she works with the Authority two mornings a week for academic credit. She has been working on the slide presentation that was presented to the Advisory Council and has also made up a list of reading material regarding air pollution available for public use.

Councilman McClenaghan announced to the Board his intention to propose a motion to reinsert a date for deadline on the revised rule that was drawn up by the attorney and the staff and accepted for public hearing by the Board at the last meeting. He reminded the Board that the revision stands without a deadline date; one should be inserted to that burning does not continue indefinitely and would provide an incentive for finding alternatives.

THE NEXT MEETING OF THE BOARD OF DIRECTORS WILL BE HELD on June 15, at 1:30 p.m., Room 129 of the Marion County Courthouse and will include a public hearing on open burning amendments.

TO : Board of Directors
FROM : Staff
DATE : May 14, 1971

SUBJ: LESTER SHINGLE CO., SWEET HOME

Mr. Mel Lester reports no plan to follow the order of the Authority to comply by June 30. He has little interest in hauling the waste a block to the Willamette Industries boiler plant and presumably has not contacted them. He is interested in obtaining his former property next to the shingle mill so as to have space to hog and bale his remaining wastes. However, he has absolutely no suggestions as to when he would act on that concept.

The staff recommends that the order to comply by June 30 be enforced.

BEFORE THE MID-WILLAMETTE VALLEY

AIR POLLUTION AUTHORITY

In the Matter of the Application for Variance of LESTER SHINGLE CO.	)	ORDER GRANTING VARIANCE

This matter coming on regularly before the Mid-Willamette Valley Air Pollution Authority Board of Directors on June 15, 1971 upon the written application of LESTER SHINGLE CO., a co-partnership of Sweet Home, Oregon, for a variance from an Order of this Board dated the 24 day of July, 1970, which directed LESTER SHINGLE CO. to cease operating its wigwam burner contrary to the standards of this Authority on or before June 30, 1971; and it appearing to the Board that the conditions of ORS 449.810 (1) have been met in that the applicant is making immediate arrangements for disposing of the wood waste materials from its mill without burning and will completely phase out and cease using the burner by July 30, 1971, and by reason of such circumstances strict and immediate compliance with the Order of this Authority would be burdensome and impractical, Now Therefore

On motion duly made, seconded and passed it is resolved by the Board as follows:

IT IS HEREBY ORDERED that the application for variance of LESTER SHINGLE CO. from the Order of this Board of July 24, 1970, be and the same is hereby granted commencing with date of this Order to and including the 30th day of July, 1971.

IT IS FURTHER ORDERED that a copy of this Order shall be forthwith filed with the Environmental Quality Control Commission pursuant to ORS 449.850.

DATED this 18 day of June, 1971.

MID-WILLAMETTE VALLEY AIR POLLUTION AUTHORITY

By J. B. Waldbrand
Chairman

Attest:

Director

TO : Environmental Quality Commission
FROM : Mid-Willamette Valley Air Pollution Authority
DATE : June 28, 1971

SUBJ : REPORT ON VARIANCE GRANTED TO THREE-PACK SHINGLE CO.

Discussion of compliance programs for this wigwam burner began in December, 1969. A proposed schedule of compliance was disapproved and another schedule was approved in May, 1970, providing for shutdown of the wigwam by June 30, 1971.

Thereafter, this firm did not make the required progress reports and was on the agenda for Board meetings in December, 1970, and March, April, May, and June, 1971. Copies of pertinent reports and minutes are attached to the Lester Shingle Co. file provided to you earlier.

At the June 15 Board meeting, letters from Three-Pack Shingle indicated that a waste disposal plan was being explored in conjunction with Lester Shingle and that more time was necessary to comply. Therefore, on the request of Three-Pack Shingle and in the interest of equitable treatment, a variance for the period June 30 to July 30, 1971 was granted. A copy of this variance is attached.

Attachments:
Variance - June 18, 1971
Other data - See Lester Shingle Co. report

BEFORE THE MID-WILLAMETTE VALLEY

AIR POLLUTION AUTHORITY

In the matter of the Application for Variance of THREE PACK SHINGLE CO.	)	ORDER GRANTING VARIANCE

This matter coming on regularly before the Mid-Willamette Valley Air Pollution Authority Board of Directors on June 15, 1971, upon the written application of THREE PACK SHINGLE CO of Foster, Oregon for a variance from the emission standards of the Mid-Willamette Valley Air Pollution Authority in the operation of a wigwam burner at Foster, Oregon; and the Board having considered the recommendation of its staff and finds that the conditions of ORS 449.810(1) have been met in that the said firm is making immediate arrangements for disposing of the wood waste materials from its mill without burning and will completely phase out and cease using the burner by July 30, 1971, and by reason of such circumstances strict compliance with the rules of this Authority would be burdensome and impractical; Now Therefore

On Motion duly made, seconded and passed, it is resolved by the Board as follows:

IT IS HEREBY ORDERED that the application for variance by THREE PACK SHINGLE CO is hereby granted commencing with the date of this Order to and including the 30th day of July, 1971.

IT IS FURTHER ORDERED that a copy of this Order shall be forthwith filed with the Environmental Quality Control Commission pursuant to ORS 449.880.

DATED this 18 day of June, 1971.

MID-WILLAMETTE VALLEY AIR POLLUTION AUTHORITY

By _____
Chairman

Attest:

_____ Director

TO : ENVIRONMENTAL QUALITY COMMISSION MEMBERS

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

FROM : AIR QUALITY CONTROL DIVISION

DATE : July 15, 1971 for Meeting July 23, 1971

SUBJECT: Application for Certification of Pollution Control Facility No. T-221

1. Applicant:

Cascade Construction Company
P. O. Box 4267
Portland, Oregon 97208

The applicant owns and operates a hot mix asphalt plant in Portland, Oregon.

2. Description:

The facility of this application is dry collection and high-efficiency wet collection equipment for removing dust from the stack gases. Operation commenced in August, 1967.

3. Cost:

The total cost is $88,669.13. An accountant's certification is attached.

4. Staff Review:

This installation was reviewed and approved by Columbia-Willamette Air Pollution Authority, who judged the installation adequate by plume appearance and subsequently, based on stack tests, found it inadequate. The Authority has requested improvements, which will be made using the facility in this application. There is no economic return from this facility. Therefore, the staff concludes:

1. The facility was installed for pollution control.
2. The entire facility will be used and, in spite of present shortcomings, is eligible for tax relief.

5. Staff Recommendations:

The staff recommends that a "Pollution Control Facility Certificate" bearing the cost figure of $88,669.13 be issued for the facility claimed in Tax Application No. T-221.

ARTHUR YOUNG & COMPANY

900 SOUTHWEST FIFTH AVENUE
PORTLAND, OREGON 97204

April 13, 1971

Department of Environmental Quality
P. O. Box 231
Portland, Oregon 97207

Attention: Tax Credits Section

Re: Application for Certification of Pollution Control Facility--
Cascade Construction Company, Inc.

Gentlemen:

We have been requested by Cascade Construction Company to prepare a statement which gives the breakdown of the actual cost of the facility. We have in our files for the year 1967 for Cascade Construction Company, Inc., our client, a listing of machinery pieces which were represented to us as air pollution control equipment. This list is as follows:

Multicone Dry Collector with fan and power	$29,820.00
CN80 Wet Collector complete	22,060.00
Nuisance dust collection system complete	2,000.00
Difference between cost of one dryer (which is not satisfactory in pollution control) and an alternate dryer	31,565.00
Sub-Total	$85,445.00
Estimated Freight	3,224.13
Total	$88,669.13

No depreciation on the above air pollution equipment has been claimed on the Oregon Corporation Excise Tax Return for 1967; $3,389 was claimed as a credit for pollution control facilities on such return.

Very truly yours,

ARTHUR YOUNG & COMPANY

By Frank H. Eiseman

FHE:jr
cc: Cascade Construction Company, Inc.

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: Environmental Quality Commission Members

Date: July 15, 1971, for July 23, 1971, meeting

From: Water Quality ontrol Staff

Subject: Harley S. Belt
Tax Application No. T-199
Received February 25, 1971, supplemented May 14, 1971.

1. Applicant

Harley S. Belt
Route 1, Box 51
Yamhill, Oregon 97148

The applicant owns and operates a 275-head dairy herd located five miles N.W. of Yamhill on Pike Road in Yamhill County.

2. Claimed Facility

Liquid manure control and disposal facilities consisting of a 45,000 gallon tank, 30 HP manure pump, manure sprinkler head, and concrete ramps and sidewalls to connect tank to buildings.

The claimed facilities were placed in operation on December 4, 1970.

Claimed cost: $10,357.46 less $1,000.00 U.S. Government Reimbursement less $968.50 for improvements not yet completed = $8,370.96 (see attached sheets).

3. Staff Review

On May 14, 1971, a visit was made to Beltview Dairy to evaluate the completion of liquid manure collection and disposal facilities. The system had been in operation for about five months, and had prevented manure from reaching the North Yamhill River during that period.

All contaminated areas drain to a 45,000 gallon liquid manure tank. Manure and contaminated drainage are then pumped for disposal on approximately 180 acres of pasture and cropland. All completed facilities were constructed primarily for the purpose of pollution control. There are additional improvements, for reducing rainwater dilution of collected manure, which have not been completed. Mr. Belt intends to complete additional rainwater diversion within one year, and will file a separate application at that time. The application as filed included cost estimates for part of the work ($986.50) although not complete. The staff has therefore subtracted this amount in arriving at the cost of the facility.

4. Recommendation

The staff recommends that a Pollution Control Facility Certificate be issued for the facilities indicated above, such certificate to show an actual cost of $8,370.96 with 80% or more allocated to pollution control.

OLSON AND MAGNUSON
Certified Public Accountants
Elmer H. Olson, CPA
Jack T. Magnuson, CPA

727 East Fifth Street
st Office Box 608
McMinnville, Oregon 97128
503-472-4158

2105 First Street
Post Office Box 273
Tillamook, Oregon 97141
503-842-4417

January 19, 1971

Mr. and Mrs. Harley Belt
Route 1, Box 51
Yamhill, Oregon 97148

Dear Mr. and Mrs. Belt:

At your request, we have inspected your cost recap of your manure disposal system. We did not visually inspect the disposal system on your property, but have asked of you a number of questions relating to this type of construction to become acquainted with the specific installation. In addition we have checked the statements you have provided covering $7,974.46 of the total cost of $10,357.46 per your detailed listing less $1,000.00 reimbursed by the U. S. Government.

The uncompleted portion at this date was estimated to cost $986.50 for which no statements could be submitted. Various material amounts adding to $389.50 were also not supported by statements but are reasonable in both quantity and amount. $1,007.00 has been included for labor and machine hire use in the excavation, backfill, levelling, form construction and concrete finishing, pipe laying, and plumbing. The total amount as broken down by category is again not documented by invoices or statements as most of this work was performed by yourselves. The amounts appear very reasonable as to this type of construction.

Yours very truly,

Olson & Magnuson
Certified Public Accountants

Jack T. Magnuson

EHO:ph

MANURE DISPOSAL SYSTEM

(1)	3,000 ft. 4" Steel-Lume irrigation pipe - - - -	$2,300.00
	Excavation and removal of debris 20 hrs. at $8 per hr.	160.00 M
	Cost of dirt and rock fill, 390 yards, @25¢ a yd.	97.50 M
	Hauling, loading, and leveling of fill $1.50 yd.	585.00 M
	Crushed rock for leveling under tank 15 yds. @ $2. -	30.00 M
(2)	30' round tank, 8' deep, with reinforced lid and supported by 4 posts inside, 6 sack cement mix	2,275.00
	1,000 feet lumber for forms for ramp and wall to lead to tank. - - - - - - - -	80.00 M
	52 man hours to build forms and pour cement @ $3.	156.00 V
(5)	23 yards cement mix for ramp & wall @ $17.25 less dis.	387.05
	1400 feet pipeline, 2" plastic, [illegible] from Pump	280.00 M
	30 feet 2" galvanized steel pipe under road @35¢.	10.50 M
	Labor to lay and connect pipe, @ $3. 20 hrs. - -	60.00 V
	1 HP pump to pump water from river - - - - - - -	100.00 M
	Ditcher rental - - - - - - - - - - - - - - -	20.00 M
	Electric pole purchased, 35' long. - - - - - - -	24.00 M
(6)	Meter base for pump and electricians' fees - - -	150.82
(3) mid	30 HP Mitchell Lewis Pump - - - - - - - - -	2,362.00
	Rainbird sprinkler and certain fittings to hook-up pump to pipeline. - - - - - - - -	40.00 M
	32 foot 4" aluminum pipe to connect, 50¢ ft. - - -	16.00 M
	Door to close opening in bottom of tank. - - -	5.00 M
(4)	Reinforcing steel & pipe in cement ramp and wall -	77.89
	60 feet of tile to connect milking parlor and milkhouse drains into tank. - - - - - - -	120.00 M
	18 feet 6" tile to run pipe under road - - - - -	18.00 M
	Roof to be completed over new cement - - - - -	400.00
	450 feet of eavestrough to regulate water flow to tank. 50¢ a foot with fittings. (to be completed)	225.00
	14 yds. of cement mix to cover drain tile and access from milking parlor to ramp, then to tank. $17.25 per yard. (to be completed)	241.50
	Labor to complete this project; 40 hrs. @ $3. per hr.	120.00
	Grate made of pipe for slot in tank.	16.00 M
	TOTAL	$10,357.46 V

To Do

45 GOVT REIMBURSED 1,000.00

$ 9,357.46

SUPPORTING INVOICES code

0-6 INCL $ 7,557.76

TO BE COMPLETED 986.70 To Do

MATERIALS 160.20 M

LABOR 216.00 L

TOTAL $ 1,035.746

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: Environmental Quality Commission Members

Date: July 15, 1971, for July 23, 1971, meeting

From: Water Quality Control Staff

Subject: Rhodia, Incorporated - Chipman Division
Tax Credit Application No. T-222
Filed April 21, 1971

1. Applicant

Rhodia, Incorporated
Chipman Division
600 Madison Avenue
New York, New York 10022

The applicant owns and operates a herbicide and pesticide manufacturing and formulation operation at 6200 N. W. St. Helens Road, Portland, Oregon, Multnomah County.

2. Description of Claimed Facility

The claimed facility generally consists of the following major components (including installation and instrumentation):

a. Necessary piping, pumping facilities and collection tank for handling of contaminated waste water.
b. Activated carbon adsorption system consisting of two fixed bed carbon adsorbers 8' ID x 35½' (set in series).
Each adsorber contains 18,000 lbs. of granular activated carbon.
c. Lime neutralization tanks and feeding facilities.
d. Carbon regeneration facilities which will re-activate the spent carbon from the system.

Claimed cost: $311,103. The facilities were completed and placed in operation on 11-25-69. Certification is claimed under the 1967 Act.

3. Staff Review

The claimed facility represents the highest and best practical treatment for control of chlorinated and unchlorinated phenols and cresols. Since the claimed system became operational, chlorinated phenolic and cresol levels have been less than 1.0 mg/l. The raw waste water feed contains 100.0 mg/l without treatment. Phenol and cresol levels have decreased from 10 mg/l to $<$1.0 mg/l. Also, there is a $>$ 90% reduction in chlorophenoxyacetic acids and alcohols (octyl).

Air pollution control facilities on the carbon regeneration furnace for reduction of HCL emissions have been approved by CWAPA. They will be installed and in operation before August 15, 1971. Testing of the facility will be accomplished after the HCL scrubbing facility is operational.

4. Recommendations

The staff recommends that the facilities claimed in Application T-222 be certified under the 1967 Act and that a Pollution Control Facility Certificate bearing an actual cost of $311,103.00 be issued to Rhodia, Incorporated - Chipman Division for said facilities.

ARTHUR ANDERSEN & CO.

NEWARK, NEW JERSEY

To Rhodia Inc., Chipman Division:

We have examined the accompanying Statement of Costs of Effluent Water Treatment System of Rhodia Inc., Chipman Division, at Portland, Oregon as of December 31, 1970. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying Statement of Costs of Effluent Water Treatment System, showing total costs of $311,103, presents fairly costs incurred to December 31, 1970, by Rhodia Inc., Chipman Division in the purchase and installation of such system at Portland, Oregon.

Arthur Andersen & Co.

Newark, New Jersey
February 16, 1971

EXHIBIT D

RHODIA INC., CHIPMAN DIVISION

PORTLAND, OREGON

STATEMENT OF COSTS OF

EFFLUENT WATER TREATMENT SYSTEM

AS OF DECEMBER 31, 1970

Purchased equipment, supplies and services	$293,298
Company labor, overhead and engineering	17,805
	$311,103