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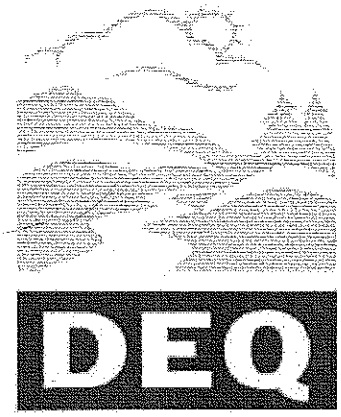
OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS



State of Oregon
Department of Environmental Quality

AGENDA

Environmental Quality Commission Meeting

December 21, 1972

Council Chambers, Second Floor

Civic Center

555 Liberty S.E., Salem, Oregon

2:00 p.m.

A. Kraft Mill Standards (Public Hearing relative to proposed repeal of OAR 25-155 - 25-195 and adoption of new regulations pertaining to atmospheric emissions from kraft pulp mills)

B. Minutes of November 30, 1972 EQC Meeting

C. Project Plans for November 1972

D. Municipal Sewerage Works Construction Grants Priorities

E. Georgia Pacific Pulp & Paper Mill, Toledo (Proposed Expansion)

F. Amalgamated Sugar Co., Nyssa (Program to install coal-fired boiler with baghouse control of particulate emissions)

G. CWAPA Variances (Confirming Approval by EQC)

1) No. 72-7 to Brazier Forest Products, Inc.
2) No. 72-8 to Mt. Hood Box Co.

H. Tax Credit Applications

7:30 p.m.

I. Boise Cascade Pulp & Paper Mill, Salem (Public information hearing concerning air and water quality control program)

MINUTES OF THE FORTY-FIRST MEETING
of the
Oregon Environmental Quality Commission
December 21, 1972

The forty-first regular meeting of the Oregon Environmental Quality Commission was called to order by the Chairman at 2:00 p.m., Thursday, December 21, 1972, in the City Council Chambers, Civic Center, 555 Liberty S.E., Salem, Oregon. All members were present including B.A. McPhillips, Chairman, Arnold M. Cogan, George A. McMath, Edward C. Harms, Jr., and Storrs S. Waterman.

Participating staff members were L.B. Day, Director; E.J. Weathersbee and K.H. Spies, Deputy Directors; Harold M. Patterson, Fred M. Bolton and Harold L. Sawyer, Division Directors; T.M. Phillips, Harold H. Burkitt, and Clinton A. Ayer, Air Quality Control Engineers; Paul H. Rath, Industrial Waste Engineer; R. Bruce Snyder, Meteorologist; B.J. Seymour, Information Director; and R.P. Underwood, Legal Counsel.

The following poem, written by Ted King, Springfield Waste Water Treatment Works Superintendent, was read by the Chairman:

Twas the night before Christmas at the wastewater plant
and all was serene round the filters and tanks.

The stockings were hung by the sludge pump with care,
in hopes that old Santa Claus soon would be there.

When the scratching and clawing of eight little hoofs was
suddenly heard on the digester roof.

And who should alight from a little red sleigh, but a
prominent official known as L.B. Day.

"I've got something for you!" he shouted with glee.

"It's your discharge permit for 1973. Your plant is tip top, with
nary a smell and the fish in the river are healthy and well.

So here's your permit, keep up the good work."

And back up the gas pipe he slid with a jerk,

And I heard him exclaim as he vanished from view,

"Merry Christmas to all, from the State D.E.Q."

PUBLIC HEARING RE: KRAFT MILL STANDARDS

Public notice having been given as required by statutes and administrative rules the public hearing relative to the proposed repeal of OAR Chapter 340, Sections 25-155 to 25-195, inclusive, and adoption of new regulations pertaining to atmospheric emissions from kraft pulp mills was opened by the Chairman with all Commission members being present.

Mr. Ayer presented the staff report dated December 13, 1972 pertaining to the proposed changes in the kraft mill rules. The director's recommendation was that public testimony be heard and that after giving the testimony due consideration appropriate action be taken. No questions were asked of Mr. Ayer.

Mr. James C. Knudson then appeared and made a statement in behalf of the Washington Department of Ecology. He read a letter dated December 21, 1972, and signed by Mr. James P. Behlke, Executive Assistant Director. It contained an objection to the proposed change in definition of the term "particulate matter" and claimed that such change actually relaxes the particulate emission standards for the recovery furnace, lime kiln and smelt tank which were established jointly by the 1969 Washington-Oregon regulation.

Mr. Knudson also made several comments of his own and in addition submitted a copy of a technical paper entitled "Recovery Furnaces Operating Parameter Effects on SO_2 Emissions" written by C.J. Lang and G.G. DeHaas of Weyerhaeuser Company and J.V. Gommi and W. Nelson of Combustion Engineering, Inc. (September 1972).

He requested that the present definition for "particulate matter" be retained.

Mr. Waterman said that before taking any action in this matter he would like the opportunity to study Mr. Knudson's remarks and the technical paper which he had submitted.

Mr. Harms asked that the DEQ staff respond to the statements made by the state of Washington.

Mr. Ayer then commented on Mr. Knudson's remarks. He said there are no particular objections to having separate standards for SO_2, SO_3 and H_2SO_4. He explained the operation of the impinger train sampling device and the difference in results between drying at temperatures of 105°C and 650°C. He said he thinks the numbers recorded should relate to what comes out of the stack. He also

pointed out that item I of the proposed rules provides incentive for the mill operators to make special studies regarding sulfur trioxide (SO_3) and acid mist ($H_2 SO_4$) in recovery furnace stack gases.

Mr. John Kowalczyk of Columbia-Willamette Air Pollution Authority was the next person to testify. His comments were similar to those made by Mr. Knudson. He opposed the change in definition of "particulate matter."

Mr. Oliver P. Morgan, Executive Secretary of the Pacific Northwest Pulp and Paper Association, read a prepared statement dated December 21, 1972 for that organization. He said the proposed regulations, which he claimed were an example of a "moving target" situation, would involve expenditures to the Oregon kraft mill industry in excess of $65 million and that the Oregon mills have diligently pursued programs of compliance in the past and will continue to do so in the future.

Mr. Michael Roach of Mid-Willamette Air Pollution Authority read a prepared statement in which he also objected to the change in definition of the term "particulate matter."

Mr. Matt Gould of Georgia Pacific asked that Mr. Andy Carron, Regional Engineer for the National Council of the Pulp and Paper Mill Industry make a brief statement.

Mr. Andy Carron then appeared and commented that the proposed SO_2 standard is more stringent than for any other industry. He claimed that the particulate matter standard in the original regulation was to be based on the thimble test rather than the filter and impinger train sampler. He pointed out that the EPA standards for the power industries are based on use of the front half only of the impinger train. He said there is a catalytic reaction in the back half of the train. Studies are reportedly being made by the National Council and also by EPA through the Batelle Institute.

There being no further testimony in this matter at this time it was MOVED by Mr. Waterman, seconded by Mr. Cogan and carried that the record be kept open for another 10 days for receipt of further written testimony, if any, and that the question be considered for action at the next meeting of the Commission which is scheduled for January 26, 1973.

The hearing was adjourned by the Chairman at 3:10 p.m.

MINUTES OF NOVEMBER 30, 1972 COMMISSION MEETING

It was MOVED by Mr. McMath, seconded by Mr. Harms and carried that the minutes of the fortieth meeting of the Commission held in Portland on November 30, 1972 be approved as prepared.

PROJECT PLANS FOR NOVEMBER 1972

It was MOVED by Mr. Harms, seconded by Mr. Waterman and carried that except for the Georgia-Pacific Pulp Mill expansion and the Amalgamated Sugar Company projects which are to be acted on separately, the actions taken by the Department during the month of November 1972 as reported by Mr. Weathersbee regarding 41 domestic sewerage, 21 industrial waste, 17 air quality and 6 solid waste disposal projects be approved:

Water Quality Control

Date	Location	Project	Action
Municipal Projects (41)			
11-1-72	Salem (Willow Lake)	McGilchrist Street sewer	Prov. app.
11-7-72	Somerset West	Rock Creek 185, Phases 3 and 4, sewers	Prov. app.
11-7-72	Gardiner	Bolen Island plant pump sta.	Prov. app.
11-7-72	McMinnville	Nelson Addition sewers	Prov. app.
11-7-72	Gresham	Stanwood Subdivision sewers	Prov. app.
11-7-72	Gresham	Conifer Park Subdivision pump station	Prov. app.
11-7-72	Myrtle Point	Change Orders 1 and 2, sewage treatment plant contract	Prov. app.
11-8-72	Hubbard	Hildebrand Estates Subdivision sewers	Prov. app.
11-8-72	Clackamas County	Buser Homes Subdivision sewers	Prov. app.
11-8-72	Dallas	Greenway Mobile Home Park, Second Addition, sewers	Prov. app.
11-8-72	Aumsville	Del Mar No. 2 Subdivision sewers	Prov. app.
11-8-72	Sandy	Change Orders Nos. 1, 2, and 3, interceptor Change Orders Nos. 1-5, sewage treatment plant	Approved
11-9-72	USA (Tigard)	Lesser Road annex sewers	Prov. app.
11-9-72	USA (Tigard)	Apartment sewers - 76th and Bonita Road	Prov. app.
11-10-72	Yamhill	Jo-Linn Subdivision sewers	Prov. app.
11-10-72	USA (Aloha)	Cooper Mountain trunk sewer	Prov. app.
11-10-72	Gresham	Mossytree Park Subdivision, Phase 2 sewers	Prov. app.

Water Quality Control - continued

Municipal Projects (41) continued

Date	Location	Project	Action
11-13-72	Josephine County	Four sanitary sewer projects, Harbeck-Fruitdale County Service District	Prov. app.
11-14-72	USA (Fanno Creek)	Parr Addition LID sewers	Prov. app.
11-15-72	USA (Aloha)	Co-Jo Subdivision sewers	Prov. app.
11-15-72	Gresham	S.E. Oak Street sewer ext.	Prov. app.
11-15-72	USA (Beaverton)	Brendan Estates sewers	Prov. app.
11-17-72	Vernonia	Addenda Nos. 1, 2, and 3 sewers	Approved
11-20-72	Vernonia	East Vernonia sewers	Prov. app.
11-21-72	Bay City	Change Order Nos. A-4 & B-2 sewerage contracts	Approved
11-21-72	Troutdale	Fraley Heights No. 3 Subdivision sewers	Prov. app.
11-21-72	Willamina	S.W. Pioneer Avenue sewer	Prov. app.
11-22-72	Bear Creek Valley San. Auth. (Talent)	Colver Road sewer extension	Prov. app.
11-22-72	Bend	Candy Addition Subdivision sewers and pump station	Prov. app.
11-22-72	Inverness	Unit 5-D, Inverness interceptor	Prov. app.
11-27-72	Jackson County	Comprehensive sewer and water plan	Approved
11-27-72	Josephine County	Comprehensive sewer and water plan	Approved
11-27-72	Gresham	S.E. 188 Avenue sewer	Prov. app.
11-27-72	Brookings	Change Order No. 1, sewer sealing project	Approved
11-28-72	Klamath County	Henley High School sewage treatment plant expansion, 0.032 MGD total capacity	Prov. app.
11-28-72	Salem (West)	Salemtowne trunk sewer	Prov. app.
11-29-72	USA (Aloha)	Cedar Mill Creek interceptor	Prov. app.

Industrial Projects (21)

Date	Location	Project	Action
11-1-72	Astoria	Richard Lee Dairy, animal waste facilities	Prov. app.
11-6-72	Coos Bay	Rolland Beattie Dairy, animal waste facilities	Prov. app.
11-7-72	Independence	Boise Cascade Corp., glue waste water recirculation and reuse facilities	Prov. app.
11-6-72	Myrtle Point	Raymond Cain Dairy, animal waste facilities	Prov. app.

Industrial Projects (21)

Date	Location	Project	Action
11-6-72	Dayton	Earle Day Dairy, animal waste facilities	Prov. app.
11-6-72	Dayton	Philip Eichler Dairy animal waste facilities	Prov. app.
11-6-72	Sheridan	Robert Galinat Dairy, animal waste facilities	Prov. app.
11-6-72	McMinnville	Daryl Laune Dairy, animal waste facilities	Prov. app.
11-6-72	Gaston	Marvin Nagely Dairy, animal waste facilities	Prov. app.
11-7-72	Portland	Portland Rendering Co., collection and treatment system	Prov. app.
11-14-72	Portland	Willamette-Western Corp., waste water treatment facilities	Prov. app.
11-15-72	Portland	Armour and Company, collection and treatment system	Prov. app.
11-16-72	Cascade Locks	Cascade Locks Lumber Co., collection and treatment facilities	Prov. app.
11-16-72	Boring	Earl Meier Dairy, animal waste facilities	Prov. app.
11-16-72	Cornelius	John Terhorst Dairy, animal waste facilities	Prov. app.
11-17-72	Alicel	Howard Elmer Dairy, animal waste facilities	Prov. app.
11-17-72	Elgin	Ed Thompson Dairy, animal waste facilities	Prov. app.
11-20-72	Ontario	Ore-Ida Foods, Inc., secondary wastewater treatment facilities	Prov. app.
11-28-72	St. Helens	Boise Cascade Corp., concept proposal for wastewater control through period of production expansion	Prov. app.
11-29-72	Hermiston	Lamb Weston, Inc., processing wastewater control & disposal	Final approval withheld pending further details
11-30-72	Banks	Herman Vandehey Dairy, animal waste facilities	Prov. app.

Air Quality Control

Date	Location	Project	Action
11-2-72	Tillamook	Publishers Paper Company Plans and specifications for installation of hog fuel fired boiler and phase-out of WWB	Approved
11-2-72	Multnomah	Randall Cosntruction Company Apartment complex 84-space parking facility	Approved
11-2-72	Multnomah	Mensahe Apartments 173-space parking facility	Approved
11-2-72	Lane	Valley West Shopping Center 125-space parking facility	Approved
11-2-72	Lane	Eugene Masonic Lodge #11 75-space parking facility	Approved
11-8-72	Lincoln	Georgia Pacific Corporation Proposal to expand present facilities for installation of semi chemical pulping system	Action deferred until further information can be supplied
11-11-72	Multnomah	Portland General Electric Co. Plans to install new power turbines	Requested additional information
11-11-72	Marion	Portland General Electric Co. Plans to install new power turbines	Requested additional information
11-13-72	Josephine	Agnew Plywood/Four Ply, Inc. Plans and specifications for installation of wood waste fired Dietrick Cell furnace to heat veneer drier and incinerate veneer drier fumes	Approved
11-13-72	Multnomah	Culver Construction Company Apartment complex - 130-space parking facility	Approved
11-13-72	Multnomah	Victoria Station Restaurant 66-space parking facility	Approved
11-13-72	Lane	Southridge Planned Unit Development - 150-space parking facility	Approved
11-13-72	Lane	Eugene Parks & Recreation Department - 90-space parking facility	Approved
11-13-72	Coos	Menasha Corporation Proposal to install spent liquor incinerator	Request additional information
11-14-72	Coos	Georgia Pacific Corporation Plans and specifications for modification to hog fuel boilers by addition of additional cinder collectors and reinjection system	Approved

Air Quality Control - continued

Date	Location	Project	Action
11-16-72	Josephine	Tim-Ply Company Plans and specifications for installation of cinder collector, cinder reinjection system and automatic combustion controls on hog fuel boilers	Approved
11-27-72	Malheur	Amalgamated Sugar Company Plans and specifications for installation of new coal-fired, 200,000 lb/hr steam boiler with baghouse control, and the installation of a baghouse to bring an existing coal-fired 100,000 lb/hr. steam boiler into compliance	Approved

Solid Waste Division

Date	Location	Project	Action
11-7-72		EPA Sanitary Landfill Guidelines	Comments
11-7-72	Coos Co.	Bohemia Lumber Co. Landfill	Prov. app.
11-9-72	Clackamas Co.	LaVelle Construction Co. Sanitary Landfill	Prov. app.
11-10-72		EPA-Proposed Incinerator Guidelines	Reviewed
11-10-72	Clackamas Co.	Don Obrist Inc. Landfill	Prov. app.
11-20-72	Washington Co.	Grabhorn Inc. Demolition Landfill	Prov. app.
11-22-72	Deschutes Co.	Deschutes Co. Demolition Landfill	Prov. app.
11-27-72	Jackson Co.	Prospect Sanitary Landfill	Prov. app.

MUNICIPAL SEWERAGE WORKS CONSTRUCTION GRANTS PRIORITIES

Mr. Sawyer presented the December 14, 1972 staff report and the director's recommendations regarding proposed revisions of the priority point system for classifying applications for construction grants and also regarding a proposed FY 73-74 priority listing.

Following comments by Mr. Day and a brief discussion by the Commission members it was MOVED by Mr. McMath, seconded by Mr. Waterman and carried that as recommended by the Director the proposed revised system for priority classification for Sewerage Works Construction Grants be adopted to replace the May 23, 1969 priority system and further that the proposed combined priority listing for fiscal years 1973 and 1974 be adopted as the state's official Sewerage Works Construction Grants Priority list.

Copies of the revised priority classification system and the 1973-1974 Priority List as adopted and approved are attached to and made a part of these minutes.

Mr. Sawyer also presented a memorandum report dated December 14, 1972 regarding the sewerage works construction program for fiscal years 1973-1974. He said it is recommended by the Director that the Commission adopt a program of providing 45% federal and 30% state grants for all projects subject to the condition that at such time as the remaining authorized federal funds are released EPA will provide for repayment to the state for the state grant funds advanced.

It was MOVED by Mr. McMath, seconded by Mr. Waterman and carried that the Director's recommendation in this matter be approved with the understanding that whatever action is appropriate be taken to pursue this issue with the Federal Government.

GEORGIA PACIFIC PULP AND PAPER MILL PROPOSAL

Mr. Rath presented the staff report dated December 13, 1972 regarding the proposal submitted by Georgia Pacific Corporation for expanding the production of pulp and paper at its kraft mill at Toledo by including approximately 170 T/day of semi-chemical pulping capability. He said the company's proposals for compliance with the proposed amended kraft mill air emission regulations, with the conditions of the mill's present waste discharge permit, and with EPA effluent guidelines are acceptable.

He said it is the recommendation of the Director that the production expansion plan and air and water quality improvement programs submitted by Georgia Pacific Corporation, under dates of November 1 and December 4, 1972, be approved for final design and construction subject to the following conditions:

1. That such construction shall be carried out in accordance with detailed plans and specifications submitted to and approved by this Department.
2. That Georgia Pacific proceed to carry out its air and water quality control programs in accordance with the itemized plan and schedule as submitted.

3. That if and when it appears likely that their proposed program will fall short of achieving compliance with State and Federal Air and Water Quality Control requirements, Georgia Pacific will, subject to DEQ approval, immediately make such adjustments in its programs as is necessary to fully comply.

Mr. Howard M. McDowell, Technical Director, was present to represent the company. He said they would hope to have the expansion completed by the end of 1973.

It was MOVED by Mr. Harms, seconded by Mr. McMath and Mr. Waterman and carried that the Director's recommendations in this matter be adopted.

Mr. Harms and Mr. Day both commended the company highly for the recent actions taken by it to prevent air and water pollution at the mill and also to protect the environment through improved timber harvesting practices.

AMALGAMATED SUGAR COMPANY, NYSSA

Mr. Phillips presented the staff's reports dated December 8, 1972 and December 20, 1972 regarding the proposal of the Amalgamated Sugar Company to install at its Nyssa plant a 200,000 lb steam/hour Foster-Wheeler coal-fired boiler with appropriate air emission controls. He said it is the recommendation of the Director that this project be approved subject to the following conditions:

1. That the Company immediately make application for an Air Contaminant Discharge Permit as provided for by the rules adopted by the EQC on July 28, 1972, for the Nyssa facility.
2. The new Foster-Wheeler boiler rated at 200,000 lb/hr steam production include the following:
   a. Baghouse control with the design to conform to the requirements of Specification No. D6, dated August 3, 1972, for Project C-10953, as a minimum.
   b. Emission Monitoring Equipment which is installed, calibrated on a routine basis, maintained, and operated as per manufacturer's instructions described as:
      1.) A photoelectric or other type of smoke detector and recorder.
      2.) An instrument for continuously monitoring and recording sulfur dioxide emissions.
      3.) An instrument for continuously monitoring and recording emissions of nitrogen oxides.

3. a. The existing Riley boiler rated at 100,000 lbs/hr steam production shall be controlled by a baghouse with particulate emission control equivalent to that specified on the Foster Wheeler boiler by no later than July 1, 1974.
   b. During the operating period prior to the baghouse control system being installed on the Riley boiler, the company shall utilize natural gas as a fuel to the boiler to the maximum degree attainable with available equipment.
   c. The compliance schedule shall be included in the air contaminant discharge permit and shall include increments of progress toward the achievement of compliance with the Riley boiler. This shall include the company notifying the Department in writing of the scheduled dates of order of the baghouse collector, of delivery of the baghouse collector, start of construction and final testing of the boiler.
4. That all records, sampling and analysis requirements as specified by the Federal Register, Vol. 36, No. 247, dated Thursday, December 23, 1971, be maintained and submitted for Department review when so requested.
5. That in no case will any fuels be utilized in any of the boilers at the Nyssa facility which exceed the limitations of OAR, 340, Sections 22-010, 22-015 and 22-020.
6. That all fuel burning equipment at the Nyssa facility conform to the emission limitations under OAR, 340, 21-015, 21-020 and 22-055.
7. That, upon completion of the project, the Company demonstrate to the Department that both the new Foster-Wheeler boiler and the existing Riley boiler are capable of continuous compliance with OAR 340, Sections 21-015 and 21-020 by isokinetically sampling the boiler stack emissions as prescribed in OAR 340, Section 20-040 and in accordance with approved Department procedures. All test data must be submitted to the Department for review and approval on or before March 1, 1974.

He said it was further recommended by the Director that all items of the modification program be included as part of the Company's air contaminant discharge permit.

It was MOVED by Mr. McMath, seconded by Mr. Waterman and carried that the Director's recommendations in this matter be approved and adopted.

CWAPA VARIANCES

1. Variance No. 72-7 granted to Brazier Forest Products, Inc.
   Mr. Snyder presented the Department's evaluation of the variance granted by CWAPA to the Brazier Forest Products, Inc. for construction and operation of a modified wigwam wood waste burner.
   It was MOVED by Mr. Harms, seconded by Mr. Waterman and carried that as recommended by the Director the CWAPA variance No. 72-7 to Brazier Forest Products, Inc. mill near Molalla be approved.
2. Variance No. 72-8 granted to Mt. Hood Box Co.
   Mr. Snyder also presented the Department's evaluation of this variance.
   It was MOVED by Mr. Harms, seconded by Mr. Cogan and carried that as recommended by the Director the CWAPA variance No. 72-8 to the Mt. Hood Box Company mill near Sandy for construction and operation of a modified wigwam wood waste burner be approved.

TAX CREDIT APPLICATIONS

Mr. Sawyer presented the Department's evaluation and recommendations regarding the four tax credit applications covered by the following motion:

It was MOVED by Mr. Cogan, seconded by Mr. Waterman and carried that Pollution Control Facility Tax Credit Certificates be issued to the following applicants for facilities claimed in the respective tax credit applications for the costs indicated and with the percentages allocated to pollution control as follows:

Appl. No.	Applicant	Cost	% Allocable to Poll. Control
T-242	Spalding & Son, Inc., Grants Pass	$41,446.33	80% or more
T-315	Weyerhaeuser Co., Cottage Grove	5,964.00	80% or more
T-316	Weyerhaeuser Co., Cottage Grove	13,037.00	80% or more
T-380	Peerless Pattern Works, Portland	12,732.00	80% or more

RESIGNATION OF DIRECTOR

It was MOVED by Mr. Harms, seconded by Mr. Cogan and carried that upon the effective date of Mr. Day's resignation as Director he be authorized to appoint Mr. Jack Weathersbee as Acting Director.

It was MOVED by Mr. Harms, seconded by Mr. McMath and carried that it be resolved by the Commission that Mr. L.B. Day be highly commended for the outstanding service which he has rendered to the state of Oregon as Director of the Department since September 1971.

The meeting was recessed at 4:15 p.m. and reconvened at 7:30 p.m. in the same location.

BOISE CASCADE PULP AND PAPER MILL, SALEM

In the absence of the Chairman Mr. Day reconvened the meeting at 7:30 p.m. for the purpose of holding a public information hearing concerning the air and water quality control programs for the Boise Cascade Pulp & Paper Mill at Salem.

Mr. Sawyer read the 9-page staff report dated December 12, 1972 regarding the past actions and present status of air and water quality control at the Salem mill.

Following presentation of the staff report, Mr. Ray P. Underwood recited the legal actions taken by the Department in this matter. He referred to negotiations, civil penalties and complaint for injunctive relief and stated that no less than 8 highly technical affidavits had been prepared. He pointed out that the company's attorneys had argued that all administrative procedures should be followed before resorting to legal action and he expressed the opinion that this is a problem which needs the attention of the 1973 Legislature.

Mr. Rath then showed colored slides depicting the flow of liquid wastes from the plant and through the waste treatment and disposal works and discussed the waste disposal problems experienced this past summer and what had been done to overcome them.

Mr. Ayer presented a detailed discussion of the atmospheric emission problems and the control programs being followed. He also showed colored slides to help explain the problems encountered beginning in April of this year when the new chemical recovery system was first placed into operation.

Copies of the staff reports on both the liquid waste discharges and the atmospheric emissions from the mill have been made a part of the Department's permanent files in this matter.

At the conclusion of Mr. Ayer's presentation, Mr. Day asked if anyone in the audience wished to make a statement.

A Mr. Griffith, resident of Salem, testified that his wife is allergic or extremely sensitive to the atmospheric emissions from the mill and as a consequence suffers eye hemorrhaging and severe headaches.

Dr. Vernon J. Golay, who lives at 1065 Teviot Place, N.W., Salem complained about excessive noise from the mill and claimed that in spite of the distance involved it causes a serious nuisance at his residence. He insisted that something should be done to alleviate this nuisance.

There was no one else present who wished to be heard in this matter. Mr. Day then summarized the information presented by the staff and adjourned the hearing at 8:50 p.m.

The Commission members who were present for this hearing were Arnold Cogan, George McMath and Storrs S. Waterman. Company officials were present but made no statements.

(Proposed)

SEWERAGE WORKS CONSTRUCTION GRANTS

PRIORITY CLASSIFICATIONS

Priority Class	Existing Condition and Proposed Action
90	No sewerage facilities exist or existing facilities provide less than secondary treatment. Inadequate sewage collection, treatment and disposal facilities causes a direct hazard to public health and/or results in inadequately treated wastes being discharged to public waters. Proposed action will provide for adequate collection, treatment and disposal of wastes such that health hazards are eliminated and such that a minimum of secondary treatment is provided and such that water quality and waste treatment standards are met.
80	Existing facilities provide secondary treatment. Improvements are needed to correct deficiencies, correct a presently overloaded condition, eliminate a small interim treatment facility, or upgrade the facilities to meet water quality standards or new or more stringent waste treatment requirements or standards. Proposed facilities will bring individual public agency into compliance with standards and department water quality control program requirements.
70	No community sewerage facilities exist at present in the area. A potential public health hazard exists due to failure of some subsurface disposal facilities and the potential failure of other such systems. Proposed action will provide adequate facilities for collection, treatment and disposal of wastes.
60	Existing facilities generally provide secondary treatment. Improvement, expansion, or construction of new facilities is proposed to provide for projected future growth. Proposed facilities will insure that treatment and discharge standards will be met in the future.

Priority for other potentially eligible facilities such as storm water separation, infiltration control, collection systems, and other categories will be established at a later date as necessary.

NOTES

a) If ranking within a major category should become necessary, such ranking will be done by the EQC based on readiness to proceed and financial need.

b) No grant will be given to any project which is not in agreement with adopted and approved area-wide or regional plans.

POINTS	NAME	PRESENT CONDITION	NEEDED PROJECT DESCRIPTION	ESTIMATED PROJECT COST
90	Arch Cape Co. S.D.	Health hazard	STP, interceptor	$ 832,000
90	Arlington	Primary treatment	Secondary Treatment	125,000
90	Bunker Hill S.D.	Primary treatment	Interceptor-connect to Coos Bay	141,500
90	Coos Bay	Primary treatment	Secondary treatment	1,504,000
90	Depoe Bay	No system, untreated discharges	STP, Interceptor	700,000
90	Eastside	Primary treatment	Interceptor-connect to Coos Bay	126,000
90	Florence	Direct health hazard	Interceptor	350,000
90	Fruitdale-Harbeck Co. S.D., Grants Pass	Health hazard	Interceptor	85,000
90	Glide-Ideyld Area	Health hazard, inadequately treated discharges	STP, interceptor	680,000
90	Gold Beach	Inadequate secondary plant and discharge cause health hazard	STP improvement expansion	157,000
90	Hammond	Health hazard, raw discharge	Interceptor to Warrenton	224,570
90	Harbor S.D.	Some inadequately treated discharges	Interceptor	500,000
90	John Day and Canyon City (2 appl.)	Inadequately treated discharges need interceptor and joint treatment facility	STP relocation, interceptors	1,544,000
90	Madras	Directed to eliminate present inadequate treatment and disposal	STP, Interceptor	190,000
90	Mapleton	Raw sewage discharges	STP, interceptor	220,800
90	Modoc Point S.D.	Health hazard, inadequately treated discharges	STP	225,000

'OINTS	NAME	PRESENT CONDITION	NEEDED PROJECT DESCRIPTION	ESTIMATED PROJECT COST
90	Mt. Vernon	No system, inadequately treated discharges	STP, interceptor	95,500
90	Pendleton	Health hazard	Interceptor	421,400
90	Portland	Section of interceptor too small - causes overflow to river	S.E. relieving interceptor	200,000
90	Portland	Part of secondary treatment project	Secondary plant outfall	1,088,000
90	Portland	Part of secondary treatment project	Incineration	2,500,000
90	Portland	Part of secondary treatment project	Grit removal and related facilities	345,000
90	Redmond	Inadequate disposal	STP	2,000,000
90	Redwood S.D.	Health hazards, eliminate interim plants	STP, interceptor	784,000
90	Rogue River	Health hazard	STP, interceptor	214,000
90	Rufus	Health hazard	STP, interceptor	400,000
90	Seneca	Raw sewage discharge	STP, interceptor	150,000
90	Sundown S.D.	Inadequate treatment	STP	30,000
90	Wasco	Inadequately treated discharge	STP	140,000
90	Wauna-Westport	Inadequately treated discharges	STP, interceptor	850,000
90	Winchester Bay S.D.	Inadequate treatment, health hazard	STP, interceptor	460,000
90	Yachats	Health hazard, inadequately treated discharges	STP, interceptor	203,600
	SUBTOTAL			$ 17,486,370

POINTS	NAME	PRESENT CONDITION	NEEDED PROJECT DESCRIPTION	ESTIMATED PROJECT COST
30	Ashland	Presently overloaded revised requirements	STP modification	900,000
30	Bend	Need grit facilities	STP modification	70,000
30	Bend	Overloaded pump station	Enlarge pump station	50,000
30	Chiloquin	Deficiencies in present plant need correction	STP improvement and expansion	250,000
30	Clatskanie	Deficiencies in existing secondary plant	STP improvements	120,000
80	Corvallis	Eliminate interim plant	Interceptor	80,000
80	Corvallis	Poor discharge point for interim system	Interceptor to eliminate airport lagoon	500,000
80	Corvallis	Primary portion of plant overloaded	STP improvements	2,548,000
80	Glendale	Deficiencies need correction	STP improvements, expansion, airport	70,000
80	Gold Hill	Deficiencies in present plant	STP improvements	86,000
80	Hillsboro	More stringent standards must be met	Upgrade and expand plant (Rock Creek)	1,190,000
80	Hillsboro Jr. High School	Eliminate interim treatment plant	Interceptor, to USA system	120,000
80	Lafayette	Overloaded at present	Lagoon expansion	80,000
80	Maupin	Deficiencies need correction	STP improvement and expansion	200,000
80	Multnomah County	Eliminate existing treatment plant due to revised waste disposal requirements	Interceptor (Inverness PIA)	2,000,000
80	Orient School	Eliminate interim plant	Interceptor to eliminate plant	80,000

)INTS	NAME	PRESENT CONDITION	NEEDED PROJECT DESCRIPTION	ESTIMATED PROJECT COST
80	Portland	Eliminate 3 existing plants - revised requirements	Gertz-Schmeer interceptor	1,563,200
80	Portland	Eliminate existing treatment plants due to revised requirements	Columbia Way Court interceptor	20,000
80	Riddle	Standard changed	STP upgrading and expansion	157,500
80	Rockaway	Deficiencies in present plant	STP improvements	160,000
80	Salem	Overloaded plant	STP (Willow Lake)	7,500,000
80	Salemtowne	Eliminate interim plant	Interceptor to Salem	380,000
80	Sutherlin	Changed standards	STP improvements	1,000,000
80	Sweet Home	Changed Standards	STP expansion	500,000
80	The Dalles	Present IW discharges cause operational problems in plant	Industrial STP	322,027
80	Tillamook Bay, Port of	Eliminate interim plant	Interceptor (to Tillamook)	600,000
80	USA (Cedar Mill)	Eliminate Sunset Valley STP	Interceptor	568,000
80	USA (Cornelius)	Revised Standards	Intertie to Forest Grove	328,000
80	USA (Fanno Cr.)	Eliminate 2 interim plants	Interceptor to plant No. 1	2,122,000
80	USA (Forest Grove)	Revised Standards	Plant upgrading and expansion	1,687,000
80	USA (Plant No. 1)	Revised standards and master plan require plant	STP	14,046,375
80	Winston	Changed standards, at capacity, needs improvements any way	STP improvements and expansion	120,000
80	Wood Village	Requirements changed	Interceptor	242,300
	SUBTOTAL			$ 58,660,402

POINTS	NAME	PRESENT CONDITION	NEEDED PROJECT DESCRIPTION	ESTIMATED PROJECT COST
70	Albany	Potential health hazard	Interceptor	2,000,000
70	Barlow	Potential health hazard	Interceptor (to Canby)	100,000
70	Bear Creek Valley S.A.	Potential health hazard area	West trunk interceptor	2,150,600
70	Bly S.D.	No system - potential health hazard	STP, interceptor	150,000
70	Clackamas County S.D.	Potential health hazards	Interceptors	5,000,000
70	Columbia City	Potential health hazard	Pump station, interceptor (to St. Helens)	158,920
70	Culver	Potential health hazard	STP, interceptor	300,000
70	Detroit	Potential health hazard	STP, interceptor	200,000
70	Dillard	Potential health hazard	Interceptor (to Winston)	150,000
70	Falls City	Potential health hazard	STP, interceptor	230,000
70	Gresham	Potential health hazards	Interceptor (Ruby Junction)	1,400,000
70	Island City	Potential health hazard	Interceptor (to La Grande)	275,000
70	Juntura	Potential health hazard	STP, interceptor	40,000
70	La Grande	Potential health hazard	Interceptor	238,600
70	Long Creek	Potential health hazard	STP, interceptor	120,000
70	McMinnville	Potential health hazard	Interceptor, pump station	235,000
70	Medford	Potential health hazard	N.E. Medford interceptor	568,000
70	Merlin-Colonial Valley	Potential health hazard and projection for future development	STP, interceptor	1,000,000

POINTS	NAME	PRESENT CONDITION	NEEDED PROJECT DESCRIPTION	ESTIMATED PROJECT COST
70	Milwaukie	Potential health hazard	East interceptor	620,000
70	Mosier	Potential health hazard	STP	53,200
70	Murphy	Potential health hazard	STP, interceptor	240,000
70	Netarts-Oceanside S.D.	Potential health hazard	STP, interceptor, pump station	440,800
70	Newport	Potential health hazard	Interceptor, pump station	145,900
70	Pacific City - Woods	Potential health hazard	STP, interceptor	225,000
70	Prineville	Potential health hazard	Interceptor	150,000
70	Scotts Mills	Potential health hazard	STP, interceptor	50,000
70	Shady Cove	Potential health hazard	STP, interceptor	400,000
70	Sublimity	Potential health hazard	Interceptor, pump station	430,000
70	Toledo	Potential health hazard	Interceptor	73,000
70	Turner	Potential health hazard	STP, interceptor	525,000
70	West Linn	Potential health hazard	Interceptor (lower Tualatin)	430,000
	SUBTOTAL			$ 18,099,020

POINTS	NAME	PRESENT CONDITION	NEEDED PROJECT DESCRIPTION	ESTIMATED PROJECT COST
60	Aumsville		Lagoon expansion	60,000
60	Baker		Lagoon expansion (aerators)	140,000
60	Cave Junction-Kerby		STP expansion	70,000
60	Dayton		STP expansion	256,000
60	Dufur		STP expansion	60,000
60	Dundee		Interceptor	160,000
60	Eagle Point	Approaching design capacity	STP expansion	80,000
60	Elgin		Lagoon expansion	65,000
60	Eugene		Interceptors, east side	4,452,000
60	Gervais		Lagoon expansion	60,000
60	Jacksonville	Presently loaded about to capacity	STP expansion	70,000
60	Monmouth	Nearing design capacity	Lagoon expansion	80,000
60	Portland, Port of		Interceptor	2,000,000
60	Portland	Approaching design capacity	Tyron STP	3,197,400
60	USA (Cooper Mt.)	Provides for new development	Interceptor	538,000
60	White City S.D.		STP modification	220,800
60	Yamhill		STP expansion	50,000
	SUBTOTAL			$ 11,559,200

B. J. Seymour
229-5696

Department of Environmental Quality
1234 S. W. Morrison Street
Portland, Oregon 97205

For Immediate Release - Thursday, December 14, 1972

Starting time of 2 p.m. was announced today for the December 21 Environmental Quality Commission meeting in Salem. Earlier announcements listed a morning starting hour.

Heading the agenda at the 2 o'clock hour is a public hearing on proposed changes in regulations on kraft pulp mills. The regulations will deal with emission of air pollutants.

A 7:30 p.m. hearing is scheduled on air and water quality controls at the Boise Cascade mill in Salem. The public is invited to present facts and comments.

Both afternoon and evening sessions will be in the second floor council chambers of the Salem Civic Center, 555 Liberty Street, S.E., Salem.

# # #

DEPARTMENT OF ENVIRONMENTAL QUALITY

TERMINAL SALES BLDG. • 1234 S.W. MORRISON ST. • PORTLAND, OREGON 97205

TOM McCALL
GOVERNOR

L. B. DAY
Director

ENVIRONMENTAL QUALITY COMMISSION
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MEMORANDUM

To: ENVIRONMENTAL QUALITY COMMISSION

From: Director

Subject: Agenda Item No. A, December 21, 1972, Public Hearing

Proposed Revised Kraft Mill Emission Regulation

Before discussing the regulation, it is necessary to note that there was a typographical error in the regulations distributed at the October 25 meeting. In Section D5, Compliance Schedules (on page 9), the deadline for submitting schedules should be May 1, 1973, rather than 1975. This date was established so that the Compliance Schedules could be incorporated in the mills' Air Contaminent Discharge Permits, to be issued by July 1, 1973. Oregon mills are aware of the intented date in the rule.

Background

At the October 25, 1972 meeting of the Environmental Quality Commission, authorization was granted for holding a public hearing for adopting the proposed Amended Kraft Mill Emission Regulations which are the subject of this hearing.

TELEPHONE: (503) 229-5696

The Kraft Mill Emission Regulation, adopted by the Sanitary Authority in April, 1969, set total reduced sulfur (TRS) emission limits from recovery furances at an immediate level of 70 parts per million (ppm), or 2 pounds of sulfur per ton of pulp (lb S/t), with a 1975 limit of 17.5 ppm or 0.5 lb S/t, or "such other limit of TRS that proves to be reasonably attainable utilizing the latest in design of recovery furnace equipment, controls, and procedures." A review and public hearing was provided for no later than July, 1973, to review technology and adequacy of the recovery furnace emission limits.

A second important provision of the 1969 regulation required mill operators to conduct special studies of other emission sources throughout the mill with the objective of establishing a basis for specifying more effective control of all kraft mill odor sources.

Discussion:

It has become desirable to set definite 1975 limits well in advance of the July, 1973 date in order to allow for the two years' construction time required for major installations where necessary. Also, the technology of controls for both conventional and new generation furnaces has progressed to the point of allowing limits to be set with reasonable certainty, and the importance of "other sources", heretofore considered minor, has become more apparent. The proposed Amended Kraft Mill Regulation expresses these developments and also redirects the emphasis of the regulation towards total odor control at the mill site.

The timing and limits in the new proposed regulation are:

	Recovery Furnaces (1)	Lime Kilns	All Other Sources
Jan. 1, 1975			Lowest practicable levels in accordance with program, specific to each mill.
July 1, 1975	10 ppm and 0.3 lb S/t (2)(3)	40 ppm and 0.2 lb S/t	
July 1, 1978	5 ppm and 0.15 lb S/t (3)	20 ppm and 0.1 lb S/t	
July 1, 1983	5 ppm and 0.15 lb S/t (4)		

Note:

(1) New recovery furnaces are required to comply with the 5 ppm TRS limit immediately (after an appropriate, short-term run-in period).

(2) "lb S/t" is "pounds of sulfur, in reduced sulfur gases, per ton of unbleached, air-dried pulp produced."

(3) Mill-site basis, allowing the averaging of all furnace stacks.

(4) Applied to each stack individually.

Note also, that the program for "All Other Sources" is in terms of a "tailor-made" program for each mill, instead of a numerical limit as was proposed in the regulations distributed in October.

Stepwise limits on lime kiln TRS are added with deadlines of July 1, 1975 and July 1, 1978. The first step represents emissions which confidently may be expected from applying present technology. The further limit will require considerable testing, evaluation, and correlation work.

The particulate limit deadline for recovery furnaces and kilns is moved up from July 1, 1975 to May 1, 1975, to conform to Oregon's State-wide Clean Air Act Implementation Plan. No change in proposed in the numerial limits, but the definition of particulate is modified to make the limit apply more closely to fly ash and saltcake emissions, which are controlled by electrostatic precipitators and which can be continually monitored, and to avoid erroneous results from interference from sulfur trioxide in the analytical techniques. There is a difficulty in determining whether SO_3 in the furnace gases actually forms a liquid particulate in the stack or in the particulate sampling apparatus, or whether SO_3 is formed in the particulate train from SO_2. SO_3 and H_2SO_4 are to be measured and reported by a provision in the Special Studies section. A determination is to be made in 1975 of the necessity to limit SO_3 emissions or establish a new definition of particulate.

Under the proposed revised regulation, the mills are allowed to retain conventional recovery furnaces provided they can operate within the 10 ppm TRS limit by not later than July 1, 1975, and within a 5 ppm TRS limit by not later than July 1, 1978. For the 1975 TRS limit, where there is more than one furnace stack (for example, a new generation and a conventional furnace on one plant site) averaging the stacks at 10 ppm would be allowed, provided that no furnace stack would exceed more than 15 ppm or 0.45 lb S/ton, and by 1978, averaging provided no furnace exceeds 10 ppm would be allowed for the 5 ppm limit. The 5 ppm TRS limit supplies immediately to all new furnaces and after 1983 to all existing furnaces as well as to new furnaces. Peaks from recovery furnace stacks are limited to four times the allowed

average for up to sixty cumulative minutes per day.

The proposed revised regulation represents, to a degree, a shift in emphasis from recovery furnaces to other odor sources, especially during the next few years. To require that all recovery capacity be converted to low-odor configurations by July 1, 1975 would not only require great expenditures of time and money, but would not in itself solve the kraft mill odor problem. The other sources account for as much as 0.5 lb S/ton, or equivalent to a recovery furnace at 20 ppm. It is believed that the time and money to control these sources would do more at this time to reduce the kraft odor problem than would the greater expenditure necessary to convert all existing recovery furnace capacity to low-odor configuration. Controlling these other sources will follow staff inspections and detailing specific programs with the individual mills.

If open sewers and drains, and anaerobic lagoons are shown to be significant sources of odors, their control will be required.

An emission limit is set on recovery furnace sulfur dioxide of 300 ppm to insure that SO_2 control will not be neglected when furnaces are designed and operated, as well as provide a basis for regulatory control should problems develop in the future.

New facilities, new mills or new equipment, will be required to be in compliance with applicable limits within 180 days of start-up.

Compliance schedules will be reviewed from the point of view of achieving compliance in the shortest time practicable within the limits imposed by availability of materials and by construction schedules,

rather than emphasizing the compliance deadlines.

"Housekeeping" provisions which are included in the proposed regulation require the installation of alternate thermal oxidation capacity to function whenever lime kilns used for incinerating non-condensibles are removed from service or fail, and also continual monitoring of particulate emissions is required as soon as practicable.

Another review is set prior to January 1976. This will give an opportunity to review the total odor problem and progress in solving it, and to review the need or desirability of limiting all furnaces to 5 ppm TRS by July 1, 1983, as proposed.

Director's Recommendation:

It is recommended that the public testimony be heard, and appropriate action be taken on this regulation after giving the testimony due consideration.

L. B. Day

CAA:sb - 12/13/72

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY CONTROL DIVISION

November 14, 1972

PROPOSED
REVISED REGULATION FOR KRAFT PULP MILLS
OAR Chapter 340, Sections 25-155 to 25-195 are Repealed and Sections A through K are adopted in lieu thereof.

A. DEFINITIONS:

As used in these regulations, unless otherwise required by context:

1. Continual Monitoring means sampling and analysis, in a continuous or timed sequence, using techniques which will adequately reflect actual emission levels or concentrations on a continuous basis.
2. Department means the Department of Environmental Quality.
3. Emission means a release into the atmosphere of air contaminants.
4. Kraft Mill or Mill means any industrial operation which uses for a cooking liquor an alkaline sulfide solution containing sodium hydroxide and sodium sulfide in its pulping process.
5. Lime Kiln means any production device in which calcium carbonate is thermally converted to calcium oxide.
6. Non-condensibles means gases and vapors, contaminated with TRS gases, from the digestion and multiple-effect evaporation processes of a mill that are not condensed with the equipment used in said processes.

7. Other Sources means sources of TRS emissions in a kraft mill other than recovery furnaces and lime kilns, including but not limited to:

   a. vents from knotters, brown stock washing systems, evaporators, blow tanks, smelt tanks, blow heat accumulators, black liquor storage tanks, black liquor oxidation system, tall oil recovery operations;

   b. any operation connected with the treatment of condensate liquids within the mill, and

   c. any vent which is shown to be a significant contributor of odorous gases.

8. Particulate Matter means all solid material in an emission stream which may be removed on a 0.3 micron glass filter maintained during sampling at stack temperature and above the water-vapor dewpoint of the stack gas, whichever is greater, but less than 600° F.

9. Parts Per Million (ppm) means parts of a contaminant per million parts of gas by volume on a dry-gas basis (1 ppm equals 0.0001% by volume).

10. Production means tons of air-dried, unbleached kraft pulp, or equivalent, produced.

11. Recovery furnace means the combustion device in which pulping chemicals are converted to a molten smelt and wood solids are incinerated. For these regulations, and where present, this term shall include the direct contact evaporator.

12. Total Reduced Sulfur (TRS) means the sulfur in hydrogen sulfide, mercaptans, dimethyl sulfide, dimethyl disulfide, and any other organic sulfides present in an oxidation state of minus two.

B. STATEMENT OF POLICY

Recent technological developments have enhanced the degree of malodorous emission control possible for the kraft pulping process. While recognizing that complete malodorous and particulate emission control is not presently possible, consistent with the meteorological and geographical conditions in Oregon, it is hereby declared to be the policy of the Department to:

1. Require, in accordance with a specific program and time table for all sources at each operating mill, the highest and best practicable treatment and control of atmospheric emissions from kraft mills through the utilization of technically feasible equipment, devices and procedures. Consideration will be given to the economic life of equipment, which when installed complied with the highest and best practicable treatment requirement.
2. Require degrees and methods of treatment for major and minor emission points that will minimize emissions of odorous gases and eliminate ambient odor nuisances.
3. Require effective monitoring and reporting of emissions and reporting of other data pertinent to air quality or 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 and ambient air standards, and to determine compliance therewith.

4. Encourage and assist the kraft pulping industry to conduct a research and technological development program designed to progressively reduce kraft mill emissions, in accordance with a definite program, including specified objectives and time schedules.

C. HIGHEST AND BEST PRACTICABLE TREATMENT AND CONTROL REQUIRED: Notwithstanding the specific emission limits set forth in Section D of these regulations, in order to maintain the lowest possible emission of air contaminants, the highest and best practicable treatment and control currently available shall in every case be provided, with consideration being given to the economic life of the existing equipment.

All installed process and control equipment shall be operated at full effectiveness and efficiency at all times, such that emissions of contaminants are kept at lowest practicable levels.

D. EMISSION LIMITATIONS:

1. Emission of Total Reduced Sulfur (TRS)

a. Recovery Furnaces

1) As soon as practicable, but not later than July 1, 1975, the emissions of TRS from recovery furnaces shall not exceed:

a) 10 ppm as a daily arithmetic average and 0.3 lb S/ton of production on a mill-site basis,

b) 40 ppm for more than 60 cumulative minutes in any one day from each recovery furnace stack,

c) 15 ppm as a daily arithmetic average and 0.45 lb S/ton of production from each recovery furnace stack.

2) As soon as practicable, but not later than July 1, 1978, the emission of TRS shall not exceed:

   a) 5 ppm as a daily arithmetic average and 0.15 lb S/ton of production on a mill-site basis,

   b) 40 ppm for more than 60 cumulative minutes in any one day from each recovery furnace stack,

   c) 10 ppm as a daily arithmetic average and 0.30 lb S/ton of production from each recovery furnace stack.

3) As soon as practicable, but not later than July 1, 1983, the emission of TRS from each recovery furnace shall not exceed:

   a) 5 ppm as a daily arithmetic average and 0.15 lb S/ton of production,

   b) 20 ppm for more than 60 cumulative minutes in any one day.

4) TRS emissions from each recovery furnace placed in operation after the effective date of these regulations shall be controlled immediately such that the emissions of TRS shall not exceed:

   a) 5 ppm as a daily arithmetic average and 0.15 lb S/ton of production,

   b) 20 ppm for more than 60 cumulative minutes in any one day.

b. Lime Kilns

Lime kilns shall be operated and controlled such that emissions of TRS shall be kept to lowest practicable levels and shall not

exceed:

1) By not later than July 1, 1975, 40 ppm and 0.2 lb S/ton of production, as determined by a monitoring procedure approved by the Department,

2) By not later than July 1, 1978, 20 ppm and 0.1 lb S/ton of production, as determined by a monitoring procedure approved by the Department.

c. Compliance Programs

Recovery furnaces and lime kilns in operation on or before the effective date of these regulations shall be brought into compliance with subsections D.1.a. and D.1.b. above in accordance with specific programs and schedules to be established with each individual mill and approved by the Department by not later than May 1, 1973, taking into consideration the following:

1) Age and condition of existing facilities,

2) Geographical location,

3) Overall control of emissions,

4) Severity of problems related to emissions from the facility, and

5) Ease of compliance.

d. Non-condensibles

1) Non-condensibles from digesters and multiple-effect evaporators shall be treated to destroy TRS gases by thermal incineration in a lime kiln or equivalent treatment.

2) On mill sites where a lime kiln or combination of lime kilns is used for incinerating non-condensibles, as soon as practicable, but not later than July 1, 1975, the means shall be provided to immediately and automatically treat the non-condensibles in an incineration device capable of subjecting the non-condensibles to a temperature of not less than 1200° F for not less than 0.3 seconds whenever the kiln or combination of kilns is out of service or otherwise incapable of incinerating non-condensibles.

3) When steam- or air-stripping of condensates or other contaminated streams is practiced, the stripped gases shall be subjected to treatment in the non-condensible system or otherwise given equivalent treatment.

e. Other Sources.

1) As soon as practicable, but not later than July 1, 1975, the emission of TRS from other sources, including but not limited to knotters and brown stock washer vents, brown stock washer filtrate tank vents, black liquor oxidation vents, and contaminated condensate stripping shall be limited, controlled or treated to lowest practicable levels in accordance with a specific program and time table submitted to and approved by the Department.

2) Miscellaneous Sources and Practices:

When it is determined that sewers, drains, and anaerobic lagoons significantly contribute to an odor problem, a program for control shall be required.

3) Compliance programs required by these subsections shall be established by not later than May 1, 1973 with each individual mill and incorporated in the Air Contaminant Discharge Permit issued for each mill.

2. Particulate Matter

a. Recovery Furnaces

As soon as practicable, but not later than May 1, 1975, the emissions of particulate matter from recovery furnaces shall not exceed four (4) pounds per ton of production on a mill-site basis and from each recovery furnace stack.

b. Lime Kilns

As soon as practicable, but not later than May 1, 1975, the emissions of particulate matter from lime kilns shall not exceed one (1) pound per ton of production on a mill-site basis and from each lime kiln stack.

c. Smelt Dissolving Tanks

The emission of particulate matter from smelt dissolving tanks shall not exceed one-half ($\frac{1}{2}$) pound per ton of production on a mill-site basis and from each smelt dissolving tank.

3. Sulfur Dioxide (SO_2)

As soon as practicable, but not later than July 1, 1975, emissions of sulfur dioxide from each recovery furnace stack shall not exceed a daily arithmetic average of 300 ppm on a dry-gas basis except during start-up and shut-down periods.

4. New Facility Compliance

As soon as practicable, but not later than within 180 days of the start-up of a new kraft mill or of any new or modified facility having emissions limited by these regulations, that facility shall be operated, controlled, or limited to comply with the applicable provisions of these regulations and the mill shall conduct source sampling or monitoring as appropriate to demonstrate compliance.

5. Compliance Schedules

As soon as practicable, but not later than May 1, 1973, each mill shall submit to the Department a proposed compliance program, including means and methods to the extent possible, and a schedule for complying with the emission limits of these regulations. The approved compliance program shall be incorporated in the Air Contaminant Discharge Permit issued to each mill.

E. MORE RESTRICTIVE EMISSION LIMITS:

The Department may establish more restrictive emission limits and compliance schedules after notice and hearing if applicable for different geographical areas of the state.

F. PLANS AND SPECIFICATIONS:

Prior to construction of new kraft mills, or expansion of production or modification of facilities significantly affecting emissions at existing kraft mills, complete and detailed engineering plans and specifications for air pollution control devices and facilities and such other data as may be required to evaluate projected emissions and potential effects on air

quality shall be submitted to and approved by the Department. All construction shall be in accordance with plans as approved in writing by the Department.

G. MONITORING

1. Total Reduced Sulfur (TRS)

Each mill shall provide continual monitoring of TRS in accordance with the following:

a. 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 TRS contaminants during a time interval not greater than 30 minutes.

b. The sources monitored shall include, but are not limited to, the recovery furnace stacks and the lime kiln stacks.

c. At least once per year, vents from other sources as required in D.1.e., Other Sources, shall be sampled to demonstrate representative emissions of TRS and the results reported to the Department.

2. Particulate Matter

Each mill shall sample the recovery furnace(s), lime kiln(s) and smelt dissolving tank(s) for particulate emissions on a regularly scheduled basis. As soon as practicable, each mill shall provide continual monitoring of particulate matter from the recovery furnace(s) and lime kiln(s).

3. Sulfur Dioxide (SO_2)

Representative sulfur dioxide emissions from the recovery furnace(s) shall be determined at least once each month.

H. REPORTING:

Unless otherwise authorized or required by permit, data shall be reported by each mill for each calendar month by the fifteenth day of the subsequent calendar month as follows:

1. Daily average emissions of TRS gases expressed in parts per million of H_2S on a dry gas basis for each source included in the approved monitoring program.
2. Unless excused in writing by the Department, the number of cumulative minutes each day the TRS gases from the recovery furnaces exceed 20 ppm and 40 ppm and the maximum concentration of TRS measured each day, expressed as H_2S on a dry gas basis.
3. Emissions of TRS gases in pounds of sulfur per equivalent air-dried ton of pulp processed in the kraft cycle for each source included in the approved monitoring program.
4. Emission of SO_2 from the recovery furnace(s), expressed as ppm, dry basis.
5. Emission of particulates in pounds per equivalent air-dried ton of pulp produced in the kraft cycle based upon the sampling conducted in accordance with the approved monitoring program.
6. Cumulative hours of operation of the lime kiln(s) used for non-condensible incineration and the number of cumulative hours of stand-by incinerator operations.

7. Average daily equivalent kraft pulp production in air-dried tons.

8. Each kraft 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. Each mill shall immediately report abnormal mill operations which result in increased emissions of air contaminants, in accordance with the provisions of the Oregon Administrative Rules, Chapter 340, "Upset Conditions".

I. SPECIAL STUDIES:

1. Where warranted by conditions at particular mills, special studies of specific vents or air contaminant emissions may be required as a condition of issuing an Air Contaminant Discharge Permit.

2. Each mill shall participate in special studies sufficient to identify at each mill:

   a. The amount and effects of sulfur trioxide (SO_3) in recovery furnace stack gases.

   b. The extent of interference from the formation of sulfate ion from SO_3 in wet-collection devices used in particulate sampling trains, and

   c. The occurrence of acid mist (H_2SO_4 in water droplets) in recovery furnace stack gases.

These studies are to be completed by January 1, 1975, and final reports submitted to the Department by July 1, 1975. Reports of progress concerning these studies shall be submitted to the Department by January 1 and July 1 of each year.

J. OTHER ESTABLISHED AIR QUALITY LIMITATIONS:

The emission limits established by these regulations are in addition to visible emissions and other ambient air standards, established or to be established by the Department, unless exempted therefrom by this regulation.

K. PUBLIC HEARING:

A public hearing shall be held by the Department no later than January, 1976, to review current technology and the adequacy of these regulations and to adopt any revisions or additional emission standards that are necessary.

DEPARTMENT OF ENVIRONMENTAL QUALITY

TERMINAL SALES BLDG. • 1234 S.W. MORRISON ST. • PORTLAND, OREGON 97205

Memorandum

To: Environmental Quality Commission

From: DIRECTOR

Subject: Agenda Item No. C, December 21, 1972 EQC Meeting

Project Plans for November 1972

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

Water Quality Control

1. Forty-One (41) domestic sewage projects were reviewed:
   a) Provisional approval was given to:
      30 plans for sewer extensions
      1 plan for sewage treatment works
      2 plans for sewage pump stations
      1 contract modification
   b) Approval without conditions given to:
      5 contract modifications
      2 engineering reports
2. Twenty-One (21) project plans for industrial waste facilities were reviewed
   a) Provisional approval was given to:
      13 Dairy animal waste facilities
      8 miscellaneous industrial waste water treatment facilities

TELEPHONE: (503) 229-5696

Air Quality Control

1. Seventeen (17) project plans, reports or proposals were received and reviewed
   a) Approval was given to:
      8 parking facilities
      2 hog fuel boiler installations
      3 miscellaneous facilities (wood waste fired furnace, Coal fired steam boiler, Josephine Co; WWB phaseout, Till. Co.)
   b) Additional information requested for:
      2 power turbine installations
      1 liquor incinerator
   c) One project was deferred
      (Semi-chemical pulp system for GP, Lincoln Co.)

Solid Waste Disposal

1. Six (6) project plans were reviewed and provisional approval given to:
      2 Sanitary landfills (Clackamas and Jackson County)
      4 Demolition landfills (Clackamas, Deschutes, Jackson and Jackson Counties)

Director's Recommendation

It is recommended that the Commission give its confirming approval to staff action on project plans for the month of November, 1972.

L. B. Day

EJW 12/11/72

PROJECT PLANS

Water Quality Division

During the month of November, 1972, 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 (41)			
11-1-72	Salem (Willow Lake)	McGilchrist Street sewer	Prov. approval
11-7-72	Somerset West	Rock Creek 185, Phases 3 and 4, sewers	Prov. approval
11-7-72	Gardiner	Bolen Island plant pump sta.	Prov. approval
11-7-72	McMinnville	Nelson Addition sewers	Prov. approval
11-7-72	Gresham	Stanwood Subdivision sewers	Prov. approval
11-7-72	Gresham	Conifer Park Subdivision pump station	Prov. approval
11-7-72	Myrtle Point	Change Orders 1 and 2, sewage treatment plant contract	Prov. approval
11-8-72	Hubbard	Hildebrand Estates Subdivision sewers	Prov. approval
11-8-72	Clackamas County	Buser Homes Subdivision sewers	Prov. approval
11-8-72	Dallas	Greenway Mobile Home Park, Second Addition, sewers	Prov. approval
11-8-72	Aumsville	Del Mar No. 2 Subdivision sewers	Prov. approval
11-8-72	Sandy	Change Orders Nos. 1, 2, and 3, interceptor Change Orders Nos. 1-5, sewage treatment plant	Approved
11-9-72	USA (Tigard)	Lesser Road annex sewers	Prov. approval
11-9-72	USA (Tigard)	Apartment sewers - 76th and Bonita Road	Prov. approval

Date	Location	Project	Action
11-10-72	Yamhill	Jo-Linn Subdivision sewers	Prov. approval
11-10-72	USA (Aloha)	Cooper Mountain trunk sewer	Prov. approval
11-10-72	Gresham	Mossytree Park Subdivision, Phase 2 sewers	Prov. approval
11-13-72	Josephine County	Four sanitary sewer projects, Harbeck-Fruitdale County Service District	Prov. approval
11-14-72	USA (Fanno Creek)	Parr Addition LID sewers	Prov. approval
11-15-72	USA (Aloha)	Co-Jo Subdivision sewers	Prov. approval
11-15-72	Gresham	S. E. Oak Street sewer ext.	Prov. approval
11-15-72	USA (Beaverton)	Brendan Estates sewers	Prov. approval
11-17-72	Vernonia	Addenda Nos. 1, 2, and 3, sewers	Approved
11-20-72	Vernonia	East Vernonia sewers	Prov. approval
11-21-72	Bay City	Change Order Nos. A-4 & B-2, sewerage contracts	Approved
11-21-72	Troutdale	Fraley Heights No. 3 Subdivision sewers	Prov. approval
11-21-72	Willamina	S. W. Pioneer Avenue sewer	Prov. approval
11-22-72	Bear Creek Valley San. Auth. (Talent)	Colver Road sewer extension	Prov. approval
11-22-72	Bend	Candy Addition Subdivision sewers and pump station	Prov. approval
11-22-72	Inverness	Unit 5-D, Inverness interceptor	Prov. approval
11-27-72	Jackson County	Comprehensive sewer and water plan	Approved
11-27-72	Josephine County	Comprehensive sewer and water plan	Approved
11-27-72	Gresham	S.E. 188 Avenue sewer	Prov. approval

Date	Location	Project	Action
11-27-72	Brookings	Change Order No. 1, sewer sealing project	Approved
11-28-72	Klamath County	Henley High School sewage treatment plant expansion, 0.032 MGD total capacity	Prov. approval
11-28-72	Salem (West)	Salemtowne trunk sewer	Prov. approval
11-29-72	USA (Aloha)	Cedar Mill Creek interceptor	Prov. approval

17

AP-9 PROJECT PLANS, REPORTS, PROPOSALS FOR AIR QUALITY CONTROL DIVISION FOR NOVEMBER, 1972.

DATE	LOCATION	PROJECT	ACTION
2	Tillamook	Publishers Paper Company Plans and specifications for installation of hog fuel fired boiler and phase-out of WWB	Approved
2	Multnomah	Randall Construction Company Apartment complex 84-space parking facility.	Approved
2	Multnomah	Mensahe Apartments 173-space parking facility	Approved
2	Lane	Valley West Shopping Center 125-space parking facility.	Approved
2	Lane	Eugene Masonic Lodge #11 75-space parking facility.	Approved
8	Lincoln	Georgia Pacific Corporation Proposal to expand present facilities for installation of semi chemical pulping system	Action deferred until further information can be supplied.
11	Multnomah	Portland General Electric Co. Plans to install new power turbines	Requested additional information
	Marion	Portland General Electric Co. Plans to install new power turbines	Requested additional information
13	Josephine	Agnew Plywood/Four Ply, Inc. Plans and specifications for installation of wood waste fired Dietrick Cell furnace to heat veneer drier and incinerate veneer drier fumes.	Approved
13	Multnomah	Culver Construction Company Apartment complex - 130-space parking facility	Approved

AP 9 PROJECT PLANS, REPORTS, PROPOSALS FOR AIR QUALITY CONTROL DIVISION FOR NOVEMBER, 1972. Continued

DATE	LOCATION	PROJECT	ACTION
13	Multnomah	Victoria Station Restaurant 66-space parking facility	Approved
13	Lane	Southridge Planned Unit Development - 150-space parking facility	Approved
13	Lane	Eugene Parks & Recreation Department - 90-space parking facility	Approved
13	Coos	Menasha Corporation Proposal to install spent liquor incinerator	Request additional information.
14	Coos	Georgia Pacific Corporation Plans and specifications for modification to hog fuel boilers by addition of additional cinder collectors and re-injection system	Approved
16	Josephine	Tim-Ply Company Plans and specifications for installation of cinder collector, cinder re-injection system and automatic combustion controls on hog fuel boilers	Approved
27	Malheur	Amalgamated Sugar Company Plans and specifications for installation of new coal-fired, 200,000 lb/hr steam boiler with baghouse control, and the installation of a baghouse to bring an existing coal-fired 100,000 lb/hr. steam boiler into compliance.	Approved

Water Pollution Control

Date	Location	Project	Action
Industrial Projects (21)			
11-1-72	Astoria	Richard Lee Dairy, animal waste facilities	Prov. Approval
11-6-72	Coos Bay	Rolland Beattie Dairy, animal waste facilities	Prov. Approval
11-7-72	Independence	Boise Cascade Corp., glue waste water recirculation and reuse facilities	Prov. Approval
11-6-72	Myrtle Point	Raymond Cain Dairy, animal waste facilities	Prov. Approval
11-6-72	Dayton	Earle Day Dairy, animal waste facilities	Prov. Approval
11-6-72	Dayton	Philip Eichler Dairy, animal waste facilities	Prov. Approval
11-6-72	Sheridan	Robert Galinat Dairy, animal waste facilities	Prov. Approval
11-6-72	McMinnville	Daryl Laune Dairy, animal waste facilities	Prov. Approval
11-6-72	Gaston	Marvin Nagely Dairy, animal waste facilities	Prov. Approval
11-7-72	Portland	Portland Rendering Co., collection and treatment system	Prov. Approval
11-14-72	Portland	Willamette-Western Corp., waste water treatment facilities	Prov. Approval
11-15-72	Portland	Armour and Company, collection and treatment system	Prov. Approval
11-16-72	Cascade Locks	Cascade Locks Lumber Co., collection and treatment facilities	Prov. Approval
11-16-72	Boring	Earl Meier Dairy, animal waste facilities	Prov. Approval

Date	Location	Project	Action
11-16-72	Cornelius	John Terhorst Dairy, animal waste facilities	Prov. Approval
11-17-72	Alicel	Howard Elmer Dairy, animal waste facilities	Prov. Approval
11-17-72	Elgin	Ed Thompson Dairy, animal waste facilities	Prov. Approval
11-20-72	Ontario	Ore-Ida Foods, Inc., secondary wastewater treatment facilities	Prov. Approval
11-28-72	St. Helens	Boise Cascade Corp, concept proposal for wastewater control through period of production expansion	Prov. Approval
11-29-72	Hermiston	Lamb Weston, Inc., processing wastewater control & disposal	Final approval withheld pending further details
11-30-72	Banks	Herman Vandehey Dairy, animal waste facilities	Prov. Approval

PROJECT PLANS

SOLID WASTE MANAGEMENT DIVISION

During the month of November, 1972, the following project plans and specifications and/or reports were reviewed by the staff. The disposition of each project is shown, pending confirmation by the Environmental Quality Commission.

Date	Location	Project	Action
7		EPA Sanitary Landfill Guidelines	Comments
7	Coos Co.	Bohemia Lumber Co. Landfill	Prov. Approval
9	Clackamas Co.	LaVelle Construction Co. Sanitary Landfill	Prov. Approval
10		EPA-Proposed Incinerator Guidelines	Reviewed
10	Clackamas Co.	Don Obrist Inc. Landfill	Prov. Approval
20	Washington Co.	Grabhorn Inc. Demolition Landfill	Prov. Approval
22	Deschutes Co.	Deschutes Co. Demolition Landfill	Prov. Approval
27	Jackson Co.	Prospect Sanitary Landfill	Prov. Approval

DEPARTMENT OF ENVIRONMENTAL QUALITY

TERMINAL SALES BLDG. • 1234 S.W. MORRISON ST. • PORTLAND, OREGON 97205

TOM McCALL
GOVERNOR

L. B. DAY
Director

ENVIRONMENTAL QUALITY COMMISSION
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MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. D, December 21, 1972, EQC Meeting

Municipal Sewerage Works Construction Grants Priorities

Background

On May 23, 1969, the Oregon State Sanitary Authority adopted a point system for determining the relative priority of eligible projects for sewage works construction grants. The major point categories of this system were as follows.

I Financial Need (35 points maximum)
II Water Pollution Control Need (20 points maximum)
III Readiness to Construct (30 points maximum)
IV Area Wide Planning (5 points maximum)

At the time this system was adopted, it served well. As a result of the new Federal Water Pollution Control Legislation, it now appears desirable to revise the basis for establishing priorities for grants.

Evaluation

The present system requires that a grant application be filed before a needed water pollution control project can be ranked for priority. Therefore, many needed pollution control projects have not been ranked for priority and as a result have not been pushed for speedy construction.

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With the 75% grants level provided by the new Federal Legislation, it now appears that less emphasis needs to be placed on financial need in a priority system. In addition, the many requirements of the new Act suggest that much more emphasis be placed on pollution control need.

As a result, it is proposed that a new priority classification system be adopted which places projects in major priority categories based on water pollution control needs. The proposed priority classification system is attached. The proposed new system does not rank projects within major classes at this time. Such ranking would be done by the Environmental Quality Commission at such time as it became necessary.

Further, it is proposed that the priority listing of projects developed in accordance with this revised priority system be reviewed by the Environmental Quality Commission more frequently than the present practice of once per year.

Also, attached is a listing of currently identified projects which should proceed to construction in the next 1-1/2 years (Fiscal Years 73 and 74). These are classified in accordance with the proposed new priority classification system. This listing constitutes a combined FY 73 - 74 proposed priority listing since the Federal Funds for FY 73 and FY 74 are known at this time.

Directors Recommendation

It is recommended that the attached proposed revised system for priority classifications for Sewerage Works Construction Grants be adopted to replace the May 23, 1969 priority system.

It is further recommended that the attached proposed combined FY 73 - 74 priority listing be adopted as the official Sewerage Works Construction Grants Priority list.

L. B. Day

HLS:ak
December 14, 1972

POINTS	NAME	PRESENT CONDITION	NEEDED PROJECT DESCRIPTION	ESTIMATED PROJECT COST
60	Aumsville		Lagoon expansion	60,000
60	Baker		Lagoon expansion (aerators)	140,000
60	Cave Junction-Kerby		STP expansion	70,000
60	Dayton		STP expansion	256,000
60	Dufur		STP expansion	60,000
60	Dundee		Interceptor	160,000
60	Eagle Point	Approaching design capacity	STP expansion	80,000
60	Elgin		Lagoon expansion	65,000
60	Eugene		Interceptors, east side	4,452,000
60	Gervais		Lagoon expansion	60,000
60	Jacksonville	Presently loaded about to capacity	STP expansion	70,000
60	Monmouth	Nearing design capacity	Lagoon expansion	80,000
60	Portland, Port of		Interceptor	2,000,000
60	Portland	Approaching design capacity	Tyron STP	3,197,400
60	USA (Cooper Mt.)	Provides for new development	Interceptor	538,000
60	White City S.D.		STP modification	220,800
60	Yamhill		STP expansion	50,000
	SUBTOTAL			$ 11,559,200

POINTS	NAME	PRESENT CONDITION	NEEDED PROJECT DESCRIPTION	ESTIMATED PROJECT COST
70	Milwaukie	Potential health hazard	East interceptor	620,000
70	Mosier	Potential health hazard	STP	53,200
70	Murphy	Potential health hazard	STP, interceptor	240,000
70	Netarts-Oceanside S.D.	Potential health hazard	STP, interceptor, pump station	440,800
70	Newport	Potential health hazard	Interceptor, pump station	145,900
70	Pacific City - Woods	Potential health hazard	STP, interceptor	225,000
70	Prineville	Potential health hazard	Interceptor	150,000
70	Scotts Mills	Potential health hazard	STP, interceptor	50,000
70	Shady Cove	Potential health hazard	STP, interceptor	400,000
70	Sublimity	Potential health hazard	Interceptor, pump station	430,000
70	Toledo	Potential health hazard	Interceptor	73,000
70	Turner	Potential health hazard	STP, interceptor	525,000
70	West Linn	Potential health hazard	Interceptor (lower Tualatin)	430,000
	SUBTOTAL			$ 18,099,020

POINTS	NAME	PRESENT CONDITION	NEEDED PROJECT DESCRIPTION	ESTIMATED PROJECT COST
70	Albany	Potential health hazard	Interceptor	2,000,000
70	Barlow	Potential health hazard	Interceptor (to Canby)	100,000
70	Bear Creek Valley S.A.	Potential health hazard area	West trunk interceptor	2,150,600
70	Bly S.D.	No system - potential health hazard	STP, interceptor	150,000
70	Clackamas County S.D.	Potential health hazards	Interceptors	5,000,000
70	Columbia City	Potential health hazard	Pump station, interceptor (to St. Helens)	158,920
70	Culver	Potential health hazard	STP, interceptor	300,000
70	Detroit	Potential health hazard	STP, interceptor	200,000
70	Dillard	Potential health hazard	Interceptor (to Winston)	150,000
70	Falls City	Potential health hazard	STP, interceptor	230,000
70	Gresham	Potential health hazards	Interceptor (Ruby Junction)	1,400,000
70	Island City	Potential health hazard	Interceptor (to La Grande)	275,000
70	Juntura	Potential health hazard	STP, interceptor	40,000
70	La Grande	Potential health hazard	Interceptor	238,600
70	Long Creek	Potential health hazard	STP, interceptor	120,000
70	McMinnville	Potential health hazard	Interceptor, pump station	235,000
70	Medford	Potential health hazard	N.E. Medford interceptor	568,000
70	Merlin-Colonial Valley	Potential health hazard and projection for future development	STP, interceptor	1,000,000

POINTS	NAME	PRESENT CONDITION	NEEDED PROJECT DESCRIPTION	ESTIMATED PROJECT COST
80	Portland	Eliminate 3 existing plants - revised requirements	Gertz-Schmeer interceptor	1,563,200
80	Portland	Eliminate existing treatment plants due to revised requirements	Columbia Way Court interceptor	20,000
80	Riddle	Standard changed	STP upgrading and expansion	157,500
80	Rockaway	Deficiencies in present plant	STP improvements	160,000
80	Salem	Overloaded plant	STP (Willow Lake)	7,500,000
80	Salemtowne	Eliminate interim plant	Interceptor to Salem	380,000
80	Sutherlin	Changed standards	STP improvements	1,000,000
80	Sweet Home	Changed Standards	STP expansion	500,000
80	The Dalles	Present IW discharges cause operational problems in plant	Industrial STP	322,027
80	Tillamook Bay, Port of	Eliminate interim plant	Interceptor (to Tillamook)	600,000
80	USA (Cedar Mill)	Eliminate Sunset Valley STP	Interceptor	568,000
80	USA (Cornelius)	Revised Standards	Intertie to Forest Grove	328,000
80	USA (Fanno Cr.)	Eliminate 2 interim plants	Interceptor to plant No. 1	2,122,000
80	USA (Forest Grove)	Revised Standards	Plant upgrading and expansion	1,687,000
80	USA (Plant No. 1)	Revised standards and master plan require plant	STP	14,046,375
80	Winston	Changed standards, at capacity, needs improvements any way	STP improvements and expansion	120,000
80	Wood Village	Requirements changed	Interceptor	242,300
	SUBTOTAL			$ 58,660,402

POINTS	NAME	PRESENT CONDITION	NEEDED PROJECT DESCRIPTION	ESTIMATED PROJECT COST
80	Ashland	Presently overloaded revised requirements	STP modification	900,000
80	Bend	Need grit facilities	STP modification	70,000
80	Bend	Overloaded pump station	Enlarge pump station	50,000
80	Chiloquin	Deficiencies in present plant need correction	STP improvement and expansion	250,000
80	Clatskanie	Deficiencies in existing secondary plant	STP improvements	120,000
80	Corvallis	Eliminate interim plant	Interceptor	80,000
80	Corvallis	Poor discharge point for interim system	Interceptor to eliminate airport lagoon	500,000
80	Corvallis	Primary portion of plant overloaded	STP improvements	2,548,000
80	Glendale	Deficiencies need correction	STP improvements, expansion, airport	70,000
80	Gold Hill	Deficiencies in present plant	STP improvements	86,000
80	Hillsboro	More stringent standards must be met	Upgrade and expand plant (Rock Creek)	1,190,000
80	Hillsboro Jr. High School	Eliminate interim treatment plant	Interceptor, to USA system	120,000
80	Lafayette	Overloaded at present	Lagoon expansion	80,000
80	Maupin	Deficiencies need correction	STP improvement and expansion	200,000
80	Multnomah County	Eliminate existing treatment plant due to revised waste disposal requirements	Interceptor (Inverness PIA)	2,000,000
80	Orient School	Eliminate interim plant	Interceptor to eliminate plant	80,000

POINTS	NAME	PRESENT CONDITION	NEEDED PROJECT DESCRIPTION	ESTIMATED PROJECT COST
90	Mt. Vernon	No system, inadequately treated discharges	STP, interceptor	95,500
90	Pendleton	Health hazard	Interceptor	421,400
90	Portland	Section of interceptor too small - causes overflow to river	S.E. relieving interceptor	200,000
90	Portland	Part of secondary treatment project	Secondary plant outfall	1,088,000
90	Portland	Part of secondary treatment project	Incineration	2,500,000
90	Portland	Part of secondary treatment project	Grit removal and related facilities	345,000
90	Redmond	Inadequate disposal	STP	2,000,000
90	Redwood S.D.	Health hazards, eliminate interim plants	STP, interceptor	784,000
90	Rogue River	Health hazard	STP, interceptor	214,000
90	Rufus	Health hazard	STP, interceptor	400,000
90	Seneca	Raw sewage discharge	STP, interceptor	150,000
90	Sundown S.D.	Inadequate treatment	STP	30,000
90	Wasco	Inadequately treated discharge	STP	140,000
90	Wauna-Westport	Inadequately treated discharges	STP, interceptor	850,000
90	Winchester Bay S.D.	Inadequate treatment, health hazard	STP, interceptor	460,000
90	Yachats	Health hazard, inadequately treated discharges	STP, interceptor	203,600
	SUBTOTAL			$ 17,486,370

POINTS	NAME	PRESENT CONDITION	NEEDED PROJECT DESCRIPTION	ESTIMATED PROJECT COST
90	Arch Cape Co. S.D.	Health hazard	STP, interceptor	$ 832,000
90	Arlington	Primary treatment	Secondary Treatment	125,000
90	Bunker Hill S.D.	Primary treatment	Interceptor-connect to Coos Bay	141,500
90	Coos Bay	Primary treatment	Secondary treatment	1,504,000
90	Depoe Bay	No system, untreated discharges	STP, Interceptor	700,000
90	Eastside	Primary treatment	Interceptor-connect to Coos Bay	126,000
90	Florence	Direct health hazard	Interceptor	350,000
90	Fruitdale-Harbeck Co. S.D., Grants Pass	Health hazard	Interceptor	85,000
90	Glide-Ideyld Area	Health hazard, inadequately treated discharges	STP, interceptor	680,000
90	Gold Beach	Inadequate secondary plant and discharge cause health hazard	STP improvement expansion	157,000
90	Hammond	Health hazard, raw discharge	Interceptor to Warrenton	224,570
90	Harbor S.D.	Some inadequately treated discharges	Interceptor	500,000
90	John Day and Canyon City (2 appl.)	Inadequately treated discharges need interceptor and joint treatment facility	STP relocation, interceptors	1,544,000
90	Madras	Directed to eliminate present inadequate treatment and disposal	STP, Interceptor	190,000
90	Mapleton	Raw sewage discharges	STP, interceptor	220,800
90	Modoc Point S.D.	Health hazard, inadequately treated discharges	STP	225,000

(Proposed)

SEWERAGE WORKS CONSTRUCTION GRANTS

PRIORITY CLASSIFICATIONS

Priority Class	Existing Condition and Proposed Action
90	No sewerage facilities exist or existing facilities provide less than secondary treatment. Inadequate sewage collection, treatment and disposal facilities causes a direct hazard to public health and/or results in inadequately treated wastes being discharged to public waters. Proposed action will provide for adequate collection, treatment and disposal of wastes such that health hazards are eliminated and such that a minimum of secondary treatment is provided and such that water quality and waste treatment standards are met.
80	Existing facilities provide secondary treatment. Improvements are needed to correct deficiencies, correct a presently overloaded condition, eliminate a small interim treatment facility, or upgrade the facilities to meet water quality standards or new or more stringent waste treatment requirements or standards. Proposed facilities will bring individual public agency into compliance with standards and department water quality control program requirements.
70	No community sewerage facilities exist at present in the area. A potential public health hazard exists due to failure of some subsurface disposal facilities and the potential failure of other such systems. Proposed action will provide adequate facilities for collection, treatment and disposal of wastes.
60	Existing facilities generally provide secondary treatment. Improvement, expansion, or construction of new facilities is proposed to provide for projected future growth. Proposed facilities will insure that treatment and discharge standards will be met in the future.

Priority for other potentially eligible facilities such as storm water separation, infiltration control, collection systems, and other categories will be established at a later date as necessary.

NOTES

a) If ranking within a major category should become necessary, such ranking will be done by the EQC based on readiness to proceed and financial need.

b) No grant will be given to any project which is not in agreement with adopted and approved area-wide or regional plans.

DEPARTMENT OF ENVIRONMENTAL QUALITY

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TOM McCALL
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L. B. DAY
Director

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Portland

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. D, December 21, 1972, EQC Meeting

Sewerage Works Construction Program for FY 73-74

Background

The construction grant priority list referred to in the preceding memorandum identifies $105,804,992 in sewerage construction needs for the next 1 1/2 year period. With 75 percent construction grants, $79,353,744 in grant funds are needed to fund all presently identified projects.

Currently available federal funds total $42,470,000.

State law and the pollution control bond constitutional amendment limit allow up to 30 percent grants on such projects subject to legislative limitation on total amount of grant funds that can be expended.

Evaluation

Oregon has two alternatives that it can pursue relative to construction grants.

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1) Use 75 percent EPA grants on projects in priority order until the federal funds are exhausted and hold up construction on remaining projects.

2) Use a combination of 45 percent EPA/30 percent state grants and insure funding of most of the projects on the present list as they are ready to proceed.

The practical effect of the first alternative will be to foster the creation of pollution problems by delaying construction of facilities needed to accommodate inevitable growth and development. Therefore, it is an unacceptable alternative.

In order to carry out the second alternative, EPA has indicated that grant applicants and the state would have to waive all claims to any federal funding above the 45 percent level, thus precluding reimbursement to the state for its advancing 30 percent of the total 75 percent grant. In view of the action of the administration to release only about 45 percent of the authorized grant funds for use at this time, such waiver requirement is unacceptable to the state.

It is, therefore, the conclusion of the Department that EPA should either (a) release all authorized funds or (b) approve a 45 percent federal/30 percent state grant program for Oregon and provide for repayment to the state for the state grant funds advanced at such time as the remaining authorized funds are released.

Director's Recommendation

It is recommended that the Commission adopt a program of providing 45 percent federal/30 percent state grants for all projects subject to the condition that EPA provide for repayment to the state for the state grant funds advanced at such time as the remaining authorized federal funds are released.

L. B. Day

HLS:cjh
December 14, 1972

DEPARTMENT OF ENVIRONMENTAL QUALITY

TERMINAL SALES BLDG. • 1234 S.W. MORRISON ST. • PORTLAND, OREGON 97205

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. E, December 21, 1972 EQC Meeting

Georgia Pacific Pulp & Paper Mill - Toledo

Background

Georgia Pacific Corporation has recently submitted a proposal for expanding production of its Toledo Kraft Mill by including approximately 170 T/day of semi-chemical pulping capability. This process will utilize Red Alder chips and Douglas fir sawdust, both currently being wasted in large volumes along the Oregon coast. The semi-chemical process will utilize green liquor from the Kraft process, producing a high yield and relatively high strength pulp to be used for the manufacture of corrugating medium. The utilization of existing green liquor and the limited severity of cooking results in a very small 2 - 5% increase in load to the recovery furnace and a more substantial 15% increased load to evaporators. Ample evaporator and recovery furnace capacity is available for this additional loading without sacrificing efficiency. Additional blow gases from the digester will be incinerated in the existing non-condensible system which also has ample capacity.

In addition, approximately 40 T/day of pulp will be made from postconsumer waste and combined with the semi-chemical pulp. An existing paper machine will be adapted for corrugating medium production, and a new paper machine will be installed for bag paper production. Total additional paper production will be 225 T/day.

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Exclusive of other mill changes, the effect of the expanded production on wastewater will be approximately 15% increase in evaporator condensate volume, approximately 20% increase in whitewater volume, and lesser wastewater flows from chip washing and steaming, seal water, cooling waters, etc. There will, however, be no increase in total wastewater flows because of an extensive soiled water recycle project now being implemented.

In June, 1972, the clarifier discharge to the Yaquina River estuary was eliminated by pumping from the outer lagoon for limited reuse in the mill and discharge through the ocean outfall line. A complete reuse system for all clarifier discharge which has been cooled by passage through the outer lagoon will be operational in early 1973, substantially reducing the total effluent volume discharged to the Pacific Ocean. In July, 1972, the flow of sludge from the clarifier was diverted out of the ocean outfall line into the mill "broke system" for reuse. This system has operated well enough to assure its continuance, and has substantially reduced suspended solids discharged to the ocean. With these systems in operation, it is expected that increased overall waste volume and strength as a result of expanded production will be insignificant.

The following program has been proposed by Georgia Pacific for compliance with the proposed, revised Kraft Mill Atmospheric Emission Regulations:

1. Replacement of the existing strong black liquor oxidation system, providing greatly improved reliability.
2. Alteration of lime kiln scrubbers to improve their efficiency to meet applicable TRS limitations.
3. Modification of flame control equipment in two lime kilns so that all three will have capability for burning non-condensible gases alternately which will prevent by-pass should one fail.

4. Installation of a collection system for presently uncontrolled low elevation odor sources.

5. Particulate emissions will be reduced by continued fine tuning of the new recovery furnace precipitator, improvement of lime kiln scrubbers, and replacement of existing smelt dissolving tank scrubbers with more efficient units, all to meet emission limitations.

6. Pilot testing followed by installation of steam stripping for foul condensate streams to further reduce odors.

All proposed compliance dates are well within the deadlines established by applicable sections of the Regulations. It is proposed that the compliance dates offered by Georgia Pacific be incorporated in the Air Contaminant Discharge Permit to be issued to this mill before July 1, 1973. A copy of the proposal submitted by Georgia Pacific is attached to this report.

The water quality control program submitted has been reoriented toward compliance with EPA effluent guidelines in lieu of providing conventional, biological secondary treatment, as follows:

1. Suspended solids in the ocean discharge have been substantially reduced with the fiber recovery system, and further reduction to the 6000#/day limit contained in their Waste Discharge Permit is proposed to be accomplished prior to July, 1973 by installation of improved lime mud removal facilities.
2. Water seals on liquor transfer pumps have been replaced with mechanical seals, reducing liquor losses and total BOD discharged. Further reduction of liquor losses is proposed to be accomplished with black liquor spill and dump collection facilities to be installed by December, 1973.

3. Strong condensate flows from evaporators and the relief of digesters carry a large portion of the total discharged BOD. The mill is undertaking a pilot testing program to remove much of this BOD by steam stripping. It is proposed that facilities for steam stripping of all foul condensates will be installed by December, 1974.

4. The existing aeration basin will be dredged during the summer of 1973 to optimize its effectiveness.

Georgia Pacific is confident that their proposed liquid waste control program will put them within the EPA guideline limitation of 8000# BOD and 7000# suspended solids/day within approximately two years. If accomplished, it will be the only pulp and paper mill in the Northwest to meet these effluent levels without conventional secondary treatment.

Evaluation

1. The proposed increase in production will utilize essentially waste materials and will have a negligible effect on atmospheric emissions and total liquid waste discharged from the mill.

2. The proposal submitted for compliance with proposed, Amended Kraft Mill Air Emission Regulation is acceptable.

3. The proposal submitted for compliance with Georgia Pacific's present Waste Discharge Permit is acceptable. It will be the intention of the DEQ to incorporate applicable EPA effluent guideline limitations into the renewed Waste Discharge Permit. The present Waste Discharge Permit expires June 30, 1974.

Director's Recommendation

It is the recommendation of the Director that the production expansion plan and air and water quality improvement programs submitted by Georgia Pacific, under dates of November 1 and December 4, 1972, be approved for final design and construction subject to the following conditions:

1. That such construction shall be carried out in accordance with detailed plans and specifications submitted to and approved by this Department.
2. That Georgia Pacific proceed to carry out its air and water quality control programs in accordance with the itemized plan and schedule as submitted.
3. That if and when it appears likely that their proposed program will fall short of achieving compliance with State and Federal Air and Water Quality Control requirements, Georgia Pacific will, subject to DEQ approval, immediately make such adjustments in its programs as is necessary to fully comply.

L. B. Day

PHR:ljb
12/13/72

GEORGIA-PACIFIC
CORPORATION
PAPER DIVISION—TOLEDO
P.O. BOX 580 • TOLEDO, OREGON 97391 • 503-336-2211

DECEMBER 4, 1972

MR. L. B. DAY, DIRECTOR
DEPARTMENT OF ENVIRONMENTAL QUALITY
P. O. BOX 231
PORTLAND, OREGON 97207

DEAR MR. DAY:

IN THE TWO ATTACHED APPENDICES THERE ARE DETAILED PROPOSALS TO MEET THE PROPOSED REVISED OREGON KRAFT MILL AIR QUALITY REGULATIONS AS WELL AS THE NEW FEDERAL REQUIREMENTS ON WATER DISCHARGES. IN MY LETTER OF NOVEMBER 1, OUR PLANS FOR A MILL EXPANSION AND THE ENVIRONMENTAL EFFECT OF THIS EXPANSION WERE OUTLINED. THE INCREASED DISCHARGES TO THE AIR OR WATER ARE NEGLIGIBLE FROM THE EXPANSION, AND THERE IS A SIZABLE INCREASED UTILIZATION OF FOREST WASTE. IN A MEETING WITH MEMBERS OF YOUR STAFF AND MR. VLASTELICIA OF THE EPA ON NOVEMBER 20, 1972, THESE FACTORS WERE RECOGNIZED, BUT A FIRM COMPLIANCE PROGRAM FOR THE EXISTING MILL WAS REQUESTED BEFORE THE STAFF COULD ACT.

FOR THE MAIN PART THE AIR EMISSION PROJECTS ARE STRAIGHTFORWARD AND REQUIRE LITTLE COMMENT EXCEPT FOR STEAM STRIPPING FOUL CONDENSATES. THIS PROJECT HAS CROSS EFFECTS IN THE WATER TREATMENT AREA. ALTHOUGH THIS NOW APPEARS TO BE THE MOST EFFECTIVE WAY TO DEAL WITH LOW LEVEL EMISSIONS AND AT THE SAME TIME LOWER BOD, IT IS IN ITS EARLY STAGES OF DEVELOPMENT. ONLY ONE LARGE UNIT IS NOW IN OPERATION IN NORTH AMERICA AND ITS PERFORMANCE INDICATES FURTHER WORK IS NECESSARY TO OPTIMIZE IT. WE HAVE, ON THE WAY TO TOLEDO, A PILOT STEAM STRIPPING COLUMN WHICH WILL BE USED TO DETERMINE THE EFFECTIVENESS ON OUR CONDENSATES.

THE PROPOSED FEDERAL EFFLUENT GUIDELINES FOR THE PULP AND PAPER INDUSTRY HAVE RESULTED IN A SWITCHING OF EMPHASIS FOR TOLEDO. THESE GUIDELINES ARE, BECAUSE OF THEIR GENERAL NATURE, DESIGNED FOR MILLS DISCHARGING IN RIVERS. OVER $4,000,000 HAS BEEN SPENT IN THIS MILL ON AN OCEAN DISCHARGE SYSTEM TO AVOID DISCHARGE INTO THE YAQUINA RIVER. THIS WAS DONE IN LIEU OF CONVENTIONAL SECONDARY TREATMENT BY AERATION AND WAS A REQUIREMENT OF THE OREGON STATE SANITARY AUTHORITY. IN NOW HAVING TO ADDITIONALLY MEET BOD REQUIREMENTS, WE FEEL THAT IN-PLANT PROCESS MODIFICATIONS WILL ACHIEVE THE LEVELS SPECIFIED BY SCHEDULA A

OF THE PROPOSED EPA GUIDELINES BY DECEMBER 1974. THIS APPROACH HAS FOUND FAVOR IN SCANDANAVIA FOR UNBLEACHED KRAFT MILLS. THE PILOT PLANT WORK ON STEAM/STRIPPING IS THE REASON FOR A TWO YEAR PERIOD BEFORE COMPLETION. ALL OTHER APPLICABLE FEDERAL AND STATE WATER DISCHARGE REQUIREMENTS WILL BE MET BY JULY OF NEXT YEAR AS I OUTLINED IN OUR REPORT TO YOU ON JULY 28, 1972.

WE WILL BE GLAD TO MEET WITH YOU TO DISCUSS QUESTIONS THAT MAY ARISE.

VERY TRULY YOURS,

Howard M. McDowell

HOWARD M. McDOWELL
TECHNICAL DIRECTOR

HMM:HER
ATTACH.
CC: MATT GOULD

APPENDIX 1

AIR QUALITY REQUIREMENTS

REFERENCE: PROPOSED REVISED REGULATION FOR KRAFT PULP MILLS DATED 11/14/72

PARAGRAPH	REQUIREMENT	ACTION	TARGET COMPLETION
D 1 A	10 PPM TRS ON RECOVERY FURNACE '75 5 " " " " " '78	NEW HEAVY BLACK LIQUOR OXIDATION SYSTEM	12/73
D 1 B	40 PPM TRS ON LIME KILNS '75 20 " " " " " '78	A. ALTERATIONS ON FAN AND SCRUBBER ON ONE KILN. B. PENDING SUCCESS OF ABOVE MODIFICATION OF OTHER TWO KILNS.	7/73 7/74
D 1 D (1) D 1 D (2)	NONCONDENSIBLE INCINERATION STANDBY FOR ABOVE	PRESENTLY TREATED IMPROVE/REPLACE FLAME SCANNER EQUIPMENT ON OTHER TWO KILNS.	-- 9/73
D 1 E	OTHER SOURCES OF TRS TREATED	A. RESURVEY SOURCES WITH BARTON TITRATOR	3/73
		B. COLLECT SIGNIFICANT SOURCES INCLUDING FILTRATE TANK VENTS INTO ONE MAIN HEADER WITH DISPOSAL IN POWER BOILER AND MAIN STACK FOR RELIEF.	12/73
		C. RECEIVE AND UTILIZE PILOT STEAM STRIPPING COLUMN TO MAKE A STUDY OF THIS APPLICATION TO TOLEDO.	7/73
D 2 A	RECOVERY FURNACE PARTICULATE NOT TO EXCEED 4 LBS./TON OF PRODUCTION BY 5/75.	CONTINUE PROGRAM OF TUNING #1 AND #2 PRECIPITATORS.	3/73

'PENDIX I

PARAGRAPH	REQUIREMENT	ACTION	TARGET COMPLETION
D 2 B	LIME KILN PARTICULATE NOT TO EXCEED 1 LB./TON BY 5/75	A. TRIAL MODIFICATION OF ONE SCRUBBER.	7/73
		B. MODIFY OTHER TWO.	7/74
D 2 C	SMELT DISSOLVING TANKS NOT TO EXCEED .5 LBS./TON	INSTALL UNITS ON #2 AND #3 RECOVERIES LIKE PROVEN MODEL ON #1.	#2 - 7/73 #3 - 12/73
G 1	MONITOR FOR TRS	PRESENTLY DONE	--
G 2	MONITOR FOR PARTICULATE	A. REPLACE SENSING EQUIPMENT ON PRESENT SYSTEM ON FURNACES. EQUIPMENT ON HAND.	3/73
		B. INSTALL SYSTEM ON KILN AND DEVELOP CORRELATION.	3/74

APPENDIX II

WATER QUALITY REQUIREMENTS

REFERENCE:
1. WASTE DISCHARGE PERMIT #32947 DATED 5/24/71.
2. G.P. LETTER OF 6/28/72 DETAILING PROGRESS AND STATING INTENDED METHODS OF COMPLIANCE.
3. EFFLUENT LIMITATION GUIDANCE FOR THE REFUSE ACT PERMIT PROGRAM - PULP AND PAPER INDUSTRY-EPA

NOTE: ONLY THOSE ITEMS LEFT TO BE COMPLETED ARE LISTED.

REQUIREMENT	ACTION	TARGET COMPLETION
1. 6000 LBS./DAY SUSPENDED SOLIDS IN DISCHARGE BY 7/73. EPA SCHEDULE A IS 5 LBS./TON FOR UNBLEACHED KRAFT AND 8 LBS./TON FOR SEMI CHEMICAL FOR A TOTAL OF 6900 LBS./DAY ALLOWED WITH THE EXPANDED MILL.	UTILIZED FIBER BACK TO PAPER MACHINE AND WORK IN KILN AREA HAS RESULTED IN REDUCTION FROM 22,000 TO 12,000 LBS./DAY. FURTHER WORK IN PROGRESS IN THE LIME KILN AREA WILL REDUCE THE LOADING TO THE TARGET.	7/73
2. EPA SCHEDULE A FOR 5 LBS./TON BOD FOR UNBLEACHED KRAFT AND 14 LBS./TON FOR SEMI CHEMICAL. TOTAL IS 7950 LBS./DAY WITH THE EXPANDED MILL.	A. PUT IN A BLACK LIQUOR CATCH/DUMP SYSTEM TO UTILIZE OLD COLLINS OXIDATION TANK WHEN FREE. POTENTIAL BOD REDUCTION 40-50%.	12/73
	B. TREAT CONTAMINATED CONDENSATES BY STEAM STRIPPING OR ALTERNATE. POTENTIAL REDUCTION 40%.	12/74
	C. COMPLETE DREDGING OF EXISTING AERATION BASIN AND OPTIMIZE EFFECTIVENESS. POTENTIAL BOD REDUCTION 10%.	7/73

DEPARTMENT OF ENVIRONMENTAL QUALITY

TERMINAL SALES BLDG. • 1234 S.W. MORRISON ST. • PORTLAND, OREGON 97205

TOM McCALL
GOVERNOR

L. B. DAY
Director

ENVIRONMENTAL QUALITY COMMISSION
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MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. F , December 21, 1972, EQC Meeting

Amalgamated Sugar Company Installation of a Foster-Wheeler Coal-Fired Boiler, Malheur County

Background

The Amalgamated Sugar Company operates a sugar refining facility at Nyssa in Malheur County and is proposing to install a large coal-fired boiler. This Company currently operates five (5) boilers producing 445,000 lb/hr steam. Three (3) of the boilers are coal-fired, one is a combination coal and natural gas, and one is a combination of natural gas and No. 2 diesel oil.

The Company has been advised that natural gas will no longer be available after January 1, 1974. The Company also has a need for additional steam capacity.

By letter to the Department dated June 16, 1972, the Company advised that changes in the fuel mix and steam capacity were necessary and proposed the installation of a 200,000 lb/hr Foster-Wheeler coal-fired boiler. This unit would replace the natural gas/No. 2 diesel fuel fired boiler and provide a total plant steaming capacity of 555,000 lb/hr, all fired with coal. When completed the installation will be the largest coal fired power facility in Oregon (about 1/20 the size of P. P. & L. Centralia installation).

TELEPHONE: (503) 229-5696

Discussion

The proposed coal-fired boiler operation of Amalgamated Sugar Company is a part of a total Company program to accomplish three things: (a) provide needed steam capability, (b) provide for replacement of natural gas fuel which will no longer be available, and (c) have the boiler facilities at the Nyssa plant in compliance with the Oregon Administrative Rules, Chapter 340, Sections 21-020 (Fuel Burning Equipment Limitations), 22-005 through 22-055 (Sulfur Content of Fuels and General Emission Standards for Sulfur Dioxide).

The area of concern at this time is the assurance that air quality is maintained and all requirements of the applicable Oregon Administrative Rules are achieved.

1. Oregon Administrative Rules, Chapter 340, Section 21-020, Fuel Burning Equipment Limitations, requires existing emission points to be controlled to not more than 0.2 gr/SCF. On January 21 and 22, 1972, the Company had the four (4) boilers being retained sampled for particulate emissions. Three (3) of the boilers were shown to be in compliance. The fourth (a Riley Boiler) was not in compliance and the Company is proposing to install a baghouse collection system to achieve compliance with particulate emissions as part of this construction program. The new Foster-Wheeler boiler is proposed to be equipped with a baghouse whose specifications are to limit emissions to 0.01 gr/SCF, well in compliance with current standards.

2. Oregon Administrative Rules, Chapter 340, Section 22-020, Coal, requires that any coal now used must be under 1.0% sulfur by weight. The coal proposed at this

facility is Elkol and the analysis reported indicates the sulfur content is under 1.0% sulfur by weight.

3. Oregon Administrative Rules, Chapter 340, Section 22-055, Fuel Burning Equipment, requires the sulfur dioxide (SO_2) emissions from new sources of over 250 million BTU per hour heat input limit SO_2 emissions to not more than 1.2 pounds per million BTU per hour heat input. This requirement limits the Sulfur dioxide emission from the proposed installation to not more than 324 lb/hr. Tests by the Company and calculation by the staff indicate the emission from the proposed boiler will be 228 lb/hr SO_2.

4. Oregon Administrative Rules, Chapter 340, Section 31-020, Sulfur Dioxide (standards for ambient air) details the maximum allowable SO_2 concentration in the ambient air. A dispersion analysis has been conducted by the staff with available data. The analysis indicates no violation of the ambient air standards is to be expected nor is a measurable degradation of the ambient air anticipated.

Conclusions

The present particulate emissions from the facility exceed 200 pounds per hour. After the control equipment is installed and the new boiler installed the emissions are projected to be 152.1 pounds per hour, a level at which all boilers will be in compliance with the applicable particulate emission regulations.

The present sulfur dioxide emissions from the plant are calculated by the Company as 360 pounds per hour. The new boiler from this proposed installation will emit an additional 228 pounds per hour.

The diffusion analysis conducted by the Department concludes that there will be no violation of the ambient sulfur dioxide standards nor any measurable degradation of the ambient air.

Recommendation

It is the recommendation of the Director that this project be approved subject to the following conditions:

1. That the Company immediately make application for an Air Contaminant Discharge Permit as provided for by the rules adopted by the EQC on July 28, 1972, for the Nyssa facility.

2. The new Foster-Wheeler boiler rated at 200,000 lb/hr steam production include the following:

   a. Baghouse control with the design to conform to the requirements of Specification No. D6, dated August 3, 1972, for Project C-10953, as a minimum.

   b. Emission Monitoring Equipment which is installed, calibrated on a routine basis, maintained, and operated as per manufacturers instructions described as:

      1.) A photoelectric or other type of smoke detector and recorder.

      2.) An instrument for continuously monitoring and recording sulfur dioxide emissions.

      3.) An instrument for continuously monitoring and recording emissions of nitrogen oxides.

3. That the existing Riley boiler rated at 100,000 lbs/hr steam production be controlled by a baghouse with the design to conform to the requirements of Specifications No. D6, dated August 3, 1972, for Project C-10953, as a minimum.

4. That all records, sampling and analysis requirements as specified by the Federal Register, Vol 36, No. 247, dated Thursday, December 23, 1971, be maintained and submitted for Department review when so requested.

5. That in no case will any fuels be utilized in any of the boilers at the Nyssa facility which exceed the limitations of OAR, 340, Sections 22-010, 22-015 and 22-020.

6. That all fuel burning equipment at the Nyssa facility conform to the emission limitations under OAR, 340, 21-015, 21-020 and 22-055.

7. That, upon completion of the project, the Company demonstrate to the Department that both the new Foster-Wheeler boiler and the existing Riley boiler are capable of continuous compliance with OAR 340, Sections 21-015 and 21-020 by isokinetically sampling the boiler stack emissions as prescribed in OAR 340, Section 20-040 and in accordance with approved Department procedures. All test data must be submitted to the Department for review and approval on or before March 1, 1974.

L. B. Day

TMP:en:12-8-72

APPENDIX

AMALGAMATED SUGAR COMPANY

INSTALLATION OF A FOSTER-WHEELER COAL-FIRED BOILER
MALHEUR COUNTY

Evaluation of Emissions from Boilers at Amalgamated Sugar Company, Nyssa

December 8, 1972

I Tabulation of Emissions by Boiler, Current and as Proposed

Boiler	Current Status			
	Steaming Capacity	Particulate Emissions	SO_2 Emission	Coal Burned
Erie City	90,000 lb/hr	Not tested	Not tested	9,000 lb/hr
B & W No. 1	85,000 lb/hr	46.6 lb/hr	86 lb/hr	9,000 lb/hr
B & W N. 2	85,000 lb/hr	46.6 lb/hr	86 lb/hr	9,000 lb/hr
B & W No. 3	85,000 lb/hr	46.6 lb/hr	86 lb/hr	9,000 lb/hr
Riley	100,000 lb/hr	over 60 lb/hr	102 lb/hr	10,430 lb/hr
Total	445,000 lb/hr	199.8 lb/hr	360 lb/hr	37,430 lb/hr

	Proposed Conditions			
	Steaming Capacity	Particulate Emissions	SO_2 Emissions	Coal Burned
B & W No. 1	85,000 lb/hr	46.6 lb/hr	86 lb/hr	9,000 lb/hr
B & W No. 2	85,000 lb/hr	46.6 lb/hr	86 lb/hr	9,000 lb/hr
B & W No. 3	85,000 lb/hr	46.6 lb/hr	86 lb/hr	9,000 lb/hr
Riley	100,000 lb/hr	4.4 lb/hr	102 lb/hr	10,430 lb/hr
Foster-Wheeler	200,000 lb/hr	7.9 lb/hr	228 lb/hr	27,020 lb/hr
Total	555,000 lb/hr	152.1 lb/hr	528 lb/hr	64,450 lb/hr

II Summary of Staff Analyses of SO_2 Dispersion from Amalgamated Sugar, Nyssa

Analyses of SO_2 dispersion from the power boiler stacks at Amalgamated Sugar Company, Nyssa have been performed by applying stack data provided by the Company and meteorological data obtained in-house[1] to a computer model used by the Department staff for single or multiple point source dispersion analyses.[2] Stack data are listed in TABLE I and meteorological inputs are contained in TABLE II. The stacks were assumed to be quite close together (20 feet center-to-center) in order to obtain conservative concentration estimates. Meteorological data were obtained assuming a six-month plant operating schedule spanning the period October through March. Detailed meteorological data were not available for Nyssa, so data were extrapolated from Baker and Ontario in Oregon and Boise in Idaho. During the late fall and winter, Nyssa will show temperature, wind and cloudiness regimes very close to those of Ontario and Boise, which are typical of a large area of Eastern Oregon and Western Idaho.

TABLE I

Stack Parameters
Amalgamated Sugar, Nyssa

Stack	Height (ft)	Diameter (ft)	Exit Vel (ft/sec)	Temperature (°F)	SO_2 Emissions (lb/hr)
1 (existing)	250	11.0	43.0	432	360.0
2 (new)	150	8.0	31.0	300	220.0

(1) Climatological Handbook of the Columbia Basin States, Vol III Pacific Northwest River Basins Commission, Vancouver, July 1968.

(2) Atmosphere Stack Dispersion Program (STACK), Sun Oil Company Philadelphia, 1970.

TABLE II

Meteorological Parameters
Nyssa

Average Temperature, October - March 40° F

Stability classes utilized (after Pasquill & Turner)

C, D, E, F - these range from slightly unstable (C) to very stable (F).

Windspeeds, utilized - (MPH) 2.5, 5.0, 7.5, 10.0

(These categories will cover at least 75% of the time during the period October - March)

The model was run using the expected power plant SO_2 emissions after the shift to low sulfur coal. Present SO_2 emissions amount to approximately 68% of projected levels after expansion. No complaints have been received relative to current emissions and while no monitoring has been conducted no problems are known to exist.

The results of the dispersion analysis show the following:

1) Highest ground-level concentrations downwind are estimated to be 0.0197 ppm on a one-hour average. These concentrations will occur approximately 3-1/2 miles downwind under conditions which should occur less than 10% of the time.

2) Concentrations in the immediate plant vicinity, i.e., within 3,000 feet of the plant, are estimated to be 0.0 ppm.

3) Average maximum concentrations in the first two miles downwind are estimated to be 0.0071 ppm on a one-hour average.

4) The change in SO_2 concentrations downwind after the fuel switch will be essentially undetectable with presently available measurement techniques.

Note: The ambient air standard for sulfur dioxide states that levels shall not exceed:

(1) 60 micrograms per cubic meter of air (0.02 ppm), annual arithmetic mean.

(2) 260 micrograms per cubic meter of air (0.10 ppm), maximum 24-hour average more than once per year.

(3) 1300 micrograms per cubic meter of air (0.50 ppm) maximum 3-hour average, more than once per year.

DEPARTMENT OF ENVIRONMENTAL QUALITY

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TOM McCALL
GOVERNOR

L. B. DAY
Director

ENVIRONMENTAL QUALITY COMMISSION
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Portland

November 27, 1972

Amalgamated Sugar Company
First Security Bank Building
Box 1520
Ogden, Utah 84402

Attn: Mr. Sylvester M. Heiner,
Chief Engineer

Re: Installation of New Foster-Wheeler Coal-Fired Boiler, Malhuer County, SIC 2063.

Gentlemen:

The Department has completed the review of specification for the installation of a new 200,000 lb/hr Foster-Wheeler, coal-fired, boiler with related baghouse for control of particulates and the baghouse control of emissions from the existing 100,000 lb/hr Foster-Riley, coal-fired, boiler.

The Department proposes to present your program to the Environmental Quality Commision at the December 21, 1972, meeting to be held in the City Council Chambers, Civic Center, 2nd Floor, 555 Liberty Street, S. E., Salem, Oregon 97301. The Department is prepared to support this program for the installation of the new Foster-Wheeler, 200,000 lbs/hr, coal-fired boiler with baghouse for collection of particulates and for the installation of a baghouse for collection of particulates from the existing Riley, 100,000 lbs/hr, coal-fired boiler subject to the following conditions:

1. That the company immediately make application for an Air Contaminant Discharge Permit as provided for by the rules adopted by the EQC on July 28, 1972, for the Nyssa facility.

2. That the new Foster-Wheeler boiler rated at 200,000 lbs/hr steam production include the following:

TELEPHONE: (503) 229-5696

a. Baghouse control with the design to conform to the requirements of Specification No. D6, dated August 3, 1972, for Project C-10953, as a minimum.

b. Emission Monitoring Equipment which is installed, calibrated on a routine basis, maintained, and operated as per manufacturers instructions described as:

1.) A photoelectric or other type of smoke detector and recorder.

2.) An instrument for continuously monitoring and recording emissions of nitrogen oxides.

3.) An instrument for continuously monitoring and recording sulfur dixoxide emissions.

3. That the existing Riley boiler rated at 100,000 lbs/hr steam production be controlled by a baghouse with the design to conform to the requirements of Specifications No. D6, dated August 3, 1972, for Project C-10953, as a minimum.

4. That all records, sampling and analysis requirements as specified by the Federal Register, Vol 36, No. 247, dated Thursday, December 23, 1971, be maintained and submitted for Department review when so requested.

5. That in no case will any fuels be utilized in any of the boilers at the Nyssa facility which exceed the limitations of OAR, 340, Sections 22-010, 22-015 and 22-020, pertaining to sulfur content of fuels.

6. That all fuel burning equipment at the Nyssa facility conform to the emission limitations under OAR, 340, 21-015, 21-020 and 22-055, pertaining to visible emissions, grain loading, and fugitive emissions respectively.

7. That, upon completion of the project, the company demonstrate to the Department that both the new Foster-Wheeler boiler and the existing Riley boiler are capable of continuous compliance with OAR, 340, Sections 21-015 and 21-020 by isokinetically sampling the boiler stack emissions as prescribed in OAR, 340, Section 20-040 and in accordance with approved Department procedures. All test data must be submitted to the Department for review and approval on or before March 1, 1974.

Enclosed are the necessary forms for making application for an Air Contaminant Discharge Permit and a copy of the adopted amendment to Oregon Administrative Rules. Your check in the amount of $125.00 should be enclosed with the application.

A copy of the staff review is also enclosed. If any inconsistancies are noted in this report please feel free to contact Mr. H. H. Burkitt, Chief of Engineering Services.

Very truly yours,

L. B. Day
Director

LBD:HHB:l

cc: District Engineer - Pendleton
Water Quality

Enclosure

To: Files - Amalgamated Suger Company - Nyssa, Malheur County
From: HB
Subject: Plan Review of Installation of New Coal-Fired 200,000 lbs/hr Foster-Wheeler Boiler

By letter to the Department, dated June 16, 1972, the company informed that natural gas service would be terminated on January 1, 1974. This has resulted in the necessity of making the above installation in order to make up the amount of steam production lossed by permanent curtailment of natural gas service.

Attached are copies of correspondence and memos relating to this matter.

Current Steam Plant Status

Boiler	Fuel	Steaming Capacity
Erie City	N.G./#2 Diesel Oil	90,000 lbs/hr.
B&W - #1	Coal	85,000 lbs/hr.
B&W - #2	Coal	85,000 lbs/hr.
B&W - #3	Coal	85,000 lbs/hr.
Riley	Coal W/some N.G.	100,000 lbs/hr.
Current total steam production:		445,000 lbs/hr.

On January 21 and 22, 1972, Steams-Roger, Inc. of Denver, Colorado, conducted particulate sampling tests in the flue duct breachings from the three (3) B & W coal fired units. Results of these particulate tests revealed the following:

TABLE I

TEST RESULTS

	Test No.1	Test No.2
Dust Concentration - grains/ACF	0.0776	0.0756
Dust Concentration - grains/SCF*	0.1469	0.1430
Emission Rate - lb/hr	140.0	123.9

TABLE II

TEST CONDITIONS

		Test No.1	Test No.2
Duct Flowrate - ACFM		210,500	191,200
Volume of Sample Taken - SCF*		153.6	145.9
Sampling Time - minutes		180	180
% Isokinetic Sampling		100.0	104.6
Gas Data:	Temp. ^{o}F	450	450
	Pressure - in. Hg	27.15	27.15
	Density	1.02	1.00
Gas Analysis:	H_2O	4.95	9.30
(% Vol)	CO_2 (Dry)	11.2	9.6
	CO "	0.0	0.0
	O_2 "	8.4	9.6
	N_2 "	80.4	80.8

* $70^{o}F$, 29.92 in. Hg

Standard conditions defined by the State of Oregon as of May 22, 1970, for combustion flue gases are as follow:

1. Temperature - 60°F (520°R)
2. Pressure - 14.7 psia (29.92 in. Hg)
3. Free of uncombined water (dry)
4. Adjusted to 12% CO_2 or 50% excess air

The correction factor on the dry meter volume for Item 4, above, may be calculated by two methods, 12% CO_2 basis, or 50% excess air basis as shown below:

	Test I	Test II
12% CO_2 Basis		
Correction Factor = % CO_2/12.0	0.933	0.800
50% Excess Air Basis		
Correction Factor = $\frac{150}{100 + \frac{100 \times \% O_2}{0.264\ (\% N_2) - \% O_2}}$	0.906	0.825

It is assumed that the least stringent method of determining the correction factor (method yielding the highest value) is acceptable.

Meter volume corrected to dry standard conditions can then be found using the following equation:

$$V_{m(STD)} = (V_m - M_m)(C.F.)(P_m/29.92)(520/460 + T_m)$$

For Test I:

Dry Standard Volume of sample =

V_{std} = (222.6-5.1)(0.933)(20.13/29.92)(520/517)
= 137.3 DSCF

Dust Concentration
= 1.4624 grams x 15.43/137.3 DSCF
= 0.164 grains/DSCF

For Test II:

Dry Standard Volume of sample =

V_{std} = (225.7-11.3)(0.825)(18.73/29.92)(520/537)
= 107.2 DSCF

Dust Concentration

= 1.3526 grams x 15.43/107.2 DSCF
= 0.195 grains/DSCF

As indicated by these results the three (3) B&W boilers when fired at the 85,000 lbs/hr rate are operating in compliance with OAR, 340, Section 21-020 (1).

A test has been performed on the Riley (100,000 lbs/hr) boiler. Results indicated that this unit is not capable of operation in compliance with OAR, 340, Section 21-020 (1). As a part of this program for installation of a new Foster-Wheeler boiler the company proposes to bring this unit into compliance with the installation of an American Air Filter baghouse.

The gas/oil fired Erie City (90,000 lbs/hr) boiler will be retired from service due to the curtailment of natural gas.

Proposed Steam Plant Status

Boiler	Fuel	Steaming Capacity
B&W - #1	Coal	85,000 lbs/hr.
B&W - #2	Coal	85,000 lbs/hr.
B&W - #3	Coal	85,000 lbs/hr.
Riley	Coal	100,000 lbs/hr.
Foster-Wheeler (new)	Coal	200,000 lbs/hr.

Projected total steam production: 555,000 lbs/hr.

This will result in an increase in steam production of 110,000 lbs/hr.

The fuel consumed in these units will conform to the following analysis:

APPROXIMATE REPRESENTATIVE ANALYSES OF ELKOL COAL

Proximate Analysis

	As Received	Dry Basis
Moisture	20.5%	
Ash	2.2%	2.8%
Volatile	35.0%	44.0%
Fixed Carbon	42.3%	53.2%
B.t.u.	10,200	12,800
Sulphur	0.7%	

Ultimate Analysis (Dry Basis)

Carbon	73.5%
Hydrogen	5.4%
Nitrogen	1.0%
Sulphur	0.8%
Ash	2.6%
Oxygen	16.7%

Ash Analysis

Silica	40.79%
Iron Oxide	6.61%
Alumina	32.81%
Lime	7.02%
Magnesia	Trace
Sulphur Trioxide	8.36%
Alkalies	4.41%

Ash Softening Temperature = 2440° F.

Note: Moisture content varies from 19.0 to 21.0%

Ash content varies from 1.5 to 3.5% (as received)

B.t.u. varies from 10,000 to 10,300 (as received)

Fuel usage, as reported for the 1969-1970 campaign, was 39,043 tons of coal. Currently, the Riley (100,000 lbs/hr) boiler is firing 10,430 lbs/hr. It is estimated that the new Foster-Wheeler boiler will consume 27,020 lbs/hr of coal. Using these figures the following projections can be determined for the coal usage in the new power house facility:

Boiler		lbs/hr Coal
Foster - Wheeler	(200,000 lbs/hr)	27,020
Riley	(100,000 lbs/hr)	10,430
B & W - #1	(85,000 lbs/hr)	9,000
B & W - #2	(85,000 lbs/hr)	9,000
B & W - #3	(85,000 lbs/hr)	9,000
		64,450

Projected Coal Consumption =

$$\frac{64{,}450 \text{ lbs/hr} \times 3{,}600 \text{ hrs/campaign}}{2{,}000 \text{ lbs/ton}} = 116{,}010 \text{ tons/campaign}$$

This represents a 300% increase over the 1969-70 campaign.

PROJECTED OPERATIONS AND AIR QUALITY AFFECTS.

1. The three (3) B & W boilers are currently operating in compliance with OAR, 340, 21-020 (1).

2. The Riley boiler will be controlled so as to meet the conditions set forth in OAR, 340, 21-020 (1), by incorporating a new baghouse.

3. The new Foster-Wheeler boiler will be controlled so as to meet the conditions set forth in OAR, 340, 21-020 (2), as well as all Federal requirements as outlined in the Federal Register, Vol 36, No 247, dated Thursday, December 23, 1971, on pages 24878,24879 and 24880.

4. Baghouse design, as specified in Specification No. D6, dated August 3, 1972, for Project C-10953, is as follows:

C-10953
Spec. No. D6

DESIGN AND CONSTRUCTION

A. General

a. Components, features and design parameters specified herein are minimum requirements. If Seller's design dictates that these minimum requirements be exceeded to meet specified performance guarantees and to provide a safe, reliable operating unit, it shall be Seller's responsibility to furnish all equipment above and beyond the specified minimum requirements at no increase to his original bid price.

b. Seller shall provide all accessories and appurtenances required for a complete and operable dust collecting system installation that are not specifically excluded herein from his scope of work.

B. Codes and Standards

a. Unless otherwise specified, the work covered by this Specification shall comply with the latest applicable provisions of ASME, ASTM, IEEE, NEMA, NEC, AWS, AISC, ANSI and IGCI standards and all federal, state and local codes of the place of installation.

b. All equipment and materials furnished hereunder shall be in accordance with requirements set forth by the Williams-Steiger Occupational Safety and Health Act of 1970, Part 1910, "Occupational Safety and Health Standards", as amended.

c. If there is a conflict between any of the requirements of this Specification and the requirements of the above mentioned Occupational Safety and Health Act and/or any other applicable statute, ordinance or code, then the requirement which is the most stringent or has governing jurisdiction shall apply.

C. Structural Design

a. The dust collecting system shall be designed in accordance with the Uniform Building Code, latest edition.

b. The Complete unit shall be designed for earthquake zone 2 as defined in the Uniform Building Code, latest edition.

c. Wind pressure and suction forces for design shall be in accordance with Table 23E of the Uniform Building Code, 1970 edition, for a basic wind loading of 25 PSF.

DESIGN AND CONSTRUCTION (CONTD)

D. Performance

a. Each dust collecting system shall be designed, sized and guaranteed to produce an effluent having a maximum grain loading of 0.01 grains/actual cu. ft.

b. Each bag house collector shall be capable of corrective maintenance, including bag replacement, without requiring a load reduction of the steam generator. All necessary individual compartments and dampers shall be included to meet this requirement.

c. During normal operation, including periods of bag cleaning, maximum pressure drop across each bag house collector shall be 6" WG.

d. During periods of corrective maintenance, maximum pressure drop across each bag house collector shall be 8" WG. Bag cleaning frequency shall be adjustable to accommodate these periods. Buyer's ash removal frequency will also be adjusted.

e. If a mechanical collector is furnished for the new stoker-fired unit, it shall have a maximum pressure drop of 2" WG.

E. The collector housing and hoppers shall withstand suction with not more than 1/2" deflection in any panel or reinforcing member.

F. Size and Configuration

a. The approximate space available for the dust collecting systems and associated ductwork are shown on the sketches included herewith. Maximum available width is 20 ft. for the existing unit and 35 ft. for the new unit. These sketches, except as noted otherwise, shall not be construed as dictating the actual configurations of the dust collecting equipment, which is the responsibility of the Seller.

b. A minimum of 5 feet vertical clearance for dust removal equipment is required below all dust collection hoppers.

G. The dust collecting systems shall be equipped with all such ladders and platforms (including handrailing) as are necessary to provide access to all parts requiring maintenance or manual operation.

H. The dust collecting systems shall be of the type which utilizes a flow of gas through filter bags. The cleaning of the filter bags shall be fully automatic and shall employ a method of cleaning recommended by the Seller, such as mechanical shakers, compressed air jets, reverse gas flow, etc. The cleaning of the bags shall either be in response to the pressure drop across the system or according to a timed sequence. If automatic timers are provided, then they shall be adjustable over a wide range.

DESIGN AND CONSTRUCTION (CONTD)

I. Each compartment arrangement shall permit easy bag inspection and replacement. All bag hardware shall be stainless steel.

J. It may be necessary to service the equipment while the steam generators are in operation. Therefore, the systems shall be designed to provide safe, gas-free working conditions, with sufficient ventilation and heat protection to permit access to all components in any compartment while the other compartment(s) remain in operation. All doors and hatch covers shall be provided with suitable tightening devices for periodic compensation for gasket shrinkage.

K. Each reverse gas fan, if applicable, shall be complete with electric motor drive, coupling and guard, and shall be mounted in a location permitting easy access for fan maintenance or removal.

L. The collector housing shall be constructed using a minimum of 3/16" thick U.S.S. hot rolled sheets with standing ribs, minimum 2-1/2", spaced as required by pressure design. All bolted seams shall be sealed with felt and Johns-Manville caulking putty. All bolts shall be supplied with lock washers. The necessary felt and putty shall be supplied with collector. If a different method of sealing is preferred by Bidder, he shall offer it as an alternate and tell why it is preferable. All joints shall be constructed so that they can be assembled tight against rain infiltration. The roof of the collector shall be pitched to allow for water runoff.

M. Both systems shall be designed for gas temperatures ranging from 275-400°F, and a gas pressure of minus 20" WG.

N. The bag collector floor shall be designed so that it is completely leak-tight when assembled and air may only pass through the cloth bags fastened to the floor.

O. The collection hoppers shall have valley angles of at least 60 degrees with horizontal. For structural design purposes, fly ash weight shall be assumed to be at least 90 lbs./ft.^{3}. Hopper outlets shall be flanged and drilled to suit ash disposal system components to be furnished by others. Hoppers shall be complete with necessary heaters, vibrators and/or rappers.

P. The collectors shall have support legs to the ground level.

Q. The dust collecting systems shall be preinsulated with material of a thickness and type sufficient to maintain temperatures in the collectors at least 50°F above the dew point of any of the flue gases during any operating or cleaning mode. All shipping modules shall be shop insulated and covered with aluminum jacketing. Jacketing shall be attached without use of sheet metal screws or similar items that would loosen with vibration.

DESIGN AND CONSTRUCTION (CONTD)

R. Each hopper shall be provided with a conveniently located air and gas tight access door (designed and equipped equivalent to precipitator casing doors), and with a 2 inch pipe nipple fitted with a pipe cap or equivalent removable cover located near hopper outlet to permit emergency probing.

S. Each hopper shall also be equipped with an approved high dust level alarm device, consisting of either a differential pressure level switch with continuous air purge or a "Bindicator", or equal. This device shall include attachments through the hopper and a SPDT switch for an annunciating device in the control panel.

T. Ductwork and Dampers

a. Inlet and outlet ductwork, including associated supports, accessways and thermal expansion provisions will be furnished by Buyer.

b. The sketches included herewith are intended solely to indicate in general the approximate locations of work terminal points and approximate space available for the bag house collectors and ductwork. The arrangement of ductwork, including number and locations of hoppers and expansion joints shall be determined by the Seller, subject to approval of the Engineer.

c. Seller shall provide all necessary manual dampers, including operating mechanism, for compartment isolation specified elsewhere herein.

U. Mechanical Collectors

a. If required by Seller's design, mechanical collectors shall be included.

b. Special wear-resistant high Brinell inlet tubes of a minimum 10" diameter shall be included. Hoppers shall have a minimum slope of 60 degrees from horizontal.

c. Applicable requirements for other system components specified elsewhere herein shall also apply to mechanical collectors.

V. Instrumentation and Controls

a. General

The Seller shall provide all solenoid valves, timing switches, etc. as are necessary for the fully automatic operation of the equipment furnished, requiring only the Buyer's connection of inlet and outlet ductwork, electrical and/or pneumatic sources, ash conveying systems, grounding connections and connection to panel for remote alarm. The cleaning function shall be capable of local manual operation from the Seller's control panel in the event of automatic sequence failure.

DESIGN AND CONSTRUCTION (CONTD)

V. Instrumentation and Controls (Contd)

b. Control Panels

(1) The Seller shall furnish an easily accessible prewired local panel for each bag house collector system. The panel enclosure shall be NEMA 3S.

(2) There shall be an auxiliary contact for the Buyer's remote alarm for indication of any abnormal condition. In addition, there shall be terminal strip(s) for connection of Buyer's auxiliary wiring and a 3-position Hand-Off-Auto Switch for manual control of the bag cleaning function.

(3) Instruments and devices shall be included such that the following are indicated on the panel:

(a) Position of automatic dampers
(b) Hopper dust level alarm
(c) High pressure drop alarm

(4) The Control panels shall each have a minimum of 10 percent spare space for possible future additions to the control systems.

c. Automatic Valves and Dampers

(1) All valve and damper parts that are subjected to excessive wear shall be replaceable.

(2) All air operated valves and dampers shall be designed to fail in the existing position upon loss of pneumatic or electrical signal or loss of power to solenoid valve, where the system design makes this desirable. Motor operated valves or dampers shall be designed to hold the last position in case of power failure. Motor operated valves shall not be used where there is a preferential safe position for the valve. All automatic valves and dampers shall be capable of manual operation by means of a geared handwheel. These shall all be easily accessible by means of ladders, platforms, etc., or shall be provided with easily accessible chain operators.

(3) Air operators shall be designed to safely withstand full supply pressure in the event of regulator failure.

(4) Remotely operated valves and dampers shall be provided with the required pilot solenoid valve and limit switches in both the open and closed positions.

DESIGN AND CONSTRUCTION (CONTD)

V. Instrumentation and Controls (Contd)

c. Automatic Valves and Dampers (Contd)

(5) Pneumatic positioners, where required, shall be provided with three (3) pressure gauges for supply air, control air, and diaphragm loading. Pressure gauges shall be a minimum of 2" in diameter.

d. U-Gauges

Each individual compartment of each system shall have a 5" U-gauge, including an F.W. Dwyer #A 310 three-way vent valve or equal. The gauges shall be connected across the clean and dirty air chambers of each compartment.

e. Switches

Each instrument device, as applicable, shall have two (2) SPDT Switches.

W. Electrical Requirements

a. General

All power wiring in the Seller's design requiring external connection by the Buyer shall be brought out to junction boxes. All control wiring requiring external connection by the Buyer shall be wired to terminal strips in the control panels. Seller shall tag the ends of wires at terminal strips for Buyer's connections. Seller shall provide grounding terminals for connection to Buyer's grounding system.

b. Enclosures

(1) Any electrical equipment that will be exposed to the ambient outdoor conditions shall have NEMA 3S enclosures.

(2) All electrical equipment located in fully enclosed areas shall have NEMA 1 enclosures.

FACTUAL ANALYSIS

1. The company will have their natural gas service terminated on January 1, 1974, due to gas shortages.

2. To make up the steam deficient the company will install a new Foster-Wheeler, 200,000 lbs/hr, coal-fired boiler to replace an Erie City, 90,000 lbs/hr, natural gas fired boiler.

3. The company proposes to use the "highest and best" technology for control and collection of particulate matter by employing the use of baghouses on both the new Foster-Wheeler, 200,000 lbs/hr and existing Riley, 100,000 lbs/hr, coal-fired boilers.

4. Baghouse control per specification No. D6, dated August 3, 1972, for Project C-10953, requires emission of particulate matter in the gas stream not to exceed 0.01 grains per actual cubic foot.

5. Projected emissions to the atmosphere at the conclusion of the project are as follows:

Boiler	Steam Production	Emission Rate-lbs/hr
B & W - #1	85,000 lbs/hr	46.6 - measured
B & W - #2	85,000 lbs/hr	46.6 - measured
B & W - #3	85,000 lbs/hr	46.6 - measured
Riley	100,000 lbs/hr	4.4 - projected
Foster - Wheeler	200,000 lbs/hr.	7.9 - projected

Total particulate to atmosphere 152.1 lbs/hr.

6. This project will result in only two (2) stacks:
   a. The three (3) B & W boilers are breached to a common stack.
   b. The new Foster-Wheeler and existing Riley with baghouse control are breached and ducted to a common stack.

7. Continuous monitors are proposed for the new Foster-Wheeler boiler:
   a. Particulates
   b. SO_2
   c. NO_x

8. Low sulfur coal (in the range of 0.7%) will be used as the fuel for the boilers.

9. The three (3) B & W boilers, as tested on January 21 and 22, 1972, are in compliance with OAR, 340, Section 21-020, for existing sources, ie. less that 0.2 grains/SCFM at 12% CO_2.

RECOMMENDATIONS

It is recommended that this project be approved subject to the following conditions:

1. That the company immediately make application for an Air Contaminant Discharge Permit as provided for by the rules adopted by the EQC on July 28, 1972, for the Nyssa facility.

2. That the new Foster-Wheeler boiler rated at 200,000 lbs/hr steam production include the following:

    a. Baghouse control with the design to conform to the requirements of Specification No. D6, dated August 3, 1972, for Project C-10953, as a minimum.

    b. Emission Monitoring Equipment which is installed, calibrated on a routine basis, maintained, and operated as per manufacturers instructions described as:

        1.) A photoelectric or other type of smoke detector and recorder.

        2.) An instrument for continuously monitoring and recording sulfur dioxide emissions.

        3.) An instrument for continuously monitoring and recording emissions of nitrogen oxides.

3. That the existing Riley boiler rated at 100,000 lbs/hr steam production be controlled by a baghouse with the design to conform to the requirements of Specifications No. D6, dated August 3, 1972, for Project C-10953, as a minimum.

4. That all records, sampling and analysis requirements as specified by the Federal Register, Vol 36, No. 247, dated Thursday, December 23, 1971, be maintained and submitted for Department review when so requested.

5. That in no case will any fuels be utilized in any of the boilers at the Nyssa facility which exceed the limitations of OAR, 340, Sections 22-010, 22-015 and 22-020.

6. That all fuel burning equipment at the Nyssa facility conform to the emission limitations under OAR, 340, 21-015, 21-020 and 22-055.

7. That, upon completion of the project, the company demonstrate to the Department that both the new Foster-Wheeler boiler and the existing Riley boiler are capable of continuous compliance with OAR, 340, Sections 21-015 and 21-020 by isokinetically sampling the boiler stack emissions as prescribed in OAR, 340, Section 20-040 and in accordance with approved Department procedures. All test data must be submitted to the Department for review and approval on or before March 1, 1974.

DEPARTMENT OF ENVIRONMENTAL QUALITY

TERMINAL SALES BLDG. • 1234 S.W. MORRISON ST. • PORTLAND, OREGON 97205

TOM McCALL
GOVERNOR

L. B. DAY
Director

ENVIRONMENTAL QUALITY COMMISSION
B. A. McPHILLIPS
Chairman, McMinnville
EDWARD C. HARMS, JR.
Springfield
STORRS S. WATERMAN
Portland
GEORGE A. McMATH
Portland
ARNOLD M. COGAN
Portland

MEMORANDUM

To: ENVIRONMENTAL QUALITY COMMISSION

From: Director

Subject: Agenda Item No. F, December 21, 1972, EQC Meeting

Amalgamated Sugar Company, Nyssa, Malheur County
Amendments to the Company Proposal and Director's Recommendations

Contact with the Amalgamated Sugar Company subsequent to the preparation of the staff report for the December 21, 1972, EQC meeting and the letter of November 27, 1972 to Amalgamated Sugar has resulted in the determination that some misunderstanding existed relating to the company proposals.

Amendments to the Proposal:

These differences are detailed as follows:

1. There is one additional gas-fired boiler that will be phased-out during the change over, a B & W boiler rated at 35,000 lbs/hr steam. This does not affect the emissions or the proposal except as noted in 2.

TELEPHONE: (503) 229-5696

2. The net increase in steam capacity is 45,000 lbs/hr (compared to the 110,000 lbs/hr shown in the report) when the additional phase-out is considered and also that the Riley boiler will be derated from 100,000 lbs/hr under current firing with gas-coal combination to 80,000 lbs/hr when fired with coal alone.

3. The major change relating to the proposal is that the company did not intend to and states it did not indicate the baghouse on the existing Riley Boiler would be installed prior to its full operation on coal during the 1973-74 season. The boiler consequently would be operating, as it is now, out of compliance with particulate emissions standards during that period. The company states that it will install a baghouse on the Riley Boiler as soon as practicable, but claims that this cannot be accomplished until 1974 for the 1974=75 season due to the extended delivery schedule for equipment.

Evaluation:

The net effect of the above is that the company would continue to operate the Riley boiler with particulate emissions in excess of that allowed under Section 21-020 for one year. The company has stated that the recommended baghouse would be installed in the boiler in 1974 and suggested a compliance schedule to this effect. The effect of operating the facility in this manner would be that the total particulate emissions from that

currently being emitted would be increased by an estimated 8 pounds per hour during the 1973-74 season. This is an increase to approximately 208 pounds/hour compared to the current emission of 200 pounds per hour.

Conclusions:

The Department concludes that on the basis of available information from the company that the company is engaged in a positive program to achieve compliance with the applicable air quality regulations. The Department further concludes that the 8 lbs/hr increase in particulate emissions for 1 year will not have a measurable impact on the health and welfare of the people or property in the area.

Director's Recommendation:

It is the recommendation of the Director that the initial report recommendation No. 3 be revised as follows:

a) The existing Riley boiler rated at 100,000 lbs/hr steam production shall be controlled by a baghouse with particulate emission control equivalent to that specified on the Foster Wheeler boiler by no later than July 1, 1974.

b) During the operating period prior to the baghouse control system being installed on the Riley boiler, the company shall utilize natural gas as a fuel to the boiler to the maximum degree attainable with available equipment.

c) The compliance schedule shall be included in the air contaminant discharge

permit and shall include increments of progress toward the achievement of compliance with the Riley boiler. This shall include the company notifying the Department in writing of the scheduled dates of order of the baghouse collector, of delivery of the baghouse collector, start of construction and final testing of the boiler.

It is the further recommendation of the Director that all items of the modification program be included as part of the company's air contaminant discharge permit.

L. B. Day

TMP:h 12/20/72

DEPARTMENT OF ENVIRONMENTAL QUALITY

TERMINAL SALES BLDG. • 1234 S.W. MORRISON ST. • PORTLAND, OREGON 97205

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No.G-1 , December 21, 1972, EQC Meeting

CWAPA Variance 72-7 to Brazier Forest Products, Inc.

Background

Brazier Forest Products, Inc. operates a sawmill three miles north of Molalla. The mill generates 10-15 units of sawdust and 40 units of bark mulch each 16-hour production day. All the sawdust is sold, but only 10% of the bark mulch is presently being marketed. The Company is expanding production and by January 1, 1973 expects to be generating wood waste at two and one-half times its present rate. The Company's wigwam wood waste burner was phased out during 1970 in order to comply with CWAPA rules.

At present all sawdust and shavings are being sold, but bark is accumulating rapidly even though there are some customers for it. The bark storage area presently covers approximately four acres. There have been spontaneous fires in the bark pile the last two summers.

By letters dated September 2 and October 26, 1972, the Company petitioned CWAPA for a variance from its rules in order to construct and operate a modified wigwam wood waste burner

TELEPHONE: (503) 229-5696

at its Molalla mill. CWAPA granted the variance through December 31, 1973 under the following conditions:

1. The Company will submit for Authority staff review and comment detailed plans and specifications for the proposed burner prior to construction or installation.
2. The modified burner is to be constructed and operated in accordance with the criteria and requirements of Oregon Administrative Rules, Chapter 340, Sections 25-005 through 25-025.
3. The Company will submit records of temperature and burner operation as requested by the Authority.
4. The Company will cease operation of the burner when notified by Authority that a condition of air pollution "Alert", "Warning", or "Emergency", exists as described in Chapter V, Title 51 of Authority Rules.
5. On or before 15 November 1973, the Company will submit a written report to the Authority which will include:
   a. Any significant change in operation of the burner including quantity of material burned, nature of material burned, hours of operation and mechanical condition of the burner.
   b. Any progress or development as related to further utilization of wood waste products burned or alternate means of compliance.

The variance and reference materials have been forwarded for Department review and Commission action.

Analysis

The variance as granted satisfies all Department review criteria.

The reference material submitted by CWAPA indicates the Company has explored all practicable alternatives to incineration in a wigwam burner.

Director's Recommendation

The Director recommends that CWAPA variance 72-7 to Brazier Forest Products, Inc. be approved as submitted.

L. B. Day

RBS:en:12/7/72

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

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

17 November 1972

Department of Environmental Quality
1234 Southwest Morrison Street
Portland, Oregon 97205

Attention: L. B. Day, Director

Subject: CWAPA Variance No. 72-7
Brazier Forest Products, Inc.

Gentlemen:

Please find enclosed CWAPA Variance No. 72-7 which we request be reviewed by your Department and presented to the Environmental Quality Commission for their approval.

Also enclosed to assist in your review are the following documents:

a. Letter, CWAPA to Brazier Wood Products, 1 September 1972
b. Letter, Industrial Construction Co. to Brazier Forest Products 20 October 1972
c. Letter, Brazier Forest Products, 26 October 1972
d. CWAPA staff memorandum, 2 November 1972
e. Minutes, CWAPA Advisory Committee, 2 November 1972
f. Minutes, CWAPA Board of Directors, 10 November 1972

For the Program Director.

Very truly yours,

Jack Lowe
Administrative Director

JL:sm
Enclosures - 7

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

In the matter of:	)	NO. 72 -7
	)	
VARIANCE TO BRAZIER FOREST PRODUCTS, INC.	)	VARIANCE INCLUDING
	)	
a Corporation	)	FINDINGS AND CONCLUSIONS

FINDINGS

I

By letters dated 11 September 1972 and 26 October 1972 Brazier Forest Products, Inc., a corporation, has petitioned for a variance from Rules 21-015(2), 21-020, 32-030, 32-045 and 32-055 to construct and operate a modified wigwam waste burner for disposal of wood waste products from the sawmill located approximately three miles north of Molalla, Oregon.

II

During 1970 the petitioner discontinued use of the wigwam burner at this location being able to otherwise dispose of most of the wood waste products.

III

Petitioner now is in the process of construction to expand production rate of the lumber mill by approximately 100% which in turn will at least double the quantity of wood waste products to be disposed of.

IV

Disposal of said wood waste products other than by burning in a wigwam burner is impractical as there is no adequate solid waste disposal site within a reasonable distance of the mill; the plant and mill do not use any steam, thus no fuel is required for operating the mill; the marketers of wood waste products are unable to sell all the wood waste products presently generated by the plant; the cost of incineration of the wood waste products

in compliance with Columbia-Willamette Air Pollution Authority Rules is prohibitive.

V

To deny the requested variance would deny the petitioner the opportunity to operate the expanded mill and to require strict compliance with the Rules of Columbia-Willamette Air Pollution Authority would be unreasonable and burdensome upon the petitioner because of the special physical conditions of not otherwise being able to dispose of the wood waste products.

CONCLUSIONS

Pursuant to the provisions of ORS 449.880 and Columbia-Willamette Air Pollution Authority Rules, Title 23, Columbia-Willamette Air Pollution Authority has the power to grant the requested variance and that said variance should be granted for a limited period of time subject to certain conditions hereinafter set forth. Based upon the foregoing findings of fact and conclusion, the Board of Directors makes the following:

ORDER

NOW THEREFORE IT IS HEREBY ORDERED that a VARIANCE from the provisions of Rules 21-015(2) (Specifications Showing Compliance with Rules), 21-020 (Approval in Compliance with Rules), 32-030 (Particulate Matter Weight Standards), 32-045 (Process Weight Emission Limitations) and 32-055 (Particulate Matter Size Standard) be granted to Brazier Forest Products, Inc. to construct and operate a wigwam waste burner as part of its sawmill operation approximately three miles north of Molalla, Oregon for a period of time not beyond 31 December 1973 and subject to the following conditions:

1. PETITIONER will submit for Authority staff review and comment detailed plans and specifications for the proposed burner construction prior to installation.

2. The modified burner is to be constructed and operated in accordance with the criteria requirements of Oregon Administrative Rules, Chapter 340, Sections 25-005 through 25-025.

3. In addition to the design criteria specified, PETITIONER will install and operate a monitoring device in accordance with specifications of the Authority to monitor visible emissions from the wigwam burner. The specification and location of the monitoring device are to be submitted to and approved by the Authority prior to installation and startup of the wigwam burner unless otherwise specified in writing by the Authority.

4. PETITIONER will cease operation of the burner forthwith when notified by the Authority staff a condition of air pollution "Alert", "Warning", or "Emergency", exists as described in Chapter V, Title 51 of the Authority Rules.

5. On or before 15 November 1973, PETITIONER will submit a written report to the Authority which will include:

   a) Any significant change in operation of the burner including quantity of material burned, nature of material burned and hours of operation and mechanical condition of the burner.

   b) Any progress or development as related to further utilization of wood waste products burned or alternate means of compliance with the rules of Authority.

6. Authority recognizes PETITIONER may request another variance prior to the termination date hereof. Based upon the past performance of the burner and compliance of the variance conditions and overall environmental conditions then prevailing and in keeping with the policy of the Authority concerning wigwam waste burners, the Authority may grant or deny such additional requested variance.

Entered at Portland, Oregon the 10th day of November 1972.

Certified a True Copy

Jack Lowe
Administrative Director

Chairman

COLUMBIA-WILLAMETTE
AIR POLLUTION AUTHORITY
1010 N. E. COUCH STREET
PORTLAND, OREGON 97232
PHONE (503) 233-7176

ROUTING	
To	Noted by
From:	
Action:	

1 September 1972

Brazier Wood Products
P.O. Box 5
Molalla, Oregon 97038

Attention: Lou Steiner, Manager

Gentlemen:

This is to confirm our recent discussion concerning your increading problem of disposing of wood waste from your mill. It is our understanding you are substantially increasing the production at your facility which will create a serious disposal problem and you wish to investigate some form of incineration..

Of the alternatives discussed, you expressed an interest in investigating the feasibility of installing a modified wigwam waste burner. As stated, a modified wigwam waste burner as presently designed is not capable of meeting all the emission standards of our Authority; consequently, prior to authorization by our Authority to construct such a device, in addition to supplying detailed information on the quantity of waste to be disposed, sufficient evidence must be presented that no other feasible alternative exists. In demonstrating this, our Authority will require a statement of the relative technical and economic feasibility of the following alternatives and information.

1. Quantity of waste - Information is needed on the total wastes generated, quantity disposed by sales or utilized for other purposes, quantity, type (sawdust, bark, mill ends, etc.) unable to be disposed of (quantity should be given on an annual, daily or per shift basis).

2. Off-site disposal - The technical and economic feasibility of utilizing an existing disposal site and/or the installation of an acceptable disposal site. This alternative may be discussed and explored with representatives of the Clackamas County Health Department (Solid Waste Division), Oregon City.

3. Hog fuel fired boiler - It is our understanding with your planned increased mill production, you will have a need for some steam production. The acceptability of this method by our Authority and your apparent need for steam would indicate all aspects of this alternative should be thoroughly investigated.

4. Incinerator - Depending on the quantity of waste to be disposed of, it may be possible to install an incinerator with or without steam producing capabilities.

As requested attached is a list of consultants and equipment suppliers who we are aware of that have expertise in the area of your concern. Our Authority policy prohibits us from making specific recommendations of products, companies and services; the list provided is for your convenience and is not intended to represent all consultants or equipment suppliers who may be of assistance to you.

We recognize your problem and are prepared to assist as necessary.

Very truly yours,

R. E. Hatchard
Program Director

Wayne Hanson
Deputy Program Director

WH:sm
Attachment

-REH
-TB
WS-WS

BRAZIER FOREST PRODUCTS

P. O. BOX 5 MOLALLA, OREGON 97038
TELEPHONE (503) 829-9121 (503) 655-4255 (PORTLAND)

ROUTING	
To	Noted by
WH	WH
TB	TB
[illegible]	WH
WS	WS
From:	
Action:	

September 11, 1972

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

Dear Mr. Hanson: Re: Your letter of September 1, 1972

1. Quantity of waste--present time.
   10/15 Units sawdust (selling entire volume)
   40 units bark mulch (sell 10% only)

Starting production based on a 16 hour day, starting January 2, 1973 with our new mill we feel our waste will be 2½ times present volume and it is doubtful we can sell anymore sawdust than at the present time, and in the winter months we have no bark sales. I estimate approximately 10 units trim, sawdust and yerd clean-up from new planing mill--November 1, 1972.

2. The cost of trucking waste from plant would be prohibitive unless there was a sale for the material to offset trucking costs.

3. Hog fuel fired boiler: We plan dry kilns, however it will be possibly two years before we make this additional expenditure, fuel required for the boiler would be only small portion of waste produce.

4. Incinerator: In discussing this possibility with Wasteco, Inc., they advised me cost for burning waste only would be prohibitive. If we had substantial steam requirements this would help offset initial investment.

Since you were at the plant and discussed our problem with me I have contacted Lausmann Corp. in Medford--the general feeling among lumber industry operators is; their burner is nearest to having 100% control of flyout ash.

We hope to reach an early decis[illegible] on burner installation as our waste pile continues to grow daily.

Thank you for your help and cooperation.

Very truly yours,

Luther C. Steinhauer

Luther C. Steinhauer

RECEIVED SEP [illegible] LCS:ar
COLUMBIA - WILLAMETTE AIR POLLUTION AUTHORITY

INDUSTRIAL CONSTRUCTION CO., INC.

POLLUTION CONTROL SYSTEMS
U.S. & CANADA PATENTS PENDING
510 Conger Street, Eugene, Oregon 97402
Telephone 686-2824

Earl Wing — President
Lee Rife — Vice-President
Stan Jacobsen — Vice-President

ROUTING	
To	Noted by
WH	WH
From:	
Action:	

October 20, 1972

Blazier Forest Products, Inc.
P. O. Box 5
Mollala, Oregon

ATTENTION: Luther Steinhauer

Dear Mr. Steinhauer:

Thank you for the opportunity of submitting the following quotation on a new waste wood burner at Mollala, Oregon, to an oil fired smokeless unit in accordance to our specifications and recommendations.

The cost of converting one thirty five foot (35') waste wood burner, including 3 ignitors, 2 5HP overfire fans, Stutz fire ring underfire system, 13 pots w/P.B. 18" 30 HP underfire fan, damper door system, Honeywell recorde , heat controlling system, and electrical control panel, to meet Oregon State Air Pollution standards will be.....$21,500.00

The cost of one new thirty five (35') foot waste wood burner w/stand-up doors (10'x10") installed at mill site.....$ 5,100.00

Burner specifications:

35" x 35"
4" channel back to back legs w/pier blocks
Channel bolted with 5/8" bolts
2" x 2" x 3/16" angles on 30" centers
16 gauge sheet metal
Dome top and screen

Total cost of construction will be.....$26,600.00

Blazier Forest Products will be required to furnish the following:

1. A 250 gallon or larger oil tank with a 3/4" line running to the fuel pressure system.
2. All electrical service to control panel.
3. An 8' x 8' x 6" concrete slab to mount the automatic control system.
4. A $\frac{1}{2}$" air line to the control panel with a minimum of 10 CFM.
5. A crane of sufficient size and capacity to erect burner and set damper control system.
6. A back-hoe for installation of the underfire system, oil, air and electrical lines.

GUARANTEE

Industrial Construction Company guarantees that this unit will meet all existing Oregon State Air Pollution standards. The guarantee consists of our agreement in the event the unit cannot pass the existing test that we would remove all equipment installed and refund the purchase price.

We guarantee all workmanship and materials for 90 days from completion of construction.

We will furnish the drawings to be submitted to the State/County Environmental Control Office for approval. The cost of these drawings will be $350.00 upon delivery. However, when a formal contract is drawn up and signed, the $350.00 will be deducted from the total cost.

If required, we will submit a formal contract at the time of your approval of this quotation. Our required terms are:

33 1/3% of quoted price with contract or purchase order.
33 1/3% upon delivery of equipment at plant site.
33 1/3% upon completion of construction.

It is necessary to ask the full cooperation of your employees during the conversion time, and we must reserve the right to control the burner prior to start-up, during the testing period and during the time for Department of Environmental Control approval.

This quotation is valid for thirty (30) days.

All prices F.O.B. - Eugene, Oregon.

Please call if you have any questions.

Very truly yours,

Lee Rife

Lee Rife
Vice President

LR:ks

BRAZIER FOREST PRODUCTS

P. O. BOX 5 MOLALLA, OREGON 97038
TELEPHONE (503) 829-9121 (503) 655-4255 (PORTLAND)

October 26, 1972

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

Dear Mr. Hanson:

Brazier Forest Products, Inc. request variance from Columbia-Willamette Air Pollution Authority to construct a rules modified wigwam burner in accordance of recent discussion with authority staff.

Very truly yours,

Brazier Forest Products, Inc.

Luther C. Steinhauer

Luther C. Steinhauer
General Manager

LCS:ar

ROUTING	
To	Noted by
[illegible]	WB
From:	
Action:	

RECEIVED
OCT 27 1972
COLUMBIA - WILLAMETTE
AIR POLLUTION AUTHORITY

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

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

2 November 1972

MEMORANDUM

TO: Board of Directors

FROM: R. E. Hatchard, Program Director

SUBJECT: Variance Request - Brazier Forest Products, Molalla

Gentlemen:

The following pertains to the request for a variance from the Columbia-Willamette Air Pollution Authority Rules 21-015(2), 21-020, 32-030, 32-045, 32-055 by Brazier Forest Products, Molalla. The purpose of the variance request is to allow Brazier Forest Products to install and operate a modified wigwam waste burner at their Molalla mill.

Background

Brazier Forest Products operate a sawmill approximately three miles northeast of Molalla. The mill is surrounded by farm land with the closest resident located approximately ½ mile from the proposed burner site.

In 1970 use of the wigwam burner was discontinued at this mill to achieve compliance of the Authority Rules. The production of the mill at that time was such that most of the wood waste formerly burned was utilized by fuel suppliers with some accumulation of surplus bark and mill ends on plant property. In the summers of 1971 and 1972 spontaneous fires were experienced in the bark storage pile. Prompt action taken by Brazier Forest Products in both cases limited the fire to a few days.

Earlier this year Brazier Forest Products informed our Authority they were increasing the size and production of their mill (approximately 2½ times) and with the increased production the quantity of waste produced would require other methods of disposal.

As requested by the Authority, Brazier Forest Products investigated the following methods of disposal:

1. Off-site disposal - The possibility of utilizing an existing disposal site or the installation of an acceptable disposal site was explored with the Clackamas County Health Department (Solid Waste Division).

Information has been obtained both by Brazier Forest Products and the Authority staff that facilities are not available nor feasible for the quantity and type of waste to be disposed of.

2. Utilization as hog fuel - Although future plans for the plant may include the installation of dry kilns, at present, no boiler is operated at the plant and if kilns were installed the fuel requirements would only be a small portion of the waste produced.

3. Increased utilization for off plant use - As evidenced by the accumulated waste presently on site, fuel suppliers are unable to utilize the increased supply of material. With the increased lumber production of the past year, this condition exists in much of Oregon.

4. Incineration - Incinerator suppliers were contacted by Brazier Forest Products and advised the quantity of waste would make the cost prohibitive for their mill.

Staff Recommendation

The Authority staff has reviewed the various alternatives investigated by Brazier Forest Products and the overall environmental effect of this variance request and concluded:

a) With the increased production planned for this mill, complete utilization of all wood waste produced is not feasible at this time.

b) Of the alternatives investigated, considering all environmental aspects, incineration appears to be the most feasible solution with the least effect on the total environment.

Unfortunately adequately designed incineration devices capable of meeting the Authority particulate emission standards are not readily available nor competitively priced with modifying wigwam waste burners for mills such as Brazier Forest Products. It is the Authority staff opinion the modified wigwam waste burner proposed by Brazier Forest Products will be designed in such a manner that air contaminant emissions will be minimum within the capability of the modified burner.

Based upon the submitted information and the above considerations, the Authority staff recommends a variance from the Authority rules be granted to Brazier Forest Products with the following conditions:

1. Brazier Forest Products will submit for the Authority staff's review and comment, detailed plans and specifications for the proposed burner prior to installation.

2. The modified burner is to be constructed and operated in accordance with the criteria and requirements of the State of Oregon.

3. In addition to the design criteria specified, Brazier Forest Products will install and operate a monitoring device in accordance with specifications of the Authority to monitor visible emissions from the wigwam burner. The specification and location of the monitoring device are to be submitted and approved by the Authority prior to installation and startup of the wigwam burner unless specified otherwise, in writing, by the Authority staff.

4. Brazier Forest Products will cease operation of the burner when notified by the Authority staff a condition of air pollution "Alert", "Warning", or "Emergency", exists as described in Chapter V, Title 51 of the Authority Rules.

5. On or before 15 November 1973 Brazier Forest Products will submit a written report to the Authority which will include:

a) Any significant change in operation of the burner including quantity of material burned, nature of material burned, hours of operation and mechanical condition of the burner.

b) Any progress or development as related to further utilization of the wood residue burned or alternate means of compliance.

6. Variance termination date is 31 December 1973. The Authority recognizes Brazier Forest Products may request another variance prior to the termination date. Based upon the past performance of the burner and compliance of the variance conditions, in keeping with the policy of the Authority concerning wigwam waste burners the Authority may grant another variance.

Respectfully submitted,

R. E. Hatchard

REH:whs

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

ADVISORY COMMITTEE MEETING
3:00 p.m., Thursday, 2 November 1972
Auditorium, Portland Water Service Bldg.

Present:

Advisory Committee:	Darrel Johnson, Chairman Walter Nutting, Vice Chairman Jim Galligan representing Charles Haney Pat Hanrahan representing Hollister Stolte, M. D. Thomas L. Meador, M. D. Betty Merten Nancy Rushmer Ed Winter Carleton Whitehead
Staff:	R. E. Hatchard, Program Director Wayne Hanson, Deputy Program Director George Voss, Public Information
Others:	Luther Steinhauer, Brazier Forest Products Harold McKenzie, Consulting Engineer, Mt. Hood Box Company

Minutes

The meeting was called to order by Chairman Johnson and the minutes of the 5 October 1972 meeting were approved as recorded.

Variance Request - Brazier Forest Products

Wayne Hanson reviewed a memorandum dated 2 November 1972 which outlined the request of Brazier Forest Products, Molalla, to obtain a variance to install and operate a modified wigwam waste burner at their Molalla Mill. The company has increased the size and production of their mill, which has increased the problem of disposal of waste produced. Mr. Hanson reviewed the methods of disposal which the company has investigated, including off-site disposal, utilization as hog fuel, increased utilization for off plant use and incineration.

The Authority staff reviewed the various alternatives and the environmental effect of this variance request and concluded that with the increased production planned for this mill, complete utilization of all wood waste is not feasible at this time, and of the alternatives, incineration appears the most feasible solution. It is staff opinion the modified wigwam burner proposed by Brazier will be designed so that air contaminant emissions will be minimum within the capability of the modified burner; therefore, the staff recommends a variance be granted until 31 December 1973 with specific conditions as outlined in the memorandum of 2 November 1972.

Chairman Johnson pointed out that over the past three years the Advisory Committee has done all it could do to eliminate wigwam waste burners. Mr. Hanson stated this is the Authority policy; however, when there are no other feasible alternatives, a modified waste burner may be the only acceptable method of disposal. Mr. Nutting pointed out this would be a burner designed to operate with minimum air pollution emissions. Mr. Hanson stated the burner would be designed to meet visible emissions standards, but not the particulate standard, such as the wigwam waste burner operated by Publishers Paper Company in Molalla.

Considerable discussion ensued concerning the long range policy implications of this variance, special provisions in the state regulations, etc.

Mr. Luther Steinhauer, General Manager of Brazier Forest Products, told about the development of the company and discussed the problems of disposal faced by the Company. Mr. Hanson added he felt the company had very thoroughly explored all possible means of disposal available to the company.

After further discussion, Dr. Meador moved, Mr. Nutting seconded a motion to recommend to the Board that the variance request of Brazier Forest Products be granted subject to the conditions imposed in the staff report of 2 November 1972.

Mr. Whitehead stated he would like to make a minority report; that in view of the failure of the Board of Directors to act on the repeated recommendations of the Advisory Committee in regard to Cedarwood Timber Company, and the failure of the Board to take action of any sort, Mr. Whitehead feels the Advisory Committee should not recommend any regulation or restriction of any kind on the use of wigwam burners. Mr. Whitehead added he would like to offer this statement as a substitute to the motion. Mr. Johnson asked that Mr. Whitehead's statement be put in the minutes and called to the attention of the Board of Directors.

A vote was taken on the motion of Dr. Meador and the motion carried to recommend to the Board that the variance request of Brazier Forest Products be granted subject to the conditions imposed in the staff report of 2 November 1972.

Mr. Galligan stated that the Advisory Committee to the DEQ on Solid Waste Disposal of which Mr. Haney is a member, is considering among other problems, this problem of wood waste disposal. Mr. Hatchard commented that the lumber and wood products industry generally has not assumed its responsibility to find alternative disposal methods for wood wastes. Mr. Nutting commented that the Brazier Forest Products Company has gone to considerable time and expense to investigate disposal methods and the modified burner they are asking to install is an expensive unit, which will burn the material with the least amount of pollution possible.

Mr. Whitehead commented about the imaginative research underway by the U.S. Forest Service in trying to find ways of disposing of slash materials. He suggested that the state agency should take the initiative to combine the research efforts of all segments which have wood waste disposal problems.

Mrs. Merten suggested that the Sub-committee on Legislation prepare draft legislation which would limit the time wigwam waste burners could operate, thus prompting the industry to find means of disposal for wood waste other than burner.

Variance Request - Mt. Hood Box Company

Mr. Hanson called on Mr. Harold McKenzie, Consulting Engineer, to report on behalf of Mt. Hood Box. Mr. McKenzie read a letter from Clarence Freman of Mt. Hood Box Company, dated 31 October 1972, copies of which were distributed to the Advisory Committee. In this letter Mr. Freman details the unsuccessful efforts of his firm to find a market for the waste wood material produced by his mill and the investment made to process the waste wood material into a product that is saleable. Mr. Hood Box Company is therefore requesting a variance from the Authority rules to install and operate a modified wigwam waste burner to dispose of the wood waste produced at the mill.

In a memorandum dated 2 November 1972, copies distributed to the Advisory Committee members, it is recommended by the staff that Mr. Hood Box be granted a variance to install and operate a wigwam waste burner until 31 December 1973 because of the large volume of wood waste produced by the company and the lack of alternative methods of disposal. Mr. Hanson explained the specific conditions as outlined in the staff report of 2 November 1972 that are proposed.

Mr. McKenzie showed the Advisory Committee some slides which showed the operation at Mt. Hood Box Company and the accumulated wastes on the mill property.

Mr. Nutting moved, Mr. Winter seconded and the motion carried to recommend to the Board of Directors that the variance request of Mt. Hood Box Company to install and operate a modified wigwam waste burner in accordance with the conditions listed in the staff report of 2 November 1972 until 31 December 1973 be granted.

Sub-committee Reports

Mr. Hatchard stated that as there were no public policy provisions involved in the rules revisions which come before the Board for public hearing 10 November 1972, a meeting of the Sub-committee on Rules Revisions was not held. The rules revisions pertain to adoption of the permit system which is part of the state regulations.

Episode Action Plan

Mr. Hatchard gave the Advisory Committee a status report on the episode action plan. He reported that an alert condition existed on 17-18 October, and had the carbon monoxide levels continued to rise, a warning condition would have been called and automobiles would not be allowed into the downtown core area after 9 a.m. Mr. Hanson pointed out that an alert condition such as the one called on 17 October was a carbon monoxide alert. Alerts for other pollutants would be called if the levels reached certain points.

Mr. Hanson reported that approximately 100 companies have submitted plans which outline what action the industry will take if pollutant levels reach certain points. He stated that some companies voluntarily curtailed operation during the recent alert condition.

Other Matters

Further discussion ensued concerning the problems of wood waste disposal. Mr. Hanson reported that the wigwam waste burner situation in our region is not gloomy. There were 32 burners in our region; now three are operating. Only one is not making any attempt to be in compliance with our rules. If the Board approves the variance request there will be four modified burners in the region. If you look at this source in comparison with all the other sources in our region, it is not a major problem. He added the State policy on wigwam burners is to utilize wood waste wherever possible, phase out wigwam burners whenever possible, require modification of all wigwam waste burners to minimize emissions and require effective monitoring and reporting of wigwam waste burners operation conditions. He added that the modified wood burners in our region are designed to operate within compliance with CWAPA visible standards, but not the particulate standards.

The meeting was adjourned at 4:50 p.m.

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

BOARD OF DIRECTORS MEETING
9:30 a.m., Friday, 10 November 1972
Auditorium, Portland Water Service Bldg.

Present:

Board of Directors:	Francis J. Ivancie, Chairman Fred Stefani, Vice Chairman A. J. Ahlborn Ben Padrow
Staff:	R. E. Hatchard, Program Director Wayne Hanson, Deputy Program Director Emory Crofoot, General Counsel
Others:	John Wingfield, Centennial Mills

Minutes

The meeting was called to order and the minutes of the 20 October and 30 October 1972 meetings were approved as submitted.

Advisory Committee Recommendations

Mr. Hatchard briefly reviewed the 2 November 1972 Advisory Committee meeting. He stated the Advisory Committee had reviewed both of the variance requests which are before the Board at this meeting and their recommendations will be presented as the variances are considered by the Board. He stated that the Advisory Committee was brought up to date by the staff concerning the Episode Action Plan and the actions taken during the recent carbon monoxide alert condition.

Variance Request - Mt. Hood Box Company

Copies of a memorandum dated 2 November 1972 outlining the request of Mt. Hood Box Company to install and operate a wigwam waste burner were distributed to the Board. Mr. Hanson reported that the Advisory Committee carefully considered this variance request and concurred with the staff recommendation that the request be granted.

Commissioner Padrow moved, Commissioner Ahlborn seconded and the motion carried to grant a variance to Mt. Hood Box Company to install and operate a wigwam waste burner until 31 December 1973 under the conditions in the 2 November 1972 Authority memorandum.

Variance Request - Brazier Forest Products

Copies of a memorandum dated 2 November 1972 concerning the variance request of Brazier Forest Products to install and operate a wigwam waste burner were distributed to the Board members. Mr. Hanson reported that the Advisory Committee thoroughly considered this variance request during their 2 November meeting,

and they concurred with the staff report and recommended to the Board the variance request be granted.

Commissioner Padrow moved, Commissioner Ahlborn seconded and the motion carried to grant a variance to Brazier Forest Products to install and operate a wigwam waste burner until 31 December 1973 in accordance with the conditions outlined in the 2 November 1972 Authority memorandum.

Centennial Mills- Stipulation and Board Order

Mr. Hanson reported that a compliance schedule in consent form has been negotiated with the management of Centennial Mills, a flour and cereal grain milling complex in northwest Portland. The three-phase compliance schedule will bring the emissions from the operations into compliance with Authority rules by 1 July 1974. It is the staff recommendation that the consent and order be accepted by the Board of Directors.

Commissioner Stefani moved, Commissioner Ahlborn seconded and the motion carried to approve the stipulation and to authorize the chairman to sign the Board order regarding Centennial Mills.

Rules Revision - Public Hearing Ordinance #7

Chairman Ivancie stated this was the time and place announced for the public hearing on the proposed rules revisions. Mr. Hatchard briefly outlined the proposed changes to the rules and copies had been previously distributed to the Board for their review. Mr. Hatchard stated the large part of the proposed rules revisions is the addition of the permit system regulations to the CWAPA rules. This permit system is as adopted by the Environmental Quality Commission and is in conformity with the other two regional authorities in Oregon. Chairman Ivancie asked if there was anyone present at the meeting who wished to comment on the proposed rules revisions. There were none.

Chairman Ivancie called for a vote on Ordinance No. 7 amending the Rules of the Columbia-Willamette Air Pollution Authority and the Ordinance was unanimously adopted.

Other Matters

Mr. Hatchard recommended that the Board authorize participation by five staff members in the Pacific Northwest International Section of the Air Pollution Control Association meeting in Eugene, 15-17 November 1972, at a total cost of $330 and use of an agency car. There were no objections and the Board authorized this expenditure.

In response to Commissioner Stefani's inquiry, Mr. Hatchard stated that Max Rolih, Washington County Administrator, had not contacted him concerning the participation of Washington County in CWAPA and payment of Washington County's 1972-73 financial contribution. He added the 7 November election resulted in two new commissioners on the Washington County Board of Commissioners in January 1973.

The meeting was adjourned at 10:00 a.m.

DEPARTMENT OF ENVIRONMENTAL QUALITY

TERMINAL SALES BLDG. • 1234 S.W. MORRISON ST. • PORTLAND, OREGON 97205

TOM McCALL
GOVERNOR

L. B. DAY
Director

ENVIRONMENTAL QUALITY COMMISSION
B. A. McPHILLIPS
Chairman, McMinnville
EDWARD C. HARMS, JR.
Springfield
STORRS S. WATERMAN
Portland
GEORGE A. McMATH
Portland
ARNOLD M. COGAN
Portland

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. G-2, December 21, 1972, EQC Meeting

CWAPA Variance 72-8 to Mt Hood Box Co.

Background

Mt Hood Box Co. operates a cedar sawmill 8 miles east of Sandy. Until early 1972 the Company disposed of its wood wastes by burning in an open pit. The mill generates about 22,000 lbs. of cedar waste each day. To comply with CWAPA rules, use of the pit was discontinued in early 1972 and the Company invested $26,800 in hogging, baling and storage equipment. Coarse material is hogged, stored and hauled to other users of hog fuel, while finer wastes are baled for sale as cedar tow. The Company has been unable to sell or give away its wastes in quantities sufficient to prevent major accumulations of material at the plant site. Presently there are some 4,000 bales of cedar tow stacked in and around the plant, and there are twenty-two bales of tow produced each working day.

The Company petitioned CWAPA for a variance from its rules in order to construct and operate a modified wigwam wood waste burner at the mill. CWAPA granted the variance

TELEPHONE: (503) 229-5696

through December 31, 1973 under the following conditions:

1. The Company will submit for Authority staff review and comment detailed plans and specifications for the proposed burner prior to construction or installation.

2. The modified burner is to be constructed and operated in accordance with the criteria and requirements of Oregon Administrative Rules, Chapter 340, Sections 25-005 through 25-025.

3. The Company will submit records of temperature and burner operation as requested by the Authority.

4. The Company will cease operation of the burner when notified by Authority that a condition of air pollution "Alert", "Warning", or "Emergency", exists as described in Chapter V, Title 51 of Authority Rules.

5. On or before 15 November 1973, the Company will submit a written report to the Authority which will include:

   a. Any significant change in operation of the burner including quantity of material burned, nature of material burned, hours of operation and mechanical condition of the burner.

   b. Any progress or development as related to further utilization of wood waste products burned or alternate means of compliance.

The variance and supporting references have been forwarded by CWAPA for Department review and Commission action.

Analysis

The variance as granted satisfies all Department review criteria, and the material submitted supports the conclusion that disposal in a modified wigwam wood waste burner is a feasible practicable alternative.

Director's Recommendation

The Director recommends that CWAPA variance 72-8 to Mt Hood Box Co. be approved as submitted.

L. B. Day

RBS:en:12/7/72

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

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

17 November 1972

Department of Environmental Quality
1234 Southwest Morrison Street
Portland, Oregon 97205

Attention: L. B. Day, Director

Subject: CWAPA Variance No. 72-8
Mt. Hood Box Company

Gentlemen:

Please find enclosed, CWAPA Variance No. 72-8 which we request be reviewed by your Department and presented to the Environmental Quality Commission for their approval.

Also enclosed to assist in your review, are the following documents:

a. Letter, Mt. Hood Box Co., 31 October 1972, requesting variance
b. CWAPA staff memorandum, 2 November 1972
c. Minutes CWAPA Advisory Committee, 2 November 1972
d. Minutes CWAPA Board of Directors, 10 November 1972

For the Program Director.

Very truly yours,

Jack Lowe
Administrative Director

JL:sm
Enclosures - 5

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

In the matter of:	)	NO. 72-8
	)	
VARIANCE TO MOUNT HOOD BOX COMPANY	)	VARIANCE INCLUDING
	)	
a Partnership	)	FINDINGS AND CONCLUSIONS

FINDINGS

I

By letter dated 31 October 1972 Mount Hood Box Company, a partnership, by Clarence A. Freeman, Partner, has petitioned for a variance from Rules 21-015(2), 21-020, 32-030, 32-045 and 32-055 to construct and operate a modified wigwam waste burner for disposal of wood waste products from the sawmill located approximately eight miles east of Sandy, Oregon.

II

During early 1972 the petitioner discontinued the use of the burning pit for disposal of the wood waste material and expended approximately $27,000 for the acquisition and erection of hogging equipment, bins, balers, conveyors and buildings to be used for hogging and baling of wood waste materials for sale.

III

Since the startup of the hogger- baler equipment, the petitioner has produced approximately 5,000 bales and has been able to dispose of approximately 1,000 bales. During normal operation, the petitioner produces 22 bales per working day.

IV

Disposal of said waste other than by burning in the wigwam is impractical as there is no adequate solid waste disposal site within a reasonable distance; the mill uses a very small amount of steam and therefore the waste materials

cannot be consumed as fuel; the marketers of wood waste products are unable to sell the waste products generated by the plant; the cost of incineration of the wood waste products in compliance with Columbia-Willamette Air Pollution Authority Rules is prohibitive.

V

To deny the requested variance and require strict compliance with the Rules of Columbia-Willamette Air Pollution Authority would result in substantial curtailment or closing down of the business because no other alternative method of disposing of the wood waste is available.

CONCLUSIONS

Pursuant to the provisions of ORS 449.880 and Columbia-Willamette Air Pollution Authority Rules, Title 23, Columbia-Willamette Air Pollution Authority has the power to grant the requested variance and said variance should be granted for a limited period of time subject to certain conditions hereinafter set forth. Based upon the foregoing findings of fact and conclusion, the Board of Directors makes the following:

ORDER

NOW THEREFORE IT IS HEREBY ORDERED that a VARIANCE from the provisions of Rules 21-015(2) (Specifications Showing Compliance with Rules), 21-020 (Approval in Compliance with Rules), 32-030 (Particulate Matter Weight Standards), 32-045 (Process Weight Emission Limitations) and 32-055 (Particulate Matter Size Standard) be granted to Mount Hood Box Company, a partnership, to construct and operate a wigwam waste burner for a period of time not beyond 31 December 1973 subject to the following conditions:

1. PETITIONER will submit for Authority staff review and comment detailed plans and specifications for the proposed burner prior to construction or installation.

2. The modified burner is to be constructed and operated in accordance with the criteria and requirements of Oregon Administrative Rules, Chapter 340, Sections 25-005 through 25-025.

3. PETITIONER will submit records of temperature and burner operation as requested by the Authority.

4. PETITIONER will cease operation of the burner when notified by Authority that a condition of air pollution "Alert", "Warning", or "Emergency", exists as described in Chapter V, Title 51 of Authority Rules.

5. On or before 15 November 1973, PETITIONER will submit a written report to the Authority which will include:

   a) Any significant change in operation of the burner including quantity of material burned, nature of material burned hours of operation and mechanical condition of the burner.

   b) Any progress or development as related to further utilization of wood waste products burned or alternate means of compliance.

6. The Authority recognizes PETITIONER may request another variance prior to the termination date hereof. Based upon past performance of the burner and compliance of the variance conditions and overall environmental conditions then prevailing and in keeping with the policy of the Authority concerning wigwam waste burners, the Authority may grant or deny another variance.

Entered at Portland, Oregon the 10th day of November 1972.

Chairman

Certified a True Copy

Jack Lowe
Administrative Director

MOUNT HOOD BOX COMPANY

Route 1 Box 1280
Sandy, Oregon

October 31, 1972

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

Gentlemen: Re: Variance Request

We wish to report on our efforts over the past several months to find a method or methods for disposing of the cedar wood residues from our box stock manufacturing operation. As you know, we discontinued the use of our covered burning pit when advised that it was causing an air pollution problem. It had been used to dispose of all of the waste materials from the operation, consisting of barky slabs, unsound wood, reject box stock, sawdust and cedar tow. The total quantity of material burned was 22,250 pounds in an 8 hour shift, or 2780 pounds per hour (wet weight).

In an effort to develop alternative methods of disposal of the materials, we have installed equipment to, a) reduce the course residues to ship or hogged fuel consistency, and b) to bale the finer residues for sale as cedar tow. A storage bin was installed to receive the hogged material, and a truck was purchased to haul it away. Also, an addition to the plant was constructed to house the baler, the hog and it's blower, and provide storage space for the baled tow.

The total investment in utilization equipment breaks down as follows:

Used hog	$3400.00
Recondition Hog	800.00
Bin (knocked down)	4800.00
Bin Erection	4500.00
Sawdust truck	2600.00
Bin Bed for truck	800.00
Baler	4000.00
Conveyors	700.00
Metal Building	5200.00
TOTAL	$26,800.00

Unfortunately, the investment in facilities has not guaranteed a market. Despite exhaustive efforts, we have been unable to find other than token and intermittant customers for the material, even when it is offered free of charge!

We have concluded that other cedar mills in this part of Oregon which were in operation for a number of years prior to our own current efforts to find customers for cedar wastes, had already saturated the limited market. We found ourselves in competition for customers with such established firms as Monarch Shingle, Sandy Shake and Shingle, Long's Shake Mill, and Oregon Shingle, all of which were closer to the few available markets than ourselves.

Our efforts included the following:

1. Advertisements in "Nickle Ads" offering cedar tow and hogged material for landscaping.

2. Personal contacts to:
   a. Longview Fibre (they had no use for it)
   b. McCall Oil Co. (all needs filled by Publishers Paper Company)
   c. Phil Cousins Dairy (all needs filled by Firewood Veneer Company)
   d. Crooked River Development Corp. (considered sample for landscapping use, rejected it)
   e. Western Realty (needs filled by McCall Oil)
   f. Al Shook, sawdust broker (could find no market for cedar sawdust)
   g. Albina Fuel (needs filled)
   h. California box customer (sent him sample bales of cedar tow. He couldn't sell)
   i. Ed Cook (Possible customer for cattle bedding material. He reported slivers get in gooves. Cattlemen won't use.)

Of over 5000 bales of cedar tow that have been produced since installation of the baler, approximately 1000 have been disposed of by reducing the price. Recently a list of 20 nurseries were contacted, offering the material at no charge. One said he might be able to take "100 bales or so" in the Spring. We produce 22 bales per day.

As a result, we are forced to accummulate the material on open ground in order to remain in operation. This we do at present by the following means:

1. Reject box shooks are dumped by an access road where some are picked up by neighbors for kindling wood.

2. Cedar tow has long since filled the plant warehouse and is being stored in piles outside.

3. Hogged material and sawdust is hauled from the bin and dumped on property around our homes. We are told that the leachate may create a water pollution problem, and we fear it may sterilize the soil.

In addition, the following problems are created:

1. Dust from the utilization equipment has created occupational health problems in the mill.

2. Noise generated by the hog, blower, and conveying system creates an immediate health problem in the mill.

3. As a result, workmen must wear dust masks and earplugs.

Because it appeared that incineration offered the only means by which we would be able to continue in operation without eventually being inundated in our own wood wastes, we, on September 18, retained H. W. McKenzie and Associates as consulting engineers to study our problem and to advise us as to what might be necessary to satisfy air pollution regulations.

Their investigations have included several types of incinerators and the feasibility of incorporating waste heat recovery for plant heating. Their conclusions and recommendations are that the only economically feasible solution for an operation of our small size and in consideration of the quantity of material represented, is to install a modified wigwam waste burner. They advise that it is possible that such a device might not satisfy

all of the emission standards of the Columbia-Willamette Air Pollution Authority, so that we cannot proceed in making this investment without the granting of a variance from all but the visible emission standards of The Authority.

We, therefore, wish you to consider this our formal request for a variance from your regulations and approval to operate a modified wigwam waste burner. We feel that your approval is justified on the basis that we are located in a remote and sparsely-populated area where a correctly designed wigwam burner would operate without creating an appreciable air pollution problem, and on the basis that the only available alternatives have been adequately explored without success.

Our plant is located in a wooded area, approximately ½ mile north of the Mount Hood Highway (#26), 8 miles east of Sandy. The only homes in the area (other than our own) are recreation homes.

We propose to install a modified wigwam burner in place of our deactivated covered burning pit. The burner would encorporate the following:

1. A forced underfire air system.
2. A forced overfire air system.
3. Auxiliary oil or LPG fueled burners, automatically controlled.
4. An automatically controlled exit gas damper.
5. A recording-controlling pyrometer.

It is with great reluctance that we propose to charge off our very considerable investment in utilization equipment to an unsuccessful attempt to market rather than burn the waste materials, and to invest in a less-desireable alternative. However, it now appears that only by this means will we be able to continue in operation.

Your early and favorable reply will be very much appreciated.

Respectfully submitted,

MOUNT HOOD BOX COMPANY

Clarence G. Freman

by Clarence Freman, Partner

CF:lc

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

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

2 November 1972

MEMORANDUM

TO: Board of Directors

FROM: R. E. Hatchard, Program Director

SUBJECT: Variance Request - Mt. Hood Box Company

Gentlemen:

The following pertains to a request for a variance from the Columbia-Willamette Air Pollution Authority Rules 21-015(2), 21-020, 32-030, 32-045, 32-055 by Mt. Hood Box Company, Sandy, Oregon.

The purpose of this request is to allow Mt. Hood Box to install and operate a modified wigwam waste burner at their mill located approximately eight miles east of Sandy.

The attached variance request adequately describes the basis for the request, alternatives investigated, and other environmental considerations including noise, solid waste and water.

The Authority staff has reviewed the details of this request and based on consideration of the overall environmental effect, recommend a variance be granted to Mt. Hood Box as described in this report with the following conditions:

1. Mt. Hood Box will submit for the Authority staff review and comment, detailed plans and specifications for the proposed burner prior to installation.

2. The modified burner is to be constructed and operated in accordance with criteria and requirements of the State of Oregon.

3. Mt. Hood Box will submit records of temperature and burner operation as requested by the Authority staff.

4. Mt. Hood Box will cease operation of the burner when notified by the Authority staff a condition of air pollution "Alert", "Warning", or "Emergency", exists as described in Chapter V, Title 51 of the Authority Rules.

5. On or before 15 November, Mt. Hood Box Company will submit a written report to the Authority which will include:

a) Any significant change in operation of the burner including quantity of material burned, nature of material burned, hours of operation and mechanical condition of the burner.

b) Any progress or development as related to further utilization of the wood residue burned or alternate means of compliance.

6. Variance termination date is 31 December 1973. The Authority recognizes Mt. Hood Box Company may request another variance prior to the termination date. Based upon the past performance of the burner and compliance of the variance conditions, in keeping with the policy of the Authority concerning wigwam waste burners, the Authority may grant another variance.

Respectfully submitted,

R. E. Hatchard

REH:whs

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

ADVISORY COMMITTEE MEETING
3:00 p.m., Thursday, 2 November 1972
Auditorium, Portland Water Service Bldg.

Present:

Advisory Committee:	Darrel Johnson, Chairman Walter Nutting, Vice Chairman Jim Galligan representing Charles Haney Pat Hanrahan representing Hollister Stolte, M. D. Thomas L. Meador, M. D. Betty Merten Nancy Rushmer Ed Winter Carleton Whitehead
Staff:	R. E. Hatchard, Program Director Wayne Hanson, Deputy Program Director George Voss, Public Information
Others:	Luther Steinhauer, Brazier Forest Products Harold McKenzie, Consulting Engineer, Mt. Hood Box Company

Minutes

The meeting was called to order by Chairman Johnson and the minutes of the 5 October 1972 meeting were approved as recorded.

Variance Request - Brazier Forest Products

Wayne Hanson reviewed a memorandum dated 2 November 1972 which outlined the request of Brazier Forest Products, Molalla, to obtain a variance to install and operate a modified wigwam waste burner at their Molalla Mill. The company has increased the size and production of their mill, which has increased the problem of disposal of waste produced. Mr. Hanson reviewed the methods of disposal which the company has investigated, including off-site disposal, utilization as hog fuel, increased utilization for off plant use and incineration.

The Authority staff reviewed the various alternatives and the environmental effect of this variance request and concluded that with the increased production planned for this mill, complete utilization of all wood waste is not feasible at this time, and of the alternatives, incineration appears the most feasible solution. It is staff opinion the modified wigwam burner proposed by Brazier will be designed so that air contaminant emissions will be minimum within the capability of the modified burner; therefore, the staff recommends a variance be granted until 31 December 1973 with specific conditions as outlined in the memorandum of 2 November 1972.

Chairman Johnson pointed out that over the past three years the Advisory Committee has done all it could do to eliminate wigwam waste burners. Mr. Hanson stated this is the Authority policy; however, when there are no other feasible alternatives, a modified waste burner may be the only acceptable method of disposal. Mr. Nutting pointed out this would be a burner designed to operate with minimum air pollution emissions. Mr. Hanson stated the burner would be designed to meet visible emissions standards, but not the particulate standard, such as the wigwam waste burner operated by Publishers Paper Company in Molalla.

Considerable discussion ensued concerning the long range policy implications of this variance, special provisions in the state regulations, etc.

Mr. Luther Steinhauer, General Manager of Brazier Forest Products, told about the development of the company and discussed the problems of disposal faced by the Company. Mr. Hanson added he felt the company had very thoroughly explored all possible means of disposal available to the company.

After further discussion, Dr. Meador moved, Mr. Nutting seconded a motion to recommend to the Board that the variance request of Brazier Forest Products be granted subject to the conditions imposed in the staff report of 2 November 1972.

Mr. Whitehead stated he would like to make a minority report; that in view of the failure of the Board of Directors to act on the repeated recommendations of the Advisory Committee in regard to Cedarwood Timber Company, and the failure of the Board to take action of any sort, Mr. Whitehead feels the Advisory Committee should not recommend any regulation or restriction of any kind on the use of wigwam burners. Mr. Whitehead added he would like to offer this statement as a substitute to the motion. Mr. Johnson asked that Mr. Whitehead's statement be put in the minutes and called to the attention of the Board of Directors.

A vote was taken on the motion of Dr. Meador and the motion carried to recommend to the Board that the variance request of Brazier Forest Products be granted subject to the conditions imposed in the staff report of 2 November 1972.

Mr. Galligan stated that the Advisory Committee to the DEQ on Solid Waste Disposal of which Mr. Haney is a member, is considering among other problems, this problem of wood waste disposal. Mr. Hatchard commented that the lumber and wood products industry generally has not assumed its responsibility to find alternative disposal methods for wood wastes. Mr. Nutting commented that the Brazier Forest Products Company has gone to considerable time and expense to investigate disposal methods and the modified burner they are asking to install is an expensive unit, which will burn the material with the least amount of pollution possible.

Mr. Whitehead commented about the imaginative research underway by the U.S. Forest Service in trying to find ways of disposing of slash materials. He suggested that the state agency should take the initiative to combine the research efforts of all segments which have wood waste disposal problems.

Mrs. Merten suggested that the Sub-committee on Legislation prepare draft legislation which would limit the time wigwam waste burners could operate, thus prompting the industry to find means of disposal for wood waste other than burner.

Variance Request - Mt. Hood Box Company

Mr. Hanson called on Mr. Harold McKenzie, Consulting Engineer, to report on behalf of Mt. Hood Box. Mr. McKenzie read a letter from Clarence Freman of Mt. Hood Box Company, dated 31 October 1972, copies of which were distributed to the Advisory Committee. In this letter Mr. Freman details the unsuccessful efforts of his firm to find a market for the waste wood material produced by his mill and the investment made to process the waste wood material into a product that is saleable. Mr. Hood Box Company is therefore requesting a variance from the Authority rules to install and operate a modified wigwam waste burner to dispose of the wood waste produced at the mill.

In a memorandum dated 2 November 1972, copies distributed to the Advisory Committee members, it is recommended by the staff that Mr. Hood Box be granted a variance to install and operate a wigwam waste burner until 31 December 1973 because of the large volume of wood waste produced by the company and the lack of alternative methods of disposal. Mr. Hanson explained the specific conditions as outlined in the staff report of 2 November 1972 that are proposed.

Mr. McKenzie showed the Advisory Committee some slides which showed the operation at Mt. Hood Box Company and the accumulated wastes on the mill property.

Mr. Nutting moved, Mr. Winter seconded and the motion carried to recommend to the Board of Directors that the variance request of Mt. Hood Box Company to install and operate a modified wigwam waste burner in accordance with the conditions listed in the staff report of 2 November 1972 until 31 December 1973 be granted.

Sub-committee Reports

Mr. Hatchard stated that as there were no public policy provisions involved in the rules revisions which come before the Board for public hearing 10 November 1972, a meeting of the Sub-committee on Rules Revisions was not held. The rules revisions pertain to adoption of the permit system which is part of the state regulations.

Episode Action Plan

Mr. Hatchard gave the Advisory Committee a status report on the episode action plan. He reported that an alert condition existed on 17-18 October, and had the carbon monoxide levels continued to rise, a warning condition would have been called and automobiles would not be allowed into the downtown core area after 9 a.m. Mr. Hanson pointed out that an alert condition such as the one called on 17 October was a carbon monoxide alert. Alerts for other pollutants would be called if the levels reached certain points.

Mr. Hanson reported that approximately 100 companies have submitted plans which outline what action the industry will take if pollutant levels reach certain points. He stated that some companies voluntarily curtailed operation during the recent alert condition.

Other Matters

Further discussion ensued concerning the problems of wood waste disposal. Mr. Hanson reported that the wigwam waste burner situation in our region is not gloomy. There were 32 burners in our region; now three are operating. Only one is not making any attempt to be in compliance with our rules. If the Board approves the variance request there will be four modified burners in the region. If you look at this source in comparison with all the other sources in our region, it is not a major problem. He added the State policy on wigwam burners is to utilize wood waste wherever possible, phase out wigwam burners whenever possible, require modification of all wigwam waste burners to minimize emissions and require effective monitoring and reporting of wigwam waste burners operation conditions. He added that the modified wood burners in our region are designed to operate within compliance with CWAPA visible standards, but not the particulate standards.

The meeting was adjourned at 4:50 p.m.

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

BOARD OF DIRECTORS MEETING
9:30 a.m., Friday, 10 November 1972
Auditorium, Portland Water Service Bldg.

Present:

Board of Directors:	Francis J. Ivancie, Chairman Fred Stefani, Vice Chairman A. J. Ahlborn Ben Padrow
Staff:	R. E. Hatchard, Program Director Wayne Hanson, Deputy Program Director Emory Crofoot, General Counsel
Others:	John Wingfield, Centennial Mills

Minutes

The meeting was called to order and the minutes of the 20 October and 30 October 1972 meetings were approved as submitted.

Advisory Committee Recommendations

Mr. Hatchard briefly reviewed the 2 November 1972 Advisory Committee meeting. He stated the Advisory Committee had reviewed both of the variance requests which are before the Board at this meeting and their recommendations will be presented as the variances are considered by the Board. He stated that the Advisory Committee was brought up to date by the staff concerning the Episode Action Plan and the actions taken during the recent carbon monoxide alert condition.

Variance Request - Mt. Hood Box Company

Copies of a memorandum dated 2 November 1972 outlining the request of Mt. Hood Box Company to install and operate a wigwam waste burner were distributed to the Board. Mr. Hanson reported that the Advisory Committee carefully considered this variance request and concurred with the staff recommendation that the request be granted.

Commissioner Padrow moved, Commissioner Ahlborn seconded and the motion carried to grant a variance to Mt. Hood Box Company to install and operate a wigwam waste burner until 31 December 1973 under the conditions in the 2 November 1972 Authority memorandum.

Variance Request - Brazier Forest Products

Copies of a memorandum dated 2 November 1972 concerning the variance request of Brazier Forest Products to install and operate a wigwam waste burner were distributed to the Board members. Mr. Hanson reported that the Advisory Committee thoroughly considered this variance request during their 2 November meeting,

and they concurred with the staff report and recommended to the Board the variance request be granted.

Commissioner Padrow moved, Commissioner Ahlborn seconded and the motion carried to grant a variance to Brazier Forest Products to install and operate a wigwam waste burner until 31 December 1973 in accordance with the conditions outlined in the 2 November 1972 Authority memorandum.

Centennial Mills- Stipulation and Board Order

Mr. Hanson reported that a compliance schedule in consent form has been negotiated with the management of Centennial Mills, a flour and cereal grain milling complex in northwest Portland. The three-phase compliance schedule will bring the emissions from the operations into compliance with Authority rules by 1 July 1974. It is the staff recommendation that the consent and order be accepted by the Board of Directors.

Commissioner Stefani moved, Commissioner Ahlborn seconded and the motion carried to approve the stipulation and to authorize the chairman to sign the Board order regarding Centennial Mills.

Rules Revision - Public Hearing Ordinance #7

Chairman Ivancie stated this was the time and place announced for the public hearing on the proposed rules revisions. Mr. Hatchard briefly outlined the proposed changes to the rules and copies had been previously distributed to the Board for their review. Mr. Hatchard stated the large part of the proposed rules revisions is the addition of the permit system regulations to the CWAPA rules. This permit system is as adopted by the Environmental Quality Commission and is in conformity with the other two regional authorities in Oregon. Chairman Ivancie asked if there was anyone present at the meeting who wished to comment on the proposed rules revisions. There were none.

Chairman Ivancie called for a vote on Ordinance No. 7 amending the Rules of the Columbia-Willamette Air Pollution Authority and the Ordinance was unanimously adopted.

Other Matters

Mr. Hatchard recommended that the Board authorize participation by five staff members in the Pacific Northwest International Section of the Air Pollution Control Association meeting in Eugene, 15-17 November 1972, at a total cost of $330 and use of an agency car. There were no objections and the Board authorized this expenditure.

In response to Commissioner Stefani's inquiry, Mr. Hatchard stated that Max Rolih, Washington County Administrator, had not contacted him concerning the participation of Washington County in CWAPA and payment of Washington County's 1972-73 financial contribution. He added the 7 November election resulted in two new commissioners on the Washington County Board of Commissioners in January 1973.

The meeting was adjourned at 10:00 a.m.

DEPARTMENT OF ENVIRONMENTAL QUALITY

TERMINAL SALES BLDG. • 1234 S.W. MORRISON ST. • PORTLAND, OREGON 97205

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. H, December 21, 1972, EQC Meeting

Tax Credit Applications

Attached are review reports on four (4) Tax Credit Applications. These applications and the recommendations of the Director are summarized on the attached table.

L. B. Day

WEG:ahe
December 13, 1972

TELEPHONE: (503) 229-5696

TAX CREDIT APPLICATIONS

Applicant	Appl. No.	Facility	Claimed Cost	% Allocable to Poll. Control	Director's Recommendation
Spalding & Son, Inc.	T-242	Modified Wigwam Waste Burner	$ 41,446.33	80% or more	Issue
Weyerhaeuser Company Wood Products Group	T-315	Grilled pit for catching dirt & petroleum waste	5,964	100%	Issue
Weyerhaeuser Company Wood Products Group	T-316	Steel covers over open waterways Graded log deck Floating wood baffle Extension of 3 pond drain & overflow pipes	17,665	80% or more	Issue in reduced amount of $13,037
Peerless Pattern Works	T-380	Shaving & Sawdust Collection System	12,732	80% or more	Issue

Appl T-242

Date 11/21/72

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

TAX RELIEF APPLICATION REVIEW REPORT

Applicant

Spalding & Son, Inc.
P. O. Box 438
2345 S. E. "H" Street
Grants Pass, Oregon 97526

The applicant operates a sawmill and lumber manufacturing plant in Grants Pass.

Description of Claimed Facility

The claimed facility is a modified wigwam waste burner and consists of the following:

1. Under-fire air system
2. Auxiluary heat system
3. Cone Collector and recirculating system
4. Temperature recorder

The facility was completed and placed in service in January, 1971.

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

Facility Costs: $41,446.33 (Accountant's certification was provided)

Evaluation of Application

The company, in compliance with the Department's request, agreed to modify one of their existing wigwam waste burners and to permanently phase-out their second wigwam waste burner.

The company submitted the plans and specifications for this modification work and the Department approved plans and specifications for this installation. The facility was inspected by the Department in July, 1971 and it was demonstrated that the Wigwam Waste Burner is capable of operating in compliance with the Oregon Administrative Rules, Chapter 340, Section 21-015. The modified wigwam waste burner is only operated one (1) or two (2) days per week under normal mill conditions.

Appl

Date

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

TAX RELIEF APPLICATION REVIEW REPORT

This installation has reduced particulate emissions by 192 tons/year and CO emissions by 464 tons/year at this plant.

In the costs certified for this installation, $3,427,43 have been assigned to the installation of the natural gas line to supply fuel for the auxiluary burners. This portion of the cost might be judged to be not applicable as either a pollution control device, or as an essential portion of this pollution control system. The auxiluary burners could be fired with propane or diesel oil and, in either case, the fuel tanks would only cost a few hundred dollars. However, since natural gas is the cleanest fuel available and use of the modified wigwam waste burner is only intermittant (approximately one and one-half (1 1/2) days per week), the Department recommends that this cost be allowed in their tax credit application.

Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the costs of $41,446.33 with 80% or more of the cost allocated to pollution control be issued for the facility claimed in Tax Application T-242.

RAR:1

Appl T-315

Date 2/15/72

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Weyerhaeuser Company
Wood Products Group
P. O. Box 275
Springfield, Oregon 97477

The applicant owns and operates a plywood and lumber mill and a laminated beam plant at Cottage Grove, Oregon, in Lane County. The plant's address is: P. O. Box 667, Cottage Grove, Oregon 97424.

2. Description of Claimed Facility

The facility consists of a grilled pit for catching dirt and petroleum waste from steam cleaning operations, a sump pump and pipe lines for transferring waste water from the grilled pit to the oil separator, a storage tank for the recovered oil and a pump and pipe lines for transferring oil-contaminated water from the grease pit in the truck shop to the grilled pit.

The claimed facility was placed in operation on January 8, 1970.

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

Facility cost: $5,964. (Accountant's certification was submitted)

3. Evaluation of Application

Prior to the construction of the facility, wastewaters contaminated with oil and dirt from washing the grease pit and from steam cleaning machinery were allowed to drain into the storm sewers for eventual discharge into the Coast Fork of the Willamette River. With the claimed facility, oil is removed and stored in a holding tank for boilers. The dirt is settled out in the grilled pit and is periodically removed and disposed of in a landfill. Investigation reveals that the facility does an adequate job of removing the petroleum products and dirt. However, the effluent contains considerable suspended material and is very turbid. The oil and dirt removed has no value and the company receives no economic benefit from recovering it.

It is concluded that this facility was installed for pollution control.

4. Director"s Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of $5,964 with 80% or more of the cost allocated to pollution control be issued for the facilities claimed in Tax Application T-315.

RJN:ak

Date 2-15-72

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Weyerhaeuser Company
Wood Products Group
P. O. Box 275
Springfield, Oregon 97477

The applicant owns and operates a plywood and lumber mill and laminated beam plant at Cottage Grove, Oregon in Lane County. The plant's address is P. O. Box 667, Cottage Grove.

2. Description of Claimed Facility

The claimed facility actually consists of four facilities. These four facilities are as follows:

a. Steel covers over the open areas of the waterway which passes through the mill site. There are two separate covers. One is adjacent to the powerhouse and the other is adjacent to the sawmill.

b. A graded log deck at the south end of the mill pond. The tax relief is requested for the grading of this log deck so that it sloped into the log pond, keeping the log deck runoff from entering into the Coast Fork of the Willamette River.

c. A floating wood baffle at the north end of the log pond at the overflow.

d. The extension of 3 pond drain and overflow pipes and construction of submerged outfalls for each.

The claimed facilities were placed in operation March 30, 1970.

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

Facility cost: $17,665 (Accountant's certification was submitted).

3. Evaluation of Application

The steel covers over the waterway were so placed to keep air-borne wood debris out of the water which is discharged to the Coast Fork of the Willamette River. The steel cover adjacent to the powerhouse has been removed, while the cover adjacent to the sawmill is functioning quite well. The grading of the log deck at the south end of the log pond forces runoff waters, contaminated with mud and wood debris to flow into the log pond instead of the Willamette River as it did previously. The floating wood baffle keeps floating debris

from entering the log pond overflow and investigation reveals that it is functioning adequately. Only one of the three pond drain and overflow pipes which were extended and submerged was being used at the time of investigation. This department had requested that water be drawn off from the surface of the pond, and since the other two pipes drain the pond from the bottom, only the surface overflow pipe is in constant use. The pipes were submerged to prevent possible odors in the pond effluent from becoming air-borne. There was a slight rotten egg odor present at the time of investigation, but it appeared to be emanating from the pond itself.

It is concluded that these facilities were installed for pollution control.

4. Recommendation

Since one of the steel covers for which tax relief had been requested has been removed, certification for this specific item cannot be granted. It is recommended that the cost of the steel covers not be considered for tax relief. Therefore, it is further recommended that a Pollution Control Facility Certificate bearing the cost of $13,037 ($17,665 - $4,628 for the steel covers), with 80% or more of the cost allocated to Pollution control be issued for the facilities claimed in Tax Application No. T-315.

RJN:12/5/72

Appl. T-380

Date November 21,

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

TAX RELIEF APPLICATION REVIEW REPORT

Applicant

Peerless Pattern Works
2236 N. W. Reed
Portland, Oregon 97210

The applicant operates a pattern manufacturing plant in Portland.

This application was received July 12, 1972. The report from the Columbia-Willamette Air Pollution Authority was received August 30, 1972.

Description of Claimed Facility

The claimed facility is a shaving and sawdust collection system to control the following:

1. 8 ft diameter Cyclone
2. Storage Bin
3. Collection System Ducts
4. 50 HP Motor and Blower
5. Foundation and structural work

The facility was completed and placed in service in April, 1969.

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

Facility Costs: $12,732 (Accountant's certification was provided)

Evaluation of Application

The Columbia-Willamette Air Pollution Authority reports that the company had voluntarily initiated action to control visible and particulate emissions from the manufacturing operations. The Authority did not review the plans for the facility because construction was completed prior to the initiation of their Notice of Construction program. The Authority did state that the facility is achieving its intended purpose.

The system collects sawdust and shavings from the saws, shapers, planers, molders and various other wood working machines throughout the plant and conveys the wood wastes to the cyclone. The particulate matter is removed from the air stream and discharged into the storage bin and the cleaned air is discharged to the atmosphere. It is estimated that the efficiency of this system is 90% or greater overall.

Appl

Date

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

TAX RELIEF APPLICATION REVIEW REPORT

It is concluded that the system does reduce air pollution and that the company will not be able to earn any return on this investment.

Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the costs of $12,732 with 80% or more of the cost allocated to pollution control be issued for the facility claimed in Tax Application T-380.

RAR:l

DEPARTMENT OF ENVIRONMENTAL QUALITY

TERMINAL SALES BLDG. • 1234 S.W. MORRISON ST. • PORTLAND, OREGON 97205

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. I, December 21, 1972, EQC Meeting

Status Report for Public Information Hearing Regarding Boise Cascade Salem Mill

Background

Boise Cascade has operated the present 250 T/day ammonia-base sulfite pulp and paper mill since it was acquired in 1964 from Columbia River Paper Company. A primary clarifier for removing settleable solids from the wastewater was completed in 1968, greatly reducing the accumulation of waste fiber solids in Willamette Slough and the Willamette River downstream. Prior to 1972, spent sulfite liquor was stored in partially sealed ponds on Minto Island during periods of reduced river flow, approximately June through November of each year. During winter and spring months, accumulated waste liquor was discharged at a controlled rate as permitted by the DEQ. Although gross pollution of the Willamette River was avoided in this manner, undesirable slime growths and measureable water quality degradation persisted many miles downstream.

The first Waste Discharge Permit issued to Boise Cascade in December, 1967, required that waste liquor chemical recovery and year-around secondary treatment of residual wastewaters be operational prior to July 1, 1972 such that the total waste discharge to the

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Willamette River would not exceed 8000# BOD/day during the annual June - November period. At that time, summer discharges were approximately 10,000# BOD/day, and winter discharges were approximately 140,000# BOD/day.

Construction of the many phases of this $6 1/2 million undertaking was begun in 1969 in order that all components would be completed by approximately May 1, 1972, allowing a short period for startup and testing prior to the July 1 deadline. Although difficulties and uncertainties were experienced during construction, preliminary testing of liquor evaporation and recovery components began in late May. Repeated difficulty was experienced with evaporation equipment, delaying startup and testing of the recovery system, and causing substantial quantities of waste liquor to be discharged to the secondary treatment system. Early performance of the secondary treatment system was therefore impaired by highly irregular waste loading.

During late May and early June when the recovery system was not operating consistently, waste liquor continued to be discharged directly to the Willamette River until streamflow was no longer sufficient for dilution. At the request of the DEQ, on June 16, waste liquor was diverted to an unused storage pond on Minto Island, which was considered by DEQ and Boise Cascade staff to be reasonably tight. Waste liquor was pumped to this pond for several weeks before it became apparent to the Department that there was not a corresponding rise in level. In early July, serious question as to the security of the pond, and unexplainably high indications of spent sulfite liquor in the Willamette River caused the DEQ to request more precise measurement of pond level, volume of liquor pumped, evaporation, and pond area to accurately assess the quantity being lost.

During mid-July, it became evident from river monitoring data that waste liquor was having a severe impact on the Willamette River, and that it must be reduced before conditions became still worse. It was determined that waste liquor must no longer be pumped to the leaky pond on Minto Island, and that Boise Cascade must curtail pulping production until the liquor recovery system could be made fully

operable. Coincidentally, Boise Cascade survey crews discovered a sizeable leak in the emergency drain line from the liquor storage pond. The leak was eliminated immediately, but several days were required to assess the downstream effect.

Efforts to place the recovery system in continuous operation after the first of July, in accordance with liquid waste discharge limitations, had their effect on air quality as operational problems with the air pollution controls became apparent. Severe odors and visibility reduction were experienced in downtown Salem on July 6 and 7, and on the evening of July 19, as the Boise Cascade operating staff attempted to find optimum operating conditions.

There were several weeks of intensified monitoring by Boise Cascade and DEQ of waste treatment facilities and water quality conditions surrounding Minto Island and in the Willamette River downstream. The closure of the liquor leak had a noticeable beneficial effect on river quality, and it became possible to evaluate the contribution of seepage of accumulated waste liquor from beneath Minto Island. Although water quality conditions appeared to be improving, there had been several violations of water quality standards and of Boise Cascade's Waste Discharge Permit. Furthermore, the recovery system was still having extensive problems, causing periodically severe atmospheric pollution conditions and unstable secondary treatment performance due to sporadic overloading. Strong waste liquor continued to accumulate in the storage pond which was showing seepage of approximately 1/4 inch per day.

On July 19, Boise Cascade pumped waste liquor to the Minto Island pond for the last time. Evaporators operated with decreasing efficiency until July 23, when the entire pulping operation was shut down for extensive modifications and repair of newly installed recovery equipment. The mill continued to produce limited quantities of paper from purchased pulp for several days.

On July 26, the DEQ filed a complaint against Boise Cascade for multiple violations of their Waste Discharge Permit and several sections of Oregon Revised Statutes dealing primarily with water pollution. In order that the mill could resume production, and to insure that the Willamette River and air quality in Salem would be adequately protected, Boise Cascade and the DEQ entered into a Stipulation and Consent Decree and a joint letter of agreement on specific matters of operational policy. The terms of these documents are summarized as follows:

Consent Decree

1. No additional spent sulfite liquor would be pumped to the emergency wastewater holding pond on Minto Island.
2. All unnecessary piping on Minto Island or mill property would be permanently plugged or removed within 30 days to insure that inadequately treated wastewaters would not be discharged or escape to the Willamette River.
3. SO_2 emissions from recovery stack must not exceed 1500 ppm. for at least 90 days following startup. Also, the visible plume must not extend beyond 50 yards from the stack, and ground visibility problems must not be allowed to develop.
4. Boise Cascade must monitor SO_2 emissions continuously, and promptly report any malfunctions to the DEQ.
5. Marion County Circuit Court is authorized to carry out all terms of the Consent Decree until November 1, 1973.

In addition to the Consent Decree, the DEQ and Boise Cascade entered into a Stipulated Letter of Agreement which provided, among other things, that:

1. Boise Cascade and the DEQ will develop a mutually agreeable solution to the problem of disposal for remaining spent sulfite liquor in storage pond on Minto Island.

2. Boise Cascade and the DEQ will arrive at an agreement on work necessary to secure secondary treatment ponds to prevent flood damage during periods of high water.

The guarantees required by the Consent Decree made it necessary to prolong the mill shutdown until August 5. In the meantime DEQ and Boise Cascade staff had thoroughly reviewed all known deficiencies and reached agreement on work which had to be completed within the specified 30 and 90 day periods. Priorities and interim dates for re-evaluation were established. These findings and working agreements were itemized by letter to Boise Cascade.

Additional problems with uncontrollable recovery system emissions and instability of secondary treatment kept Boise Cascade crews working three shifts - 7 days/week, and daily communication between DEQ and Boise Cascade staff continued through mid-September. Visits to the mill, status report meetings and letters, and staff reports of overall and specific situations were at least weekly occurrences from early May through November. At various times throughout this period, some DEQ and Boise Cascade staff were known to have worked for several weeks without a day off. The regular work responsibilities of the DEQ also suffered neglect due to the intensity of this involvement.

Evaluation

The present status of water and air quality control programs is summarized as follows:

1. The secondary treatment system has demonstrated that 8000# BOD/day is an attainable discharge level during the annual period of reduced river flow, as long as raw waste loading remains relatively stable. Short term slug discharges of concentrated waste cannot be tolerated.

2. A spill prevention and control program based on automatic and immediate shutdown of all pulping operations in the event of failure or overflow in the liquor transfer system has been approved by the Department and is being implemented by the company.

3. An extensive employee education and orientation program for prevention, and handling and reporting of spills has been developed and implemented as required by the Department.

4. The recovery system, as a whole, is now operating quite consistently within acceptable limits, greatly reducing the necessity of frequent shutdowns which were common until recently. This has had a beneficial effect on atmospheric emissions as well as loading of wastewater treatment facilities.

5. Secondary treatment pond dikes have been reinforced and stabilized such that the potential of failure is now greatly reduced.

6. All unused piping on Minto Island and crossing Willamette Slough has been removed or disconnected, all contaminated wastewater flows have been connected to treatment facilities, and emergency plumbing is being installed to ensure that no untreated wastewaters will be discharged.

7. Construction of the digester pump-out emission control system is being accelerated such that strongly odorous conditions which occur when digesters are "blown" will be eliminated.

8. Installation of permanent weak acid filtration equipment has been completed, providing dependable recovery of cooking acid chemicals.

9. Operating experience with the many components of the new system has brought about installation of improved equipment and additional flexibility for operation. Extensive records of daily component and system operation are kept for reporting and reference purposes.

10. A full time environmental supervisor has been employed by the company to coordinate all necessary functions related to environmental control programs and to ensure proper attention to careful operation and maintenance of facilities throughout the mill.

Projects that are yet to be completed by Boise Cascade in order to fully conform with the requirements of the DEQ include:

1. Complete installation of automated systems for monitoring and control equipment for spill prevention and handling system.

2. Development and installation of additional soiled water reuse systems in the mill, thereby reducing freshwater consumption, reducing waste loading to treatment facilities, and increasing retention of wastewater in the secondary treatment system.

3. Dredging and general cleanup of Willamette Slough, to be arranged with state fisheries agencies.

4. Improvement of the emergency waste holding pond on Minto Island and construction of a permanent pump station for dewatering this pond to secondary treatment at an acceptable rate.

5. In-plant studies of highly colored waste generating processes and implementation of improved methods wherever possible to minimize the visibility of the treated waste discharge in the Willamette River.

6. Complete design and construction of digester pumpout system for reduction of odorous emissions from digester blow pits. This system was originally scheduled to be installed and operational in early 1974. The company and the Department are presently investigating possibilities of accelerating this installation for completion as soon as possible during 1973.

Recent legislation authorizes the DEQ to issue atmospheric emission permits for all major sources. As a result of frequent problems with several pulp and paper mill emissions, the Department has assigned these sources first priority, and proposes to issue a specific permit to Boise Cascade's Salem mill by January 1, 1973. The mill has been operating with a liquid waste discharge permit since December, 1967.

Summary and Conclusions

Boise Cascade has been required by the DEQ to design, construct, and make operational a very complex and expensive recovery and waste treatment system to comply with air and water quality standards. It is the only ammonia base acid sulfite recovery system of its kind in the United States, and many aspects of the system were of an experimental nature. In retrospect, the company did not allow enough time for startup, testing, and stabilization of the overall system prior to the deadline of July 1, 1972. They were faced with low river flows, a recovery system with many unresolved problems, untrained operating personnel, and essentially nowhere to dispose of their mistakes. Excessive waste discharges resulted in violation of their Waste Discharge Permit and water quality standards, necessitating strong corrective action by the DEQ. The associated air quality problems were accentuated by the mill's location in downtown Salem and brought about considerable impatience with Boise Cascade and the DEQ.

Most of the serious problems with startup of these complicated and interdependent facilities have now been resolved. The projects requiring further work have been outlined in this report, and the Department is pleased with the progress being made for their early completion. The long-range performance of pollution control equipment,

however, is only as reliable as the people who operate and maintain it. It is therefore a continuing effort of coordination and diligence by Boise Cascade personnel which will assure compatibility of this mill with its surroundings.

L. B. Day

PHR/CAA:ljb
12/12/72

Detailed Discussion of Atmospheric Emission
Problems & Control Programs at
Boise Cascade Pulp and Paper Mill - Salem
For Presentation at the
December 21, 1972 - Public Information Hearing

The Process

Boise Cascade makes pulp from chips in six batch-type digesters (pressure cookers) with a cook liquor of dissolved sulfur dioxide (sulfurous acid) and ammonium bisulfite. At the end of a cook, the digesters are relieved of much of their pressure, and the contents blown under the remaining pressure into a "blow pit," where the pulp is washed. The cook liquor at the time of the blow still has much sulfur dioxide dissolved in it, most of which comes out of solution when the liquor-pulp mixture reaches the blow pit. For approximately fifteen minutes during each blow, blow pit emissions average some 20-30,000 parts per million sulfur dioxide (2-3%) and 70-80 pounds of sulfur dioxide per ton of pulp along with a great quantity of water vapor. These emissions are discharged through two blow-pit vent stacks to the atmosphere. Blows occur about once each hour.

The spent sulfite liquor which remains is washed from the pulp. At that time, it contains sulfur dioxide tied up as ammonium sulfite and about half the weight of the chips originally fed to the digester. The purpose of the recovery system is to regenerate cook liquor from the sulfur in the spent liquor and to use the heating value obtained from burning the dissolved wood solids to generate steam. This also reduces the water pollution which used to be caused by draining the spent liquor to the river. The recovery system was installed to meet water pollution control requirements as the spent liquor is too strong to discharge to a normal water pollution control treatment system. Recovery is accomplished by evaporating the spent liquor from its original 10% solids up to 50% solids - then using the evaporated liquor as fuel for a recovery furnace. Furnace flue gases

are scrubbed with an ammonia solution, the scrubber effluent ("weak acid") is then fortified with sulfur dioxide generated in a sulfur burner, and the resulting "strong acid" sent back to the digester area for re-use as fresh cook liquor.

Recovery System Startup

The recovery system at the Boise Cascade, Salem mill was originally scheduled for startup in April, 1972. The initial trials were not successful, for mechanical reasons. After further "de-bugging," and trial runs, the system was placed in operation on July 5, 1972, with the intention of making adjustments in the process controls. It soon developed that major adjustments would have to be made. The furnace air supply was excessive, necessitating bricking up ducts which conducted cooling air to auxiliary fuel burners (done July 12, 1972). The next problem was with the absorption section, which either washed out SO_2 from the flue gas and generated a dense fume, or had a clear discharge but didn't wash SO_2. Being able to run the furnace for periods greater than a few hours (which had not been possible from April through the end of June) made it feasible to call in a consultant to establish optimum furnace parameters. By July 20, furnace operating conditions had been established, but frequent plugging of the evaporators became the major problem, limiting operating runs to a matter of days. This was diagnosed as being caused by excessive pulp fibers in the weak black liquor which collected in the evaporator bodies and resulted in the plugging. Liquor adhering to the fibers "polymerized" (became like a plastic), necessitating long shutdowns for cleaning. Fiber filters were ordered, and arrived at the mill in the last week of July.

Meanwhile, continual monitoring of ambient sulfur dioxide had been started in the Century Tower in mid-July, and has continued to the present. Peaks recorded on the monitor have been identified with peak emissions from the blow pit vent. Ten-minute grab samples, taken by hand also had been collected during the early part of July when furnace emissions were high. These grab-samples were discontinued

when the furnace emissions were reduced to less than 1000 ppm, for at that point ambient concentrations from the furnace emissions decreased to less than the minimum sensitivity of the technique.

Subsequent to signing the Consent Decree after shutting down on July 23 and startup on August 5, the recovery system has operated with good control of emissions from the recovery furnace with the exception of a few upsets. The digesters remain uncontrolled and apparently now are the major, if not the sole, remaining source of SO_2 odors. The design of the digester control system has been completed except for details like pipe size and connection locations which are dictated by the purchase of specific components. Purchase of components has commenced, with some items ordered ahead of schedule. Completion of the system will depend on the delivery times for specific items. Equipment delivery dates are expected to become firmed up in February 1973. First emphasis is being given to completion of the added relief system which is intended to allow relieving the digesters nearly to atmospheric pressure, prior to their being pumped out. Completion of the relief system will itself allow some reduction of digester emissions by drawing off sulfur dioxide which now escapes to the atmosphere. Completion of the entire pump-out system, originally scheduled for early 1974, is now anticipated to be prior to December, 1973.

The Department has met with Boise Cascade several times to accelerate the completion of the pump-out system, and will continue to work to that end. Boise Cascade has committed itself to making all the haste it can, and will install components as they arrive, so that the limiting factor for completing the system remains the delivery time of purchased items.

PHR/CAA:ljb

DEPARTMENT OF ENVIRONMENTAL QUALITY

TERMINAL SALES BLDG. • 1234 S.W. MORRISON ST. • PORTLAND, OREGON 97205

December 14, 1972

Memorandum

To: Environmental Quality Commission

From: Director

Subject: Statutes and Regulations in EQC Notebooks

Due to the difficulty of getting all the materials in the notebooks for the EQC meetings, we are taking out the regulations and statutes which are in the back of your books. Two copies of these materials will be available at the meeting for reference if needed.

L. B. Day

EJW:vt

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