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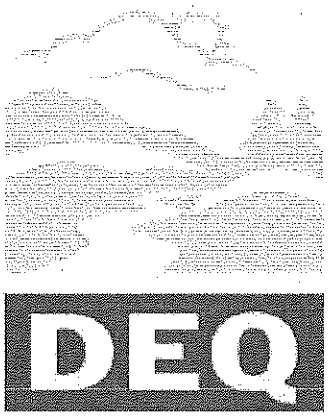
OREGON STATE SANITARY AUTHORITY MEETING MATERIALS



State of Oregon
Department of Environmental Quality

AGENDA

STATE SANITARY AUTHORITY MEETING

February 17, 1966

State Office Building, Eugene, Oregon

A. Minutes of December 17, 1965 meeting

B. Project plans for December 1965, and January 1966.

C. Request of City of Lake Oswego for public hearing regarding Oregon Portland Cement Company

D. Requests for variances from Wigwam Burner Regulations

E. Douglas County Lumber Company, Winchester (Status Report)

F. Union Carbide Metals Company, North Portland (Status Report)

G. Chipman Chemical Company

H. Portland Sewage Disposal

OSEH-WPC
2/15/66-50

MINUTES OF THE 109th MEETING
of the
Oregon State Sanitary Authority
February 17, 1966

The 109th meeting of the Oregon State Sanitary Authority was called to order by Harold F. Wendel, Chairman, at 4:45 p.m., February 17, 1966, in the conference room of the Eugene State Office Building, Eugene, Oregon. The members and staff present were: Harold F. Wendel, Chairman; B.A. McPhillips, Chris L. Wheeler, Richard H. Wilcox, M.D., Herman P. Meierjurgen, and Edward C. Harms, Jr., Members; Kenneth H. Spies, Secretary; John Denman, Legal Advisor; E.J. Weathersbee, Deputy State Sanitary Engineer; H.M. Patterson, Assistant Chief Engineer; Bryan M. Johnson, Associate Sanitary Engineer; Leo G. Farr, Assistant Sanitary Engineer; Glen D. Carter, Aquatic Biologist, and Harold W. Merryman, District Engineer.

MINUTES:

It was MOVED by Mr. Wheeler, seconded by Dr. Wilcox and carried that the minutes of the December 17, 1965, meeting be approved as prepared.

PROJECT PLANS:

It was MOVED by Mr. McPhillips, seconded by Mr. Wheeler and carried that the action taken on the following 23 project plans and engineering reports for water pollution control and 4 project plans for air quality control for the months of December 1965 and January 1966, be approved:

Water Pollution Control

Date	Location	Project	Action
12-3-65	Forest Grove	Pump Station and Sewers	Prov. App.
12-7-65	Seaside	Force Main Change Order	Approved
12-8-65	Albany	Sewers	Prov. App.
12-8-65	Jackson County	Wm. Wood Lagoon	Not App.

Date	Location	Project	Action
12-9-65	Douglas County	Camas Valley School Lagoon	Prov. App.
12-10-65	Oak Hills Subd.	Sewer Extension Units 3 & 4	Prov. App.
12-16-65	Portland	Guilds Lake Interceptor	Prov. App.
12-29-65	Oregon City	Publishers Paper Co. Industrial Effluent Collection	Prov. App.
1-3-66	Woodburn	Sewer Extension OSH 214	Prov. App.
1-6-66	Arlington	Sewage treatment plant	Prov. App.
1-11-66	Lakeview Sub. San. Dist.	Sanitary sewers	Prov. App.
1-13-66	Eugene	Weaver Dev.-pump sta. & pressure line	Prov. App.
1-17-66	Clatskanie	Crownview Subd. sewers	Prov. App.
1-18-66	Multnomah County	Lateral sewer	Prov. App.
1-24-66	Grants Pass	Lateral D - Allendale School	Prov. App.
1-24-66	Boardman	Sewer for UPRR	Prov. App.
1-25-66	Estacada	Genseng Dr. sewer	Prov. App.
1-26-66	Portland	Mt. Scott sewers	Prov. App.
1-26-66	Chatnicka Heights	Sewers #3	Prov. App.
1-27-66	Springfield	Sewer Project S-25-E-66	Prov. App.
1-27-66	Eugene	Candlelight Park Addn. sewers	Prov. App.
1-27-66	Eugene	Phase 6 Willakenzie Area	Prov. App.
1-27-66	Eugene	25th St., Onyx to Emerald sewers	Prov. App.

Air Quality Control

Date	Location	Project	Action
Dec. 22	Monmouth Independence	Talmadge Jr. High School Plans (Incinerator)	Additional information requested
Dec. 22	Gladstone	Gladstone Senior High School (Incinerator)	Additional information requested

Date	Location	Project	Action
Jan. 10	Wauna	Crown Zellerbach	Additional information requested
Jan. 11	White City	3 M Incinerator	Conditional approval

REQUEST OF CITY OF LAKE OSWEGO FOR PUBLIC HEARING REGARDING OREGON PORTLAND CEMENT COMPANY

Mr. Patterson read a letter from the city of Lake Oswego dated January 19, 1966, asking that a public hearing be called regarding the matter of air pollution allegedly caused in that city by the operations of the Oregon Portland Cement Company. This letter has been made a part of the Authority's permanent files in this matter.

Mr. Patterson then read a staff summary report dated February 17, 1966, which likewise has been made a part of the Authority's permanent files.

Mr. Fred Yerke, attorney for the company, stated that the Oregon Portland Cement Company commenced operation in 1916 in Oswego with one kiln operating. This went on for about 30 years. In 1946 or 1947 the operation expanded to two kilns. At that time the company installed electrostatic precipitators to take care of the increased emissions expected from the addition of the second kiln. In 1955 Mr. McCaslin, president of the company, announced publicly that there would be further expansion by addition of a third kiln.

At that time Mr. Leche, first vice-president, Mr. McCaslin and Mr. Yerke met with Mr. Everts and Mr. Hatchard over a period of some months and discussed the matter and tried to work out something that would satisfy the requirements of the Sanitary Authority and that would also be economically feasible from the company's standpoint. The result was that the company was authorized to go ahead with the construction of the third kiln, provided that a new electrostatic precipitator was put in to cover the emissions expected by reason of the increased capacity. At the same time it was agreed to rebuild the old

precipitator and connect it up so that it would take care of the two existing kilns. The requirement imposed at that time was that the company have a 99.5% efficiency as far as recovery was concerned. The new kiln operated at about 180,000 cu. ft. per minute, whereas the old kiln operated at around 80,000 cu. ft. per minute. Mr. Yerke reported that through the years since 1946 total capital expenditures have been $1,029,811 and the operation and maintenance have cost $932,198.34.

Mr. Yerke went on to say that the company worked out with Mr. Everts and Mr. Hatchard the 99.5% efficiency figure, and that the company has continued to adhere to it through the years. The problem now is the matter of the air quality standard which was set up by the Authority after the precipitators were put in, which limits the amount of lime dust and calcium oxide to not more than 20 micrograms per cubic meter above the normal background value. In summary, he stated that the company has operated at the efficiency set by the Sanitary Authority, that production has not been increased, and that the amount of fallout collected at the two stations probably comes from some other source.

Mr. Erik Voldbaek, vice-president in charge of operation for the company, presented a data sheet to the Sanitary Authority members which showed the production from 1961 to 1965, the value of stack emissions for the same period and the fallout rates as measured by the Authority for the same period. He pointed out that emissions in 1965 were somewhat higher than in 1964, but less than 1963 and 1961. He said in 1962 the company had a low production due to the fact that for five months there were only two kilns running. He went on to say that the emissions in the stack in pounds per day have been reduced mainly through the efforts of the company to change its production procedures and other reasons.

The fallout rate as measured in 1965 was, for some reason or other, extremely high. There seems to be no correlation between production and emission from the stack to the fallout rate. The company feels that there is some other reason for the increase in the fallout rate in 1965, one reason being during the flood period in December about two to three inches of silt and other materials were deposited in the whole area.

Mr. Yerke said he believed this is an area problem because there are cement trucks coming and going, people coming in to buy cement, etc. The wind rose that was set up from the plant to the Pinafore Restaurant showed that there was only one month (March) in which it predominated and for a period of 4 or 5 months the wind was blowing from the restaurant to the plant. Therefore, he said, there must be some other cause.

It was stated that the company does intend to go ahead and try to carry out the plant modernization that was discussed with Mr. Patterson at the February 9 meeting. Mr. Yerke said he believed that more could be gained if the Air Quality Control staff and the company staff sat down with the Oswego City Council and went over all of this.

Mr. Patterson pointed out that in the letter of April 13, 1955, it was initially stipulated that the emissions at the plant would be 60# per hour or 1440# per day which would equal an 80% reduction of the earlier 1955 emissions. Later, conferences and the letter of May 31, 1955, agreed that it would be necessary to have a 99.5% efficiency.

Mr. Patterson pointed out that the median total fallout for 1955 and 1961 was 25 tons per square mile per month and the calcium oxide was 7.3 and 6.0, respectively, at the Oswego Elementary School. In 1964 and 1965 the median total fallout was 40 and 62 tons, respectively, and calcium oxide was 8.8 and 21.4, respectively, at the Pinafore Cafe. There has been an increase in fallout

over the earlier data. The earlier emission limitation intent was upon an emission basis, not a percentage basis, because if the stack emissions go up as they did, then the pounds being emitted is also going to go up, even though the collection efficiency remains very high. The staff believes this is why complaints are being received because the emissions are higher.

The Chairman then asked Mr. Patterson that if the company is successful with their financing and do what they say they will do, did he feel that the problem would be solved.

Mr. Patterson said he believed that the Authority's regulations would be met if the company carried out what they said they proposed to do.

Dr. Wilcox asked if a joint meeting with the City Council and the Authority's staff, prior to a hearing, would accomplish anything.

Mr. Patterson thought that it would. He stated, however, that the staff had met with the city and advised them of the intent of Oregon Portland Cement Company as far back as last October, and that the city had also been advised that the company was having difficulties completing their financing.

The Chairman then asked if the financing would be arranged for shortly.

Mr. Voldbaek said that is very difficult to say. At the present time the draft for the loan agreement is being worked out by an attorney in New York. After it is returned from New York it then goes to the borrowing institution and it is not known how long they will retain it. He said the company does have the commitment for the loan.

Mr. McPhillips asked how long after the papers are finalized and the loan agreement is completed that construction would be started.

Mr. Voldbaek said that at the present time the delivery on the major equipment would be about nine months after placing the order. Completion would be about 12 to 14 months after the orders are placed.

Mr. McPhillips asked Mr. Patterson if he thought that the operations at the plant are being carried on at peak efficiency or if there could be an improvement.

Mr. Patterson stated that from brief observations he thought it could be improved. However, some of the company's good asphaltic roads are broken down and the company hesitates to put any money into them at this time if they are going to expand the facilities.

It was MOVED by Mr. Harms, seconded by Mr. Wheeler, and carried that a public hearing be called to request Oregon Portland Cement Company to appear and show cause why air pollution should not be abated, the date for such hearing to be set by the staff at sometime subsequent to April 1.

REQUESTS FOR VARIANCES FROM WIGWAM BURNER REGULATIONS:

The requests for variances received since the last meeting, together with staff recommendations pertaining to them, were reported by Mr. Patterson as follows:

(1) Beaver Lumber Co., Clatskanie, located in a sparsely populated area. Recommendation: Variance should be denied.

(2) Cabax Mills, Eugene, infrequent material to reach desired exit temperatures except for very brief periods of time. Recommendation: Grant a conditional variance until May 15, 1966, at which time use of the burner is to be discontinued entirely.

(3) Cone Lumber Company, Goshen, anticipated 100% utilization in spring of 1966. Recommendation: Variance be denied.

(4) Diamond Lumber Co., Tillamook, located in sparsely populated area. Recommendation: Variance be denied.

(5) Ellingson Timber Co., Izee, located in sparsely populated area. Recommendation: Variance be granted until August 11, 1966.

(6) Ellingson Timber Co., Seneca, located in sparsely populated area. Recommendation: Variance be granted until August 11, 1966.

(7) Ellingson Lumber Co., Halfway, relative isolation from habitation or population centers. Recommendation: Variance be granted until August 11, 1966.

(8) Ellingson Lumber Co., Unity, relative isolation from human habitation or population centers. Recommendation: Variance be granted until August 11, 1966.

(9) Forest Grove Lumber Co., Forest Grove, decision pending (by March 1) as to whether to install barker and hog. Such installation, if made, would result in total utilization and discontinued use of the waste burner. Owner does not wish to be in violation of the law in the interim. Recommendation: Grant conditional variance until July 1, 1966, at which time use of burner is to be completely discontinued.

(10) Johnson Brothers Lumber Co., Silverton, located in sparsely populated area. Recommendation: A variance be granted until July 1, 1966, at which time the success of petitioner's efforts toward sale or disposal of the shavings by other means will be subject to review. Director Smith of Mid-Willamette Valley Air Pollution Authority concurs in this recommendation.

(11) Loveness Company, Malin, located in sparsely populated area. Recommendation: Grant a variance until August 11, 1966.

(12) Miele Logging Co., Eugene, time is needed to observe working of a thermo-couple and pyrometer in conditions similar to those in petitioner's plant. Recommendation: Variance be denied.

(13) Quality Lumber Co., Athena, none stated, other than "... we wish to go on record requesting variances from the provisions of Section 24-020 pursuant to ORS 449.810." Recommendation: Variance be denied.

(14) Swanson Brothers Lumber Company, Noti, located in remote and sparsely populated area. Recommendation: Variance be denied. Director Adkison of the Lane County Air Quality Control program concurs in this recommendation.

(15) Zip-O-Log Mill, Inc., Eugene, infrequent use (one or two days per month). Recommendation: Grant a conditional variance until May 15, 1966, at which time use of the waste burner is to be discontinued entirely.

It was MOVED by Mr. Harms, seconded by Dr. Wilcox and carried that the Authority adopt the recommendations of the staff and notify the mills of the action of the Sanitary Authority.

Mr. Harms said he thought it was significant to note, since there was some concern in the lumber industry about the wigwam burner regulations, that the action of the Authority upon the recommendations of the staff today was to grant variances to 9 out of 15 cases. He said it is true that some of these are for very short periods, but it indicates that the staff and the Authority are treating this in a reasonable manner.

DOUGLAS COUNTY LUMBER COMPANY, WINCHESTER:

Mr. Patterson stated that there was no report written on Douglas County Lumber Company because a great deal has not been accomplished. He said that Mr. Hallmark, general manager, has been investigating what he should do at the mill in order to curtail air pollution.

Mr. Meierjurgen asked if a pyrometer had been installed in the waste burner.

Mr. Patterson said not yet. He said Mr. McKenzie spent a half day trying to operate the wigwam waste burner to get it up to a high enough temperature. The waste burner has a different fire system - a tunnel system - and this may have to be changed.

Dr. Wilcox asked if there is any action indicated.

Mr. Patterson said the staff does not recommend any action at this time, and hoped that the company will act in all sincerity and will make improvements shortly.

UNION CARBIDE METALS COMPANY, NORTH PORTLAND:

Mr. Patterson said that his staff had met with Union Carbide, that they are making progress, and that as a result of the last Sanitary Authority meeting they are to submit a plan by March 1, 1966. He said it appears that they are on schedule.

CHIPMAN CHEMICAL COMPANY:

A memorandum report dated February 17, 1966, which has been made a part of the permanent files in this matter was given by Bryan M. Johnson, Associate Sanitary Engineer.

Mr. Johnson also stated he had met briefly with Mr. Gitschlag the morning of February 17 and had obtained some additional information regarding the fish bioassays. Effluent concentrations of 100 ppm of treated wastes produce no off flavor in the test trout and only a slight off flavor was noted in effluent concentrations of 1,000 ppm. This is a dilution of 1,000 to 1. It was further noted that the lake level has risen only 1 inch since February 10 and now stands at 38 inches by the gauge. This is a gain of approximately 400,000 gallons. Mr. Johnson stated the project of extending the effluent line to the river for the treated waste is progressing rapidly with only one more easement being required along the easement line. The pipe has already been ordered.

Mr. Gitschlag was present and answered questions from the Board members. Mr. Meierjurgen asked if the effluent would be treated at the plant before being discharged to the pipe line now being installed. Mr. Gitschlag replied that it would. The installation is being started and plans should be ready to be submitted either Monday or Wednesday for the outfall piping.

Dr. Wilcox asked what level or amount of chlorination was being introduced at the plant and the answer was about 600 parts per million. Mr. Meierjurgen wanted to know the size of the pipe being installed and Mr. Gitschlag said it would be a 6 inch line. The company has two temporary 30,000 gallon tanks for retention of the effluent and later plan to install two 200,000 gallon tanks.

Mr. Wendel asked if the company still had protracted periods of shut down and was told the 2,4-D plant runs the year round except for about one month.

Mr. Johnson said he thought the company was on schedule in making the necessary corrections but some tainted fish may still result because of the seepage from Doane Lake.

Mr. Wheeler suggested a record of the test run on the effluent prior to its being dumped be filed with the Authority.

No further action was taken.

PORTLAND SEWAGE DISPOSAL:

The Secretary reported that a schedule submitted some time ago by the Portland City Engineer's office indicated that construction of some of the interceptor sewer projects proposed by the city of Portland indicated a 1975 completion date. They were immediately advised this was not acceptable to the Sanitary Authority and the city was requested to review its whole program and work out a new schedule. The revised schedule was received February 16. Briefly, it calls for speeding up the repairs and additions to the existing interceptor system, construction of other interceptors needed to collect wastes from sewers which now discharge to the river and enlargement of the treatment plant. This is to be done for the most part by 1968. During the next 5 years the city expects to spend over $14,000,000 on construction

of new projects. In order to accomplish this the city would have to have about $1,900,000 additional money from federal grants.

There are 7 outfalls on the west side of the Willamette, 7 outfalls on the east side and 2 outfalls on Columbia Slough that need to be improved. It is estimated the total cost of improving these 16 outfalls will be approximately $700,000 which is proposed to be done in 1967 and 1968. The Linnton-Guilds Lake project will cost approximately $5,800,000, some of which is already budgeted and the rest would be budgeted in 1967 and 1968. In addition to repairing the 16 outfalls and constructing the Linnton-Guilds Lake interceptor, river crossing and tunnel over to the existing primary plant, the city will also enlarge the plant at a cost of about $1,400,000. Also, a portion of the main eastside interceptor system will have to be enlarged at a cost of about $1,200,000. The city has budgeted for the present fiscal year almost $4.4 million, for 1967 - $3.2 million, and for 1968 - $2.8 million. After 1968 the outfall to the Columbia River will have to be enlarged at an estimated cost of about $2,800,000. This program has not yet been presented to the City Council.

It was MOVED by Mr. Harms, seconded by Dr. Wilcox, and carried that the Portland City Council be urged to adopt their engineer's revised construction schedule, which calls for a significant acceleration in its program, but that it be pointed out that while the Sanitary Authority will cooperate with the city in its application for federal funds, it cannot be guaranteed the federal funds will be available; and that the city be urged at the same time to investigate alternative ways of financing so it would not fall behind in its time schedule in the event it is unable to get the entire amount of federal aid otherwise needed.

ROGUE RIVER:

Mr. McPhillips reported the Rogue River had been running muddy all winter which was not due to natural causes. He asked the Chairman to have the staff investigate the situation and report back as he was prepared to ask the Chairman to call a special meeting for the purpose of citing in for a hearing any contractor who was violating the law in that area or the State Highway Department if necessary.

There being no further business the meeting adjourned at 6:30 p.m. No date was set for the next meeting.

Respectfully submitted,

Kenneth H. Spies

Kenneth H. Spies, Secretary

MOTION - Weyerhaeuser

It was MOVED by Mr. Harms, seconded by Mr. McPhillips and carried that we continue the hearing until April 15, it being the understanding upon Weyerhaeuser representation that the complete water plans will be ready from their consulting engineers by March 26, giving our engineering staff a chance to check it and at that time we will hear additional information from Weyerhaeuser concerning air pollution. This also being with the understanding that they are proceeding with their present plans to improve that situation.

Minutes of December 17, 1965 meeting

It was MOVED by Mr. Wheeler, seconded by Dr. Wilcox and carried that the minutes of the December 17, 1965 meeting be approved.

Project Plans for December 1965 and January 1966

It was MOVED by Mr. McPhillips, seconded by Mr. Wheeler and carried that the action taken on the following 23 project plans and engineering reports for water pollution control and 4 project plans for air quality control for the months of December 1965 and January 1966, be approved:

Request of City of Lake Oswego for public hearing regarding Oregon Portland Cement Company

It was MOVED by Mr. Harms, seconded by Mr. Wheeler and carried that a public hearing be called to request Oregon Portland Cement Company to appear and show cause why air pollution should not be abated, the date to be set by the staff subsequent to April 1.

Motions - continued

Requests for variances from Wigwam Burner Regulations

It was MOVED by Mr. Harms, seconded by Dr. Wilcox and carried that the recommendations of the staff be adopted and the mills be notified of the action of the Sanitary Authority.

Douglas County Lumber Company, Winchester

No action recommended at this time.

Union Carbide Metals Co., North Portland

No action recommended at this time.

Chipman Chemical Company

No action recommended at this time.

Portland Sewage Disposal

It was MOVED by Mr. Harms, seconded by Dr. Wilcox and carried that the Portland City Council be urged to adopt the engineer's plans which calls for significant acceleration in their program, but that it be pointed out that of course while we will cooperate with them in the application for federal funds, we can't guarantee that the federal funds will be available unless they are qualified on the priority system established by the Dept. of Urban Affairs, and that we urge them at the same time to investigate alternative ways of financing so that they won't be so far behind on their time schedule in the event that are unable to get the entire amount of federal aid which they say they will need.

Project Plans and Reports

The following plans or reports were received and processed by the Air Quality Control staff during December 1965:

Date	Location	Project	Action
Dec. 22	Monmouth Independence	Talmadge Jr. High School Plans (Incinerator)	Additional information requested
Dec. 22	Gladstone	Gladstone Senior High School (Incinerator)	Additional information requested

Project Plans

During the month of December, 1965, the following eight sets of project plans and engineering reports were received and the action taken as indicated by the Water Pollution Control Section:

Date	Location	Project	Action
12-3-65	Forest Grove	Pump Station and Sewers	Prov. app.
12-7-65	Seaside	Force Main Change Order	Approved
12-8-65	Albany	Sewers	Prov. app.
12-8-65	Jackson County	Wm. Wood Lagoon	Not app.
12-9-65	Douglas County	Camas Valley School Lagoon	Prov. app.
12-10-65	Oak Hills Subd.	Sewer Extension Units 3 & 4	Prov. app.
12-16-65	Portland	Guilds Lake Interceptor	Prov. app.
12-29-65	Oregon City	Publishers Paper Co. Industrial Effluent Collection	Prov. app.

Project Plans and Reports

The following plans or reports were received and processed by the Air Quality Control staff during January 1966:

Date	Location	Project	Action
Jan. 10	Wauna	Crown Zellerbach	Additional information requested
Jan. 11	White City	3 M Incinerator	Conditional approval

Project Plans

During the month of January 1966 the following 15 sets of project plans and engineering reports were received and the action taken as indicated by the Water Pollution Control Section:

Date	Location	Project	Action
1-3-66	Woodburn	Sewer Extension OSH 214	Prov. app.
1-6-66	Arlington	Sewage treatment plant	Prov. app.
1-11-66	Lakeview Sub. San.Dist.	Sanitary sewers	Prov. app
1-13-66	Eugene	Weaver Dev.-pump sta. & pressure line	Prov. app.
1-17-66	Clatskanie	Crownview Subd. sewers	Prov. app.
1-18-66	Multnomah County	Lateral sewer	Prov. app.
1-24-66	Grants Pass	Lateral D - Allendale School	Prov. app.
1-24-66	Boardman	Sewer for UPRR	Prov. app.
1-25-66	Estacada	Genseng Dr. sewer	Prov. app.
1-26-66	Portland	Mt. Scott sewers	Prov. app.
1-26-66	Chatnicka Heights	Sewers #3	Prov. app.
1-27-66	Springfield	Sewer Project S-25-E-66	Prov. app.
1-27-66	Eugene	Candlelight Park Addn. sewers	Prov. app.
1-27-66	Eugene	Phase 6 Willakenzie Area	Prov. app.
1-27-66	Eugene	25th St., Onyx to Emerald sewers	Prov. app.

City of Lake Oswego

Telephone 636-5601 . . . . 40 A Avenue . . . . Lake Oswego, Oregon 97034

January 19, 1966

Mr. H. M. Patterson, Chief
Air Quality Control
Oregon State Sanitary Authority
P.O. Box 231
Portland, Oregon 97207

Dear Mr. Patterson:

At its regular meeting of 18 January, 1966, the Lake Oswego City Council, by unanimous vote, supported a motion calling upon the Oregon State Board of Health to act at the earliest possible date to initiate a show cause action against the Oregon Portland Cement Company for abatement of air pollution resulting from excessive emission of lime dust from its Lake Oswego plant. The Council further requests that the hearing on such action be held in the City of Lake Oswego.

The Council's action was taken with the filing of a report by the office of the City Manager advising the results of 1965 air sampling tests conducted by your Division.

We will appreciate being kept advised of the Board's action on this request, and we thank you for your cooperation.

Very truly yours,

Deane Seeger
City Manager

DS:hb

cc: Oregon Portland Cement Co.
Dee Thomason, Chamber of Commerce

CITY OF LAKE OSWEGO

"LIVE WHERE YOU PLAY"

MEMORANDUM:

TO : Members of State Sanitary Authority

Mr. Harold F. Wendel, Chairman
Dr. Richard H. Wilcox, Member
Mr. Chris L. Wheeler, Member
Mr. Herman P. Meierjurgen, Member
Mr. B. A. McPhillips, Member
Mr. Edward C. Harms, Jr., Member
Mr. John Amacher, Member

FROM : Air Quality Control Staff

DATE : February 17, 1966

SUBJECT: Summary Report: Oregon Portland Cement Company
Oswego, Oregon

The Oregon Portland Cement Company has operated a cement plant at Oswego since about 1916. The general processes in production of cement are outlined on the attached flow sheet, Appendix A. The plant location and air quality sampling station locations used by the Sanitary Authority staff are shown on the map in Appendix B.

In April of 1952, the Oswego City Council requested a study of the air quality conditions in the Oswego area. As a result of that study, a report was issued covering the period July 1952 to November 1953 (see Appendix C). The reports concluded: (1) the fallout found in Oswego was excessive from the weight standpoint alone, (2) the laboratory analysis of the fallout samples showed that 70% of the material collected was mineral in nature, (3) the substantial amount of calcium oxide showed that the particle fallout was cement dust, and (4) the amount of fallout collected in fallout sample jars varied inversely with distance from the plant. Samples collected in a northwesterly direction from the plant at distances of 800 ft., 1200 ft., and 5000 ft. had particle fallout rates of 54, 57, and 15 and calcium oxide rates of 17, 12, and 3 tons per square mile per month. (See graph I.) Similar results were obtained from samples collected covering October 18, 1953 to October 22, 1954. A Sanitary Authority summary report dated April 15, 1955 summarized these and other findings. See Appendix D.

It was from this earlier work that Station No. 1, Lakewood Elementary School, and No. 5, Pinafore Cafe, were chosen as representative sampling stations.

In 1957, an announcement in the newspapers was made that the company would modernize the plant and expand production by 60% to about 5,000 barrels per day, by installing a new kiln, grinding equipment, new stack, cement elevators, dust collection equipment, and modernize the packing and loading facilities at a cost of about $3.1 million.

Complaints were again received in 1960, 1961, 1963, 1964, 1965, and 1966. Sampling stations were re-established in 1960.

The Oregon Portland Cement Company has installed control equipment at various locations in the plant as shown by the list in Table 3 costing close to 1 million dollars.

In a letter dated March 20, 1963, the Oregon Portland Cement Company was advised of (Appendix E): (1) the monthly fallout values for the period February 15, 1961 to January 22, 1963, (2) given sample results to show that the exclusion of wind-blown lime dust from transportation resulted in particulates in excess of the regulations pertaining to suspended particulates, and (3) advised that, based upon air sample results, including area observations, the emissions from the main kiln stack appeared to be the most significant source of air pollution.

In a letter dated July 23, 1964, the Oregon Portland Cement Company was notified that the enclosed dust fallout summaries for the period from 1961 through June 3, 1964, showed no trend to indicate improvement and it was requested that the company place a higher priority on the study and control of all sources of air pollution in regard to compliance with OAR Chapter 334 and ORS Chapter 449.765.

In a September 17, 1964 letter, the company submitted a list of improvements completed since 1962 and reported a kiln operational procedure which would, if successful, reduce the dust load to the kilns substantially. The letter was acknowledged on September 25, 1964, and the company was requested to advise this office of further improvements.

Currently, the city of Oswego and the Chamber of Commerce have requested action relative to conditions in Oswego caused by Oregon Portland Cement Company.

At present, the chief sources of dust appear to be the stack, the grounds and buildings, and some uncovered trucks that haul agricultural lime.

There have been 21 formal complaints regarding air quality in Oswego since 1960, 13 of them in 1965. Neighbors complain of nuisance, paint, and plant damage. One of the automobile dealers has reported that he has to hire a person to wash cars in his lot with a vinegar solution. Both the Chamber of Commerce and the City Council consider the situation serious enough to justify official action on their part. (See also Appendix F on complaints.)

Fallout values through September of 1965 (last values availalbe) have shown a significant increase over last year from a median of 13 T/mi^2/mo. to 23.0 T/mi^2/mo. A part of this increase can be laid to the dryness of the past summer which also reflects the contribution to pollution from loose dust on the grounds and buildings and breakdown in transportation and collection equipment. The median value for stack emissions for 1965 was 1,915 lbs/day, compared to 1,453 lbs/day in 1964.

A meeting was held between Messrs. Patterson and Ayer of the Oregon State Sanitary Authority staff and Messrs. Voldbaek, Munch, and Sweet of the Oregon Portland Cement Company on October 15, 1965. At that time Mr. Voldbaek stated that the company had a plant modernization ready except for financing. If the financing could not be arranged, the company would remodel its existing plant, including enclosing the clinker storage shed and paving the grounds. Which direction the company went was to have been announced about October 27, 1965. To date (February 4, 1966) no announcement has been made. A summary of particle fallout and calcium oxide is attached.

On February 9, 1966, Mr. Voldbaek, Vice President and Mr. Yerke, Attorney for the Oregon Portland Cement Company, met with Messrs. Patterson and Ayer to show and discuss the company's tentative plan for a modernization and expansion of the mill. This modernization, if accomplished, would involve construction of a new kiln and clinker storage building (which would be enclosed), and paving a major part of the grounds. Mr. Voldbaek again said that if this plan did not go through, the clinker

shed would be totally enclosed this summer. The new kiln would have essentially no emissions since a modern baghouse would be employed for collection of particulates. One existing kiln would be abandoned and under reduced loadings and changes emissions would be reduced to about 128 lbs/day as compared to a median value of 1453 lbs/day in 1964.

The staff was advised that the delay in proceeding with the modernization was largely connected with current available loan money and interest rate changes. Final financial arrangements were expected to be completed by March 3, 1966, following which a public announcement would be made regarding the expansion.

Conclusions and Recommendations:

1. The Oregon Portland Cement Company has not complied with Oregon Administrative Rules, Chapter 334, Section 21-016 Particle Fall-out Rate and Section 21-026 Chemical Substances. Lime dust, Paragraph 2. The company has had ample time to seek alternative proposals and control emissions from the stack, clinker storage, grounds, and other sources.

2. The company has discussed and shown plans to the staff that will reduce current emissions from the kilns, clinker storage, and grounds; and, in the opinion of the staff, will meet air quality regulations if it is fully carried out.

3. It is the recommendation of the staff that a hearing be authorized, but such hearing authorization be held in abeyance until March 15, 1966, pending receipt of a further progress report from Oregon Portland Cement Company. It is anticipated that such abeyance would be contingent upon receipt of a report that would include that financial arrangements had been completed, a letter of intent to construct, an outline of the construction program, and a preliminary construction schedule.

April 1st Joint Meeting

Oregon State Sanitary Authority
1400 S. W. 5th Avenue
Portland, Oregon 97201

Oregon Portland Cement Company

Sampling Summary - Particle Fallout in Tons per Square Mile per Month

Station 1 - Oswego Elementary School
Church & State Street
Lake Oswego

	1954		1955		1961		1962	
	Total	Ca O	Total	Ca O	Total	Ca O	Total	Ca O
Maximum	78	22.8	29	8.1	35	12.6	48	12.0
Minimum	30	8.1	20	6.4	19	2.0	13	1.4
Median	51	18.4	25	7.3	25	6.0	20	3.3

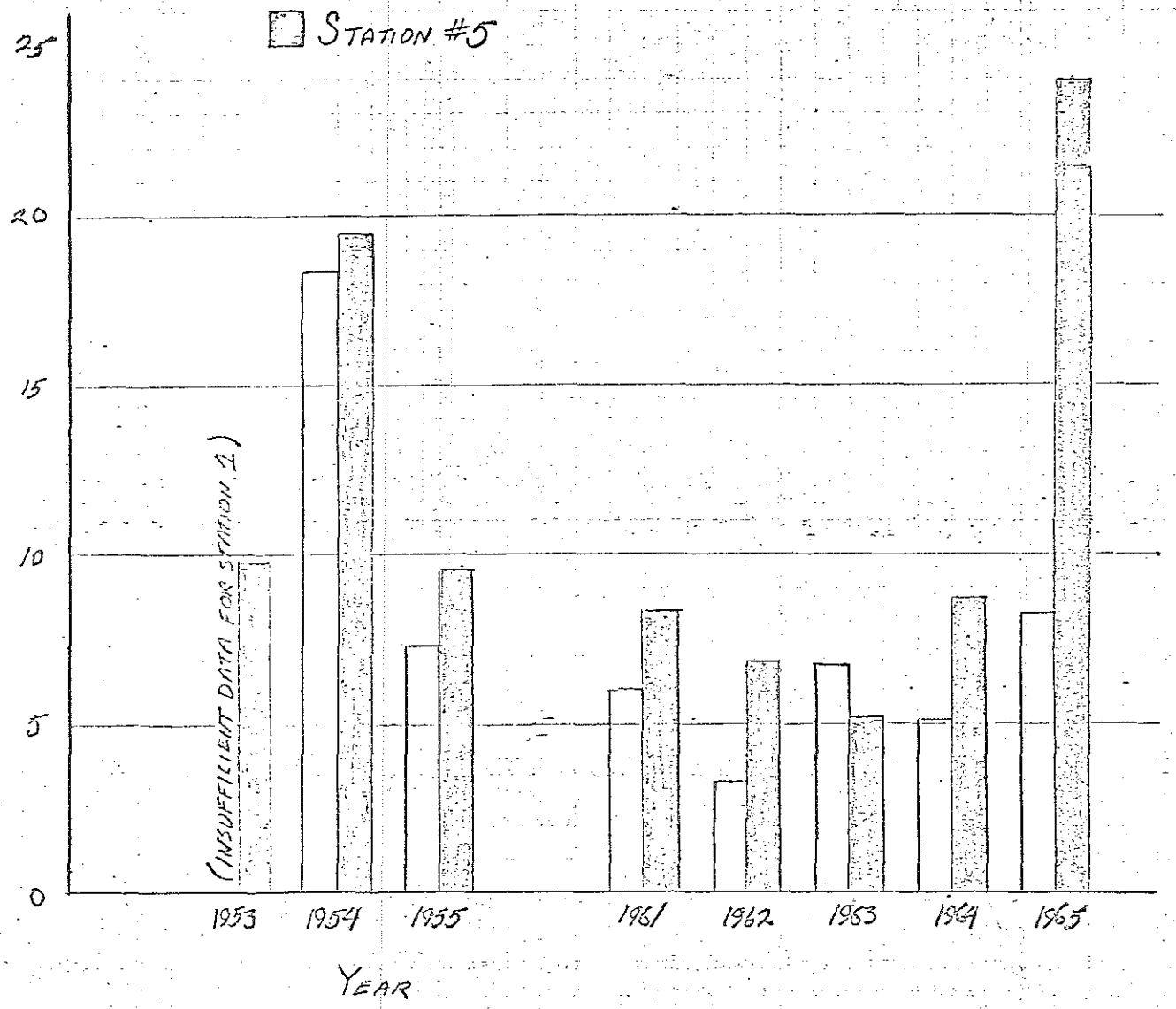
	1963		1964		1965	
	Total	Ca O	Total	Ca O	Total	Ca O
Maximum	57	16.0	43	12.3	55	18.0
Minimum	17	3.4	15	1.0	23	3.8
Median	26	6.7	23	5.1	27	18.3

Station 5 - Pinafore Cafe
230 N. State Street
Lake Oswego

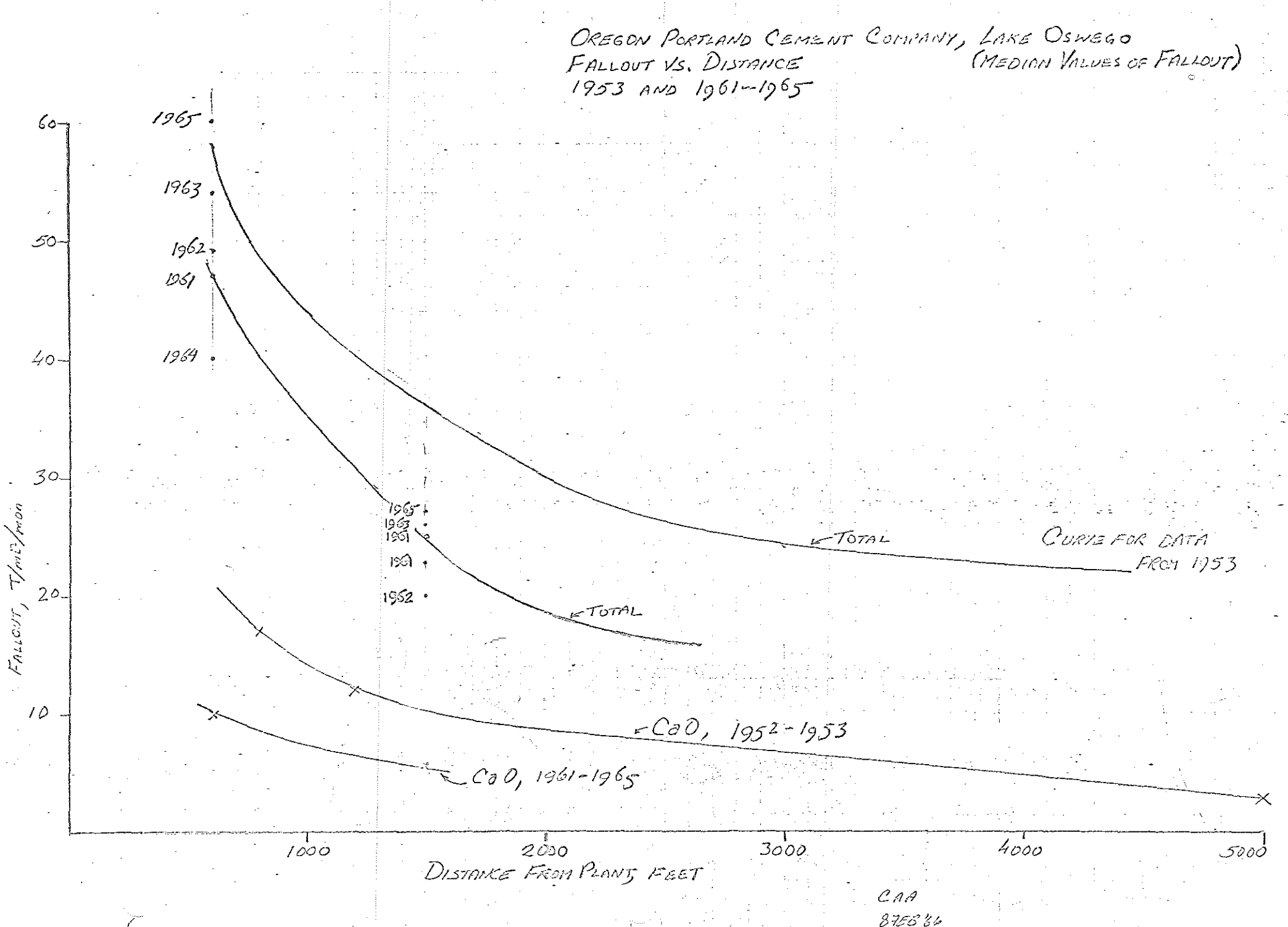
	1953		1954		1955		1961	
	Total	Ca O	Total	Ca O	Total	Ca O	Total	Ca O
Maximum	65	18.8	84	23.5	41	27.0	79	13.4
Minimum	45	8.1	59	17.1	35	9.0	31	.6
Median	57	9.7	59	19.5	38	915	47	8.3

	1962		1963		1964		1965	
	Total	Ca O	Total	Ca O	Total	Ca O	Total	Ca O
Maximum	66	15.0	97	21.0	95	28.0	123	40.0
Minimum	32	5.0	23	13.0	20	2.3	25	5.1
Median	49	6.9	54	5.3	40	8.8	62	21.4

OREGON PORTLAND CEMENT COMPANY
CaO FALLOUT AT STATIONS 1 & 5 (MEDIAN VALUES)
1953-55, 1961-65

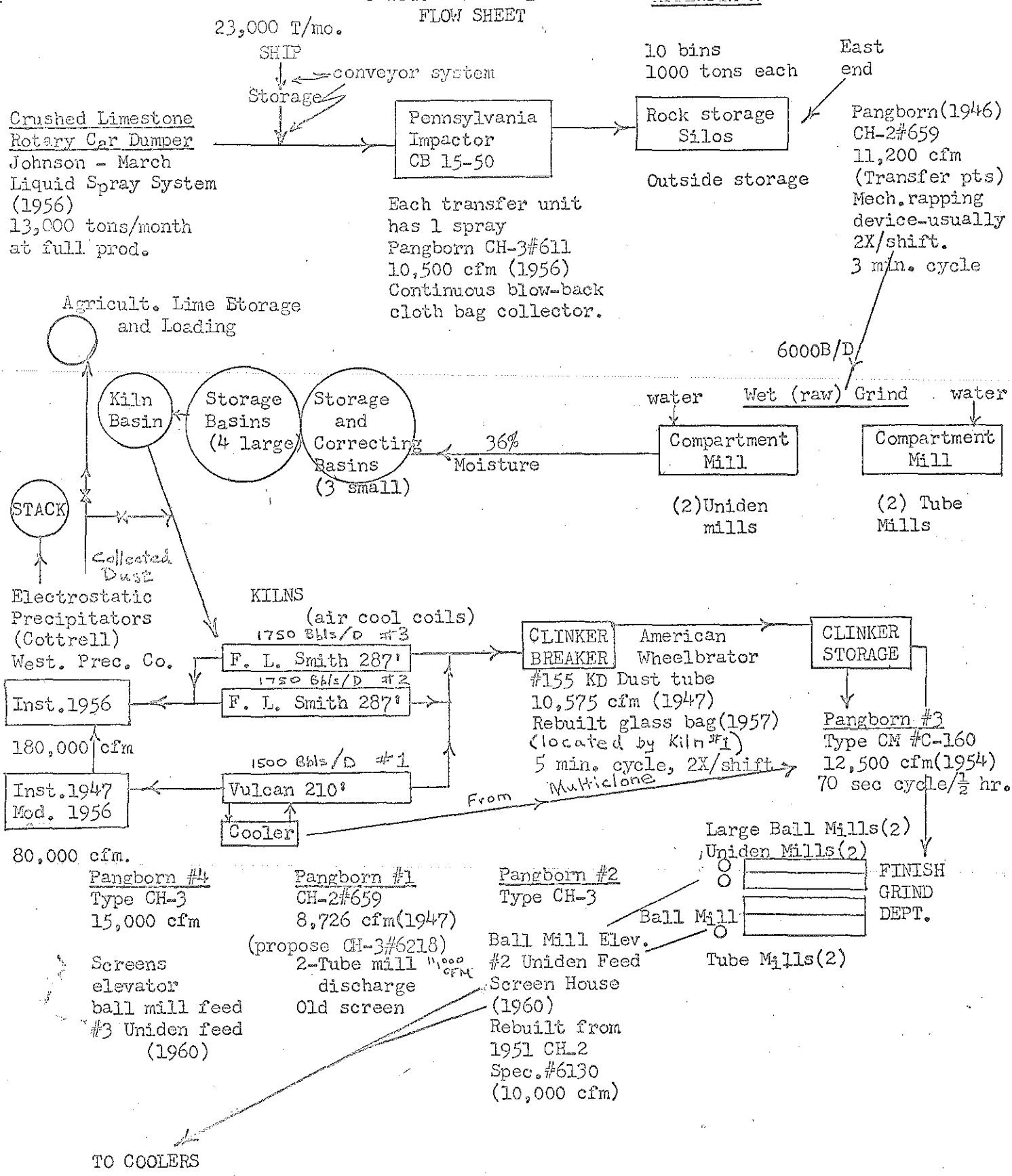


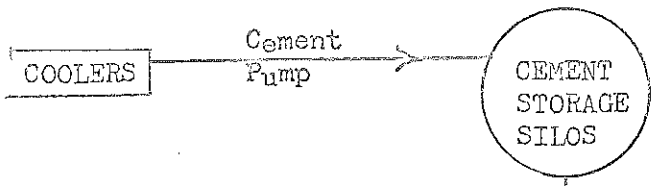
CAA
9FEB1966


OREGON PORTLAND CEMENT COMPANY, LAKE OSWEGO
FALLOUT VS. DISTANCE
1953 AND 1961–1965
(MEDIAN VALUES OF FALLOUT)
1965
1963
1962
1961
1960
1965
1963
1961
1960
1952
TOTAL
TOTAL
CURVE FOR DATA FROM 1953
CaO, 1952-1953
CaO, 1961-1965
60
50
40
30
20
10
FALLOUT, T/mi²/mon
1000
2000
3000
4000
5000
DISTANCE FROM PLANT, FEET
CAA
8/26/66

OSWEGO CEMENT PLANT
FLOW SHEET

APPENDIX A





Old Storage
15-3,000 barrel

Pangborn Type CN-800
2400 Cfm(1960)
(Mechanical rapping)
Duct to packing house

New Storage
8-11,800 barrel
2-3,000 barrel

Pangborn(2) alternate
Type CN-800
2400 cfm(1960)

PACKING HOUSE

Pangborn Type CM#C-160
12,500 Cfm(1954)

Packers
Top of screens
Sack unloading spouts
Tunnels
Connected with
CN-800(old-storage)

Sack Loading
To Pangborn
Type CM as above

Bulk Loading
(no collector)

Barge Loading
Pangborn CN-800
(1959)

(additional Bulk Loader proposed to include Pangborn CN-800)

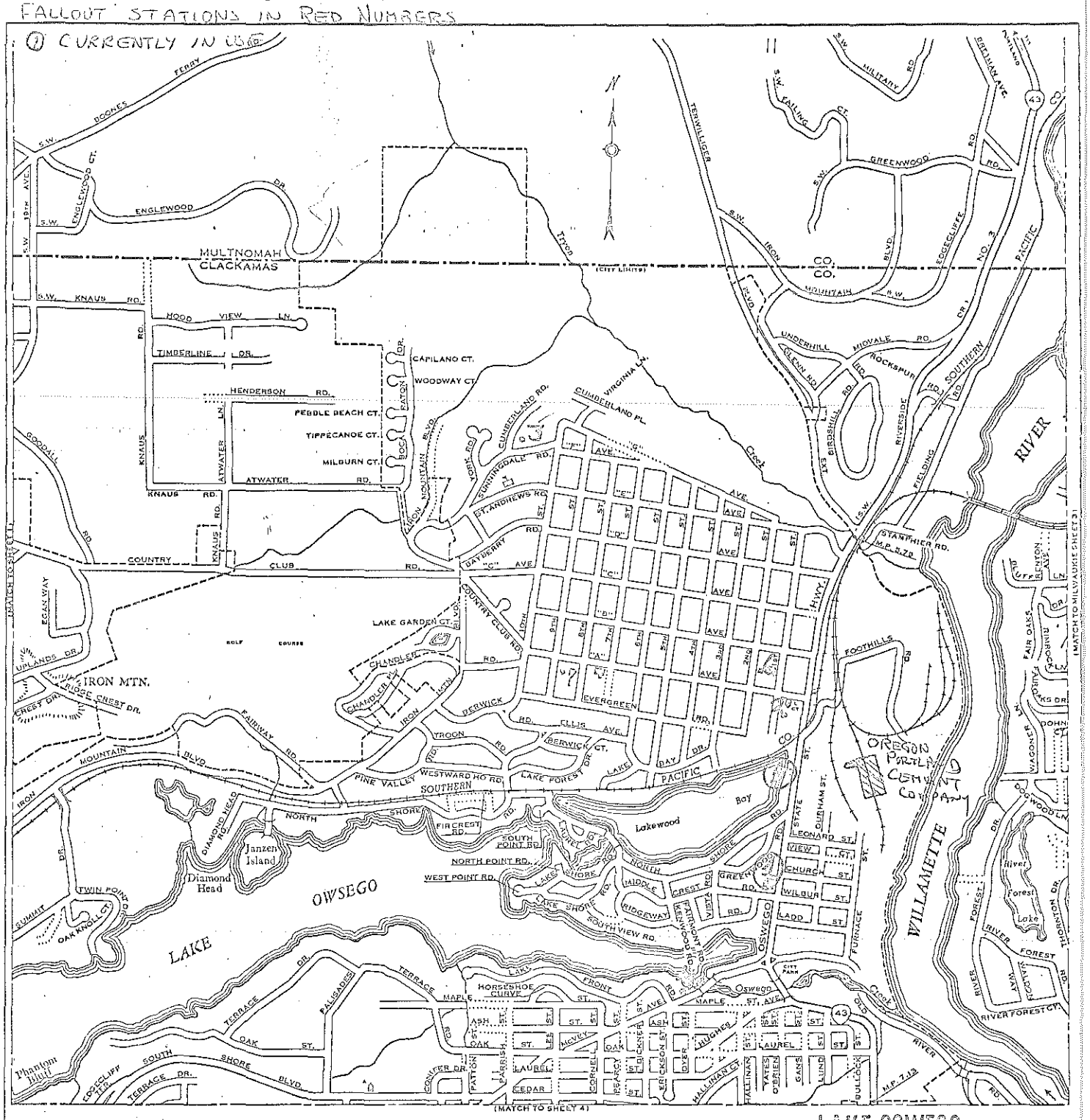
Truck Sweeping
& washing stations

RRO 1/3/61
RRO Revised 12/6/62

APPENDIX B

OREGON PORTLAND CEMENT CO.
FALLOUT STATIONS IN RED NUMBERS

① CURRENTLY IN USE



SIGNED ROUTES

INTERSTATE 0
U.S. 00
ORE. 00

LEGEND

Post Office
School
R. R. Depot
Public Bldg.
CH – City Hall
CT – Court House
A – Armory
L – Library

Street open for travel.
Street dedicated but not open.
City Limits.

LAKE OSWEGO

CLACKAMAS COUNTY, OREGON

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

Population 8,906

Scale in Feet

400 0 400 800

January 1, 1962
Revised December 1963

SHEET ARRANGEMENT

1	2
3	4

SHEET 2 OF 4 SHEETS

APPENDIX C

OSWEGO AIR POLLUTION AUTHORITY

OSWEGO AIR POLLUTION SURVEY

July 1952 to November 1953

OSWEGO AIR POLLUTION SURVEY

In April 1952, the Oswego City Council requested the Air Pollution Authority to make a study of the air pollution conditions in the Oswego area. At that time the Authority had no field staff so the survey was delayed until July 1952. The objective of the initial field visits was to determine the nature and the extent of the air pollution. The Authority's engineers made area observations; conferred with residents and complainants and located fallout stations. The results of the preliminary investigations showed that excessive fallout was occurring and further study was needed. Several residents and industrial plant owners in Oswego were heard at the September 11, 1952 Authority meeting. After discussing the problem the Authority directed that the air pollution study be continued; that the staff submit a report on the conditions at a future meeting.

SURVEY PROCEDURE

The preliminary investigation of the Oswego problem showed that the major complaint was against the deposition of air borne material. Dust gravity sampling stations located in representative areas can be used effectively to determine the nature and quantity of material being deposited. Eight sampling stations were located on the second story of selected buildings. A one gallon glass jar with distilled water as a collecting solution was used. The jars were exchanged at two month intervals from the eight stations.

Dust area observations were made by the Authority's staff which consisted of inspecting the effects of the air borne material on residences and buildings and interviews with residents and complainants. The laboratory results of the particle

fallout samples collected from Oswego may be compared with that found in other areas where no complaint conditions exist.

FIELD CONDITIONS

The investigations of the Authority's staff made during field visits disclosed that the main source of complaint by residents pertained to the deposition of cement dust. The exception to this is an area located in the business district along State Street which also receives cinder and flyash from the Sewall waste burners.

The effects noted in the area which were caused by the cement dust deposition are the following. (1) the increased maintenance required to clean the exterior surfaces, (2) more frequent cleaning inside residences and other business structures, (3) adverse effects on painted metal surfaces such as automobiles apparently due to the abrasive nature of the mineral dust and, (4) the difficulty experienced in lacquering or varnishing inside shops where this work is done.

CONCLUSIONS:

1. The fallout found in Oswego is excessive from the weight standpoint alone. The abrasive nature of the dust causes additional undesirable effects.

2. The laboratory analyses of the fallout samples show that 70% of the material is of mineral nature. The high percentage of calcium oxide (CaO) found shows that a substantial part of the particle fall is cement dust which originates from the Oregon Portland Cement Company's plant.

TABLE I

TOTAL PARTICLE FALL (Tons/sq.mi./mo.)

STATION	DISTANCE FROM CHEMICAL PLANT	Feb. 9, '53 to Mar. 26, '53	Mar. 26, '53 to Jun 3, '53	Jun 3, '53 to Oct. 22, '53
1	1500' SW	29	50	--
2	800' NW	54	45	45
3	5000' NE	15	17	-- 11
4	2000' SW	33	29	24
5	600' W	60	45	59
6	2000' NW	57	40	--
7	5000' W	19	19	-- 16
8	2000' N	28	31	30

TABLE II

COMPARISON OF CALCIUM CONTENT OF CHEMICO STATIONS WITH THAT OF OTHER AREA STATIONS
Calcium Fall Tons/sq.mi./mo.)

STATION	DISTANCE FROM CHEMICAL PLANT	Feb. 9, '53 to Mar. 26, '53	Mar. 26, '53 to Jun 3, '53	Jun 3, '53 to Oct. 22, '53
CHM-1	1500' SW	8	--	--
CHM-2	800' NW	37	11	12
CHM-3	5000' NE	3	7	-- 1.7
CHM-4	2000' SW	--	8	9
CHM-5	600' W	14	11	11
CHM-6	2000' NW	12	10	--
CHM-7	5000' W	4	4	-- 3.0
CHM-8	2000' N	11	7	7
[illegible] No. 2			0.7	
[illegible] No. 1			1.0	
[illegible] No. 3			0.5	
[illegible] Field No. 2			0.3	

Subject: Oswego cement dust and cinder complaint and findings.

RECOMMENDATION:

1. The City of Oswego has requested from the Authority an expression on policy with respect to enforcing the Air Pollution Control Act. The Mayor and City Council were advised that the Authority would consider the matter at the December 16 meeting and it was suggested that a representative of the City Council attend the meeting. It is unlikely that the City of Oswego can arrange for appropriate action to reduce the cement dust discharge. Efforts have been made several times without substantially reducing the problem.

2. It is suggested that the Authority consider procedures that would allow the Authority, the City Council and the industry concerned to cooperatively proceed with a plan which will reduce the cement dust to tolerable levels.

APPENDIX C

AVERAGE PARTICLE FALL - TONS/SQ. MILE/MONTH
0
10
20
30
40
50
60
1000
2000
3000
4000
EFFECT OF CEMENT PLANT
ON
DUSTFALL
AT
OSWEGO, OREGON
STATE OF OREGON AIR POLLUTION CONTROL
DEC. 1953

AP-Oswego [illegible]

APPENDIX D

[illegible]

[illegible]

Subject: Air Sampling Activities in Oswego

Date: [illegible]

[illegible] the Air Pollution Authority's engineering [illegible] the extent of cement dust pollution in the Oswego Portland Cement [illegible] Oswego and [illegible] dust [illegible] Oswego Planing Mill and the Huddleston Lumber Company. After collection and analysis of [illegible] dust fall, [illegible] high volume, and [illegible] samples, and after [illegible] with many businessmen and residents in the Oswego area, the staff has [illegible] certain conclusions and recommendations [illegible] regarding the [illegible] conditions.

Conclusions

1. The Oswego area is [illegible] affected [illegible] by emissions of cement dust from the Oswego Portland Cement Company's plant.

2. [illegible] causing [illegible] and inconvenience to many Oswego residents and business establishments.

3. The cement company stack [illegible] dust which accounts for the major part of the area problem.

4. It has been established from [illegible] results that [illegible] stack emissions must be reduced [illegible].

5. There are [illegible] and engineering knowledge available which can reduce these emissions [illegible].

It is therefore recommended:

1. That the Oswego Portland Cement Company be advised of the above conclusions;

2. That they be advised of the [illegible] of cement dust, in pounds per [illegible], which may be [illegible];

3. That they be [illegible] with [illegible] of [illegible] dust

control equipment for the kiln stack;

3. That plans and specifications be submitted to the Authority before any installation is made.

The above conclusions and recommendations are based upon results of several sampling methods, some of which were specially developed for use in the Oswego area. A brief description of some of these may help to explain the significance of the results.

Directional Sampling

To eliminate the possibility that some other source or sources might be contributing significantly to pollution in the area, direction switches were designed and built. A switch controls the operation of the high volume or other sampler according to the wind direction. It is designed to control several units so that when the wind is coming from one direction (say, the 90° arc including the cement plant), one sampler will run, while with the wind from any other direction, another sampler will run. Then it becomes possible to compare the dust load of the air coming from any selected direction with that coming from the remaining directions. Such equipment has been operated at three widely separated points in the area with rather consistent results: winds from the direction of the cement plant have borne two to three times the dust concentrations as have other winds. Analysis of this dust has shown it to contain from [illegible] to [illegible]% cement.

The three stations used for directional sampling are shown on the attached map. The most remote station ([illegible] Hills School) was selected because interviews throughout the area showed it to be located on the fringe of the nuisance zone. Sampling at this station produced results which are interpreted as representing "tolerable" levels of pollution from cement dust. By comparing these concentrations with those from the closer stations, it became possible to determine what degree of reduction in pollution is necessary. The recommendation made ([illegible]% reduction on stack dust discharge) is felt by the staff to be conservative.

[illegible]

This type of sampling has been continuous since July, 1952. It has been shown in previous reports that dust fall in the Oswego area has been consistently heavy and that the amount of fallout has been proportional to proximity of the cement plant to the sample station. Total particle fallout from all stations has been 2 to 3 times greater than would be expected from a community where no unusual source exists. Chemical analyses of these samples have revealed that a high percentage (again 45 to 70%) of this dust is cement.

Comparison with other Oregon cities.

It should be pointed out that pollution conditions in Oswego are strikingly different from those of other Oregon communities. For example, typical calcium oxide (a constituent of cement) fallout for the Oswego stations has ranged from 5 to 20 tons per square mile per month, whereas the calcium oxide fallout for other Oregon cities rarely exceeds one ton per square mile per month. Similarly, high volume and electrostatic sampling has shown calcium oxide concentrations of 100 to 300 micrograms per cubic meter in Oswego air coming from the cement plant, whereas concentrations of calcium oxide in air from other Oregon cities seldom are found to contain more than 15 micrograms per cubic meter.

Plant Dust Control Equipment.

The latest tour of the Oregon Portland Cement Company plant at Oswego was made on January 21, 1955 by Messrs. [illegible] and [illegible] with D. H. Locke, Vice President, Oregon Portland Cement Company, H. F. [illegible], Plant Superintendent, and Paul [illegible], Attorney. A tour of all the manufacturing and air cleaning facilities was made.

Since the September 1953 plant visit, two additional bag collectors have been installed — one for the clinker storage and grinding department, the other for the packaging and [illegible] loading operations. These collectors have reduced the release of dust to the outside atmosphere. Also the company requires that each bulk cement truck be swept clean

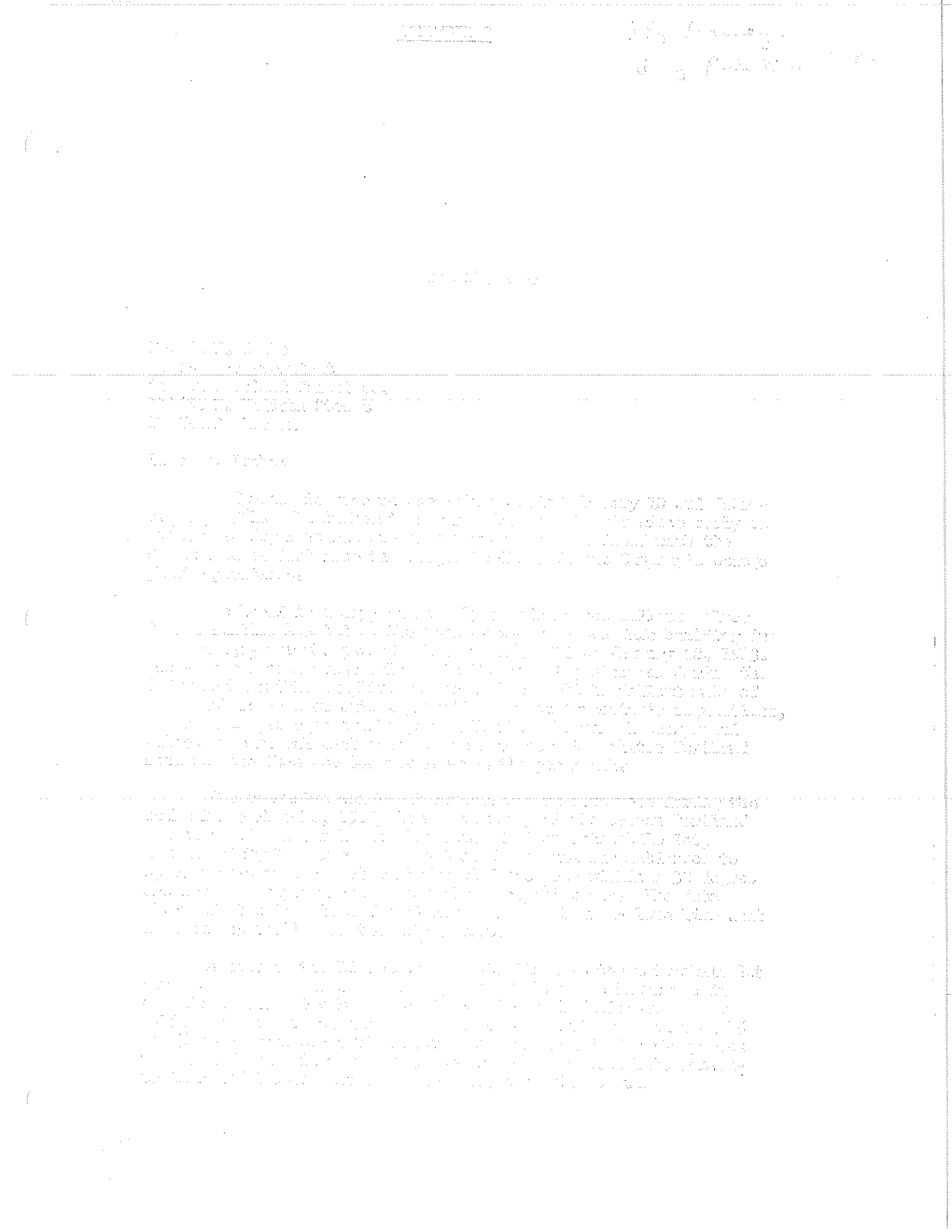
[illegible] settled in loading before leaving the plant.

The dust control units now in operation at various sites of the plant are listed as follows:

Installation Date	Type of Unit	Department	Design Capacity	Cost
1950	Bag Filter	Raw Grind	13,[illegible]00 cfm	$ 3,166
1947	Bag Filter	Crusher	10,575 cfm	6,309 *
1947	Bag Filter	Cement Grind	8,926 cfm	4,527 *
1951	Bag Filter	[illegible]	[illegible] cfm	12,[illegible]
1954	Bag Filter	Clinker Storage	12,500 cfm	15,025
1955	Bag Filter	Packing House	12,530 cfm	14,577
1957	Electrostatic Precipitator	Kiln stack serving two rotary kilns	125,000 cfm	291,487

*Used War Surplus Equipment Purchased

The company now has four proposals from dust control equipment manufacturers for installation of additional controls for the kiln stack discharge. It is understood that the company's Engineering Department has been studying these proposals for several months to determine which of the systems will provide the additional control at the least cost.



Mr. D. H. Loche March 20, 1963

Authority regulations, is 20 micrograms per cubic meter of air sampled plus the normal background value. The normal background value for the metropolitan Portland area is less than 5 micrograms per cubic meter.

Based upon the results of the surveys made to date including area observations, the emissions from the main kiln stack appear to be the single most significant source of air pollution at the Oregon Portland Cement Company plant.

The area air sample results enclosed with this letter establishes the need for additional study or control of the emissions from the Oregon Portland Cement Company plant in Oswego to meet the requirements of the provisions of the enclosed Oregon Administrative Rules, Chapter 334, Section 21-026 (1)(2), and Chapter 449.765, Oregon Revised Statutes.

Please notify the Sanitary Authority by April 22, 1963 regarding the company's proposed plans to meet these requirements.

We appreciate the continuing efforts of the Oregon Portland Cement Company towards the reduction of dust emitted from the plant through equipment installations and operational methods. We anticipate continued cooperation toward the solution of the present problems.

Very truly yours,

R. E. Hatchard, Chief
Air Quality Control

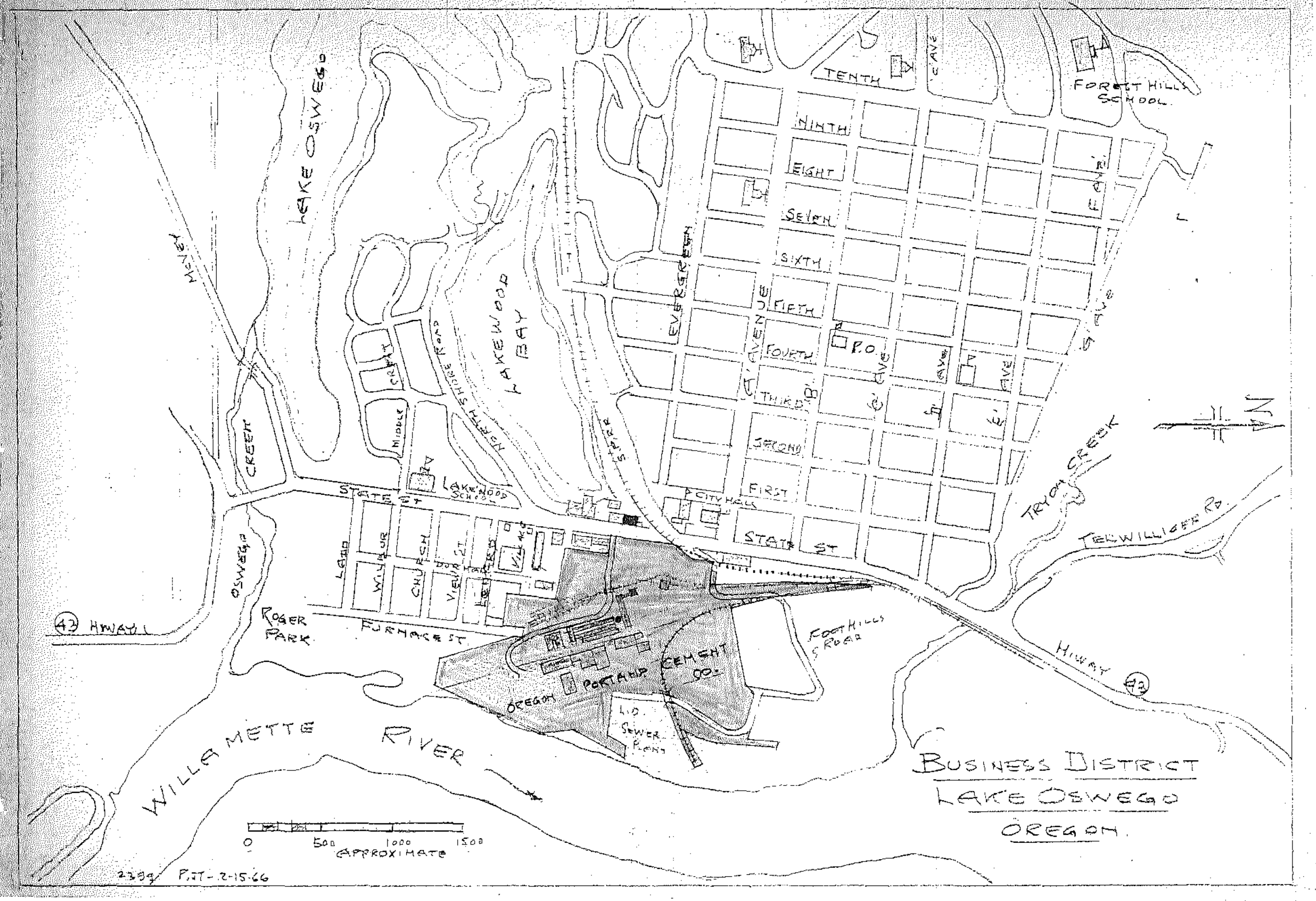
Enclosures
RH:ita
cc: E. J. Weatherbee, Dist. San. Engr.

APPENDIX F

(Complaint Summary)

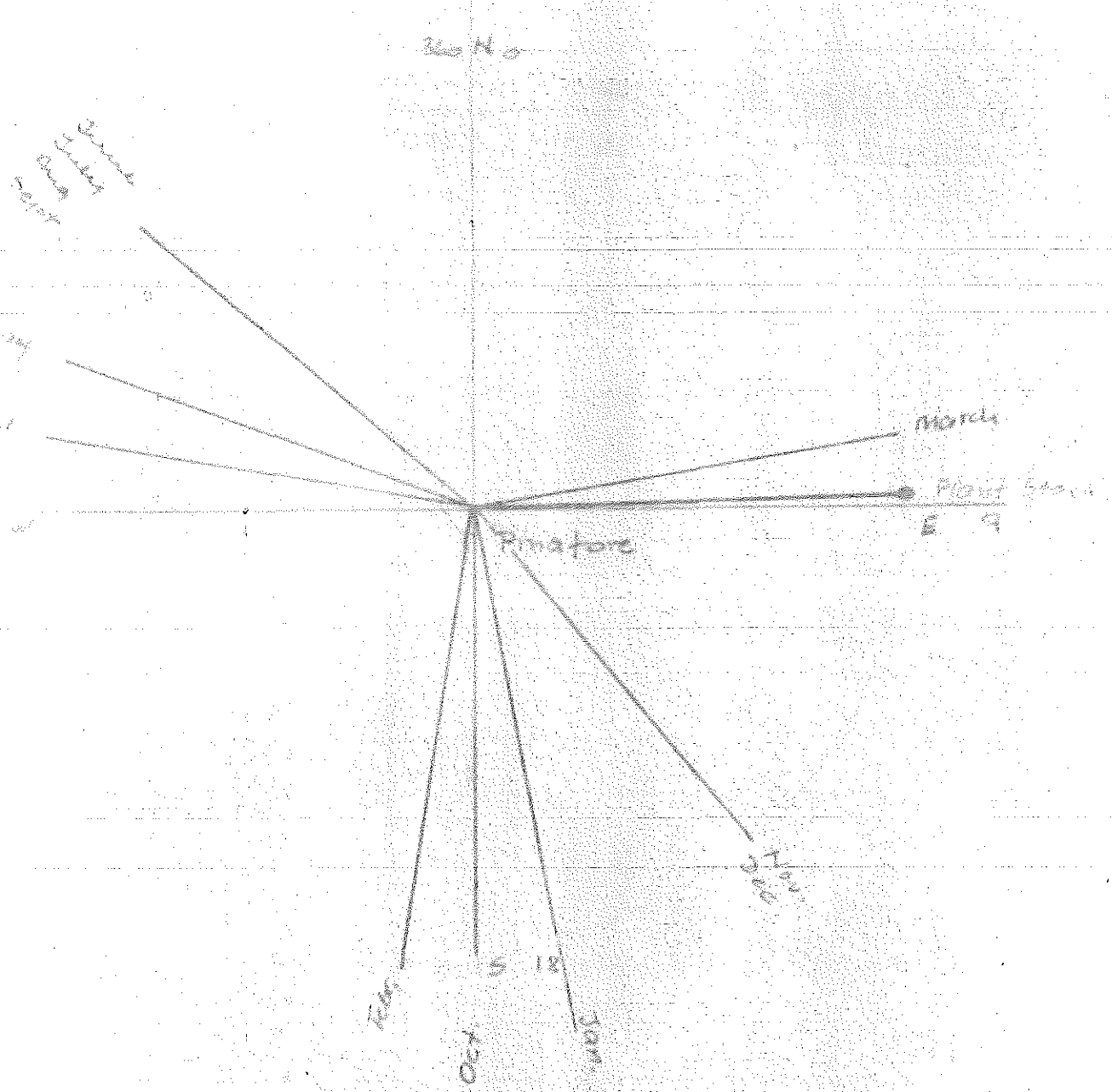
That these levels are a nuisance and an expense to citizens and businesses in the area is shown by the complaints received by the Sanitary Authority. One such complainant is Mr. Ray Mellish, President of the Oswego Motor Company, an automobile agency. He wrote to the Air Quality Control Section in December 1960, January and March 1961, and January, November, and December 1962 to complain of dust fallout on his stock of automobiles which hurt their sales potential, and the cost of cleaning them. The company has had to hire a worker and purchase vinegar and acid solutions to clean off the dust which does not yield to soap and water. Private citizens, whose letters are in the Air Quality Control Section files, have complained of damage to the finish on their cars, to shrubbery and house paint, and the nuisance of extra cleaning needed in their houses. In September 1963 Mr. Bass, Manager of the Riviera Motel in Lake Oswego, claims that one guest had spent around $40 to have his car cleaned, and some guests stated they would never return to the motel because of the fallout there.

In April and August 1960, October 1965, and January 1966, the City Council of Lake Oswego, either through the City Attorney or by resolution, urged official action, and in the last case requested a "show cause" action against Oregon Portland Cement Company.



BUSINESS DISTRICT
LAKE OSWEGO
OREGON
TENTH
NINTH
EIGHT
SEVEN
SIXTH
FIFTH
FOURTH
THIRD
SECOND
FIRST
STATE ST
EVERGREEN
A AVENUE
B
C AVE
D AVE
E AVE
F AVE
G AVE
P.O.
CITY HALL
FOREST HILLS SCHOOL
LAKEWOOD SCHOOL
LAKEWOOD BAY
NORTH SHORE ROAD
LAKE OSWEGO
SP RR
MIDDLE
CREST
OSWEGO CREEK
McVEY
LADD
WILBUR
CHURCH
VIEW ST
DURHAM
VILLAGE
FURNACE ST
ROGER PARK
OREGON PORTLAND CEMENT CO.
L.O. SEWER PLANT
FOOTHILLS ROAD
TRYON CREEK
TERWILLIGER RD.
HIWAY 43
43 HIWAY
WILLAMETTE RIVER
0 500 1000 1500
APPROXIMATE
N
2394 P.J.T. 2-15-66

Fig. E Wind - Rose for Punalur Sampling station



Year	Clinker Production Bbls.	Media Value for Stack Emissions Lbs/Day	Media Particulate Fall Out Rates To/Mi^2/Mo	
			Pinafore	Oswego Elementary School
1961	1,560,000	3841	8.3	6.0
1962	1,322,000	1471	6.9	3.3
1963	1,504,000	3600	13	6.7
1964	1,400,000	1453	8.8	5.1
1965	1,504,000	1915	24.2	9.4

TOTAL EXPENDITURES ON DUST CONTROL

IN THE PERIOD JANUARY 1, 1946 -- FEBRUARY 1, 1966

Total Capital Expenditure	$1,029,811.00
Total Operating and Maintenance Cost	932,198.34
	$1,962,009.34

CAPITAL EXPENDITURES ON DUST CONTROL SYSTEMS

A.	Raw Material Receiving, Conveying & Crushing	$ 50,300.00
B.	Raw Grind & Ground Limestone Department	33,202.00
C.	Kiln Department, Clinker Storage and Conveying	836,561.00
D.	Finish Mill Department	46,132.00
E.	Cement Storage	21,501.00
F.	Loading and Shipping Department	42,115.00
	Total	$1,029,811.00

OREGON PORTLAND CEMENT COMPANY

February 8, 1966

A. RAW MATERIAL RECEIVING, CONVEYING & CRUSHING

ITEM	LOCATION	INSTALLATION YEAR	MAKE	MODEL	CAPACITY	COST
1	Car Unloading	1956	Johnson-March	Liquid Dust System	Liquid Spray	17,033
2	Barge Unloading & Conveying	1962	Johnson-March	Liquid Dust System	Liquid Spray	11,522
3	Rock Crushing	1956	Pangborn	CN3 #611	10,500 CFM	21,745
						50,300

B. RAW GRIND & GROUND LIMESTONE DEPARTMENT

ITEM	LOCATION	INSTALLATION YEAR	MAKE	MODEL	CAPACITY	COST
1	Proportion Building	1946	Pangborn	CN2 #659	11,260 CFM	8,106
2	Hardinge Mill Circuit	1963	Draco	AAA	2,000 CFM	5,667
3	Raymond Mill	1965	Reeds	#3 - 1800AE	12,500 CFM	19,429
						33,202

C. KILN DEPARTMENT & CLINKER STORAGE & CONVEYING

ITEM	LOCATION	INSTALLATION YEAR	MAKE	MODEL	CAPACITY	COST
1	Kiln #1	1947	Western Precipitation	Electrostatic	80,000 CFM	231,487
2	Kiln #2 & 3	1956	Western Precipitation	Electrostatic	180,000 CFM	489,579
3	Kiln #1, 2, 3	1956	New 250 ft. stack replacing old 175 ft. stack			70,983
4	Clinker Crusher	1956	Wheelabrator	#155 Dust tube	10,575 CFM	8,500
5	Clinker Storage	1954	Pangborn	CM-C160	12,500	15,025
6	Clinker Shed	1964	Installation of partition at clinker shed			987
7	Kiln #1	1966	Installation of new clinker cooler for kiln			20,000
						836,561

D:

FINISH MILL DEPARTMENT

ITEM	LOCATION	INSTALLATION YEAR	MAKE	MODEL	CAPACITY	COST
1	Ball Mill #2, Elevator, etc.	1951	Pangborn	CH3 #65	10,000 CFM	14,495
2	Unidan Mill, Elevator, etc.	1962	Pangborn	CH3 #66	10,000 CFM	18,077
3	Ball Mill #3, Screen, etc.	1960	Pangborn	CH3 #63	9,000 CFM	13,560
						46,132

E

CEMENT STORAGE

ITEM	LOCATION	INSTALLATION YEAR	MAKE	MODEL	CAPACITY	COST
1	Old Silos	1958	Pangborn	CN 800	2,400	5,863
2	New Silos	1960	Pangborn	CN 800	2,400	7,784
3	New Silos	1960	Pangborn	CN 800	2,400	7,854
						21,501

F

LOADING & SHIPPING

ITEM	LOCATION	INSTALLATION YEAR	MAKE	MODEL	CAPACITY	COST
1	Sack House	1954	Pangborn	CN C-100	12,500	14,577
2	Sack House	1959	Pangborn	CN #800	2,400	6,001
3	Bulk Loading	1963	Pangborn	CH2 - 659	8,700	10,726
4	Bulk Loading Ground Limestone	1963	Draco	#20	2,000	4,911
5	Barge Loading Dock	1965	Draco	#20 - 600	2,300	5,900
						42,115

LAKE OSWEGO 2-7-66

TOTAL YEARLY OPERATING AND MAINTENANCE COSTS OF ALL DUST CONTROL SYSTEMS

YEAR	AMOUNT
1965	84,157.42
1964	70,699.78
1963	63,710.09
1962	72,465.59
1961	63,386.58
1960	57,949.82
1959	85,319.37
1958	55,447.68
1957	53,364.76
1956	46,098.53
1955	34,171.14
1954	32,816.17
1953	31,766.39
1952	30,868.67
1951	33,967.71
1950	25,702.19
1949	27,106.85
1948	25,027.05
1947	28,336.25
1946	9,836.30
TOTAL	932,198.34

LAKE OSWEGO

TOTAL OPERATING AND MAINTENANCE COST OF
BAG DUST COLLECTORS AND MISCELLANEOUS OTHER DUST CONTROL SYSTEMS

	POWER	SUPPLIES	SWEEPER	TOTAL
1965	6,346.00	4,804.95	4,390.73	15,541.68
1964	6,192.00	4,484.62	3,763.57	14,440.19
1963	5,859.00	4,164.29	3,449.24	13,472.53
1962	5,641.00	3,843.96	3,349.29	12,834.25
1961	5,240.00	3,203.30	1,856.90	10,300.20
1960	5,240.00	3,203.30		8,443.30
1959	5,123.00	2,882.97		8,005.97
1958	5,123.00	2,882.97		8,005.97
1957	5,123.00	2,882.97		8,005.97
1956	5,123.00	2,882.97		8,005.97
1955	4,247.00	2,242.31		6,489.31
1954	3,503.00	1,921.98		5,424.98
1953	2,683.00	1,601.65		4,284.65
1952	2,683.00	1,601.65		4,284.65
1951	2,683.00	1,601.65		4,284.65
1950	2,097.00	1,281.32		3,378.32
1949	2,097.00	1,281.32		3,378.32
1948	2,097.00	1,281.32		3,378.32
1947	2,097.00	1,281.32		3,378.32
1946	2,097.00	1,281.32		3,378.32
TOTAL	81,294.00	50,612.14	16,809.73	148,715.87

LAKE OSWEGO

TOTAL OPERATING AND MAINTENANCE COST OF ELECTROSTATIC PRECIPITATORS

	LABOR	MAINTENANCE AND POWER	TOTAL
1965	$ 48,850.80	$ 19,764.94	$ 68,615.74
1964	41,215.48	15,044.11	56,259.59
1963	36,173.00	14,064.56	50,237.56
1962	38,363.18	21,268.16	59,631.34
1961	39,115.31	13,971.07	53,086.38
1960	36,881.14	12,625.38	49,506.52
1959	36,060.14	41,253.26	77,313.40
1958	32,332.21	15,109.50	47,441.71
1957	30,253.45	15,105.34	45,358.79
1956	30,648.72	7,443.84	38,092.56
1955	24,744.90	2,936.93	27,681.83
1954	24,072.66	3,318.53	27,391.19
1953	24,735.08	2,746.66	27,481.74
1952	23,893.36	2,690.66	26,584.02
1951	24,412.30	5,270.76	29,683.06
1950	20,470.51	1,853.36	22,323.87
1949	19,401.47	4,327.06	23,728.53
1948	17,465.48	4,183.25	21,648.73
1947	17,554.27	7,403.66	24,957.93
1946	4,366.36	2,091.62	6,457.98
	$571,009.82	$212,472.65	$783,482.47

MEMORANDUM:

TO : Members of State Sanitary Authority

Mr. Harold F. Wendel, Chairman
Dr. Richard H. Wilcox, Member
Mr. Chris L. Wheeler, Member
Mr. Herman P. Meierjurgen, Member
Mr. B. A. McPhillips, Member
Mr. Edward C. Harms, Jr., Member
Mr. John Amacher, Member

FROM : Air Quality Control Staff

DATE : February 17, 1966

SUBJECT: Requests for Variance from Regulations Adopted August 17, 1965 and Effective January 1, 1966 Pertaining to Wigwam Waste Burners.

The following is a tabulation of requests for variance received to date, together with staff recommendations:

1. BEAVER LUMBER COMPANY OF CLATSKANIE, INC.
P. O. Box 547
Clatskanie, Oregon

Basis for Request: Location in a sparsely populated area, with prevailing winds away from the general populated area.

Discussion: This burner has been observed to discharge a very considerable smoke plume. It is located approximately one mile from the center of Clatskanie, and during stagnant or inversion conditions creates a significant air pollution problem in the area.

Recommendation: A variance should be denied.

2. CABAX MILLS
P. O. Box 449
Eugene, Oregon

Basis for Request: Infrequent material to reach desired exit temperatures except for very brief periods of time.

Discussion: Burner is batch loaded by truck twice per day, plus four or five truckloads of yard cleanup on Saturday. Statement in the request is valid, and compliance would serve no useful purpose. Other means of disposal must be found.

2. CABAX MILLS (cont.)

Recommendation: Grant a conditional variance until May 15, 1966, at which time use of the burner is to be discontinued entirely.

3. CONE LUMBER COMPANY
Goshen, Oregon

Basis for Request: Anticipated 100% utilization in Spring of 1966.

Discussion: A visit to this mill and discussions with the plant manager indicated that their utilization schedule is quite indefinite and that "Spring of 1966" is a very optimistic assessment. They are to be commended for their interest and activites toward total utilization, but in the absence of definite contracts for sale of their waste, there does not appear to be justification to allow continued discharge of pollutants. Their burner is structurally sound, has a forced underfire air system, and the tangential overfire ports can be readily made adjustable. Addition of a pyrometer should be the only major expense, with compliance then a matter of good maintenance and operation.

Recommendation: A variance should be denied.

4. DIAMOND LUMBER COMPANY
P. O. Box 192
Tillamook, Oregon

Basis for Request: Location in a sparsely populated area.

Discussion: While the two burners at this mill may not cause a nuisance from fallout in the immediately adjacent area, they are two of several in the Tillamook vicinity that contribute smoke and particulates to the air pollution problem in the airshed during stagnant or inversion conditions.

4. DIAMOND LUMBER COMPANY (cont.)

Recommendation: A variance should be denied.

5. ELLINGSON TIMBER COMPANY
Izee, Oregon

Basis for Request: Location is a sparsely populated area.

Discussion: District engineer recommends that a variance be granted, for the reason stated in the request.

Recommendation: Grant a variance until August 11, 1966.

6. ELLINGSON TIMBER COMPANY
Seneca, Oregon

Basis for Request: Location in a sparsely populated area.

Discussion: District engineer recommends that a variance be granted, for the reason stated in the request.

Recommendation: Grant a variance until August 11, 1966.

7. ELLINGSON LUMBER COMPANY
Halfway, Oregon

Basis for Request: Relative isolation from habitation or population centers.

Discussion: The district engineer (Mr. Fred Bolton) states: "Under present conditions and based on present population and the distance from Halfway to the mill, I would recommend that they be granted a variance..."

Recommendation: Grant a variance until August 11, 1966.

8. ELLINGSON LUMBER COMPANY
Unity, Oregon

Basis for Request: Relative isolation from human habitation or population centers.

Discussion: The district engineer (Mr. Fred Bolton) states: "Under present conditions, number of people in the area, and distance from the center of the Unity community to the mill, I would recommend that they be granted variance..."

Recommendation: Grant a variance until ~~January 1, 1967~~ August 11, 1966.

9. FOREST GROVE LUMBER CO.
P. O. Box 386
Forest Grove, Oregon

Basis for Request: Decision pending (by March 1) as to whether to install barker and hog. Such installation, if made, would result in total utilization and discontinued use of the waste burner. Owner does not wish to be in violation of the law in the interim.

Discussion: Owner states that if his decision is against the installation of a barker and hog, he will immediately thereon proceed to accomplish compliance.

Recommendation: Grant conditional variance until July 1, 1966, at which time use of burner is to be completely discontinued.

10. JOHNSON BROTHERS LUMBER COMPANY
Silverton, Oregon

Basis for Request: Location in a sparsely populated area.

10. JOHNSON BROTHERS LUMBER COMPANY (cont.)

Discussion: Location is in the Willamette Valley airshed, approximately 1/2 mile from Silverton and 12 miles from the Salem city center. Infrequent burning , of shavings only, would indicate that installation of of those provisions necessary for compliance would result in little improvement. Disposal of the shavings by sale or other means seems a more practical solution.

Recommendation: A variance should be granted until July 1, 1966, at which time the success of petitioner's efforts toward sale or disposal of the shavings by other means will be subject to review. Director Smith of Mid-Willamette Valley Air Pollution Authority concurs in this recommendation.

11. LOVENESS COMPANY
Malin, Oregon

Basis for Request: Location in a sparsely populated area.

Discussion: Located four miles east of Malin, in open country. Prevailing winds from southwest or north. District engineer, Mr. Leo Baton, recommends that a variance be granted.

Recommendation: Grant a variance until August 11, 1966.

12. MIELE LOGGING COMPANY
P. O. Box 3451
Eugene, Oregon

Basis for Request: Time is needed to observe working of a thermocouple and pyrometer in conditions similar to those in petitioner's plant.

12. MIELE LOGGING COMPANY (cont.)

Discussion: Sufficient time has elapsed since the effective date of the regulation for petitioner to acquaint himself with the various pyrometers available. Individual plant conditions have no bearing on performance of a temperature indicating instrument.

Recommendation: A variance should be denied.

13. QUALITY LUMBER MILLS
P. O. Box 455
Athena, Oregon

Basis for Request: None stated, other than "...we wish to go on record requesting variances from the provisions of Section 24-020 pursuant to ORS-499-810."

Discussion: Although not stated, it must be assumed that the basis is the only one specifically mentioned in the regulation: that pertaining to location,"in sparsely populated areas of the state where their potential for causing an air pollution problem in the immediate or surrounding areas is slight."

The mill is one of two located in the city of Athena, both of which are responsible for complaints we have received from Athena residents. Four fallout stations in the city indicated the following average rates for the period 8/4/65 to 10/7/65 (Tons/sq. mile/mo.): #1, 28; #2, 46; #3, 54; #4, 8.4 (background).

Recommendation: A variance should be denied.

14. SWANSON BROTHERS LUMBER COMPANY
Noti, Oregon

Basis for Request: Location in a remote and sparsely populated area.

Discussion: Location is in the Willamette Valley airshed, approximately 16 miles west of the Eugene city center and 12 miles from the Eugene airport. Fuel burned is near ideal for a wigwam burner, and compliance should virtually eliminate smoke discharge. Addition of a pyrometer and correct maintenance and operational practices are likely the only additional expense required, as underfire and overfire air provisions appear adequate.

Recommendation: A variance should be denied. Director Adkison of the Lane County Air Quality Control program concurs in this recommendation.

15. ZIP-O-LOG MILL, INC.
P. O. Box 3391
Eugene, Oregon

Basis for Request: Infrequent use (one or two days per month).

Discussion: At present two truckloads/mo. of yard cleanup material is hauled away and approximately four truckloads/mo. are burned in the waste burner. This means batch firing with quantities insufficient to reach optimum combustion temperatures. Compliance with the regulations would thus serve no useful purpose.

This is a problem characteristic of a mill's final phase in accomplishing total utilization. Other means of disposal of yard cleanup material must be found.

Recommendation: Grant a conditional variance until May 15, 1966, at which time use of the waste burner is to be discontinued entirely.

February 6, 19[illegible]

Mr. R.F. Gitschlag
Production Manager
Chipman Chemical Co., Inc.
6200 N.W. St. Helens Road
Portland, Oregon 97210

Re: [illegible]
Chipman Chemical Co.

Dear Mr. Gitschlag:

This is in regard to the March 1, 19[illegible], deadline established by the Sanitary Authority last August as the date by which all liquid effluents from your Portland, Oregon, plant and Doane Lake must be adequately treated or otherwise disposed of so as not to cause tainting of fish.

The following is a confirmation of the points which were discussed with you and other company representatives on February 1 and 3 relative to your program for meeting the March 1 deadline. Certain additional requirements are also presented.

1. The [illegible] plant was to be shut down on February [illegible] and to be completely cleaned up by February 6. This plant shall not be put back in operation until either a satisfactory method for treating its effluent is developed or it has been replaced by a new process from which the effluent will not cause pollution of water or air.

2. For the past several weeks you have attempted to reduce the pollutional characteristics of the contents of Doane Lake by pumping them into the Willamette River during the period of high stream flow. Evidence submitted to date indicates that this procedure may have been only partially successful. (Because the flow in the river has already decreased considerably and also because the commercial fishing season in the Columbia [illegible] on February 1, all pumping of the contents of Doane Lake to the Willamette must be discontinued by February [illegible] unless an extension in writing is obtained from the Sanitary Authority to continue beyond that date.

3. You propose to oxidize the effluent from the 2,4-D plant by adding chlorine at a dosage rate of approximately 600 mg./liter. The oxidation (chlorination) system is to be in operation by not later than February 15. If for any reason installation of this treatment facility is delayed beyond that date, the 2,4-D plant shall be shut down until adequate treatment of the effluent can be effected.

4. As soon as the oxidation system is in operation a bio-assay test will be conducted at Oregon State University to determine its efficacy in preventing tainting of fish. The results of such tests are to be submitted to the Sanitary Authority prior to February 27, 1966.

5. If the bio-assay tests are not satisfactory, the 2,4-D plant shall be shut down immediately. If they show that the oxidation treatment is adequate to prevent tainting of fish, operation of the 2,4-D plant can continue but the treated effluent shall not be discharged or permitted to drain into Oswego Lake. If the treated effluent is to be discharged to the Willamette River the following safeguards must be provided:

(a) The treatment unit must be checked daily at regular and frequent intervals to assure its continuous operation. If at any time it fails to operate, the 2,4-D plant shall immediately be shut down.

(b) The treated effluent shall not be discharged directly to the river but instead shall be discharged into a holding tank or pond with sufficient capacity to hold at least one day's flow of wastes. Duplicate holding tanks or ponds shall be provided so that as one tank or pond is being filled, a bio-assay or other test acceptable to the Sanitary Authority can be made of the contents of the other one to assure that they are satisfactory for discharge to the river.

(c) Any bio-assay test should be supplemented with a good chemical sampling and testing program.

6. After March 1 no effluent from your plant shall be discharged to Oswego Lake without written permission from the Sanitary Authority.

7. On July 15, 1965, we discussed with you the problem of disposing of the semi-solid waste material which has previously been disposed of at the Portland city dump. The continued use of the dump is not acceptable because it constitutes a potential source of water pollution. It is, therefore, necessary that these materials be disposed of in some other manner such that air or water pollution will not be threatened.

6. Plans and specifications for the waste treatment facilities and outfall sewer shall be submitted to the Authority for review without further delay.

If you have any questions regarding the above requirements, please discuss them with us.

Very truly yours,

Kenneth H. Spies
Secretary and Chief Engineer
State Sanitary Authority

KHS:pvb

cc [illegible] original (2)
cc Federal Water Pollution
Control Adm.
cc Mr. [illegible], Vice-President
and General Manager

To: BMJ

see note on sketch

Sanitation & Engineering
Oregon State Board of Health
RECEIVED
FEB 15 1966
KHJ

DNF | TEMP | PERM

CHIPMAN CHEMICAL COMPANY, INC.

P.O. BOX 1065, BURLINGAME, CALIFORNIA 94011

February 14, 1966

Please Address Reply
Chipman Chemical Co., Inc.
6200 N. W. St. Helen's Road
Portland, Oregon 97210

Mr. Kenneth H. Spies
Secretary & Chief Engineer
Oregon State Sanitary Authority
P. O. Box 231
Portland, Oregon 97207

Dear Mr. Spies:

As per your letter of February 8, 1966, we are including a brief description and flow diagram for our oxidation system for 2,4-D effluent.

We started the operation of this system on February 9 and it has been in operation since that date. We have made several modifications to this system so that it will be foolproof and these have been incorporated in the description and flow diagram.

We have submitted a sample to Oregon State University for a fish taste test and they have promised results by the 17th of February.

The installation of an outfall sewer for piping our effluents to the river is being prepared. We are also studying the installation of storage for our effluent so that chemical tests can be run on the effluent prior to release to the river. The plans for this system will be submitted prior to the 25th of February. The obtaining of easements to install this line may not be able to be obtained by this time since we are crossing several peoples' property and we also must obtain the Army Engineers' approval. We will proceed on this as rapidly as possible.

Any questions that you may have on this, please feel free to contact me.

Very truly yours,

R. F. Gitschlag
Production Manager
Western Region

RFG:bc
cc: E. J. Weathersbee
Bryan M. Johnson
R. E. Hatchard
R. L. Rulifson
B. J. Smith
T. B. Henshaw
J. G. Ruggles

Memorandum Report

From: Water Quality Control Staff

To: Members of the State Sanitary Authority

Date: February 17, 1966

Subject: Chipman Chemical Company

As you will recall, the Oregon State Sanitary Authority, at its meeting of August 26, 1965, passed a resolution establishing March 1, 1966, as the deadline by which time steps must be taken to ensure that the effluent discharges from the Chipman Chemical Company plant and from Doane Lake will not produce an off-flavor in the spring run of Chinook salmon.

Based on information gained through a bio-assay taste-testing program, Chipman Chemical Company proposed to discontinue production with the MCPA plant and provide treatment for the 2,4-D plant effluent prior to March 1, 1966. In addition, preparations were made to pump the waters of Doane Lake into the Willamette River during periods when the river flow was in excess of 20,000 cubic feet per second. These facts were presented at the December 15, 1965, meeting of the Authority.

The MCPA plant was shut down on February 4, and the final cleanup on it was completed by February 6. This plant will not be put back in operation until either a satisfactory method for treating its effluent is developed or it has been reconstructed so that the effluent will not cause pollution of water or air.

A system to oxidize the 2,4-D plant effluent by intense chlorination has been in operation since February 9, 1966. A preliminary test of this effluent by the Oregon State University Department of Fisheries, using rainbow trout as the test fish, has indicated that the effluent will not produce off-flavors in fish. A similar test is now being conducted, and other tests will continue until we are assured that the discharge is acceptable.

The project to pump Doane Lake has not been as successful. Low river flows prevailed during December, and a flow of 20,000 cfs at Salem was not reached until December 27, 1965. At that time the water level in the lake stood at 64 inches, as measured on a fixed gage. (The gage reading has no relation to the lake depth or elevation, but is used only to establish the relative volume.) By January 7, 1966, 5.02 million gallons of water had been pumped from the lake; and the level in the lake had increased to 75 inches because of increased inflow of ground and surface waters. Pumping with the

initial pump was continued until February 3, with 25.55 million gallons being pumped, and the lake level dropping to 50 inches. Another pump was then added, and by February 10 another 11.20 million gallons of water had been pumped to the river, and the lake level was then down to 37 inches.

In total 41.77 million gallons were pumped from the lake for a net decrease of only approximately 10 million gallons as indicated by the gage. Of the 30 million gallons that apparently flowed into the lake, 6 million gallons were from Chipman Chemical Company. The remaining 24 million gallons were from natural sources. Also, in addition to the water pumped out of the lake the natural seepage out of the lake continued at some unknown rate. (This has been estimated at 200 gallons per minute.)

Pumping of the lake was stopped on February 10 by request of the State Sanitary Authority because of the low flows in both the Willamette River and the Columbia and also because the commercial fishing season in the Columbia River began on February 15. (Five days were believed to be sufficient for the waste discharges in Portland to reach the ocean.)

On February 8, 1966, Mr. Kenneth H. Spies, Secretary and Chief Engineer for the State Sanitary Authority, submitted a letter to Chipman Chemical Company and a copy of it is attached. This letter was answered on February 10, 1966, by Mr. R. F. Gitschlag, Production Manager, Western Region for Chipman Chemical Company, and a copy of his letter is also attached.

Currently the staff of the State Sanitary Authority, with the assistance and cooperation of the Fish Commission and Game Commission, are conducting live box studies for taste and odors in fish at several selected locations in the Willamette Harbor and Multnomah Channel. This program was started this week and no data is yet available. However, before March 1, 1966, it is anticipated that information will be available that will be indicative of actual conditions in the river.

If Willamette River flows remain low during the coming fishing season, it is still possible that some off-flavor fish will be caught from Multnomah Channel. Although a considerable effort has been made to eliminate Doane Lake as a waste source known to produce off-flavor in fish, a huge volume of water still remains in the lake. Because of the large amount of natural inflow to the lake, and the large outward seepage area involved it will not be possible to stop the flow of water from the lake to the river. It is hoped that the amount of outward flow has been reduced by the pumping, and the problem will not be as severe as it was last year.

OSBH WPC
2/17/66-25

Chronology of conditions on McKenzie River from H. W. Merryman 2/16/66

Water Pollution

Thursday, August 19, 1965 - To McKenzie. Considerable foam on south bank and odor in river.

Wednesday, Sept. 1, 1965 - To McKenzie. Spoke with Ferguson at State Parks. He had reported foam but I notices no material foam, just slight amount in little back bays. Very slight residual odor in river.

± Monday, Sept. 27, 1965 - First thing in the morning very slight foam and odor in river at Armitage State Park.- Coburg Bridge on U.S. 5. Very slight odor in river atCampbells place.

Friday, October 8, 1965 - To McKenzie at Freeway 5 bridge. No foam, generally good appearance on to IW outfall odor aonly very, very slight on occasions and otherwise no odor.

Tuesday, October 19, 1965 - To McKenzie. Definite odor in river, not in air. some slight foam in back bays and banks.

Friday, November 5, 1965 - To McKenzie. Very sour odor in river at State Park more or less equivalent to old times with slime situations. Very bad odor in river also at Campbell place about 3 miles above Coburg Bridge also slight foam at the State Park.

Air Quality (O.I. means odor intensity)

Wed. 9-29-65 - About 1700. Along Walterville Road O.I. 3

Friday, 10-1-65 ± 2100. East of Walterville O.I. 2

Monday, 10-4-65 - With KHS at outfall, foam very slight and odor very slight.

Friday, 10-8-65 - In the morning to McKenzie (see above)

Tuesday, October 19 (Same as above)

Monday, 10-25-65 ± 1300 near Jasper. OI 1

Thursday, 1-6-66 1530 to 1615.Trip to the river. At Ferry Street bridge OI 2. At Armitage no foam, odor very slight in river. At US 105 underpass of US 5 OI 3

Monday, 1-17-66 At 1600 on US 126 McKenzie Highway about 1 mile east of Springfield city limits OI 2. At 1615 slight odor at Jaqua's place.

Friday, 1-21-66 - At 0800. 867 Tyler St. OI 1

Saturday 1-22-66 - At 0900, same location. OI 2.

Sunday, 1-23-66 - At 0900, same location. OI 2.

Tuesday, 1-25-66 - With EJW and BMJ at 1600 to 1630 at IW outfall, slight

odor in air and water. Foam about ordinary. At 4:30 at US or adjacent to US 5 Coburg Bridge odor in water about ordinary.

Saturday, 1-29-66 - 0915 at 867 Tyler OI 3.

Monday, 1-31-66 - 1900 same location OI 1. At 2400 same location OI 1.

Tuesday, 2-1-66 - 1100 Seventh and Polk OI 1.

Thursday, 2-10-66 - 0800 at 867 Tyler OI 1.

Tuesday, 2-15-66 - 0800 at 867 Tyler OI 1.

S-SA 3/63

Office Memorandum

OREGON STATE BOARD OF HEALTH

To : K. H. Spies

Date: February 17, 1966

From : E. J. Weathersbee

Subject: IW - Weyerhaeuser, Springfield

On 2/7/66 I telephoned John McEwen and related the following as our present thinking regarding their proposal for providing further treatment of their waste effluents:

1. That we need revised and firm load data (as soon as possible).

2. That we would not approve the proposed lagoon location because of probable noise, odor, water vapors, etc.

3. That we wanted them to project their maximum treatment capabilities, including imagination.

4. That they should design facilities aimed at reducing their wastes to 3000 #BOD/day during periods of low stream flow.

5. That we were considering asking them to discharge their waste through a diffuser.

I also emphasized that we must have a definite, complete, and detailed proposal from them in writing.

McEwen expressed no particular surprise or objection concerning the above items. He did say that clearance of written material from their legal representatives was causing delay in submitting written information to us.

He did not indicate <u>when</u> they would be able to furnish us any of the information requested in our letter of February 3, 1966. I told him that, at the hearing, we could only react to what had been submitted to us.

STAFF REPORT

Air and Water Pollution in the Vicinity of the Weyerhaeuser Mill, Springfield, Oregon

Oregon State Sanitary Authority

December 13, 1965

(Revised 2/15/66)

In December 1963, the Weyerhaeuser Company announced its intention to increase the capacity of its Kraft pulp and paper mill at Springfield from 400 ADT/day to 1150 ADT/day.

Representatives of the Weyerhaeuser Company met with members of the Sanitary Authority staff several times during early 1964 and presented the company's proposal for accomplishing this expansion with purportedly:

1) no additional water withdrawal from the McKenzie River.
2) no further aggravation of the water pollution problem and perhaps some improvement with regard to decreased BOD's to the river during the extreme low flow periods, and reductions in odors associated with the river waters.
3) little or no increase in the area air pollution problem.

As a result of a petition signed by some 75 residents of the Eugene-Springfield area, the Sanitary Authority held a public hearing in Eugene on June 18, 1964, to hear local testimony prior to acting upon the proposed expansion. The concensus of the testimony given at the June 18 meeting was that no additional air or river pollution should be allowed to occur as a result of the expansion.

Sanitary Authority physical and chemical data and river surveys indicated that river conditions had been generally good since 1961 when the company had begun to irrigate a substantial portion of its strong wastes during periods of low river flows.

After considering the company's record of success in solving its air and water pollution problems in the past, and the company's proposal to utilize the most advanced equipment, techniques and procedures in its expanded operations, the Sanitary Authority, by letter dated September 14, 1964, tentatively approved the company's proposal for controlling air and water pollution at its Springfield mill expansion, subject to the following continuing conditions:

1) That if proposed methods for controlling air and water pollution are not entirely successful as represented by the company, such further control, disposal or treatment of air and water polluting wastes will be provided as required to prevent or eliminate validly objectionable air or water pollution.

2) That complete irrigation disposal data and observed river conditions shall be routinely reported in addition to liquid waste data already being submitted.

3) That certain stack and kiln discharge data be submitted that would be representative of air pollution emissions both before and after expansion of operations.

4) That in order to provide reasonable surveillance and control of the start-up and break-in of the new facilities the company shall agree to meet with the Sanitary Authority staff prior to start-up of the new facilities and at least quarterly thereafter as long as reasonable progress is being made and until all pollution problems are satisfactorily resolved.

It was further clearly stated in the Sanitary Authority letter of approval that it was the intention of the Sanitary Authority that no increases in air or water pollution shall occur, after a reasonable period of adjustment, as a result of the company's expanded operations.

The Weyerhaeuser Company had throughout the summer of 1963, prior to the expansion, been able to maintain generally good conditions in the McKenzie River. This was accomplished by limiting its average BOD discharges during the low-flow season to less than 4,000 BOD/day. Fiber discharges during this period averaged between 4,000 and 5,000 #/day. The mill effluent diecharges during the critical low-flow period of 1963 were on the order of 7 MGD and the minimum monthly river flow was 1,853 cfs.

In addition to regular monthly sampling runs made during each month of 1963 to collect physical and chemical data on the river, four biological surveys were made on the river below the Weyerhaeuser outfall by Sanitary Authority biologists in the period June-October, 1963. Some slime growth, but no measurable harm to bottom organisms or aquatic life, was observed prior to start-up of irrigation disposal of wastes in early June, 1963, and again in October, 1963, after irrigation had stopped.

Some degradation of the river for a distance of approximately 1½ miles below the Weyerhaeuser outfall, in the form of increased algae, some slime, odor and reduced bottom fauna, was noted by Sanitary Authority biologists in August of 1964. River conditions were reported to be like those in 1961 and 1962. Not as bad as conditions from 1949-1960; but not as good as those in 1963. Average BOD and fiber discharges during July and August of 1964 were approximately 5,000 #BOD/day and from 2,000 to 4,000 #fiber/day. Mill discharges averaged approximately 7¼ MGD and river flows averaged around 2,000 cfs.

On April 12, 1965, Mr. McEwen, Manager of Weyerhaeuser's Springfield plant, called to report that slime had begun to build up rapidly in the river and that as a remedial measure they would start immediately to irrigate their strong wastes. At that time approximately 6,500 #BOD/day was being discharged into river flows of approximately 4,000 cfs. Sanitary Authority biologists made a survey of the river below the Weyerhaeuser outfall on April 16, 1965, and reported "a proliferation of green algae growth, but no visual evidence of bacterial slime."

Through the month of June, 1965, BOD discharges were reduced, by irrigation of strong wastes, to less than 4,000 #/day and river conditions outside of the immediate influence of the Weyerhaeuser outfall were considered by the Sanitary Authority staff as generally acceptable.

In July, 1965, certain units of the new production facilities were placed in partial operation and beginning with a significant spill of black liquor to the river due to an equipment malfunction on July 18, numerous complaints of odor and river pollution were received.

Sanitary Authority biologists were not able to observe conditions resulting from the July 18 liquor spill until July 23, 1965. At that time general foaming and dark colored waste waters were observed in the stream for two miles below the Weyerhaeuser outfall.

On August 18, 1965, representatives of the Sanitary Authority and the Weyerhaeuser Company met at the Springfield mill and discussed the status of construction and start-up of the new facilities. At this meeting, the situation was reported by the company to be progressing reasonably satisfactorily and that every possible precaution was being taken to prevent further spills of strong wastes. Several residents of the area were present and complained of polluted river conditions and odors, but these conditions were attributable to the equipment malfunction and liquor spill of July 18 and problems expected to be associated with start-up of new facilities.

Company management expressed confidence in being able to reduce its waste discharges to below the nuisance causing level as per its original proposal and Sanitary Authority approval.

On September 27, 1965, Mr. Spies sent a letter to Mr. McEwen stating among other things that:

"An inspection by Sanitary Authority biologists on the preceding day (September 20, 1965) had disclosed that at the Station ½ mile below the outfall a lush growth of bacterial slime (Sphaerotilus) blanketed the stream bottom. Microscopic analysis of the material showed it to be about 50% slime, 45% wood fibers and 5% diatoms and other decayed organic debris. In back waters along the river's edge, the sloughed material in some places was as much as 4 to 6 inches deep.

At a station one mile below the mill's outfall, there was also considerable bacterial slime which was composed of 50% slime and 45% fibers. These growths caused a "cementing" of the material on the river bottom."

Mr. Spies' letter also pointed out that the Sanitary Authority staff was very much concerned about the excessive amounts of fibers contained in the downstream slime growths, and requested that adequate steps and precautions be taken immediately so that the observed pollution would be abated without delay and not be permitted to happen again.

On October 27, 1965, Mr. Edison L. Quan, Sanitary Authority biologist, made a comprehensive survey and collected samples from the McKenzie River above and below the Weyerhaeuser outfall.

His conclusions, based on chemical and biological samples and field observations, were reported as follows:

1) For several miles below the mill outfall, the bottom organic material was predominantly comprised of Sphaerotilus and wood fibers.
2) The Weyerhaeuser mill waste effluent discharged to the McKenzie River had generated a sufficient growth of Sphaerotilus on the river bottom to substantially reduce the aquatic insect populations in both variety and volume for several miles below the outfall.
3) The Weyerhaeuser mill effluent in the McKenzie River had produced foam on and odor in the water (for 7 miles) which has impaired the aesthetic qualities inherent to the river.

Mr. Quan also concluded that the above conditions were not caused by a single recent release of strong wastes, but were started and nourished over an appreciable period of time prior to the survey.

A follow-up inspection on November 17, 1965, showed that the river had risen and fallen sharply and carried away most of the slime and algae. Only trace amounts of Sphaerotilus slime were found growing on the rocks at Patrick's Orchard. On December 17, 1965, Mr. Quan conducted a second comprehensive biological survey and collected samples from the McKenzie River for the 10-mile distance between Bellinger's Boat Landing upstream of the Weyerhaeuser outfall and Coburg Bridge below the Weyerhaeuser outfall. Almost the exact polluted river conditions found in October and reported above were again found in December. Flows in the McKenzie River increased substantially toward the end of December, 1965, and have since that time provided sufficient dilution of the discharged wastes to prevent the build-up of heavy slime growths. However, odors from the river were detected by members of the Sanitary Authority staff in January and February, 1966, as far downstream as Coburg Bridge.

Waste discharges to the McKenzie River have substantially increased since the start-up of the expanded facilities in July, 1965. For the month of July, 1965, with an average production of only 352 ADT of pulp and paper per day, average waste discharges amounted to 6,180 #BOD/day and 3,680 #fiber/day.

In August, for an average daily production of 621 ADT of product the BOD and fiber discharges had risen to 10,915 #BOD/day and 11,150 #fiber/day. The mill effluent discharge had likewise more than doubled to an average daily discharge of 15.7 MG.

For September, 1965, comparative average figures were 674 ADT/day of production, 15,360 #BOD/day, 16,700 #fiber/day, and 19.9 MGD of waste waters discharged into an average river flow of 2,250 cfs.

By October, 1965, average production was approximately 750 ADT/day and BOD and fiber discharges were reduced to approximately 13,000 #/day and 7,000 #/day, respectively.

Since October, 1965, fiber discharges have been further reduced to an average discharge of approximately 3,300 #/day, but the BOD loads discharged to the river have continued to rise with increases in production. The average BOD discharge for the month of January, 1966, was reported by the company as being in excess of 19,000 #/day.

Several equipment malfunctions, start-ups and shut-downs have caused single day releases of strong wastes which considerably exceeded these average figures and which have contributed to the causing of critical conditions in the McKenzie River from the standpoint of fish and other aquatic organisms as well as nuisance conditions objectionable to people.

The discharges during the 1965 low river flow season were far above the less than 4,000 #/day of BOD that the Weyerhaeuser Company proposed to maintain during periods of low river flows, and the average BOD discharges during the high river flow months are now more than double those discharged before the mill expansion.

Stack emission data submitted to the Sanitary Authority by Weyerhaeuser shows that before the 1965 expansion the discharges from its recovery furnace and lime kiln stacks varied between 8,095 - 21,355 #/day of particulates and from 13,860 - 35,580 #/day of hydrogen sulfide and methyl mercaptan. After expansion, the combined discharges from both the old and new recovery furnace and kiln stacks were shown to vary between 11,892 - 28,522 #/day of particulates and between 20,838 - 56,528 #/day of hydrogen sulfide and methyl mercaptan. The gas volume being discharged to the atmosphere after expansion are approximately 2 2/3 the gas volume discharged before the expansion.

Forty-seven area and river surveys made by engineers of the Sanitary Authority Air Quality Control staff and staff members of the Lane County Air Quality Control District since July 16, 1965, have determined that objectionable river odor conditions have occurred on a more-or-less continuing basis since start-up of the new facilities and that an increase in the area air pollution problem in the form of increased frequency and intensity of odors, increased discharge of corrosive materials, and a widening of the area affected, has occurred.

It was expected that some difficulties would be encountered when the new facilities were placed in operation. However, the waste discharges and resulting river and area odor conditions have considerably exceeded those which were expected or should have been permitted to occur.

SUMMARY

1) After start-up of its new expanded production facilities in July 1965, the Weyerhaeuser mill at Springfield increased its BOD load to the river by 3 to 5 times over the less than 4,000 #/day which the mill previously maintained during periods of low stream flows and which the Sanitary Authority tentatively approved for discharge after start-up and break-in of the expanded facilities, and has more than doubled BOD discharges during months of high river flows as compared to such discharges prior to the expansion.

2) After start-up of the new facilities the company increased its fiber discharges to the river over that previously discharged during low flow periods by some 5 to 20 times. Maximum weekly average discharges of fiber rose to 19,300 #/day in September. (Fiber discharges had been reduced by January, 1966, to an average for the month of 3,150 #/day.)

3) Since start-up of the expanded facilities the discharge of particulates and odorous materials has increased more than 1½ times, and the volume of gaseous discharges has increased approximately 2 2/3 times that which was being discharged prior to the expansion.

4) These increased waste discharges have caused biological pollution of the McKenzie River, aesthetically unacceptable odor conditions on the river and odor nuisances in the area atmosphere.

5) These conditions have been aggravated somewhat by accidental waste discharges resulting from several equipment malfunctions and process upsets normally associated with start-up and run-in of new facilities and slightly lower than usual river flows; however, the routine or scheduled releases of wastes have, since start-up, greatly exceeded those which can be discharged without causing excessive air and water pollution problems.

Weyerhaeuser Company
Pulp and Paperboard Division

Springfield Branch
Springfield, Oregon 97477

February 11, 1966

Oregon State Sanitary Authority
P.O. Box 231
Portland, Oregon 97207

Attention: Mr. Ely J. Weathersbee
Deputy State Sanitary Engineer

Gentlemen:

This is in reply to your letter of February 3 requesting information and materials on our proposals for air and water protection. The following numbered paragraphs correspond with the numbered requests made in your letter.

(1) A revised flow sheet and a load chart are enclosed.

(2) We have retained the Cornell, Howland, Hayes & Merryfield engineering organization of Corvallis, Oregon, to prepare the engineering plans and specifications. They advise us that these will be available by March 26.

(3) Emission data for the recovery and kiln stacks for expansion conditions is enclosed.

(4) Air pollution should be significantly reduced by the installation of an oxidation system substantially larger than the one presently in operation for the new mill. Equipment delivery is the limiting factor for installation. The unit is scheduled to be in full operation on August 1, 1966. It should be in partial operation and improve our present system on June 1, 1966. Drawings presently available are enclosed.

The proposed pond location is in an area zoned for heavy industry. There are only a few dwellings near this area. There are also dwellings near the available alternate sites. A log pond and operating industries help to separate the proposed pond site from dwellings in the area. The pond would be located as far as possible from existing dwellings along 42nd Street.

You made a telephone request for an estimate of the maximum capability of our proposed system. Our load chart gives an estimated 3760 lbs. of BOD per day for the final effluent to the river. We cannot prudently project any less load for our operation even though we feel the estimates are conservative. As you know, the projected load of less than 4 lbs. of BOD per ton of pulp produced is an extremely low value.

Very truly yours,

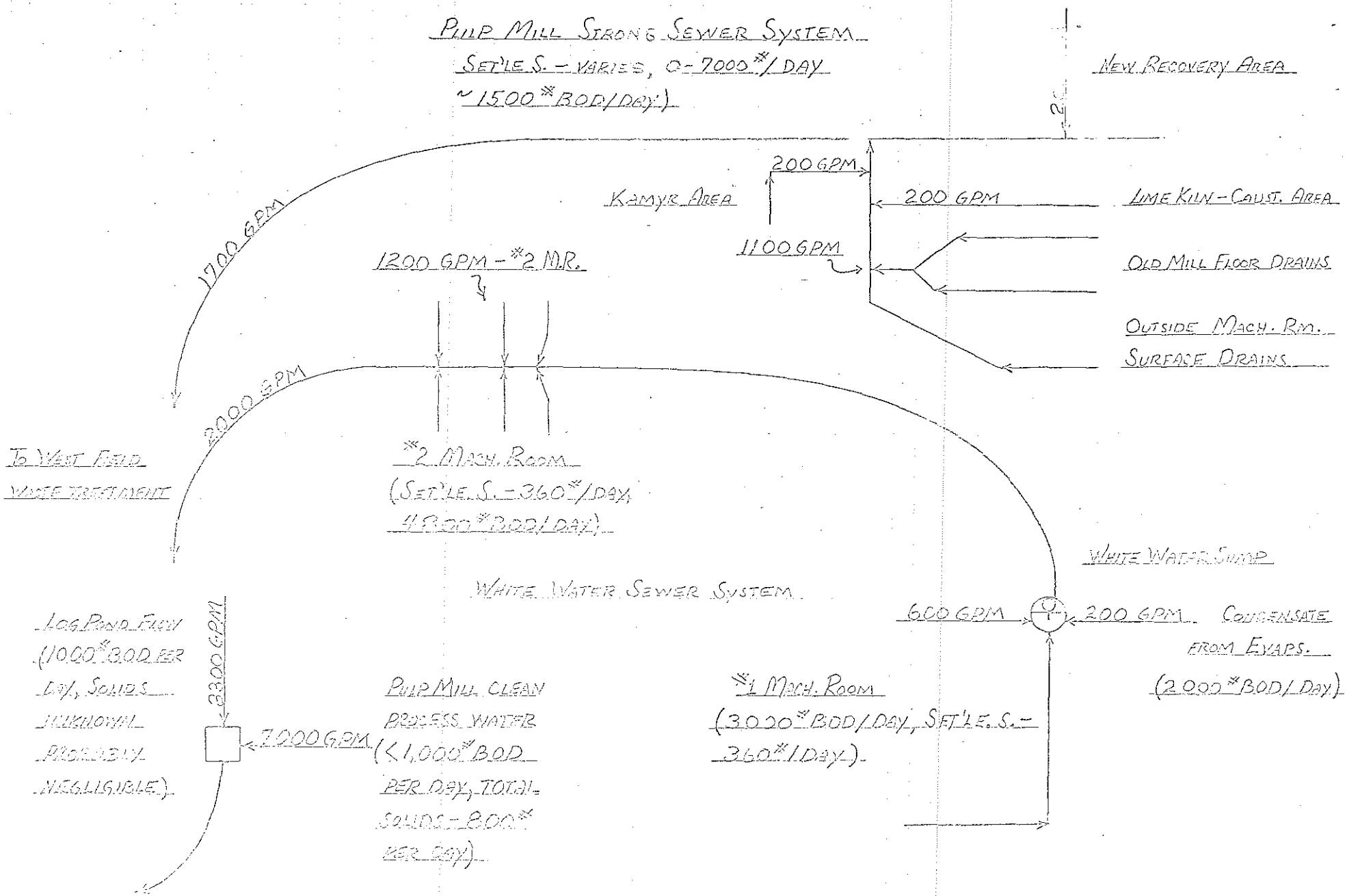
J. M. McEwen
Branch Manager

JMM:bh
Encls.

cc: Mr. H. W. Merryman

LOAD CHART

	Flow - GPM			BOD - Lbs./Day		
	Past	Actual	Predicted	Past	Actual	Predicted
No. 1 Sump	4800	6300	5050	5800	5800	400
No. 1 Machine White Water	800	600	600	4500	3000	3000
Evaporator Condensate	-	250	250	-	2000	2000
Hot Well	-	400	400	-	400	0
No. 2 Machine Sewer Flow	2700	2700	1500	5400	5400	600
No. 2 Machine White Water	1200	1200	1200	4800	4800	4800
Retention Pond	3000	1500	1500	2300	1500	1500
Log Pond	3300	3300	3300	1000	1000	500
Load Untreated						1500
20% of Treated Loading						2260
Total Load to Sewer						3760


PULP MILL STRONG SEWER SYSTEM
SET'LE S. - VARIES, 0 - 7000 #/DAY
~1500 # BOD/DAY)
NEW RECOVERY AREA
2"
200 GPM
KAMYR AREA
200 GPM
LIME KILN - CAUST. AREA
1700 GPM
1100 GPM
OLD MILL FLOOR DRAINS
1200 GPM - #2 M.R.
OUTSIDE MACH. RM. SURFACE DRAINS
2000 GPM
TO WEST FIELD WASTE TREATMENT
#2 MACH. ROOM
(SET'LE. S. - 360 #/DAY, 1200 # BOD/DAY)
WHITE WATER SEWER SYSTEM
WHITE WATER SUMP
600 GPM
200 GPM
CONDENSATE FROM EVAPS.
(2000 # BOD/DAY)
LOG POND FLOW (1000 # BOD PER DAY, SOLIDS NUKNOWN PROBABLY NEGLIGIBLE)
3300 GPM
7000 GPM
PULP MILL CLEAN PROCESS WATER (< 1,000 # BOD PER DAY, TOTAL SOLIDS - 800 # PER DAY)
#1 MACH. ROOM
(3020 # BOD/DAY, SET'LE. S. - 360 #/DAY)
TO KENNEBEC RIVER
WASTE TREATMENT COLLECTION SYSTEM

Interoffice Communication

Weyerhaeuser Company
Pulp and Paperboard Division

Date February 10, 1966

From Springfield

Subject Emission Data for Oregon State Sanitary Authority

To Mr. Oliver Morgan

From Mr. J. S. Leonard

The following data are representative of the emission effluents from the recovery stacks in early 1966:

	Old Recovery		New Recovery	
	Pre-Startup	Early 1966		
*Total Solids (grains/ft.^{3})	0.21 - 0.55	0.21 - 0.55	0.061	0.107
Na^+ as Na_2SO_4(grains/ft.^{3})	0.19 - 0.50	0.19 - 0.50	0.056	0.097
Ca^{++} as CaO (grains/ft.^{3})	None		None	
Bromine Demand (Mg/ft.^{3})	26 - 58	26 - 58	22 - 26	
Hydrogen Sulfide (ppm)	63 -163	44 -114	39 - 86	
Methyl Mercaptan (ppm)	21 - 57	21 - 57	9 - 22	
Exit Temperature ° F.	250°-270°	250°-270°	292°-305°	
Exit Velocity (fps)	51 - 58	51 - 58	38 - 45	
Stack Flow (cfm)	153,000-174,000	153,000-174,000	260,000-300,000	
% H_2O	28	28	28	

(*All data given at stack conditions)

The higher figures for solids loading on the old recovery than those previously submitted are a result of improved sampling techniques. The new figures are considered accurate assessments of the values both before and after start-up. The sample point is now in a better location and an improved sample device is being used.

The following data are representative of emission effluents from the lime kiln stacks:

	Old Lime Kiln Stacks		New Lime Kiln Stack
	Before Start-Up	Early 1966	
*Total Solids (grains/ft.^{3})	0.19	0.19	0.04
Na^+ as Na_2SO_4(grains/ft.^{3})	0.15	0.15	0.03
Ca^{++} as CaO (grains/ft.^{3})	0.035	0.035	0.01
Bromine Demand (Mg/ft.^{3})	19.0	6 - 10	4.5
Hydrogen Sulfide (ppm)	43	(4.0 - 16.0)	13.7
Methyl Mercaptan (ppm)	31	(2.0 - 30.0)	8.0
Exit Temperature $^\circ$ F.	158°	158°	167°
Exit Velocity (fps)	21.6	21.6	35
Stack Flow (cfm)	36,500	36,500	59,700
% H_2O	32	32	37

(*All data given at stack conditions)

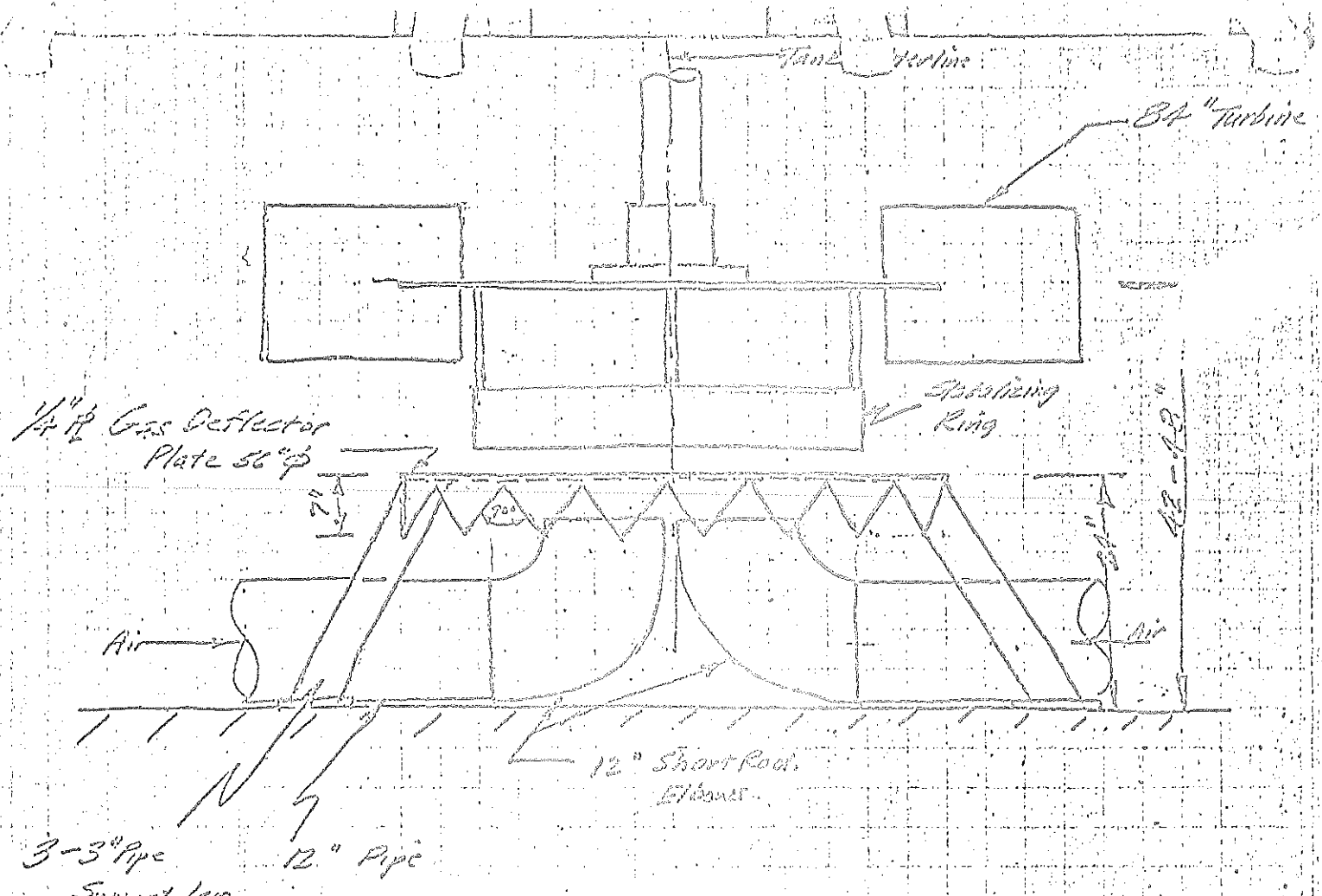
Certain improvements in the wet end scrubbers of the old lime kilns have led to a reduced malodor emission from these sources.

J. S. Leonard

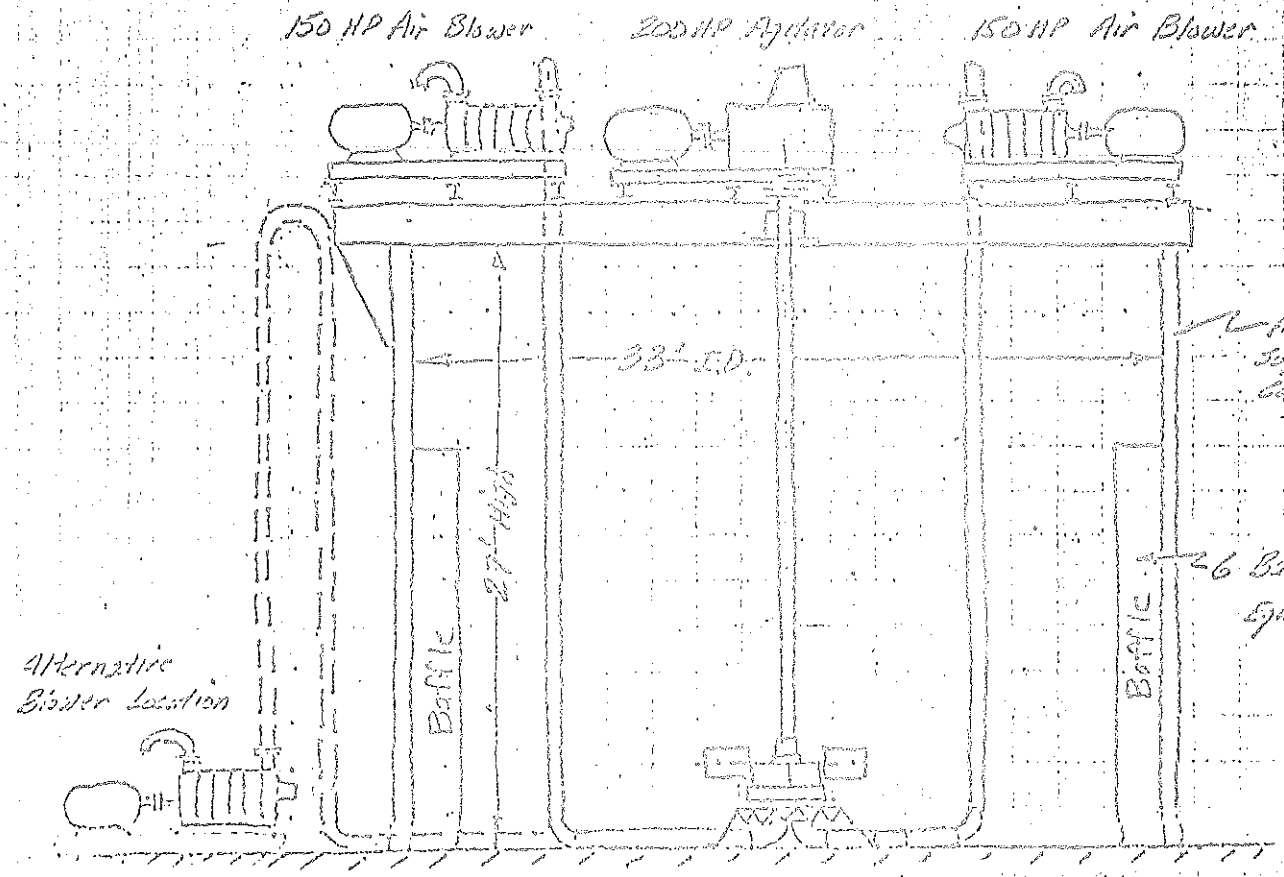
JSL:mn

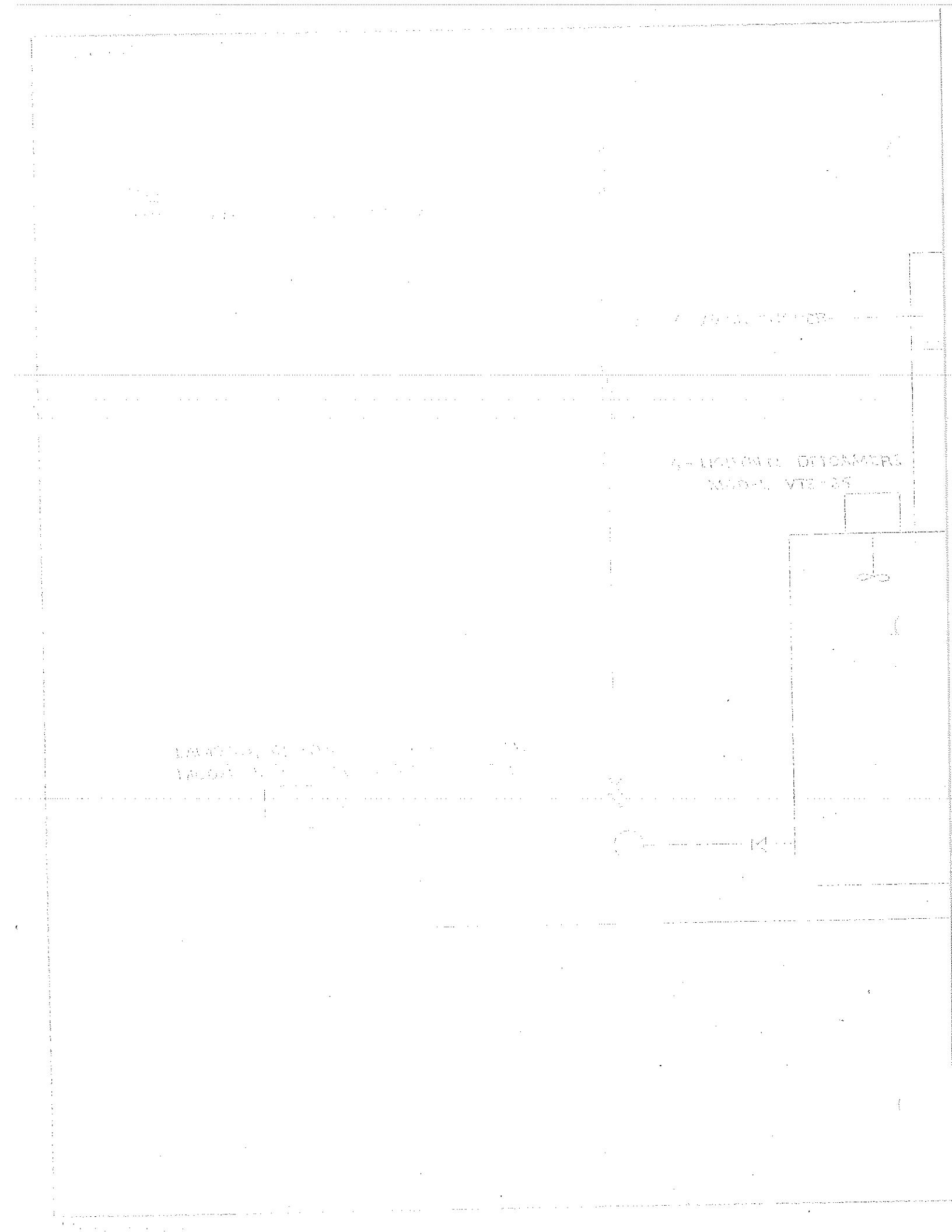
OXIDATION TANK CONSTRUCTION SCHEDULE

Order agitators, defoamers and blowers	1-18-66
Order Motors	1-28-66
Order Pumps	2-15-66
Order Instrumentation	2-18-66
Break ground for Foundations	2-21-66
Order Tank	3- 1-66
Install Piping	3-15-66
Complete Foundation	3-31-66
Start Construction of Tank (on site)	4- 1-66
Start Wiring	4- 5-66
Complete Tank	4-29-66
Install Blowers and Defoamers completed	5-20-66
Primary Start-Up - 90% complete	5-30-66
Receive 200 HP Drive Gear	6-30-66
Complete	7-30-66



GAS INLET PIPING & DEFLECTOR





Drawing No.

Weyerhaeuser Company
Pulp and Paperboard Division
Springfield, Oregon

STATION SYSTEM

Drawing No.

SPRINGFIELD CHAMBER OF COMMERCE
406 MAIN ST. - BOX 155
SPRINGFIELD, OREGON

February 9, 1966

Mr. Harold Wendel, Chairman
Oregon State Sanitary Authority
State Office Building
1400 S. W. 5th Avenue
Portland, Oregon 97201

Dear Mr. Wendel:

The Board of Directors of the Springfield Chamber of Commerce meeting in regular session on Wednesday, February 9, 1966, did go on record respectfully requesting that the Oregon State Sanitary Authority grant the Springfield Branch of the Weyerhaeuser Company ample time to install planned water and air protection devices.

This company is vital to the economic welfare of this area and has historically done an outstanding job of water and air protection.

Thank you.

Very truly yours,

Lowell C. Edwards
President

LCE:nj

Sherman A. Washburn
Oregon State Board of Health
February 17, 1966

TO THE WORKING PRESS:

Welcome to the background tour of the Sanitary Authority!

In the plant your guides will be furnished by the Weyerhauser Company. Weyerhauser will not attempt to explain what its proposed adjustments or alterations might be. The plant tour is to show the "areas of concern" which will be brought up in testimony on Friday. By seeing them today you will have a better grasp of Friday's meeting.

As an old photographer (who will be too busy to take pictures during the tour) may I recommend your lenses capture the new digester which is 110 feet high and a part of the story, the evaporators and the recovery building, and the new paper machine. If your lenses don't fog up because of the high humidity, you will find the machine to be the largest West of the Mississippi, (Weyerhauser says) and a spectacular in operation. The huge rolls of finished paper weigh 15 tons....if I recall my previous tour correctly.

We will reassemble in the parking lot and form a caravan to visit the points shown on the accompanying map. If you have overshoes along, now would be the time to put them on because it is muddy going down the bank to the paper mill outfall.

If you should get lost we have the map and the following itinerary to enable your finding us again.

To reach point one on the map:

After leaving the pulp mill parking lot, turn right on the High Banks Road. Continue on this road for 1.3 miles.

Turn right on the road to Marcola. After .4 miles turn left on the Hayden Bridge road. Take the left hand road which leads to the filtration plant. We will park on the filtration plant road.

The outfall is approximately 200' downhill from this point. Watchout for the muddy trail!

To reach point two on the map:

We will use the filtration plant turn-around and head back to Marcola Road. Turn right on Marcola Road and head west for approximately 1.5 miles.

Turn right on North 19th for .4 miles.

Turn left on Hayden Bridge Road and proceed West for approximately .5 miles At the Elizabeth Page School turn right on Harvest Lane. Continue to the very end approximately one mile. We will use the railroad "Y" technique for turn around at this point.

To reach point three:

We will return to the Hayden Bridge Road, turning right at the school house and proceed West approximately .7 of a mile.

Turn right and follow the signs to Coburg and the Armitage State Park. The red line on your map follows the route along Game Farm road, and others, eventually joining the Coburg Road.

Turn right on Coburg Road and proceed for approximately ½ mile. Turn left

into Armitage State Park and follow the white line into the parking lot. The river is approximately 50 ~~yards~~ North of that point.

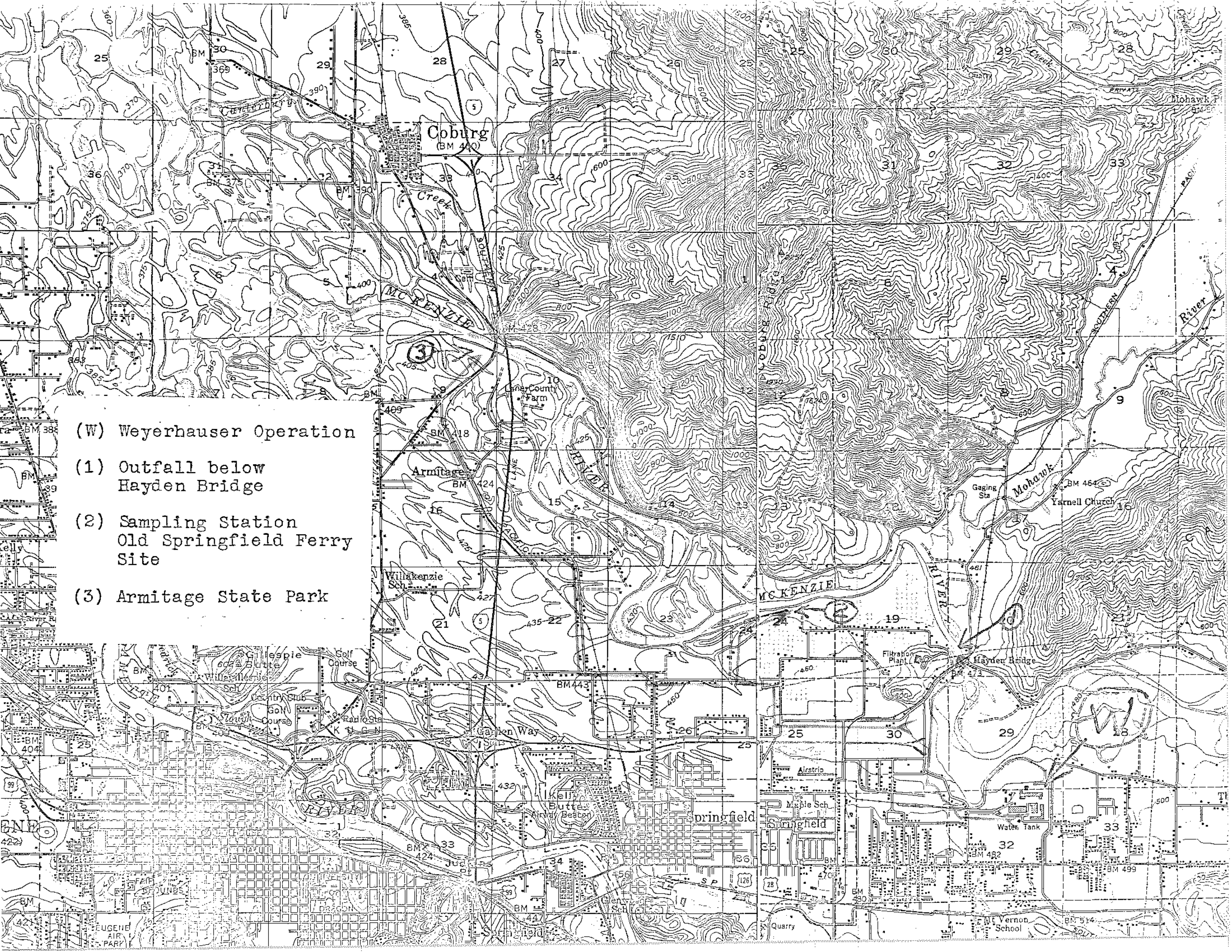
After leaving the park we will turn left on Coburg Road until we cross the McKenzie River bridge.

Turn right on to McKenzie View Drive. We will proceed along the North bank of the river stopping to point out the property of different complainants so that their relationship to the location of the mill may be observed.

We will continue on this road, eventually completing a circuit back to the Marcola Road and return to Eugene over the Hayden bridge.

The Authority will proceed directly to the Eugene State Office Building at 165 East 7th Avenue where the Authority will convene and consider the matters on the attached agenda.

OSBH-HE
2/16/66 - 25


(W) Weyerhauser Operation
(1) Outfall below Hayden Bridge
(2) Sampling Station Old Springfield Ferry Site
(3) Armitage State Park
Coburg
McKenzie
River
Armitage
Lane County Farm
Willakenzie Sch.
Gillespie Butte
Golf Course
Country Club
Garden Way
Kelly Butte
Springfield
Filtration Plant
Hayden Bridge
Gaging Sta
Mohawk
Yarnell Church
Coburg Ridge
Airstrip
Maple Sch.
Water Tank
Mt Vernon School
Quarry
Eugene Air Park
Fair Grounds

PRESS PLEASE NOTE: This meeting will follow the tour of the Weyerhauser plant and the McKenzie River.

AGENDA

STATE SANITARY AUTHORITY MEETING

February 17, 1966

State Office Building, Eugene, Oregon

A. Minutes of December 17, 1965 meeting

B. Project plans for December 1965, and January 1966

C. Request of City of Lake Oswego for public hearing regarding Oregon Portland Cement Company

D. Requests for variances from Wigwam Burner Regulations

E. Douglas County Lumber Company, Winchester (Status Report)

F. Union Carbide Metals Company, North Portland (Status Report)

G. Chipman Chemical Company

H. Portland Sewage Disposal

OSBH/HE
2/16/66-25

STATE SANITARY AUTHORITY MEMBERS

Harold F. Wendel, Chairman
Portland, Oregon

Chris L. Wheeler, State Engineer
Salem, Oregon

Edward C. Harms, Jr., Attorney
Springfield, Oregon

B. A. McPhillips
McMinnville, Oregon

John P. Amacher
Winchester, Oregon

Herman P. Meierjurgen
Beaverton, Oregon

Richard H. Wilcox, M.D.
Portland, Oregon

Kenneth H. Spies, Secretary
Portland, Oregon

Friday's meeting will convene at 10:00 a.m. in the Council Chambers of the Eugene City Hall located at 777 Pearl Street.

I will be staying at the Flagstone Motel, 1601 Franklin Blvd. If you should need to call me the telephone number is 343-7725.

Sherm

OSBH-HE
2/16/66 - 25

Mr. Wendel asked how long it would take to come to an agreement with Mr. Patterson.

Mr. Patterson said the big decision is the type of equipment that will be installed to meet the problem and inasmuch as they propose to install a new offtake on the No. 4 furnace in January, allowing 60 or 90 days on item No. 1 would not upset their program.

Mr. McPhillips agreed that 30 days didn't give much time and suggested that Mr. Patterson report back in 90 days to the Sanitary Authority as to what progress has been made.

Mr. Patterson stated that once they have projected the overall program, then item 2 will require more detailed engineering. He did not know how the company would feel in regard to this but the initial program is the one that takes the most time.

Mr. Vogelberger commented that with a few recent exceptions almost all of the $650,000 expenditure that the company has made thus far on pollution control equipment, both air and water, has been done at Union Carbide's initiative. There were instances when complaints were lodged and this was the primary motivation in the installation of this equipment.

Union Carbide

It was MOVED by Mr. Wheeler, seconded by Mr. McPhillips, and carried that the Union Carbide Company be requested to submit by March 1, 1966, a plan and time schedule for an overall air quality control program, that such a program acceptable to the Authority be agreed to by the company by June 30, 1966, and further that construction of the required facilities proceed as soon as feasible under normal construction and installation practices.

Mr. Priestley asked for a definite completion date and suggested no later than June 30, 1967, or perhaps December 31, 1967.

DOUGLAS COUNTY LUMBER COMPANY:

Mr. Amacher asked what had been done about the petition which had been sent to the Sanitary Authority in August regarding the air pollution from the above named company.

Mr. Patterson said that a petition signed by 66 persons in the Winchester area had been received complaining about soot carbon, charcoal cinders and airborne floating materials. Prior to that, as a result of a previous petition received by the Sanitary Authority, a communication was received from the Douglas County Lumber Company to the effect that they were completing construction of holding bins which would enable them to sell materials and not put them in the wigwam waste wood burners. They said that a large part of their problem was caused by bark going through a hogger which caused the fine particles to be emitted to the atmosphere. The company plans to discontinue the use of the hogger. The company also has plans to rebuild the sawmill and will eliminate the remanufacturing plant so that all the materials suitable for chips will be sold and not burned, thereby eliminating the second waste burner.

Mr. Harms asked if the Sanitary Authority could have a report on this situation at its next Board meeting. Mr. Amacher said this would be agreeable to him.

REGISTER OF COMPLAINTS:

The Chairman said that when the Sanitary Authority was first organized many years ago, a register of complaints was kept. Every complaint which came in was recorded and given a number. He would like this system reinstated - one for air pollution and one for water pollution - to see how many complaints come in on any one given infraction.

The Secretary asked if it would be all right to transmit this information to the members of the Authority by putting it in the monthly activity reports.

This was agreeable with the Chairman.

The date of the next meeting was set for February 18, 1966. There being no further business the meeting adjourned at 4:30 p.m.

Respectfully submitted,

Kenneth H. Spies

Kenneth H. Spies
Secretary