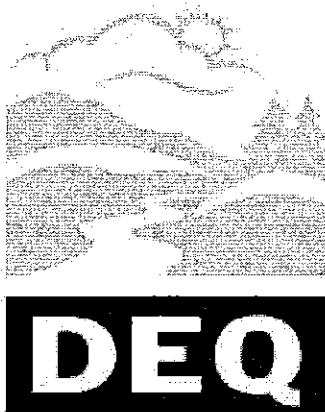


9/27/1968

**OREGON STATE SANITARY  
AUTHORITY MEETING  
MATERIALS**



**State of Oregon  
Department of  
Environmental  
Quality**

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AGENDA

State Sanitary Authority Meeting

10:00 a.m., September 27, 1968

- A. Minutes of previous meetings
  - (1) 129th - July 26, 1968 (Portland)
  - (2) 130th - August 22, 1968 (Klamath Falls)
  - (3) 131st - August 23, 1968 (Medford)
- B. Project Plans for August 1968
- C. Resolution - travel expenses
- D. Proposed Notice of Public Hearing re: Auto Bodies
- E. Status Report - Houseboats Sewage Disposal
- F. Columbia Slough Water Quality Control
- G. Status Report - North Portland Rendering Plants
- H. Proposed Waste Discharges in the Tualatin Basin
- I. Waste Discharge Permits - New Applications and Status Report
- J. Requested Revision of Waste Discharge Permit No. 127 issued to Klamath Plywood
- K. Waste Discharge Permits - Renewals

Domestic:

- (1) Chatnicka Heights
- (2) Holly Hills
- (3) Malin
- (4) Medford
- (5) Mt. Hood Meadows
- (6) Salishan
- (7) West Tualatin View School

Industrial

- (8) Herwin
- (9) Tillamook Veneer

L. Waste Discharge Permits - Domestic

- (1) Cottage Grove
- (2) Garibaldi
- (3) Odell Sanitary District
- (4) Port Orford
- (5) Powers
- (6) Yoncalla

M. Waste Discharge Permits - Industrial

- (1) American Can Company
- (2) Coast Packing Co., Ontario
- (3) Cornucopia Placers
- (4) Merrill Meat Co.
- (5) Oregon Steel Mills - Rivergate
- (6) Ore-Ida Foods
- (7) Sawyers
- (8) Swift & Co.

N. Tax Credit Application

- (1) Oregon Portland Cement Co.

O. Troutdale - Sandy River Pollution Hearing

MINUTES OF THE 132nd MEETING  
of the  
Oregon State Sanitary Authority

The 132nd meeting of the Oregon State Sanitary Authority was called to order by the Chairman at 10:00 a.m., September 27, 1968, in the auditorium of the Public Service Building, 920 S.W. 6th Avenue, Portland, Oregon. Members present were John D. Mosser, Chairman; Edward C. Harms, Jr., Herman P. Meierjurgan and Storrs Waterman.

Mr. B.A. McPhillips was unable to attend because of a previous commitment.

Participating staff members present were: Kenneth H. Spies, Secretary; Arnold B. Silver, Legal Counsel; E.J. Weathersbee, Deputy State Sanitary Engineer; Harold M. Patterson, Harold E. Milliken and Joseph A. Jensen, Assistant Chief Engineers; Harold L. Sawyer, Supervisor, Waste Discharge Permit Program; Edgar R. Lynd, Supervisor, Municipal Waste Treatment Program; Patrick D. Curran, Supervisor, Sewerage Works Plan Review; Fred M. Bolton, James R. Sheetz, and C. Kent Ashbaker, District Engineers; C.A. Ayer, Associate Engineer; and E.A. Schmidt, Fred G. Katzel and Richard Reiter, Assistant District Engineers.

MINUTES

It was MOVED by Mr. Meierjurgan, seconded by Mr. Waterman and carried, that the minutes of the 129th meeting held in Portland on July 26, 1968, the 130th meeting held in Klamath Falls on August 22, 1968, and the 131st meeting held in Medford on August 23, 1968, be approved as prepared by the Secretary.

APPROVAL OF WATER QUALITY STANDARDS

The Chairman announced that Governor McCall had received a letter dated September 13, 1968, from Secretary Udall of the Department of Interior granting federal approval of the water quality standards which had been adopted in June 1967 by the Sanitary Authority for the Klamath River and Goose Lake Basins of southern Oregon. It will be recalled that the Authority's standards for the other river basins of the state were among the first group of standards for interstate waters of the nation that were approved by the Secretary of Interior several months ago.

The only interstate waters in Oregon for which specific water quality standards have not yet been adopted by the Sanitary Authority and approved by the Secretary are those for the Lost River system. In his letter to Governor McCall, Secretary Udall requested that such standards be adopted by June 30, 1969, even though he admits that it will be extremely difficult to do so because of the nature of this particular water system. He offered the assistance of the U.S. Bureau of Reclamation and the Federal Water Pollution Control Administration.

PROJECT PLANS

It was MOVED by Mr. Waterman, seconded by Mr. Meierjorgen and carried, that the actions taken by the staff on the following 45 sets of project plans and reports for water pollution control during the month of August 1968, be approved: (Note: No plans were processed during August by the Air Quality Control Staff.)

Water Pollution Control

<u>Date</u>	<u>Location</u>	<u>Project</u>	<u>Action</u>
8/1	McMinnville	Project 1968-7 sewers	Prov. app.
8/2	Oak Lodge S.D. #1	Creighton Avenue Sewers	Prov. app.
8/2	Brookings	Seacliff Terrace sewers Pump Sta. & water lines	Prov. app.
8/5	Oak Lodge S.D. #1	Thornton Drive sewer ext.	Prov. app.
8/5	Lake Oswego	Chapman Avenue sewer	Prov. app.
8/6	Klamath Falls	Weyerhaeuser-aerated lagoons for hardboard plant wastes	Prov. app.
8/6	Multnomah Co.	A.P. Industrial Park Pump station and STP	Prov. app.
8/6	Lake Oswego	Sewers LID #106	Prov. app.
8/7	Halsey	Secondary treatment for American Can Co.	Prov. app.
8/7	Albany	David Hayes Dev. sewers	Prov. app.
8/8	Deschutes Co.	Sunriver Properties - Meadow Village sewers	Prov. app.
8/9	Monroe	Third St. trunk sewer #1	Prov. app.
8/9	Albany	Sewer ext. serving new high school	Prov. app.
8/9	Springfield	Third Add. to Edwards Estates sewers	Prov. app.
8/12	Clackamas Co.	Predesign report	Approved
8/12	North Bend	Sewer districts 100-66 and 101-66 sewers	Prov. app.
8/12	Lebanon	Sewer laterals and Main R.	Prov. app.
8/13	Springfield	Thurston Elem. Sch. sewer	Prov. app.
8/13	Metzger	Cason & West Lat. sewer	Prov. app.

<u>Date</u>	<u>Location</u>	<u>Project</u>	<u>Action</u>
8/13	Forest Grove	Tualatin Valley Ind. Park sewer	Prov. app.
8/13	Tualatin Hills S.D.	S.W. 62nd Place sewer	Prov. app.
8/13	Forest Grove	Poplar St., SS-40, and Elm Street, SS-42 sewers	Prov. app.
8/14	Oak Lodge S.D. #1	Greenview Estates Unit #2	Prov. app.
8/14	Hillsboro	N.E. 9th Ave. and Sunrise Lane sewers	Prov. app.
8/14	Portland	NW 11th Ave. sewer	Prov. app.
8/14	Portland	Between Hoyt and Lovejoy SW 18th Pl. & S.W. Maplecrest Drive sewers	Prov. app.
8/14	King City	Emerald Heights Subd.	Prov. app.
8/16	White City	Ohlson-Lawyer Lbr. Inc. Recirculation system	Prov. app.
8/16	Portland	McCormick-Baxter facilities for evaporation, concentra- tion and reuse of creosoting wastes	Prov. app.
8/20	Beaverton	Lacust Park sewers	Prov. app.
8/21	Multnomah Co.	Inverness and Ara Vista sewer systems	Prov. app.
8/21	Hood River	Sewers Dist. #5, Div. 1 & 2	Prov. app.
8/22	Portland	N.W. Front, N.W. 26th Ave. & N.W. Yeon Interceptor	Prov. app.
8/26	Portland	Brookside sewer pump sta.	Prov. app.
8/27	Portland	Fremont Drive pump sta.	Prov. app.
8/27	Salem	Iral D. Barrett sewer ext.	Prov. app.
8/28	Linn County	Stuckey's sewage lagoon Halsey Interchange I-5	Prov. app.
8/28	Gresham	Chiaramonte Heights sewers	Prov. app.
8/28	Gresham	S.E. Linden Ave. sewers	Prov. app.
8/28	Lincoln City	Sewers N. Keel Ave. & N. Lee Ave., N. 29th St. and N. 29 Ct. sewers	Prov. app.
8/28	Waldport	Sewers Crestview Hills #3	Prov. app.
8/29	Estacada	Purcell Add. sewer line	Prov. app.
8/29	Beaverton	S.W. Barlow Road Assess. District sewers	Prov. app.
8/29	Oak Lodge S.D.	Sewers Oak Shores Estates	Prov. app.
8/30	Chatnicka Heights	Sewers	Prov. app.

TRAVEL EXPENSES

It was MOVED by Mr. Harms, seconded by Mr. Meierjurgan and carried that the following resolution prepared by Mr. Silver be adopted:

"That the members of the Oregon State Sanitary Authority be reimbursed for their actual and necessary expenses while employed on the business of the Authority or incurred in the performance of official duties, and that expense limitations prescribed by the Department of Finance shall not be applicable."

PROPOSED NOTICE OF PUBLIC HEARING REGARDING AUTO BODIES

Pursuant to instruction given him by the Chairman at the August 23 meeting held in Medford, Mr. Silver presented a proposed notice for a public hearing in the matter of pollution of the Sandy River resulting from the disposal therein of automobile bodies.

The Chairman said that he believes that the placing of car bodies in streams comes under the statutory definition of "pollution" as adopted by the 1967 Legislature. He pointed out that the Legislature has declared it illegal to dump bottles, cans and other trash or debris in or within 100 yards of a stream and he is sure that it was intended that this prohibition include automobile bodies.

It was MOVED by Mr. Harms, seconded by Mr. Waterman and carried that the form of notice prepared by Mr. Silver be approved and that a public hearing before the Sanitary Authority be held in this matter beginning at 2:00 p.m. on Thursday, November 14, 1968, in a location to be determined by the Secretary.

HOUSEBOATS SEWAGE DISPOSAL

A report on the status of compliance by the owners of houseboats in the Portland area with the requirements of ORS 449.140 and 449.150 was presented by E.A. Schmidt, Assistant District Engineer. A copy of his report dated September 27, 1968, has been made a part of the Authority's permanent files in this matter.

According to the report only one moorage with four houseboats was in full compliance by the September 1, 1968 deadline.

Mr. Schmidt reported that during September the staff had inspected 378 houseboats and of this number 161 (43%) had completed the necessary interior plumbing, 18 (5%) had started work on the interior plumbing, and 199 (52%) had made no progress toward installing plumbing, but that approximately 200 (53%) have a solution to the problem of sewage disposal worked out. He said that complaints have already been filed by the Authority's staff with the Multnomah County District Attorney against several houseboat owners who failed to meet the deadline.

Mr. Schmidt recommended that the moorages that have not carried out their agreements to provide approved sewage and waste disposal facilities by September 1, 1968, be cited to appear before the Sanitary Authority.

He also recommended that the owners of houseboats affected by the expansion of the Port of Portland Airport facility be required to install the necessary interior plumbing by March 1, 1969.

After hearing Mr. Schmidt's report, the Chairman said he thought the staff was being too solicitous of the moorage and houseboat owners. He pointed out that they have had at least two extensions in time already and still they have failed to comply with the law and the orders of the Authority. He said further that if they had a good reason for not meeting the deadline they should have asked for another extension. Mr. Meierjurgan said he agreed with the Chairman.

Mr. Schmidt then stated that since his report had been written, two moorage owners had requested extensions. He read a letter from Mr. J.T. Burthchaell owner of the Watery Lane Floating Homes Moorage located near the east end of the Sellwood Bridge. He asked for a 6 months extension. Mr. Harms said he thought 6 months was too long.

The project of the Tomahawk Moorage located on Hayden Island had been delayed because additional area was being filled in and necessitated a change in the design of sewerage facilities in order to serve an enlarged number of houseboats. The owner requested an extension of time until January 15, 1969.

Mr. Schmidt stated that one moorage owner had done nothing although he had agreed to meet the September 1, 1968 deadline.

After further discussion of the matter it was unanimously agreed by the Authority members that no extensions of time would be formally granted to any of the moorage or houseboat owners and that instead the staff would be instructed to exercise discretion in selecting cases to be referred to the District Attorney for legal action. The staff was asked to file as many complaints as time would permit covering those cases that warrant such action. The Chairman said if the number is more than the District Attorney can handle, it might be advisable to ask the assistance of the federal government.

It was MOVED by Mr. Harms, seconded by Mr. Waterman and carried, that the owners of the houseboats affected by the Port of Portland Airport expansion be required, as a condition of the special sewerage policy covering that area, to have their houseboats plumbed and ready to connect to a sewage collection system by March 1, 1969.



PROPOSED WASTE DISCHARGES IN TUALATIN BASIN

Mr. Sawyer reviewed briefly a staff memorandum dated September 27, 1968, regarding two proposed waste discharges in the lower Tualatin River. A copy of said memorandum has been made a part of the Authority's permanent files in this matter. He reported that the two engineering firms of Robert E. Meyer Engineers, Inc. and Stevens, Thompson and Runyan, Inc. had each presented preliminary proposals for construction of small advanced waste treatment facilities in the vicinity of the city of Tualatin and for the purpose of serving two new mobile trailer parks and an existing motor hotel.

Mr. Sawyer pointed out that the Sanitary Authority policy adopted on September 13, 1966, made no provision for such facilities and therefore the policy would have to be revised or amended if permits were to be granted for them.

Mr. Mosser remarked that there were actually more than these two proposals involved because the Aloha Sanitary District and the city of Portland had also made alternate proposals for other projects. He said he thought the Authority should await development of the master plan for the Tualatin Basin before approving any more new or enlarged sewage treatment works projects.

County Commissioner Clayton Nyberg, representing Washington County, spoke next. He complained that he had not had sufficient notice that this matter was to be discussed and, therefore, he asked that before any action be taken by the Authority regarding it, that a full-scale public hearing be held. He also said he objected to the policy adopted by the Sanitary Authority in September 1966. He indicated that in his opinion it discriminated against Washington County. He claimed Washington County has one set of standards and the other counties have a different set of standards.

Mr. Mosser said the ultimate question is whether to provide treatment in place in the basin or transport the wastes out of the basin for treatment.

Mr. Harms attempted to explain to Commissioner Nyberg why this item was on the meeting agenda.

Commissioner Nyberg then suggested that the Sanitary Authority set standards for tertiary treatment plants and permit them to be built in the basin. He admitted that in the past Washington County had not allowed lagoons to be built and that maybe the county would have to change its policy so they could be used for summer holding.

Commissioner Stan Skoko of Clackamas County was the next person to speak on this subject. He said he thought the Sanitary Authority had been too lax in the past and claimed that was the reason for the polluted condition of the lower Tualatin. On the other hand, he commended the Authority for adopting its 1966 policy and recommended that henceforth it be more forcefully enforced. He asked the Authority to "pour it on." He said Clackamas County is very concerned and claimed that the Tualatin River is itself a sewage lagoon.

Lee Gensman, Mayor of Tualatin, stated that if the two proposals submitted by the engineers are approved by the Sanitary Authority, it will permit a substantial increase in commercial development in the city of Tualatin. He questioned the power of the Authority to approve projects on the basis of economics. He claimed the decision should be made solely on the basis of water quality, not economics.

The Chairman pointed out that in recent years most sewage treatment works projects being constructed involve state and federal funds and therefore the Authority has to give consideration to the overall economics. Mr. Gensman said no state or federal funds would be involved in these two projects, but Mr. Mosser reminded him that there undoubtedly would be in the final integrated system.

Mr. Gensman argued emphatically that the proposed projects should be allowed and claimed that if they were not the Authority would be denying economic development of the city of Tualatin.

Mr. Victor A. Bringle, Consulting Engineer, then discussed the Aloha Sanitary District proposal. He said the district is investigating the feasibility of entering into contracts with adjacent municipal corporations for the treatment of their sewage, but before doing so the district needed to know if it would be permitted to enlarge its plant. He described the district's existing sewerage works and said it could serve part of the

city of Beaverton and part of the West Slope Sanitary District. He estimated that 2,000 connections could be diverted from those two systems to the Aloha plant to help relieve temporarily the problem in the Fanno Creek system.

Mr. Mosser commented that the area has been buying sewage treatment capacity on a piecemeal basis for two decades and still does not know where it is going.

Mr. Bringle claimed that the Aloha district has an adequate financial plan to pay for any necessary expansion of its treatment plant. The plan consists of a \$125 connection charge for residents of the district and \$300 for outside connections.

Mr. Weathersbee pointed out that the Aloha sewage treatment plant was considered an interim plant from the very beginning.

Mr. Leonard Helgeson then presented a statement on behalf of the Home Owners League of the Lower Tualatin. He said they support the Authority's policy for protection of the water quality in the Tualatin River. He expressed the opinion that a master plan will not be developed in the basin until or unless maximum economic pressure is applied and maintained. He said the League is opposed to the issuance of waste discharge permits for the two proposed trailer parks.

Mr. Mosser said again that the master plan being prepared by engineers for the Washington County Board of Commissioners will soon be finished and that in the meantime he believes no new permits should be approved.

It was MOVED by Mr. Harms, seconded by Mr. Waterman and carried that the Sanitary Authority reaffirm the policy adopted September 13, 1966, regarding sewage and waste effluents discharged to the Tualatin River system.

Mr. Mosser said the Authority does not want to stifle economic development in the basin, but it must make sure that the problem of sewage disposal will be solved.

The meeting was then recessed at 11:30 a.m. and reconvened at 11:37 a.m.

COLUMBIA SLOUGH WATER QUALITY CONTROL

Mr. Roger Sherwood reviewed the staff report dated July 25, 1968, and entitled "Water Quality Control Program for Columbia Slough," copies of which had previously been sent to the Authority members and to all other interested persons.

Mr. Jack Stiller, Assistant Chief Engineer for the Port of Portland, then presented a prepared statement, a copy of which has been made a part of the Authority's permanent files in this matter. Mr. Stiller said that the Port supports the efforts of the Sanitary Authority to restore and maintain the necessary water quality in Columbia Slough.

It was MOVED by Mr. Meierjurgan, seconded by Mr. Harms and carried that the July 25, 1968, staff report be adopted and that the following recommendations contained therein be approved:

Recommendations

1. In order to realize the highest and best use of Columbia Slough and to accommodate the official area plan for development of the North Portland area including Columbia Slough, it is recommended that the Sanitary Authority adopt a policy aimed at eliminating all waste discharges into the Columbia Slough by July, 1971, excepting clean cooling waters and those inorganic waste discharges that can be made fully acceptable by approved treatment methods to adjust pH and remove suspended solids, color and turbidity and other objectionable features.
2. It is further recommended that this policy be implemented by appropriate conditions and timetables to be included in the waste discharge permits issued to waste dischargers to Columbia Slough.

KLAMATH PLYWOOD - REVISION OF WASTE DISCHARGE PERMIT

A memorandum prepared by Mr. Lloyd O. Cox and dated September 27, 1968, regarding the Klamath Plywood Corporation plant was reviewed by the members.

Mr. Richard Newman, Assistant Plant Engineer, was present and explained the company's actions to provide improved waste treatment and disposal. He said that in March of 1968 they had received a Research and Development grant from FWPCA. Originally the estimated cost of the project was \$30,000 but later it was increased to \$73,000. Now they are considering in-plant changes or controls and anaerobic treatment which they hope will reduce the costs.

Mr. Newman requested that they be given until April 1, 1969 to submit plans and until November 1, 1969 for completion of the project.

In answer to a question by Mr. Waterman, Mr. W.H. Ferry of Columbia Plywood said that the proposed in-plant changes would reduce both the quantity and quality of the plant effluent by 60% by June 1, 1969.

It was MOVED by Mr. Harms, seconded by Mr. Meierjurgan and carried that the following staff recommendation be approved:

That the Waste Discharge Permit for Klamath Plywood Corporation (No. 127) be modified as follows:

1. Change the expiration date to June 30, 1969.
2. Modify condition No. 2 to read as follows:

"Detailed plans and specifications shall be submitted to the Sanitary Authority by not later than February 1, 1969, for providing by not later than June 1, 1969, secondary treatment of the total mill wastes equivalent to at least 85% reduction of BOD and Suspended Solids."

The meeting was then recessed at 12:22 p.m. and reconvened at 1:52 p.m.

#### NORTH PORTLAND RENDERING PLANTS

Mr. Ayer presented a staff report dated September 27, 1968, outlining the status of the following 7 North Portland rendering plants in the matter of odor control: Portland Rendering, Wilbur Ellis, Western States Rendering Co., Pacific Meat, Kenton Packing Co., Brander Meat Co., and Associated Meat Co. A copy of the report has been made a part of the Authority's permanent files in this matter.

Because Mr. George Ward, Consulting Engineer, was unable to appear a representative of his described a venturi scrubber installation which had been proposed for Brander and Associated Meat Co. In response to a question from one of the members, Mr. Walter H. Steele of Brander Meat Company said he estimated the installation could be completed in about 30 days.

In response to questions from Mr. Mosser, Mr. Carl Carlson, representing Mr. Ward, said he thought the process would be equivalent to high temperature incineration, that he was sure they could get proof from other air quality control boards and that it could be installed within 30 days.

Mr. Waterman asked if the city of Portland would accept the liquid effluent in the city sewer system and Mr. Carlson replied he was quite sure it would.

It was disclosed that the flow would be quite substantial, being 110 gpm per jet. For the Brander installation 4 jets would be required. Operation is 8 hours per day.

It was MOVED by Mr. Harms, seconded by Mr. Waterman and carried that the matter of Brander Meat and Associated Meat Companies be referred back to the staff with instructions to take whatever legal action may be necessary to require Brander Meat and Associated Meat Companies to comply with the February 29, 1968, order and the regulations of the Authority provided the plans recently submitted are not acceptable, and, if the staff finds the plans acceptable and the time schedule reasonable, to direct the staff to approve the plans so that installation of the control facilities can be gotten under way.

Mr. Carney Pace of Western States then appeared and requested permission to use manual thermometers as a means of reducing installation cost.

It was MOVED by Mr. Harms, seconded by Mr. Waterman and carried that Western States Rendering and Pacific Meat Companies obtain and keep available temperature indication devices for taking the temperature of their afterburners and that when such devices have been obtained, jurisdiction of these two plants be transferred to Columbia-Willamette Air Pollution Authority for further monitoring and follow up of their operation and maintenance.

It was MOVED by Mr. Mosser, seconded by Mr. Harms and carried that jurisdiction of the Portland Rendering Company and Wilbur Ellis plants be transferred to the Columbia-Willamette Air Pollution Authority.

Jurisdiction over the Kenton Packing Company plant was retained by the Sanitary Authority until performance of its afterburner can be evaluated.

#### WASTE DISCHARGE PERMITS - NEW APPLICATIONS & STATUS REPORTS

Based on a report and recommendations submitted by Mr. Sawyer, the following actions were taken by the members:

It was MOVED by Mr. Harms, seconded by Mr. Waterman and carried that a temporary permit with expiration date of 12/31/68 be issued to Bioproducts, Inc. of Warrenton.

It was MOVED by Mr. Harms, seconded by Mr. Waterman and carried that a temporary permit with expiration date of 12/31/68 be issued to Jefferson Woolen Mills.

It was MOVED by Mr. Harms, seconded by Mr. Meierjurgan and carried that the Authority take no action to extend the present permit or to grant a new permit for the Diamond Lumber Company, and that a notice to that effect be sent by registered mail to said company.

#### WASTE DISCHARGE PERMITS - RENEWALS

Recommended waste discharge permit renewals were presented by Mr. Sawyer and copies have been made a part of the Authority's permanent files regarding the dischargers covered by the following actions:

It was MOVED by Mr. Harms, seconded by Mr. Waterman and carried that waste discharge permit renewals as recommended by the staff be approved for the following 7 domestic sewerage systems: Chatnicka Heights, Holly Hills, Malin, Medford, Mt. Hood Meadows, Salishan and West Tualatin View School.

Comments regarding the Holly Hills project were submitted by Mr. P.D. Curran.

It was MOVED by Mr. Harms, seconded by Mr. Waterman and carried that waste discharge permit renewals as recommended by the staff be approved for the following two industrial plants: Hervin of Tualatin, and Tillamook Veneer.

Comments regarding the Hervin plant were submitted by Mr. Richard Reiter.

#### WASTE DISCHARGE PERMITS - DOMESTIC

Recommended waste discharge permits were presented by Mr. Sawyer and copies have been made a part of the Authority's permanent files regarding the following six domestic sewerage systems: Cottage Grove, Garibaldi, Odell Sanitary District, Port Orford, Powers and Yoncalla.

Mr. Larry L. Rice, City Manager, and Mr. Roger Sinclair, City Engineer, were present and discussed the operation of the new Cottage Grove sewage treatment plant.

It was MOVED by Mr. Harms, seconded by Mr. Waterman and carried that waste discharge permits as recommended by the staff be approved for Cottage Grove, Garibaldi, Odell Sanitary District, Port Orford, Powers and Yoncalla.

WASTE DISCHARGE PERMITS - INDUSTRIAL

Recommended waste discharge permits were presented by Mr. Sawyer for the 8 industrial plants covered by the following action and copies of the same have been made a part of the Authority's permanent files.

Mr. R. Richard Engstrom, representative of GAF Sawyers, Inc., requested a 60-day extension of time for completion of that company's waste disposal system because of the difficulty of obtaining certain stainless steel equipment.

It was MOVED by Mr. Meierjurgan, seconded by Mr. Waterman and carried that waste discharge permits for the following 8 industrial plants be approved as recommended by the staff except that the permit for GAF Sawyers, Inc. be amended by extending the deadline for installation of the sprinkler system until November 30, 1968: American Can Company at Halsey, Coast Packing Co. at Ontario, Cornucopia Placers in Baker County, Merrill Meat Company, Oregon Steel Mills at Rivergate, Ore-Ida Foods at Ontario, GAF Sawyers in Washington County and Swift and Company (Wool Division) in North Portland.

TAX CREDIT APPLICATION

Mr. C.A. Ayer gave the staff report dated September 27, 1968, regarding the Tax Credit Application filed by the Oregon-Portland Cement Company of Lake Oswego, a copy of which has been made a part of the Authority's permanent files in this matter.

It was MOVED by Mr. Harms, seconded by Mr. Waterman and carried that a Pollution Control Facility Tax Credit Certificate be issued to the Oregon-Portland Cement Company in the amount of \$708,781.89.

Mr. Sawyer then presented for consideration by the members a revised tax credit application form. He was advised that if the new form is found by Mr. Silver to be acceptable, it can be used for future applications.



TROUTDALE SEWAGE DISPOSAL

This matter having been heard on April 16, 1968, came before the Authority for final decision at this meeting. Legal Counsel for the Hollingshead Estate was present and objected to the Sanitary Authority's complaint and to the findings of the hearings officer.

It was MOVED by Mr. Mosser, seconded by Mr. Meierjurgan and carried that the findings of the Hearings Officer in this matter be adopted and that the proposed decision contained in those findings be accepted and approved.

It was MOVED further by Mr. Mosser, seconded by Mr. Waterman and carried that the Hollingshead Estate be given 30 days to sign a contract for abatement or be required to vacate the property involved in this matter.


It was MOVED by Mr. Harms, seconded by Mr. Waterman and carried that the proceedings against Robert Dix, Louise Dix and A.W. Bunting be dismissed because of their compliance with Sanitary Authority directives.

SEWAGE TREATMENT WORKS CONSTRUCTION GRANTS

Because the State Emergency Board was unable to allocate sufficient state funds at its meeting on September 20, 1968, to match all of the federal funds available for sewage treatment works construction projects, it was the conclusion of the members that the grants for the Troutdale project should be deferred and that the funds that are available should be used to meet as much of the Hillsboro request as possible.

There being no further business the meeting adjourned at 4:00 p.m.

Respectfully submitted,

  
Kenneth H. Spies  
Secretary

PROJECT PLANS AND REPORTS

The following project plans or reports were received and processed by the Air Quality Control staff during the month of September 1968.

<u>Date</u>	<u>Location</u>	<u>Project</u>	<u>Action</u>
5	Beaverton	Beaverton Intermediate School Dist. # 48 - Incinerator	Cond. Approval
20	Modoc Point	Wigwam Waste Burner	Additional Information Requested

Approved by Sanitary Authority at September 27, 1968 meeting

6	Oswego	Oregon Portland Cement Company Tax Credit Application, \$708,781.89.	Approved
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TO : MEMBERS OF THE SANITARY AUTHORITY

DATE: Sept. 27, 1968

FROM : C. A. Ayer

SUBJECT: North Portland Rendering Plants

This is the status of the North Portland rendering plants as of September 26, 1968.

1. Portland Rendering: Cooking odors are controlled. A scrubber will be ordered for controlling room and carcass breaking odors, which occasionally can be of nuisance strength. Housekeeping is satisfactory.
2. Wilbur Ellis: This plant was tested on August 1. It was concluded that during normal operation (no malfunction of the baghouse and all fresh blood for raw material) controls were adequate.
3. Western States Rendering Co.: An odor incinerator has been installed and placed in operation on September 21. Test firing, training Western States Rendering personnel and adjusting the unit delayed full acceptance by Western States until September 24. An inspection on September 25 disclosed that gas temperatures on "high fire" mode approximately three feet above the burner were 1600°F. At that point, the retention time already is approximately the 0.3 seconds specified in the Sanitary Authority order. This odor incinerator is not able to adequately collect room odors. A housecleaning program, while showing much progress, has not been adequate. During operating hours, there is considerable spillage of raw material (solids and grease) onto the floors of the raw material receiving and cooker loading areas.
4. Pacific Meats: An odor incineration system was placed in operation September 25<sup>th</sup>. An inspection on that date indicated gas temperatures on "high fire" mode were 1700° F. As at Western States, the temperature was measured at a point approximately three feet above the burner; so that the system is capable of operation in compliance with the Sanitary Authority order. A vent in the roof of the rendering room is ducted to the incinerator. The success of this system for controlling room odors is therefore dependent on keeping the room closed. During the inspection, it was noted that there were two open archways to other parts of the plant and windows open to the outside. There are other major sources of odor at this plant associated with the waste water disposal system, namely, the manure screen, lagoon and lagoon discharge.

The Western States and Pacific Meat incinerators have two firing modes, low and high fire. They are started on low fire to prevent damage from thermal shock, then switched to high fire. Their temperatures on low fire are 820° F. at Western States and 400° F. at Pacific Meats, so that using them on that mode cannot be considered adequate treatment. Also, although an opening is provided for a temperature sensing device, none is provided as a part of these units. That such a device be installed is required by OAR 334, Section 25-005, if the Sanitary Authority so specifies.

5. Kenton Packing Co.: An odor incinerator has been installed and, according to the engineer, performed satisfactorily when test fired. Further tests and operator training will be completed and the burner turned over to the company next week. At that time, it will be inspected by the Authority staff.
6. Brander Meat Co.: This company has been waiting for some time for a test on one grade of cattle before signing a contract with Portland Rendering Co. The company indicated, in June, that it would install a system for odor incineration similar to the one installed at Kenton. In the last few days, the company has received a proposal from another consulting engineer for a system not using an incinerator. Staff review of those plans has not been completed, pending submission of evidence that the system would be equally effective as incineration.
7. Associated Meat: A system similar to the one proposed for Brander has been proposed for Associated. This Company also has stated its intention of signing a contract with Portland Rendering, and tests have been completed as a basis for the contract.

CONCLUSIONS:

- a. Wilbur-Ellis is controlled as long as they process only fresh blood and maintain their equipment in good working order.
- b. When Portland Rendering installs a room air scrubber, its last odor problem will be solved.
- c. The odor incinerators at Western States and Pacific Meats conform to the Sanitary Authority order. Satisfactory performance depends on proper operation. Western States still has a serious housekeeping problem.
- d. Brander and Associated have not controlled their rendering odors. In part this delay was caused by engineering problems, in that they had (informally) declared their intention of using the same system as has been installed at Kenton Packing.

RECOMMENDATIONS:

1. Jurisdiction over Portland Rendering Co., Wilbur-Ellis, Western States and Pacific Meats be transferred to the Columbia-Willamette Air Pollution Authority, because the follow-up on operation and maintenance, and in the case of Western States the housekeeping can be pursued adequately by that agency.
2. The Sanitary Authority specify, according to OAR 334, Sec. 25-005, that Western States and Pacific Meats install and maintain in calibration devices for indicating the temperatures in the stacks of their burners.
3. The staff be directed to commence injunction proceedings against Brander Meat Co. and Associated Meat Co. to compel them to comply with the Sanitary Authority order of February 29, 1968.

## STAFF REPORT

TO : MEMBERS OF THE STATE SANITARY AUTHORITY Dated: August 23, 1968

John D. Mosser, Chairman  
E. C. Harms, Jr., Member  
Storrs Waterman, Member

Herman Meierjurgan, Member  
B. A. McPhillips, Member

FROM : AIR QUALITY CONTROL STAFF

SUBJECT: TIMBER PRODUCTS COMPANY, MEDFORD, OREGON

### 1.0 BACKGROUND

Timber Products Co. is located on McAndrews Road at the northwest perimeter of the downtown Medford residential and commercial area. The plant has undergone a major operational change since August of 1967, which was the approximate time of a change in ownership. Previously owned by Cyprus Mines Corporation, the plant was reportedly sold to Wilford H. Gonyea of Springfield, and Jay Pritzker of Chicago. Under the new ownership, the plant now operates primarily in the production of particleboard and veneer. The sawmill has been dismantled and sold, but the plywood lay-up plant is intact but not in operation. Currently, a major expansion is evident in the particleboard phase of the operation.

The major sources of air pollution from this plant have been (1) smoke and fallout from the wigwam waste burner, (2) wind-blown particulate from the open chip storage area, and (3) open burning of plant residues in an area immediately northwest of the log pond. In response to staff requests, the practice of open burning has recently been terminated.

### 2.0 HISTORY

In chronological order, the following is a brief of our records concerning air pollution generated by Timber Products Co.

April 6, 1965. Letter, Leo Baton to Timber Products Co. regarding complaints of open burning and of smoke emissions from the wigwam burner.

April 19, 1965. Reply from R. K. Hood, Resident Manager, Timber Products Co. advising that the open burning of accumulated wood residues had been completed, and requesting forbearance on the wigwam burner problem pending completion of construction of a multi-million dollar particleboard plant, which together with their wood waste boilers were expected to eventually eliminate need for the wigwam burner.

February 14, 1966. Staff wigwam burner survey. Report included, "very small fire in very large burner. Normal operation approximately 390°, much smoke. Difficult fuel introduced with excessive conveying air."

March 22, 1966. Letter, staff to Robert Hood, Resident Manager, pointed out difficulty in attaining acceptable discharge levels, even though burner constructed in accordance with regulations, due to small quantity of refuse and its introduction by air conveying methods. Use of an alternate method of disposal was requested, such as incineration in a refractory lined incinerator equipped with an afterburner. It was stated that devices which have a potential for creating an air pollution problem should be submitted to the staff for approval before installation.

April 25, 1966. Staff survey. Heavy smoke from wigwam burner observed. Open storage of fine wood waste material observed as undoubtedly the source of complaints received from the neighborhood.

April 25, 1966. Reply to staff letter of March 22nd from R. K. Hood, Resident Manager, agreed with conclusions regarding difficulty of burning air conveyed fines. Advised of plans to use sander dust as fuel in particleboard dryer currently fired by natural gas, of contracts to sell all excess bark not needed for boiler fuel, of installation of a new chipper for utilization of waste wood in particleboard process, and of hope for converting the wigwam burner to a fuel storage vault.

December 5, 1966. Staff memo from Leo Baton advised of numerous complaints of sander dust fallout in the adjacent commercial and residential area. It appeared to be coming both from the wigwam burner and from the open storage area.

July 25, 1967. Staff memo (Leo Baton) advised of heavy smoke from the wigwam burner and of complaints of fallout, including an auto body paint shop located across McAndrews Road from the plant.

August 5, 1967. Letter, Mrs. R. E. Gray to Governor Tom McCall, complained of soot and ashes from the wigwam burner, stating it was "the worst summer ever".

August 9, 1967. Letter, staff to R. K. Hood, advised of continued complaints from Medford residents regarding emissions from the wigwam burner and requested comment regarding the analysis and suggestions included in the staff letter of March 22, 1966. It was noted that plans for utilization had not ended the problem as assured in Timber Products letter of April 25, 1966.

August 10, 1967. Letter, Governor McCall to Mrs. R. E. Gray, advising of Sanitary Authority concurrence that little or no improvement had been made despite assurances from the mill and that a concerted effort was underway to induce the mill to develop an alternative method of incineration or disposal.

August 11, 1967. Letter from Timber Products Co., advised of efforts to improve burner efficiency by use of a natural gas burner to ignite sander dust introduced into the wigwam burner, but agreeing that a wigwam burner is not an efficient disposal method. It was suggested that the staff meet with them to discuss alternative disposal methods, and to explain "the Cyclo-Tube" burner manufactured in Portland. Hope was expressed that the heat generated in an incinerator could be used for drying fibers for the particleboard plant.

August 31, 1967. The plant was shut down at midnight after having been sold to Wilford H. Gonyea and J. A. Pritzker.

September 7, 1967. Plant operations were resumed on a limited basis, with Mr. William Smith of Eugene as its new interim manager.

April 4, 1968. Staff memo, regarding conference with Glenn Nelson, Superintendent. Mr. Nelson reported the mill then functioning only as a particleboard plant, the burner receiving only a minor quantity of sander dust and occasional yard clean-up material, that there was a swampy sight nearby which could be used for the disposal of the yard and pond clean-up materials, and that CH<sub>2</sub>M was currently developing plans for using the sander dust in the<sup>2</sup> particleboard dryers. Mr. Nelson also reported that they had been unable to secure a definite date from CH<sub>2</sub>M pending an evaluation of a pilot installation in some other plant. Mr. Nelson was advised of a violation of regulations governing smoke discharge and that he might expect a letter requesting a definite date for termination of the use of the wigwam burner.

April 9, 1968. Letter to Timber Products Co. confirming the April 4<sup>th</sup> conversations, suggesting that the land fill would offer an alternative solution to both the clean-up and sander dust problems, and requesting a reply by April 15<sup>th</sup> advising of a schedule for early as possible termination of the use of the wigwam burner.

April 15, 1968. Letter from Timber Products Co. stating that they would be able to give a definite date for termination of the burner only after installation of the sander dust burners in the particleboard dryers, and that disposal of the sander dust in the land fill was considered impractical due to the possibility of its being carried away by water or by the wind.

April 25, 1968. Letter to Timber Products Co. in reply to their's of April 15<sup>th</sup>, expressing disappointment that nothing definite had been offered regarding a solution to the wigwam burner problem, pointing out that this was a problem of long standing, and enclosing a copy of PHS Publication No. 1012 which delineates the correct methods for constructing a land fill to preclude the material from becoming air-borne or water-borne. It was also pointed out that under Oregon Statutes, it is the responsibility of the person responsible for complying with Standards to develop the method and means for meeting the state Standards, and that the choice of method remains with the violator. It was again urged that Timber Products respond to our request for a definite plan and schedule for accomplishing compliance.

June 13, 1968. Letter to Timber Products Co. from Leo L. Baton, confirming conversations with Mr. William Smith on June 11<sup>th</sup>, relative to complaints of smoke and sawdust from the wigwam burner and the open storage area, pointing out the problem of fine materials being wind-blown to the adjacent properties from the truck unloading facility, and requesting cooperation in providing effective control to alleviate these problems.

May 9, 1968. Letter to Timber Products Co. advising that considerable open burning had been observed in a refuse dump to the northwest of their log pond within one mile of the Medford city limits, enclosing a copy of the Oregon Administrative Rules pertaining, and requesting that the fires be extinguished and that suitable precautions be taken to preclude a repetition.

June 27, 1968. Staff memo, reporting continued open burning with a smoke reading of Ringelmann #5 continuous.

July 3, 1968. Letter to Glenn F. Nelson, Plant Superintendent (registered mail) stating that we had not yet received a reply to our letter of April 25 regarding the wigwam waste burner problem, advising of continuing observations of excessive smoke discharge, and requesting an acknowledgment and reply by July 15.

July 3, 1968. Letter to Glenn F. Nelson, Plant Superintendent (registered mail) advising of continuing observations of open burning, again requesting that the practice be terminated, and requesting an acknowledgment by July 15 advising of the steps being taken to assure termination of open burning and of the alternative method of refuse disposal being utilized.

July 3, 1968. Letter to Mr. William Smith, General Manager, Timber Products Co. advising that fallout from the particleboard material storage facility has been the subject to continuing complaints, re-emphasizing the need for correction of the wigwam burner and open burning problems, and advising that each of the three problems constitutes a violation of OAR pertaining to air pollution. Copies of the applicable statutes and administrative rules were enclosed.

July 15, 1968. Letter from Mr. Thomas E. Brownhill of Riddlesbarger, Pederson, Brownhill and Young, Attorneys at Law, Eugene, stating that as attorney for Timber Products Co., he had been requested to answer our letter of July 3rd addressed to Mr. William Smith. Mr. Brownhill stated that Timber Products plans to install a mechanical shield or deflector at the storage facility and to plant trees in the immediate vicinity of the storage facility and also along the road, and that a definite date for completion of the mechanical shield would be possible upon completion of its design.

Regarding the wigwam burner, Mr. Brownhill advised that Timber Products had retained Wyatt and Kipper Engineering of Seattle, and Peabody Engineering of New York to prepare plans and methods for burning the sander dust in the particleboard dryer, and that upon completion of the plans and the necessary mechanical changes, the use of the wigwam burner for burning sander dust would be discontinued.

The open burning, it was stated, had been terminated.



July 31, 1968. Letter to Mr. Thomas E. Brownhill, Attorney, requesting the following information:

1. By August 10: A proposed alternative to incineration of sander dust in the wigwam burner as an interim measure pending completion of an installation for its use in the particleboard dryer, together with a schedule for activation of the interim method and termination of the use of the wigwam burner.
2. By August 15: A schedule for the design, purchasing, construction, start-up and check-out of the facilities necessary for burning sander dust in the particleboard dryer; this schedule to show the estimated completion date for each stage of the program, subject to adjustment as progress of the work would allow determination of more definite dates.
3. By August 15: A detailed description of the methods (such as mechanical shield or deflector) proposed as means of correcting the problem of fallout from the storage facility, and a schedule covering their design, purchasing, construction, activation and check-out.

Copies of previous correspondence were enclosed, and copies of Oregon Statutes and Administrative Rules pertaining.

As of August 16, we had received no reply to the above letter.

August 7, 1968. Letter to Mr. William Smith, General Manager, advising him of new complaints received by the Medford District Office, alleging air pollution from the deposition of particles of sawdust from Timber Products Co., and a letter dated August 3 complaining of very fine sawdust allegedly from a new sawdust loader.

### 3.0 SUMMARY

There are currently two sources of complaint attributed to Timber Products Company: Smoke and fallout from the wigwam waste burner and fallout from the open wood residue storage area.

#### 3.1 THE WIGWAM BURNER PROBLEM

The wigwam burner has been a source of complaint since 1965. During this period there has been little change in the burner, its method of operation, or the quantity or type of residues delivered to it. Both the Authority staff and mill management have consistently agreed that the basic problem has always been one of a small quantity of fuel in a large burner, the fuel consisting primarily of air-conveyed fines.

Plant management has, since 1965, contended that the problem could and would be solved by use of the sander dust in particleboard driers. During that time, disposition of most coarse residues has been taken care of by chipping, and by the sale and utilization of bark as boiler fuel. Currently, it appears that the only coarse residues reaching the burner are plant and yard clean-up materials, and the fine residues consisting almost entirely of sander dust. The industry's current proposal is to dispose of the coarse residues by landfill on their own property and to utilize the sander dust in particleboard driers. They state that engineering firms have been retained to prepare plans for the sander dust fueled driers.

Because only an alternative method for the disposition of sander dust is now needed to terminate use of the wigwam burner, the staff has suggested that the landfill be used for the disposal of both the fine and coarse residues, pending the design and installation of sander dust fueled particleboard driers. Other possibilities are a refractory incinerator correctly designed for the suspension burning of wood fines, as suggested in our March 1966 letter to Timber Products, or the adaptation of a "Cyclo-Tube" type of primary burner to the wigwam burner as suggested in Timber Products Company's letter of August 1967.

Staff activity since April 4, 1968 on the wigwam burner problem has consisted of one conference and six letters, the last of which requested a proposed schedule for the design, construction and activation of the particleboard driers, and a proposed method and schedule for interim disposal of sander dust and phase-out of the waste burner. This information was requested by August 15<sup>th</sup>. It has not been received.

### 3.1.1 Recommendation

The staff proposes the following schedules for adoption.

	<u>Design</u>	<u>Purchase</u>	<u>Deliver</u>	<u>Install</u>
Particleboard driers, by	10/15/68	11/1/68	3/1/69	4/1/69
Wigwam burner alternative, by	9/6/68	9/10/68	9/27/68	10/7/68

### 3.1 THE OPEN STORAGE FACILITY

Staff investigations of complaints of fallout attributed to the open storage facility date from April 1966. Recent complaints indicate that the problem has become more intense within the past few weeks.

On June 11, 1968, District Engineer Leo Baton discussed the problem with Mr. William Smith, plant manager, requesting cooperation in providing effective control. Since that time, Mr. Smith has been advised of continuing complaints.

In reply, we have received a letter from Mr. Thomas Brownhill, attorney, stating that Timber Products plans to install a "mechanical shield or deflector" at the storage facility and to plant trees in the immediate vicinity and along the road. No details or schedules were provided.

On July 31, we wrote to Mr. Brownhill requesting that we be provided with a detailed description of the proposed methods and a schedule for their design, purchasing, construction, activation and check-out. This information was requested by August 15. No reply has been received.

### 3.2.1 Recommendation

The staff proposes that by September 13, Timber Products be required to submit a preliminary description and sketches of the proposed corrective measures to the Authority for review, together with a tentative schedule for their detailed design, construction and activation, and that the subject be continued for consideration at the September meeting of the Authority.

# WIGWAM WASTE BURNER PROGRESS EVALUATION

	J	F	M	A	M	J	J	A	S	O	N	D
FUEL QUANTITY												
FUEL CHARACTERISTIC												
UNDERFIRE AIR SYSTEM												
OVERFIRE AIR SYSTEM												
BURNER SHELL												
FUEL INTRODUCTION												
CORRECT ADJUSTMENT												
ADEQUATE MAINTENANCE												
OVERALL EVALUATION												
OPACITY (RINGELMANN)												

REMARKS:

FIRM NAME    TIMBER PRODUCTS CO.  
 LOCATION    Medford, Oregon

SMOKE SOURCE TIMBER PRODUCTS WWWB

ADDRESS \_\_\_\_\_

CITY MEDFORD

DATE	TIME	0	1/4	1/2	3/4	DATE	TIME	0	1/4	1/2	3/4
29 Aug	10:12			3		30 Aug	10:58	5			
	10:14	3					11:00	5			
	10:16				2		11:02	5			
	10:18	3					11:04	5			
	10:20			3			11:06	5			
	10:22	4		3			11:08	5			
	10:24	<del>5</del>			3	PK 6 18, 15, P-2X	11:10	5			
	10:26	5					11:12	5			
	10:28	3					11:14	5			
	10:30	4					11:16	5			
	10:32			3			11:18	5			
	10:34			3			11:20	5			
Wind 26 mph	10:36	5					11:22	5			
	10:38	5					11:24	5			
	10:40	5					11:26	5			
PK 18 15, 15	10:42	5					11:28	5			
PK 5	10:44	5					11:30	5			
PK 6	10:46	5					11:32	5			
	10:48	5					11:34	5			
	10:50	5					11:36	5			

Point of Observation

POWELL LANE & SAGE ROAD

Distance to stack 500 ft

Direction of stack ~ STRAIGHT UP BOTH DATES

Direction of wind WNW

Velocity of wind 0-3 mph

Equiv. No. 1 Units

..... Units No. ....

..... Units No. ....

..... Units No. ....

..... Units No. ....

..... Units No. ....

..... Units No. ....

..... Units No. ....

..... Units No. ....

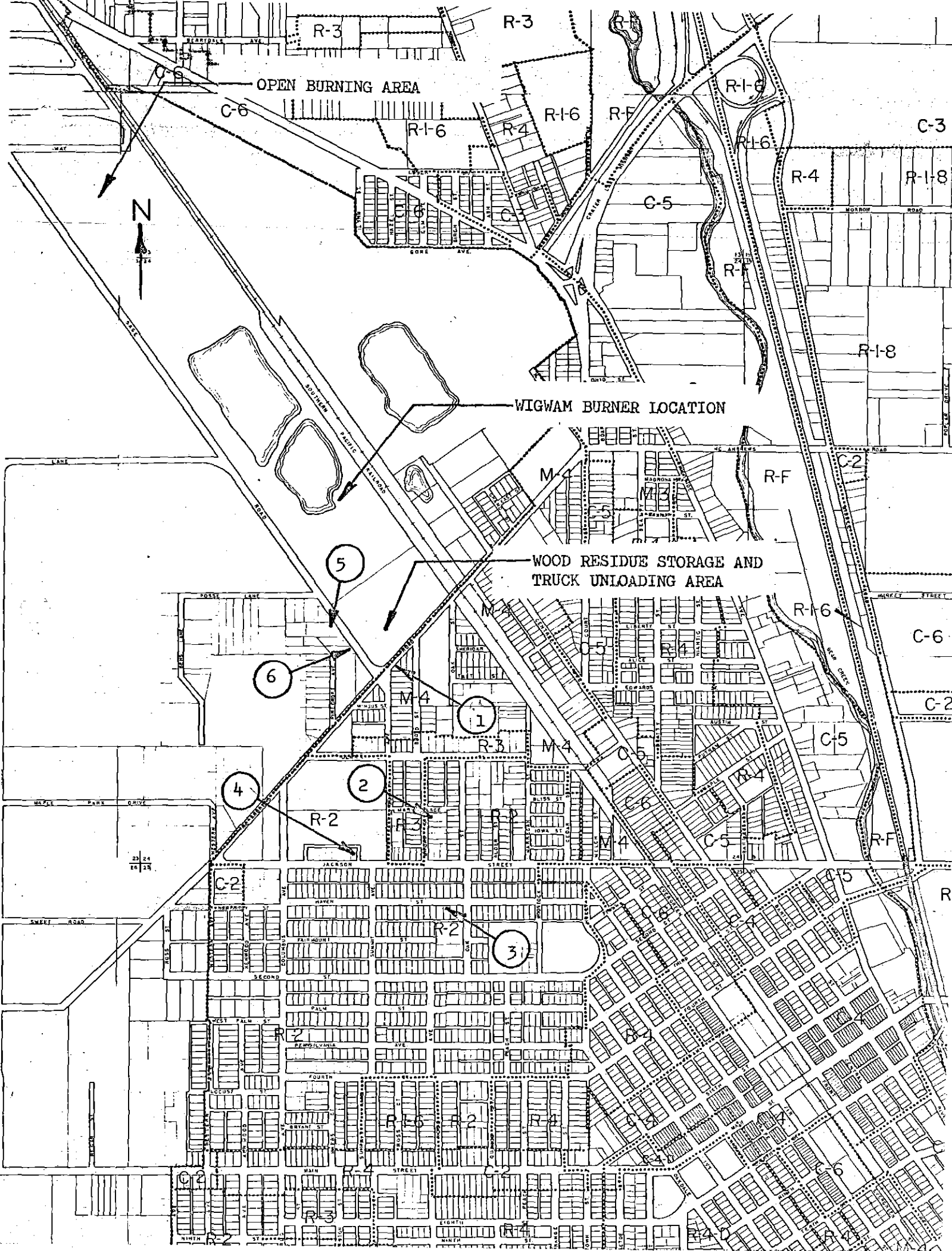
..... Units No. ....

..... Smoke Density

Observer C. A. Ayer

Checked by \_\_\_\_\_

Smoke density unit numbers determined by procedure outlined in the U.S. Bureau of Mines Informational Circular 6888.



OPEN BURNING AREA

WIGWAM BURNER LOCATION

WOOD RESIDUE STORAGE AND TRUCK UNLOADING AREA



20  
24  
28  
32

5

6

4

2

1

3

R-3

R-3

R-1-6

R-1-6

R-4

R-1-6

C-3

R-4

R-1-8

C-5

R-1-8

M-4

R-F

C-2

C-6

C-2

R-1-6

R

R-2

M-4

R-3

C-6

C-5

R-F

C-2

R-2

R-5

R-2

R-1-6

R-2

R-4

R-6

R-6

R-2

R-3

R-4

R-4

R-6

R-6

R-6

R-6

R-2

R-3

R-4

R-4

R-6

R-6

R-6

R-6

PARTICLE FALLOUT RATE  
(Tons per square mile per month)

Sample Site	Sample Period	Background Rate <sup>1</sup>	Allowable Rate <sup>2</sup>	Sample Rate
#1	8-28 to 8-30	10	25	149
#1	8-28 to 9-17	10	25	44
#2	8-28 to 9-17	10	25	34
#3	8-28 to 9-17	10	25	27
#4	8-28 to 9-17	10	25	23
#5	8-28 to 9-17	10	25	208
#1	9-17 to 9-19	10	25	84
#1	9-17 to 10-7	10	25	48
#2	9-17 to 10-7	10	25	33
#3	9-17 to 10-7	10	25	29
#4	9-17 to 10-7	10	25	26
#5	9-17 to 10-7	10	25	185
#1	10-7 to 10-9	10	25	117

1. Airport value of 7-23 to 9-5. Highest value measured at airport last 12 months was 11.
2. Background value plus 15 ton/mile<sup>2</sup>/month per Oregon Administrative Rules, Chapter 334, Section 21-016.

SUSPENDED PARTICULATE CONCENTRATION  
(Micrograms per cubic meter)

Sample Site	Sample Period	Background Rate <sup>3</sup>	Allowable Rate <sup>4</sup>	Sample Rate
#1 (ground)	8-28 to 8-29			1210
#1 (ground)	8-29 to 8-30	84	234	875
#1 "	9-4 to 9-5			605
#1 "	9-9 to 9-10			3100
#1 "	9-10 to 9-11			1450
#1 "	9-17 to 9-18	72	222	910
#6 "	9-17 P.M.	72	222	343
#1 (Roof)	9-18 to 9-19	42	192	387
#1 (Ground)	9-18 to 9-19	42	192	200
#1 (Roof)	10-7 to 10-8			888
#1 (Roof)	10-8 A.M. to P.M.	113	263	705
#1 (Roof)	10-9 A.M.	298	448	468

3. Airport value taken during sample period.
4. Background value plus 150 micrograms per cubic meter per Oregon Administrative Rules, Chapter 334, Section 21-021.