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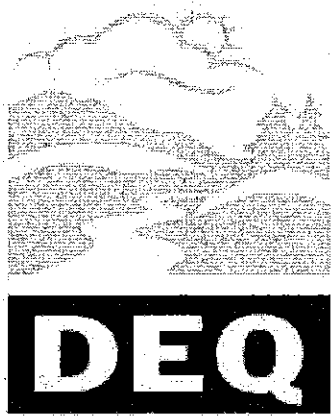
OREGON STATE SANITARY AUTHORITY MEETING MATERIALS



State of Oregon
Department of Environmental Quality

AGENDA

State Sanitary Authority Meeting

10:00 a.m., June 28, 1968

Room 36, State Office Building, Portland

A. Minutes of May 24, 1968, Meeting

B. Project Plans - May 1968

C. 1967-69 Budget

D. Northwest Aluminum Company - Warrenton
   (1) Proposals for air and water pollution control
   (2) Waste discharge permit

E. Federal Grant Applications for Fiscal Year 1969 (PL 84-660)

F. Rex Mobile Homes, McMinnville (AQC)

G. White City Plywood, McMinnville (AQC)

H. North Portland Rendering Plants (AQC)

I. Columbia-Willamette Air Pollution Authority Regulations

J. State Grants for Regional Air Pollution Authorities
   (1) Columbia-Willamette Air Pollution Authority
   (2) Lane Regional Air Pollution Authority

K. Oregon-Washington Air Quality Committee Report No. 1 Recommendations

L. Shady Vista Mobile Park Performance Bond

M. Evans Products, Corvallis (Status Report)

N. Wah Chang Corporation, Albany (Status Report)

O. Tax Credit Applications
   (1) Crawford & Doherty Foundry Co. - T-37
   (2) Borden Chemical Co. - T-26
   (3) Glen P. Ireland-Dairyfolks Holstein Farm - T-34
   (4) Albert Ebner-Mt. Angel Meat Co. - T-43

P. Temporary Waste Discharge Permits
   (1) New Applications
   (2) Extension of existing temporary permits

Q. Waste Discharge Permits - Renewals and Revisions
   (1) Multnomah County - Fanno Creek
   (2) Reedsport
   (3) Klamath Tallow Company
   (4) Mill City

R. Waste Discharge Permits - New Installations
   (1) John Layton Bullock
   (2) Bruce Berndt

S. Waste Discharge Permits - Domestic - Group I
   (1) Portland - Columbia Boulevard Plant
   (2) St. Helens
   (3) North Bend
   (4) Port of Portland
   (5) Oregon City
   (6) Lebanon
   (7) Philomath

T. Waste Discharge Permits - Domestic - Group II
   (1) The Dalles
   (2) Weston
   (3) Waldport
   (4) Sutherlin
   (5) Gold Beach
   (6) South Umpqua Public Schools No. 19 -
       South Umpqua High School

U. Waste Discharge Permits - Domestic - Group III
   (1) Southwood Park Sanitary District
   (2) Eugene Public Schools -
       Twin Oaks Elementary School
   (3) West Tualatin View School
   (4) Millersburg School Dist. #32
   (5) D & R Development Company -
       Mt. Hood Golf Club Terrace

V. Waste Discharge Permits - Industrial - Group I
   (1) Mt. Angel Meat Company
   (2) Hamel's Slaughterhouse
   (3) Stayton Canning Company Coop. - Dayton
   (4) West Foods, Inc.
   (5) Prine Oil Company
   (6) Abiqua Rock Products
   (7) Northwest Organic Products, Inc.
   (8) The Hervin Company
   (9) Stayton Canning Company Coop. - Stayton

W. Waste Discharge Permits - Industrial - Group II
   (1) Winchester Plywood Company
   (2) Douglas Fir Plywood Company - Coquille
   (3) Douglas Fir Plywood Company - Dillard
   (4) Douglas Fir Plywood Company - Dixonville
   (5) Roseburg Lumber Company - Dillard
   (6) Roseburg Lumber Company - Green District

X. Waste Discharge Permits - Industrial - Group III
   (1) U.S. Plywood-Champion Papers, Inc. - Dee
   (2) U.S. Plywood-Champion Papers, Inc. - Lebanon
   (3) Klamath Lumber Company
   (4) Cascade Construction Company
   (5) Diamond Lumber Company
   (6) Tillamook Veneer Company

Y. Hot Mix Asphalt Plant Regulations

MINUTES OF THE 128th MEETING

of the

Oregon State Sanitary Authority

The 128th meeting of the Oregon State Sanitary Authority was called to order by the Chairman at 10:05 a.m., June 28, 1968, in Room 36, State Office Building, Portland, Oregon. Members present were John D. Mosser, Chairman; B.A. McPhillips, Edward C. Harms, Jr., Herman P. Meierjurgen and Storrs Waterman.

Participating staff members present were: Kenneth H. Spies, Secretary; Arnold B. Silver, Legal Counsel; E.J. Weathersbee, Deputy State Sanitary Engineer; Harold M. Patterson and Harold E. Milliken, Assistant Chief Engineers; Dr. Warren C. Westgarth, Laboratory Director; Fred M. Bolton, Harold W. Merryman, Leo L. Baton, James R. Sheetz and C. Kent Ashbaker, District Engineers; Harold L. Sawyer, Supervisor, Waste Discharge Permit Program; Lloyd O. Cox, Supervisor, Industrial Waste Control Program; F.A. Skirvin, A.D. Nunamaker and C.A. Ayer, Associate Sanitary Engineers; and Fred G. Katzel, E.A. Schmidt and Richard Reiter, Assistant District Engineers.

The Chairman announced that Mr. Waterman had been reappointed by Governor McCall as member of the Sanitary Authority.

MINUTES

It was MOVED by Mr. Harms, seconded by Mr. McPhillips, and carried that the minutes of the 127th meeting held May 24, 1968, be approved as prepared.

PROJECT PLANS

It was MOVED by Mr. Harms, seconded by Mr. Waterman, and carried that the actions taken by the staff on the following 25 sets of project plans and reports for water pollution control and 7 projects for air quality control for the month of May 1968 be approved:

Water Pollution Control

Date	Location	Project	Action
5/2/68	Pixieland Rec. Park	Sewage Treatment Plant	Prov. app.
5/3/68	White City S.D.	Chlorine contact tank enlarge.	Prov. app.
5/7/68	Beaverton	So. Pacific Co.- sewer	Prov. app.
5/7/68	Wolf Creek Job Corp.	Sewage treat. plant rept.	Prov. app.

Date	Location	Project	Action
5/7/68	Lane Community Coll.	Goshen, Seavey Loop Area Report	Approved
5/9/68	Hargraves Moorage	Houseboat septic tank	Prov. app.
5/9/68	Maxwell Marina	Houseboat septic tank	Prov. app.
5/9/68	Tyee Yacht Club	Houseboat septic tank	Prov. app.
5/10/68	Green S.D.	Chlorination facilities	Prov. app.
5/21/68	Wilsonville	STP for River Village Mobile Homes	Prov. app.
5/22/68	Eugene	Sewers and pump station near River Road and Silver Lane	Prov. app.
5/22/68	Portland	Addition to Sewage treat. plant	Prov. app.
5/23/68	Oak Lodge SD #1	Raintree Terrace sewers	Prov. app.
5/23/68	Oak Lodge SD #2	Laterals 2A-7-7-1 Ext. of 2A-7-7	Prov. app.
5/27/68	Multnomah County	Tualatin Hts. Serv. Dist. #3 sewers	Prov. app.
5/27/68	Aloha San. Dist.	Laterals A-2-2, A 2-2-A, A 2-2-B	Prov. app.
5/27/68	Progress San. Dist.	Sewer at Progress Interchange (Eliander sewer)	Prov. app.
5/27/68	Gresham	CourseView Terrace #2	Prov. app.
5/29/68	Klamath Falls	Domestic sewage lagoon Weyerhaeuser Timber Co.	Prov. app.
5/29/68	Twin Rocks S.D.	Sewerage system and sewage treatment plant	Prov. app.
5/29/68	Salishan	Sewage treatment plant add.	Prov. app.
5/29/68	Woodburn	Pump station-Senior Estates	Prov. app.
5/31/68	Gresham	Aspen Highlands Unit 6	Prov. app.
5/31/68	Sherwood	Gleneagle Plat #2	Prov. app.
5/31/68	Portland	S.W. Woods St. sewer	Prov. app.

Air Quality Control

Date	Location	Project	Action
5/20/68	Portland	Kenton Pkg. Co.- Odor Control System	Cond. app.
5/21/68	Portland	Columbia-Willamette Air Poll. Authority Federal Grant Appl. No. 667 for $225,000	Approved
5/22/68	Halsey	American Can Co.- Recovery Furnaces, Precipitators, Lime kiln, Venturi Scrubbers, Non-condensible System	Cond. app.
5/24/68	Portland	Pacific Steel Foundry Credit Appli- cation (T-20) Hood, Ducts, Fans and Baghouse, $51,124.57	Approved
5/24/68	Springfield	Weyerhaeuser Co. Tax Credit Appl.- (T-25) Weak Black Liquor Oxid. Additions $9,908	Approved
5/31/68	Portland	Western States Rendering Co. Odor Control System	Cond. app.
5/31/68	Portland	Pacific Meat Co. - Odor Control System	Cond. app.

NORTHWEST ALUMINUM COMPANY

The Chairman stated that copies of the Authority's staff report on the plans of the Northwest Aluminum Company to control air and water pollution at the aluminum plant which the company proposes to build at Warrenton, Oregon, had been mailed on June 14, 1968, to interested agencies and persons for their review and comment.

A copy of the staff report, dated May 29, 1968, and the recommended waste discharge permit conditions have been made a part of the Authority's permanent files in this matter.

The Secretary then read three letters which had been received commenting on the report and which have been made a part of the Authority's permanent files in this matter. The first one, dated June 21, 1968, was from James P. Behlke, Acting Director, Washington Water Pollution Control Commission, Olympia, Washington; the second one, dated June 24, 1968, was from C.E. Hodges, General Manager, the Port of Astoria, Astoria, Oregon; and the third, also dated June 24, was from James M. Witt, Executive Secretary, Oregon State University Environmental Health Sciences Center, Corvallis, Oregon. All three letters approved of the staff's recommendations. The only other comment was by Mr. Witt. In his letter he recommended that, in addition to the comprehensive monitoring that will be performed with regard to atmospheric emissions, some consideration might be given to similar monitoring or long-term biological studies of possible effects of the liquid effluents to be discharged by the plant.

Mr. Clifford B. Alterman, Attorney for Northwest Aluminum Company, announced that Mr. Richard E. Peck, Executive Vice-President, was present and would be pleased to answer any questions the Authority members might have regarding the proposed project. He said further that the company accepted the recommendations of the Authority's staff and pledges itself to live up to and to follow the requirements of the Authority.

Mr. Harms commended the company for its cooperative attitude.

In answer to a question by Mr. Waterman the Secretary stated that no comments had been received from the Washington Air Pollution Control Commission.

The Chairman then asked if anyone in the audience wished to make a statement regarding either the company's proposal, the Authority's staff report or the proposed waste discharge permit conditions. There being

no one who wished to make a statement, the Chairman next suggested that the staff discuss with the company and Oregon State University the matter of possible long-term monitoring of effects of the liquid effluents.

It was MOVED by Mr. McPhillips, seconded by Mr. Waterman, and carried that the Authority's staff report be approved, the recommendations contained therein regarding air and water quality control be adopted, and a waste discharge permit be issued as proposed by the staff.

FEDERAL AND STATE GRANTS

A staff memorandum dated June 28, 1968, and prepared by Mr. Milliken regarding construction grants had been submitted to the members in advance of the meeting. It covered 42 applications for fiscal year 1969 requesting a total of $13,576,150 in federal grants and $6,560,257 in state grants for projects having a total estimated construction cost of $30,290,322. With the two hold-over projects for Albany and Portland, the total grant requests are $15,108,520 in federal funds and $7,170,096 in state funds. It is anticipated that the funds available will be not more than $2,508,200 for federal grants and only $976,346 for state grants.

The Chairman commented that this represents one of the major problems facing the Sanitary Authority. He said if only those projects that can be financed with state and federal assistance are built, it will mean that not more than 4 or 5 million dollars out of 30 million dollars worth of projects will be built in the coming year. He said further that the Authority had anticipated this situation and some time ago had warned all the local communities that they must be prepared to finance 100% of their project costs because the Authority cannot delay water pollution control until sometime in the future when the manna flows from Washington, D.C. and from Salem.

He also stated that the Authority is greatly concerned about the element of injustice that exists in this program where some local communities spend only 20 or 25% of their own funds and others have to spend 100%. He said that the Authority will seek legislation to try to eliminate this inequity.

Because the members and staff of the Authority are already heavily burdened and also because they need some outside assistance, the Chairman announced the formation of a special committee under the Chairmanship of Mr. Herb Hardy, attorney, to draft a program for this purpose. The League of Oregon Cities, Association of Oregon Counties, Associated Oregon Industries and the general public will be represented on the committee and asked to draft first a program for more adequate and equitable financial assistance in the water pollution field; second, tighter requirements in air quality control; and third, to draft a bill for a legislative interim committee study of land use and industry location so that air and water pollution and related problems can be avoided as much as possible. He expressed grave doubts that the Sanitary Authority would or should be the agency to administer any such state-wide zoning or industrial location program.

To help finance construction of water and possibly air pollution control projects, a state bond issue was suggested by the Chairman as a possibility.

The members then reviewed the alternative plans for assigning priorities for receipt of the limited state and federal funds expected to be available in FY '69. Mr. Harms reiterated the tremendous excess of requests over available funds.

Mr. Carl E. Green, Consulting Engineer, discussed the proposed sewerage works project for the city of Warrenton and outlined its needs for financial assistance. He said the project will cost an estimated $880,000. The city has voted and sold $400,000 in bonds. They are ready to advertise for construction bids in two weeks. The city has no public sewers at the present time.

Mayor Glen E. Otto of Troutdale discussed that city's project and financial needs. They have voter approval of $215,000 in bonds for a project estimated to cost $658,000. The project has been approved by CRAG and can serve a large area outside of the city of Troutdale, including Wood Village and the Edgefield Center of Multnomah County. Mr. Les Wierson, Consulting Engineer, also discussed the Troutdale project.

The Chairman then pointed out that consideration is presently being given to revising the priority point system used by the Sanitary Authority for the construction grant program. It is planned to give more emphasis to the amount of local effort previously made, to the amount of grant funds received by the applicant in the past, and the degree of integration of the proposed project with any area-wide project.

Following further discussion, it was MOVED by Mr. Mosser, seconded by Mr. Harms and carried that grants to Albany (#215), Portland (#212), Jefferson (#199), Malin (#213) and Tigard (#236) be confirmed and that the staff be asked to review with the cities of Hillsboro and Troutdale the possibility of any breakdown in their projects which would permit the issuance of state and federal grants to get both projects started.

The meeting was then recessed at 10:50 a.m. and reconvened at 11:00 a.m.

NORTH PORTLAND RENDERING PLANTS

Mrs. Lucy Halter of 7325 N. Chautauqua, Portland, and representative of the St. Johns Citizens for Clean Air Committee, appeared and read a prepared statement which claimed that odors were again being caused by the rendering plants located along Columbia Slough. She asked that the odor nuisance be abated immediately.

Mr. C.A. Ayer presented a brief staff report which outlined the findings of his several recent area and plant surveys and the status of the various companies' efforts to control their atmospheric emissions. He also presented a map which showed the location of the complaints which had been received by the Authority.

Copies of Mrs. Halter's statement and Mr. Ayer's report have been made a part of the Authority's permanent files in this matter.

The Chairman asked if the odors were better or worse than last year and if it were possible to tell where the odors originate. Mr. Ayer replied that he had made several inspections during the evening when the people claim that the odors are the worst.

A lady from the audience said the odors start about 5 or 6 p.m. She could not tell if they were worse or better than last year, but said they were bad enough.

Mrs. Halter said she lives at least one mile from the plants and at her place the odors are real strong.

The Chairman said he is not in favor of having the Brander and Associated Meat plants wait until after the Kenton Company had installed and tested the effectiveness of its proposed control facilities. He said all the plants should install the controls at the same time and without delay. Mr. Ayer said he did not think odors from the Associated Meat plant reached the residential area.

Mr. George Ward, Engineering Consultant for Associated Meat and Brander, then described the conditions within all the plants that he had inspected. He discussed the problems of controlling the odors and said the plants do not yet have a solution to the total problem. He explained what he had recommended to his clients which included immediate improvements in housekeeping.

The Chairman asked how long it would take to carry out Mr. Ward's recommendations. Mr. Ward replied the housekeeping improvements could be done in a week.

Mrs. Halter claimed that Western States had done nothing to solve its problem. This was later denied by Mr. C.R. Pace, company representative.

There was then a discussion of the capacity of the various plants. Mr. N.P. Wood of the Portland Rendering Company said his plant has more capacity than it is now using, and that it could handle the loads from Kenton, Brander and Associated Meat and maybe from Western States, although he was not too sure about the latter. The Portland Rendering Company plant was reported by Mr. Ayer and Mr. Ward to have adequate controls in operation.

After a discussion with Mr. Pace about the activities of Western States to provide effective controls, it was MOVED by Mr. Meierjurgen, seconded by Mr. Harms and carried that the June 1 deadline previously established by the Authority for the North Portland rendering plants not be extended, and that further offense by any of the plants be considered for prosecution.

Mr. Silver inquired if it should be criminal or civil action and the Chairman replied civil injunction.

SHADY VISTA MOBILE PARK PERFORMANCE BOND

Mr. Eugene Smith, 2920 Park Terrace, Albany, appeared before the Authority and stated that he wished to build a mobile trailer park at Shady Cove in Jackson County but was unable to post the required performance bond because under the law it had to be a perpetual bond. In reply to a question he said he would be renting space rather than selling lots and therefore the development would always remain under one ownership and management.

A staff report prepared by Mr. A.D. Nunamaker and a copy of the staff's recommended waste discharge permit conditions have been made a part of the Authority's permanent files regarding this matter.

The Chairman asked Mr. Smith if he could get a bond for one year and Mr. Smith replied that he thought he could.

It was then MOVED by Mr. Mosser, seconded by Mr. Harms and carried that a waste discharge permit as recommended by the staff be granted for the Shady Vista Mobile Park, that it expire on June 30, 1969, and that it be subject to the posting of a one-year bond.

CRAWFORD & DOHERTY FOUNDRY COMPANY TAX CREDIT APPLICATION

Mr. Kenneth M. Judd, President of Crawford & Doherty Foundry Company, being present the tax credit application, T-37, for said company was reviewed next by the Authority members. A copy of the staff report pertaining to the application has been made a part of the Authority's permanent files. In reply to a question from the Authority, Mr. Judd stated that the installation covered by the application had not resulted in any increase in plant capacity and that in fact it was slightly less.

It was MOVED by Mr. Harms, seconded by Mr. McPhillips, and carried that a Pollution Control Facility Tax Credit Certificate bearing the actual cost figure of $91,954.58 be issued for the Crawford & Doherty Foundry Company.

The meeting was then recessed at 12:00 noon and reconvened at 1:25 p.m.

NORTH BEND WASTE DISCHARGE PERMIT

Mayor Lyle Chappell of North Bend was present and read a prepared statement regarding the city's proposed waste discharge permit. He contended that the city should be given more time in which to complete the interception of all sewage and wastes.

Mr. John F. Isadore, City Manager, was also present. He claimed that another city in the area by-passes five times as much raw sewage as the city of North Bend discharges to the bay, that 95 percent of the city is served by public sewers, and that some 9,000 people in unincorporated communities are contributing to pollution in Coos Bay.

The Chairman instructed the staff to check on the latter claim. He also thanked the Mayor for his statement and commented on the problem of financing.

In response to comments by Mr. Isadore the Chairman stated that dischargers who do not meet their permit deadlines will be in trouble with the Sanitary Authority.

It was MOVED by Mr. Harms, seconded by Mr. Waterman, and carried that a waste discharge permit be issued for the city of North Bend as per the staff recommendations. A copy of the latter has been made a part of the Authority's permanent files in this matter.

ST. HELENS WASTE DISCHARGE PERMIT

There being several persons present regarding sewage disposal for the city of St. Helens, the matter of a waste discharge permit for this city was taken up next.

Mr. Gerald D. Peterson, resident and property owner of the Railroad Addition of the city of St. Helens, presented a copy of a petition that had been submitted to the city council asking for the installation of city sewers in said Addition. The petition allegedly had been signed by 57 property owners. Mr. Peterson stated that owners of at least 40% of the 306 lots in the Addition are in favor of the requested sewer construction.

It was pointed out that because of the rock formations sewer construction in St. Helens is very expensive. Mr. Peterson reported that the city had recently increased its sewer user charges by 25 cents to help finance sewers in the Railroad Addition and another 25 cents for financing secondary treatment. The total charge is now $1.75 per month.

The Chairman questioned the legality of the Authority's prohibiting any further sewer construction until the Railroad Addition is sewered.

Mr. Robert Jackman, Columbia County Sanitarian, stressed the importance of installing sewers in the Railroad Addition and thought they should be installed before other extensions are made, even though the latter would not use city funds that might be applied toward the Railroad Addition project.

Fred Katzel discussed the staff policy regarding sewer construction in St. Helens.

There was no one present to represent the city council.

It was MOVED by Mr. Mosser, seconded by Mr. Harms, and carried that the temporary permit for the city of St. Helens be extended until July 31, 1968, and that the city be advised that a proposed condition of its regular permit will require the installation of sewers in the Railroad Addition by December 31, 1969, that a time schedule for financing and contract letting will be required as check points on progress being made, and that construction of other sewer projects would be authorized only on prior approval of the Sanitary Authority and a showing that such construction would not delay or interfere with the financing or work on the Railroad Addition sewers.

FANNO CREEK SEWAGE TREATMENT PLANT

Mr. Harold Sawyer presented a staff report regarding the present operating condition of the recently enlarged Fanno Creek sewage treatment plant. He reported that recent studies by the Authority's staff disclosed that the plant is still not up to the required degree of efficiency and that as a consequence the downstream waters of Fanno Creek are grossly polluted by the plant's effluent. He also presented a complaint dated June 26, 1968, and bearing signatures representing 48 adjacent residents or property owners.

Copies of the report, a recommended waste discharge permit and the complaint have been made a part of the Authority's permanent files in this matter.

Dr. Joseph Hart of 10993 S.W. North Dakota Avenue, Tigard, was present and testified that residents complain of nausea and headaches caused by the objectionable odors emanating from the polluted creek below the sewage treatment plant. He said the creek should be part of a green belt but at the present time was too polluted.

Mr. Robert Nordlander, Director of Public Works for Multnomah County - owner of the Fanno Creek sewage treatment plant, discussed briefly the improvements that had been made in the plant in recent months. He said that the plant is presently loaded to 75 percent of its design capacity, that the improved digesters have been in use only about two weeks, and that more time is needed to get the plant operating at proper efficiency.

Mr. Marvin Runyan, Consulting Engineer, discussed the design capacity of the enlarged plant. He said the original plant was designed for a population of 15,000 and a flow of 2.25 million gallons per day. In 1965 the plant was serving 5,200 connections or an estimated 15,600 persons. The present plant was designed for 30,000 persons and currently serves 7,700 connections or an estimated 24,000 persons. He said the digesters have been the major problem and as reported by Mr. Nordlander they have been in operation only about two weeks after having been renovated. He also stated that because of infiltration into some of the sewers served by the plant the flow on occasion exceeds the 2.25 mgd design flow. It was 4.1 mgd early in June.

The Chairman asked what the county would think about a requirement that no more new connections be made to the sewer system until the plant's operating problems are solved. Mr. Nordlander replied that it would be a hardship on many people who presently have new homes under construction.

Mr. Bill Robinson of 10315 S.W. Scholls Road, a farmer who has a 300-acre farm along the downstream waters of Fanno Creek, said that the polluted condition of the creek was detrimental to his agricultural operations and a hazard to his cattle. He claimed that he had lost two head of cattle last summer which might have been due to the polluted water. Because of the pollution he cannot use the creek to irrigate truck garden crops. He said on occasion in the past there had been foam 10 to 15 feet high in the creek.

The Chairman pointed out that riparian property owners could sue for damages caused by pollution.

In response to an inquiry for the second time by the Chairman, Mr. Nordlander requested that an additional 60 days be granted to allow time to get the plant operating properly.

It was then MOVED by Mr. Mosser, seconded by Mr. Waterman, and carried that a waste discharge permit with conditions recommended by the staff be issued for a period to expire August 31, 1968, and that between now and then no new sewer connections be made. Mr. Harms voted against the motion.

CASCADE CONSTRUCTION COMPANY

Mr. E.A. Schmidt presented the staff's recommendations for a waste discharge permit for the Cascade Construction Company of Portland. Mr. Conway, representative of the company, was present but had no comments to make. Because of his association with this company, the Chairman did not participate in the discussion or vote on the following motion.

It was MOVED by Mr. Harms, seconded by Mr. Waterman and carried that a waste discharge permit for the Cascade Construction Company be issued according to the staff recommendations.

U.S. PLYWOOD CORPORATION

Mr. Lloyd Cox presented the staff's recommendations for waste discharge permits for the U.S. Plywood Corporation plants at Dee and Lebanon. Mr. A.M. Drake was present to represent the company but had no objections to make.

It was MOVED by Mr. Harms, seconded by Mr. Waterman and carried that waste discharge permits for the U.S. Plywood Corporation plants at Dee and Lebanon be granted according to staff recommendations.

DIAMOND LUMBER COMPANY AND TILLAMOOK VENEER

Mr. Fred Katzel presented the staff's recommendations for waste discharge permits for the Diamond Lumber Company and Tillamook Veneer operations in Tillamook County.

It was MOVED by Mr. Waterman, seconded by Mr. McPhillips, and carried that the waste discharge permits for these two plants be approved according to the recommendations of the staff.

CITY OF PORTLAND

Mr. Norman Drulard, City Engineer, was present to represent the city of Portland. He had no comments except to inquire about the staff's reaction to the city's letter of June 13, 1968. He was informed that the staff had not changed its original recommendation of December 31, 1969, as the deadline for interception and treatment of all waste flows originating in the city.

It was MOVED by Mr. McPhillips, seconded by Mr. Harms, and carried that a waste discharge permit be issued the city of Portland as per the staff's recommendations.

A copy of the latter has been made a part of the Authority's permanent files.

EVANS PRODUCTS COMPANY, CORVALLIS

Mr. Lloyd Cox presented a staff report on the present status of the program of the Evans Products Company to install required waste treatment works. He said that construction was under way but probably would not be entirely completed by the deadline established in the company's waste discharge permit.

The Chairman said he was not inclined to extend the deadline.

It was MOVED by Mr. Mosser, seconded by Mr. Meierjurgen and carried that no enforcement be instituted before the end of July, but that the company be notified that the deadline will not be extended and unless conditions are favorable the permit may not be renewed.

WAH CHANG ALBANY CORPORATION

Mr. Lloyd Cox presented a staff report on the present status of the program of the Wah Chang Albany Corporation to provide adequate treatment or otherwise reduce the toxicity of its waste effluents being discharged into Truax Creek. The company's engineers, CH_2M, had submitted their preliminary report as required by the waste discharge permit issued earlier by the Authority.

The staff and members were not in favor of direct discharge of the plant effluent to the Willamette River. There was considerable discussion regarding the alternative proposal to dispose of the toxic waste components by deep well injection.

The Secretary informed the members that the staff had requested the FWPCA through the Pacific Northwest Water Laboratory at Corvallis to make a study of the feasibility of disposing of toxic industrial wastes in Oregon by deep well injection.

No action was taken by the Authority members at this meeting regarding the Wah Chang Albany Corporation waste disposal problem.

The meeting was recessed at 3:15 p.m. and reconvened at 3:32 p.m.

1967-1969 BUDGET

The Secretary reviewed briefly a memorandum dated June 28, 1968, that he had prepared regarding the status of the present biennial budget as affected by the June 14, 1968 action of the State Emergency Board.

The Chairman commented that he did not think the Emergency Board intended to cripple the programs of the Authority which is what would happen if federal funds are to be used to supplant state funds. He suggested that the Secretary work through the Department of Finance and make the fact known that the recent action by the Emergency Board, if not changed, will definitely not help the state's water pollution control program.

REX MOBILE HOMES

A brief staff report on the air pollution problem caused by the operation of this manufacturing plant at McMinnville was presented by Mr. Patterson. He reported that this matter is now under the jurisdiction of the Mid-Willamette Air Pollution Authority.

WHITE CITY PLYWOOD COMPANY, McMINNVILLE

A brief staff report on the air pollution problem caused by this plant at McMinnville was also presented by Mr. Patterson. This plant's operation, the same as Rex Mobile Homes, is likewise now under the jurisdiction of the Mid-Willamette Air Pollution Authority. That agency, according to Mr. Patterson, is proceeding to abate both sources of air pollution.

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY REGULATIONS

Mr. Patterson reported that the staff had reviewed Rule 2 adopted recently by the Columbia-Willamette Air Pollution Authority and had found that the standards contained therein pertaining to (a) visible emissions, (b) particle fallout and suspended particulates and (c) emission standard for particulates are as restrictive as or more restrictive than the standards of the State Sanitary Authority, and, therefore, are acceptable to the staff. He questioned, however, the definition of "objectionable odor" contained in said Rule.

Because copies of the Rule had not been furnished in advance of the meeting to the Authority members, it was first decided to defer action on this matter until July but after a presentation by Mr. Jack Lowe, representative of the Regional Authority, it was MOVED by Mr. Harms, seconded by Mr. McPhillips and carried that based upon the representation made by Mr. Lowe and the studies of the staff, the standards of the Columbia-Willamette Regional Air Pollution Authority as contained in Rule 2 be approved.

Following adoption of the motion Mr. Harms also voiced objection to the definition of "objectionable odor" as contained in the rule.

STATE GRANTS FOR REGIONAL AIR POLLUTION AUTHORITIES

Because the applications from both the Columbia-Willamette and the Mid-Willamette Regional Air Pollution Authorities did not contain adequate or up-to-date supporting data, action on said applications for state program grants was deferred until the July meeting of the Authority.

OREGON-WASHINGTON AIR QUALITY COMMITTEE REPORT NO. 1

In a report dated June 28, 1968, Mr. Patterson requested that the Authority approve the recommendations contained in Report No. 1 prepared by the Oregon-Washington Interstate Air Quality Committee.

Following a brief discussion of the activities of said committee, it was MOVED by Mr. Mosser, seconded by Mr. Harms, and carried that Recommendation I - Sampling Station Criteria, Recommendation II - Measurement and Analyses Procedures and Recommendation III - Data Reporting Procedure be adopted.

The Chairman then commented about the Air Quality Control Program's monthly reports and suggested that one or two sampling stations per month be discussed more in detail so that a better understanding could be gained regarding the status of pollution control.

TAX CREDIT APPLICATIONS

Mr. Harold Sawyer presented memorandum reports dated June 28, 1968, regarding the following three tax credit applications. These reports and their supporting documents have been made a part of the Authority's permanent files in this matter.

After reviewing the applications the actions as indicated below were taken regarding them.

1. Application T-43 (Albert Ebner-Mt. Angel Meat Co.)
   It was MOVED by Mr. Harms, seconded by Mr. Waterman, and carried that the Albert Ebner-Mt. Angel Meat Co. be issued a Pollution Control Facility Tax Credit Certificate in the amount of $12,824.41.
2. Application T-26 (Borden Chemical Co., Springfield)
   It was MOVED by Mr. Mosser, seconded by Mr. Harms, and carried that the Borden Chemical Company of Springfield be issued a Pollution Control Facility Tax Credit Certificate in the amount of $3,732.69.

3. Application T-34 (Glen P. Ireland-Dairyfolks Holstein Farm, Forest Grove)

It was MOVED by Mr. Mosser, seconded by Mr. Harms, and carried that the Glen P. Ireland-Dairyfolks Holstein Farm be issued a Pollution Control Facility Tax Credit Certificate in the amount of $3,112.83.

TEMPORARY WASTE DISCHARGE PERMITS

Following the review of two memorandum reports dated June 28, 1968, and presented by Mr. Harold Sawyer regarding new applications received since the May 24 meeting and regarding extension of expiration date of certain existing temporary permits, both of which have been made a part of the Authority's permanent files in this matter, the following actions were taken:

It was MOVED by Mr. Harms, seconded by Mr. Waterman, and carried that temporary waste discharge permits with expiration date of December 31, 1968, be issued to the following seven applicants:

Interstate Meats, Inc., Clackamas
J.H. Baxter & Co., Eugene
Newbry Orchards, Ashland
The Dalles Cherry Growers, The Dalles
Flynn Sand & Gravel Co., Ontario
Rogue Bay Cannery, Wedderburn
Bohemia Lumber Co., Culp Creek

It was MOVED by Mr. Mosser, seconded by Mr. Waterman, and carried that the temporary permits for Wood Village and Edgefield Center (Multnomah County) be extended to July 31, 1968.

It was MOVED by Mr. Mosser, seconded by Mr. Harms, and carried that the expiration date for the 197 temporary permits listed in Mr. Sawyer's June 28 memorandum be extended to December 31, 1968.

WASTE DISCHARGE PERMITS

Memorandum reports containing recommended waste discharge permit conditions were submitted to the members in advance of the meeting by Mr. Harold Sawyer and copies of the same have been made a part of the Authority's permanent files regarding the 36 applicants covered by the following actions:

It was MOVED by Mr. Mosser, seconded by Mr. Harms, and carried that waste discharge permits as recommended by the staff be issued for the new installations of John Layton Bullock (Rock Island Constructors, Inc., Columbia County) and Bruce Berndt (domestic water supply filtration plant, Columbia County).

It was MOVED by Mr. Mosser, seconded by Mr. Harms, and carried that waste discharge permits as recommended by the staff be issued for Reedsport, Klamath Tallow Company and Mill City with the exception that the expiration date for Mill City be changed to July 1, 1971.

It was MOVED by Mr. Harms, seconded by Mr. Mosser, and carried that waste discharge permits as recommended by the staff be issued for the Port of Portland, Oregon City, Lebanon and Philomath with the exception that for the Port of Portland the deadline for submission of a program be changed to July 1, 1969 and the expiration date be changed to December 31, 1969.

It was MOVED by Mr. Waterman, seconded by Mr. McPhillips, and carried that waste discharge permits as recommended by the staff be issued for the Southwood Park Sanitary District, Twin Oaks Elementary School (Eugene), West Tualatin View School (Washington County), Millersburg School (Linn County) and Mt. Hood Golf Club Terrace (D & R Development Company).

It was MOVED by Mr. Mosser, seconded by Mr. Meierjurgen, and carried that waste discharge permits as recommended by the staff be issued for The Dalles, Weston, Waldport, Sutherlin, Gold Beach and South Umpqua High School with the exception that for Waldport and Gold Beach the deadline for submission of a program be changed to July 1, 1969, and the expiration date be changed to December 31, 1969.

It was MOVED by Mr. Mosser, seconded by Mr. Waterman, and carried that waste discharge permits as recommended by the staff be issued for the following 9 industries: Mt. Angel Meat Company, Hamel's Slaughterhouse (Yamhill County), Stayton Canning Company Coop. (Dayton), West Foods, Inc. (Salem), Prine Oil Company (Salem), Abiqua Rock Products (Marion County), Northwest Organic Products, Inc. (Donald), The Hervin Company (Tualatin), and Stayton Canning Company Coop. (Stayton).

It was MOVED by Mr. Harms, seconded by Mr. Waterman, and carried that waste discharge permits as recommended by the staff be issued for the following 6 industrial plants: Winchester Plywood (Douglas County), Douglas Fir Plywood Company (Coquille), Douglas Fir Plywood Company (Dillard), Douglas Fir Plywood Company (Dixonville), Roseburg Lumber Co. (Dillard) and Roseburg Lumber Company (Green District).

It was MOVED by Mr. Mosser, seconded by Mr. Harms, and carried that a waste discharge permit as recommended by the staff be issued the Klamath Lumber Company.

HOT MIX ASPHALT PLANT REGULATIONS

Mr. Silver reported that the hearings officer had not yet completed his report of the hearing held on June 19, 1968, and therefore action on the proposed regulations for hot mix asphalt plants would have to be deferred until the July meeting of the Authority.

CENTRAL OREGON SEWAGE DISPOSAL

The Secretary reported that copies of the report covering the FWPCA study of the practice of disposing of sewage by discharge into subterranean lava formations in Central Oregon are now available for distribution. It was concluded by the members that a meeting of the Authority should be held in the Bend area sometime in October to consider this matter further.

There being no other business, the meeting adjourned at 4:48 p.m.

Respectfully submitted,

Kenneth H. Spies

Kenneth H. Spies
Secretary

The following 25 sets of project plans and reports were reviewed and the action taken as indicated by the Water Pollution Control Section for the month of May 1968.

Date	Location	Project	Action
5/2/68	Pixieland Recreational Park	Sewage Treatment Plant	Prov. app.
5/3/68	White City S.D.	Chlorine Contact tank enlargement	Prov. app.
5/7/68	Beaverton	So. Pacific Co.-sewer	Prov. app.
5/7/68	Wolf Creek Job Corp	Sewage treat. plant rept..	Prov. app.
5/7/68	Lane Community College	Goshen, Seavey Loop Area Report	Approved
5/9/68	Hargraves Moorage	Houseboat septic tank	Prov. app.
5/9/68	Maxwell Marina	Houseboat septic tank	Prov. app.
5/9/68	Tyee Yacht Club	Houseboat septic tank	Prov. app.
5/10/68	Green S.D.	Chlorination facilities	Prov. app.
5/21/68	Wilsonville	STP for River Village Mobile Homes	Prov. app.
5/22	Eugene	Sewers and pump station near River Road and Silver Lane	Prov. app.
5/22/68	Portland	Addition to Sewage treatment plant	Prov. app.
5/23	Oak Lodge SD #1	Raintree Terrace sewers	Prov. app.
5/23/68	Oak Lodge SD #2	Laterals 2A-7-7-1 Ext. of 2A-7-7	Prov. app.
5/27/68	Multnomah County	Tualatin Hts. Serv. Dist. #3 sewers	Prov. app.
5/27/68	Aloha San. Dist.	Laterals A-2-2, A 2-2-A A 2-2-B	Prov. app.
5/27/68	Progress San.Dist.	Sewer at Progress Interchange (Eliander sewer)	Prov. app.
5/27/68	Gresham	CourseView Terrace #2	Prov. app.

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Date	Location	Project	Action
5/29/68	Klamath Falls	Domestic sewage lagoon Weyerhaeuser Timber Co.	Prov. app.
5/29/68	Twin Rocks S.D.	Sewerage system and sewage treatment plant	Prov. app.
5/29/68	Salishan	Sewage treatment plant additions	Prov. app.
5/29/68	Woodburn	Pump station-Senior Estates	Prov. app.
5/31/68	Gresham	Aspen Highlands Unit 6	Prov. app.
5/31/68	Sherwood	Gleneagle Plat #2	Prov. app.
5/31/68	Portland	S.W. Woods St. sewer	Prov. app.

PROJECT PLANS AND REPORTS

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

Date	Location	Project	Action
20	Portland	Kenton Packing Company - Odor Control System	Cond. Appr.
21	Portland	Columbia-Willamette Air Pollution Authority Federal Grant Application No. 667 for $225,000	Approved
22	Halsey	American Can Company -Recovery Furnaces, Precipitators, Lime kiln, Venturi Scrubbers, Noncondensible System.	Cond. Appr.
24	Portland	Pacific Steel Foundry Credit Application (T-20) Hood, Ducts, Fans & Baghouse, $51,124.57	Approved
24	Springfield	Weyerhaeuser Company Tax Credit Application - (T-25) Weak Black Liquor Oxidation Additions, $9,908.	Approved
31	Portland	Western States Rendering Company Odor Control System.	Cond. Appr.
31	Portland	Pacific Meat Company - Odor Control System	Cond. Appr.
April			
26	Albany	Western Kraft Corporation Tax Credit Application (T-10) Oxidation Tower, $55,591.87	Approved
26	Albany	Western Kraft Corporation Tax Credit Application (T-11) Recording Instrument for No. 1 and 2 Recovery Furnaces, $6,516.92	Approved
26	Albany	Western Kraft Corporation Tax Credit Application (T-12) Gas Chromatograph, $2,979.62	Approved
26	Springfield	Weyerhaeuser Company Tax Credit Application (T-19), Gas Chromatograph, $6,849.00	Approved

Memorandum

To : Sanitary Authority Members

From : Kenneth H. Spies

Date : June 28, 1968

Subject: Budget

As previously reported to you the Emergency Board on June 14, 1968, voted to increase our limitation for expenditure of federal funds for this biennium but to use the increase to supplant state funds. This will have the effect of reducing our budget by $78,925 which includes a reduction of $41,325 in air quality control and $37,600 in water pollution control.

Based on an analysis of our expenditures to-date, it is estimated that for fiscal year 1968 (July 1, 1967 - June 30, 1968) the expenditures will be:

	General Fund	Federal Fund	Total
AQC	168,300	37,600	205,900
WPC	218,500	80,500	299,000
Totals	386,800	118,100	504,900

The amounts we had previously budgeted for this year were:

	General Fund	Federal Fund	Total
AQC	182,397	60,948	243,345
WPC	233,042	85,483	318,525
Totals	415,439	146,431	561,870

With the $78,925 reduction it is estimated that the funds available to finance the Sanitary Authority activities for FY 1969 will be as follows:

General Fund	351,325
Federal Fund	169,321
Total	520,646

This will permit continuation of the program at the current level but will require that the six positions that presently are unfilled will have to remain vacant. There is also a likely possibility that if the $41,325 has to be used to supplant state funds the federal government would withdraw not only that amount but an additional $24,951 so we would be short another $66,276. This would require a considerable reduction in the present staff and level of activities.

Ord through Dept Thereof

OREGON STATE SANITARY AUTHORITY

Staff Report

on

Proposed Northwest Aluminum Plant
at Warrenton, Oregon

May 29, 1968

PROPOSED PLANT

Northwest Aluminum Company, a subsidiary of Bell Intercontinental Corp., has proposed to construct and operate an aluminum plant on an 800 acre site adjacent to the southeastern section of Warrenton, Oregon. The plant will have two pot lines with a rated capacity to produce 130,000 tons of aluminum annually in ingot form and thereby become the largest aluminum production facility in Oregon.

The plant will process bauxite ore, which will be shipped from Weipa, Queensland, Australia at the rate of about 50,000 tons per month. The large bulk ore carriers will be unloaded at a company owned dock to be built at the confluence of the Skipanon and Columbia Rivers. The ore will be transported to the plant site, a distance of two miles, from an ore storage area near the dock by an enclosed conveyor system. At the site, the ore will be processed in the alumina plant which will separate the alumina (Al_2O_3) and the ore residue, red mud, using the Bayer process. About four tons of ore will be required to produce two tons of alumina, which in turn will produce about one ton of aluminum metal. The alumina plant is tentatively proposed to begin operation about September, 1969.

The reduction plant consisting of two potlines for a total of 464 pots will convert the alumina to metallic aluminum using the usual Hall-Heroult Process. Large pre-baked anodes in conjunction with other sophisticated features make the pot design unique. The pots will normally operate on about 100,000 amperes at a potential of 4 to 4½ volts. Such power requirements are common in newer installations. Operation of the reduction plant is scheduled to commence during the first quarter of 1970.

An anode plant will fabricate and assemble anodes using industry-wide standard techniques. The total carbon requirement should be about 1100 pounds per ton of aluminum metal produced. A lesser function of the anode plant will be to furnish cathode carbon for lining and repairing the lower portion (cathode) of the pots.

After the molten metal is removed from the pots, it is transferred to holding and alloying furnaces in the cast house. Prior to pouring into molds of the desired size and shape, purification by chlorine fluxing and/or alloy additions may be required to produce metal of specified composition.

A steam plant using natural gas fired boilers with light oil (No.2) as standby will produce the steam requirements of the alumina and anode plants. These two areas will consume the majority of the steam plant output. Electric power will be furnished from two substations at the site. Bonneville Power Administration will supply the electricity for the reduction plant which will be the major power requirement. Pacific Power and Light Co. will supply power for the alumina plant. Other areas and buildings at the plant site will be support units such as administration, storage, maintenance, laboratory and sewage treatment.

STAFF ACTIVITIES

Sanitary Authority staff activities related to the Northwest Aluminum plant began in June 1967 when a proposed pollution control program was submitted by the company. During the past year considerable staff effort has been spent conferring with company representatives, reviewing plans and studying aluminum technology.

An agricultural survey of the Warrenton area was completed by the staff in September, 1967. This report contained an inventory of the plant and animal forms in the area, detailed listing of farms and products, and a suggested sampling program prior to aluminum production.

Staff conferences with company representatives were held on September 19, 1967, January 29 and 30 and May 1, 1968. The company presented plans, explained operational procedures and answered questions at these meetings. The company has promptly submitted additional information by mail and made changes as requested by the staff. Members of the Authority and Staff have toured aluminum plants in Oregon and Washington to increase their knowledge of aluminum production and associated waste control technology.

POTENTIAL SOURCES OF ATMOSPHERIC EMISSIONS

Reduction Plant: The reduction plant will be the facility that offers the greatest potential for degradation of air quality. The untreated fumes from aluminum reduction pots consist of very small particulates and a variety of gaseous compounds which may be emitted from either of two

ventilation systems, one serving the pots, and the second serving the pot rooms (space ventilation). The emissions of major concern are the gaseous and particulate fluoride compounds. Such compounds can be detrimental to plants and animals in the surrounding area. Of lesser concern are the very small carbon and alumina particles, which, although essentially inert chemically, do contribute to visibility reduction in and around the plant.

Anode Plant: Potential emissions from the anode plant consist primarily of high molecular weight hydrocarbons and carbon with particle sizes ranging from submicron to a few microns. Since the larger material is usually controllable, the submicron carbonaceous matter would be the major component of any visible emission from the anode plant. Emissions of this type are subject to the smoke discharge regulation of the Sanitary Authority.

Alumina Plant: Another potential source of air contaminants is the rotary kiln in the alumina plant. The uncontrolled emissions would be steam and very small alumina particles. Economics dictate the capture of the alumina, therefore the expected primary emission would be a steam plume visible under certain weather conditions.

Steam Plant: During normal operations, the steam plant should emit only the products of efficient natural gas combustion. However, because of the meteorology of the Warrenton area, a steam plume of varying size might be expected.

Cast House: The commercial demand for aluminum of high purity or alloys of narrow composition range necessitates the need for occasional purification by chlorine fluxing in the cast house. If uncontrolled, the potential emissions would be mainly chlorides of aluminum and impurity metals with small amounts of hydrogen chloride and chlorine.

Others: The bauxite ore handling and storage systems and the red mud residue disposal are also potential sources of objectionable particulates. Although inert chemically, economics, public opinion, and the tell-tale color of orange-brown will encourage continuous control of these areas.

DESCRIPTION AND EVALUATION OF PROPOSED AIR POLLUTION CONTROL FACILITIES AND PROGRAMS

Reduction Plant: The Northwest Aluminum Co. proposal for controlling emissions from the reduction plant consists of a combination of recent advances in aluminum technology. A three fold concept for controlling emissions from the pot ventilating system has been proposed as follows:

1. A computerized monitoring technique to result in maintaining pot activity including temperature, bath composition and anode-cathode distance within a relatively narrow range, and thereby lessen the breakdown and subsequent volatilization of fluoride compounds.

2. Internal devices whereby a major portion of the physical pot operations, such as alumina feeding and crust breaking will be done mechanically within the enclosed pot to reduce in-plant emissions,and increase fume capture efficiency.

3. A fume control system composed of hoods, ducts and fans connected to a dry treatment facility (baghouse) consisting of a filter media precoated with activated alumina which accomplishes high removal efficiencies for captured particulates and gases.

The proposed method of pot control and operation should lower the frequency of anode effects, a condition characterized by high power consumption, high temperature, violent bath action, and increased fluoride emission. Also, the pots will be essentially completely enclosed for a greater portion of the operating schedule in comparison to older installations. During physical operations that necessitate opening the pot hood system such as anode changing and aluminum tapping, the volume of sweeping air will be increased from 3000 SCFM to 6000 SCFM to achieve continued efficient collection of contaminants generated in the pot. The company has submitted test data which show that removal efficiencies for gaseous and particulate fluorides in the captured fume will be slightly in excess of 98 and 99 per cent respectively.

The company has not proposed any direct treatment relating to the pot room space ventilation. They feel that the combination of the proposed methods of pot control and operation in conjunction with conscientious housekeeping will be highly effective treatment. The company has estimated that the fluoride emissions from the pot room space ventilation systems will be less than 1% of the total pot emissions. The estimates of total fluoride emissions, both gaseous and particulates, as submitted by the company are extremely low on a weight of emission per weight of aluminum produced basis compared with other plants operating in Oregon.

The Sanitary Authority staff has concluded that the proposed treatment of the emissions from the reduction pot ventilation system is technically possible to the extent cited by the company. Treatment

of emissions from the space ventilation may or may not prove to be necessary depending upon how successfully pot emissions can be contained at the pot and thereby prevented from entering the plant atmosphere. This system appears to be technically possible and a most logical approach. The proposed emission sampling program will determine if this is physically possible.

Anode Plant: Exhaust gases from the anode plant will be cooled from 1250°C to 80°C, passed through an electrostatic precipitator and vented up a 150 foot stack. A final particulate loading of about 0.03 gr/SCF might contribute to a slightly opaque discharge most of which will be steam during certain weather conditions.

Alumina Plant: The rotary kiln in the alumina plant will have two stage treatment consisting of a primary cyclonic collector followed by a baghouse unit. Although the proposed particulate removal is greater than 99 percent, a fairly continuous but non-persistent steam plume might be expected.

Steam Plant: Proposed instrumentation and control for the steam plant appear to be adequate to insure efficient combustion. During normal operating conditions, no significant air contaminants are anticipated from this facility.

Cast House: A packed bed wet scrubber is proposed for treating effluent from the cast house during chlorine fluxing of aluminum metal. Historically, this approach has had operating difficulties resulting in poor performance. Proper staff evaluation of this control unit cannot be made until receipt of final detailed plans and specifications.

Other: The bauxite ore handling and storage systems and the red mud residue disposal are not anticipated to be significant sources of air contaminants. Prior to shipment from Australia, the ore will be screened to remove fine material leaving spherical nodules of about 1/4 inch diameter. An open storage pile of the nodules near the dock site should not cause problems due to the size of the nodules and the lack of fines. A two mile long, completely covered belt conveyor is proposed to transfer the ore to the plant site. A system of landfill has been proposed for the red mud disposal. Essentially this will involve covering the moist residue in filter cake form with channel dredging or other earthen material suitable for stabilization by plant forms native to the area.

PROPOSED MONITORING

Northwest Aluminum Co. proposes to contract with the Oregon State University Agricultural Experiment Station for the purpose of measuring the fluoride levels in the air, soils, water, plants and animals contiguous to the plant

site. This program will be conducted for at least one year prior to the production period. Extensive tests will be continued for a period of three years after the plant is in production to measure fluoride levels and changes or effects, if any, to evaluate the effectiveness of the equipment and methods used in controlling pollution of air and water. In addition, the company will install the necessary sampling facilities to measure the actual gaseous and particulate fluoride emissions from the reduction plant.

STAFF RECOMMENDATIONS RELATIVE TO AIR QUALITY CONTROL

The staff recommends that the Northwest Aluminum Co. proposal be preliminarily approved, that such approval be conditional to final approval of detailed plans and specifications for all facilities relating to the control of atmospheric contaminants, and that further conditions relating to the control of air pollution be imposed as follows:

1. As soon as practical after the company completes arrangements for monitoring fluoride levels, final description of all methods and procedures to be used in the survey shall be filed with and approved by the Sanitary Authority. During the entire survey, the Authority shall have access to all data obtained in addition to receiving all reports and the complete ambient air data record as this information becomes available.

2. Monthly reports shall be submitted by the company covering the emission of gaseous and particulate fluorides from both pot room ventilating systems as soon as aluminum production begins. Such tests and reports shall continue on a monthly basis until operating experience demonstrates that less frequent reports will suffice.

3. The gaseous and particulate fluoride compounds emitted to the atmosphere from both reduction plant ventilating systems shall not exceed the equivalent of 100 pounds of fluoride ion (F^-) in any 24 hour period. In addition, the concentrations of fluoride ion in ambient air and forage samples obtained beyond the company property shall not exceed the following:

Ambient air (gaseous F^-, volume basis)	Maximum allowable level
a. Any 12 hour period	4.0 ppb (average)
b. Any 24 hour period	3.0 ppb (average)
c. Any 7 consecutive days	1.0 ppb (average)

Ambient air (gaseous F^-, volume basis) continued	Maximum allowable level
d. Any 30 consecutive days	0.75 ppb (average)
e. Growing season (March 1 to November 1)	0.5 ppb (average)
Forage (monthly sampling dry weight basis)	
a. Any single sample	75 ppm
b. Average of any two consecutive samples	55 ppm
c. Annual average	30 ppm

4. As a part of the detailed plans and specifications submitted for final approval, the company shall include a proposed method of removing gaseous and particulate fluorides from the pot room space ventilating system which will be rapidly installed if such fume treatment proves necessary.

5. The Sanitary Authority shall be notified immediately of equipment breakdown or malfunction and any operating procedure changes that are likely to result in significantly increased emissions of air contaminants.

6. Approval of the proposed facilities shall be given specifically for two pot lines with a rated capacity to produce 130,000 tons of aluminum metal annually until such time that it can be demonstrated that emissions into the atmosphere can be effectively controlled at this production rate and until application has been made and approval granted for operation at a higher rate.

POTENTIAL SOURCES OF WATER POLLUTANTS

The Northwest Aluminum Company plant is locating in an area in relatively short supply of readily available fresh waters suitable for treatment and use for domestic and industrial purposes.

Partially for this reason operations are being designed for maximum recycling and re-use of process and cooling waters. Water supply requirements have been estimated as follows:

Domestic: Approximately 40,000 gallons per day (maximum) for sanitary and other similar purposes.

Process waters: The plant process is being designed as essentially a closed circuit. Approximately 200,000 gpd (maximum) will be required for make-up water only.

Cooling waters: Where possible, cooling towers will be used. Water to replace evaporative and blowdown losses will amount to approximately 150,000 gallons per day.

Proposed liquid wastes before treatment have been estimated by the company to consist of the following:

Sanitary sewage	15,000 gpd
Spent acid cleaning solution (3% H_2SO_4)	0 to 2,000 gpd
Weak soda solution ($\leq$1/2% NaOH)	0 to 100,000 gpd
Cooling tower blowdown	0 to 20,000 gpd
Boiler blowdown	0 to 20,000 gpd
Residual tailings (red mud) from the alumina plant	1,000 tons/day
consisting of:	
660 tons/day water	
339+ tons/day inert solids	
660 lbs/day sodium hydroxide	

All of the above wastes will be mixed and pumped together to the waste disposal area to be treated near the waterfront. It is expected that by mixing all cleaning solutions with the red-mud residues effective neutralization will take place.

A single liquid waste discharge is proposed. This will be bled off as excess waters from the red-mud piping system. This discharge has been estimated by the company to average 37,000 gallons per day and would be metered after clarification and neutralization into the Skipanon River at an average rate of 25 to 30 gallons per minute.

Other potential sources of water pollution would be from drainage and/or overflow from the red-mud disposal area and possibly drainage from the bauxite handling and storage areas.

PROPOSED POLLUTION CONTROL MEASURES

The following measures are proposed by the company to prevent or control water pollution:

Sanitary Sewage: All plant sewage will be treated in a sewage treatment plant capable of effecting at least 90% reduction of Biochemical Oxygen Demand (BOD) and suspended solids (SS) and effectively disinfected with chlorine. The treatment effluent will be combined with the residues from the alumina plant and pumped to the disposal area. Excess sludge will also be pumped to the disposal area, filtered with the red-mud and incorporated in the land fill.

Industrial Wastes: The plant as designed is essentially a closed circuit operation with the main waste effluent being the residue from the processing of bauxite ore to produce alumina.

It is proposed that all process areas where chemical solutions may be spilled with be curbed and sumped so that these solutions may be contained and returned to the process circuit.

Other liquids such as cooling tower and boiler blowdown and spent cleaning solutions will be piped to the residue disposal area. It is proposed that any additives will be biodegradable and that these waste solutions will be monitored and neutralized prior to discharge.

The red-mud residue will be washed in a clarification circuit of the alumina process plant through counter-current decantation primarily to remove and recover valuable sodium. The last thickener overflow at a consistency of approximately 40% solids will be pumped to a final washing drum vacuum filter. The filtrate from the filter will be returned to the counter-current decantation circuit. The filter cake (red mud residue) will be dropped into an agitated relay tank from which is will be re-slurried and pumped to the disposal area for further filtering and disposal of the filter cake in a land fill. The filtrate from the disposal area filters will be returned to the red-mud washing process and re-used to carry more red-mud to the disposal area. A bypass line will be installed on the filtrate line from the secondary filter and excess waters are proposed to be bled off to holding basins, neutralized as necessary and then pumped slowly into the Skipanon River.

The land fill area will be carefully diked to contain the filter cake and to provide a relatively small area for fill at any one time.

STAFF EVALUATION OF PROPOSED WATER POLLUTION CONTROL MEASURES

The handling and disposal of the red-mud residues resulting from the bauxite ore processing poses the greatest threat of water pollution. This waste material represents about one half the total tonnage of bauxite ore that will be imported for processing. The quantities to be disposed of will amount to approximately 1,000 tons per day of material consisting of the following:

660 T/D of water
339+ T/D of inert solids composed of:
38.5% sodium aluminum silicate
42.6% iron oxides
8.5% titanium oxide
3.7% silica dioxide
(approx) 0.7% unreacted bauxite

The mixture will have a caustic soda content of approximately 0.025% NaOH by weight of residue.

The red-mud to be disposed of is a very red, clay-like material of extremely fine partical sizes (a high percentage less than 5 microns) which could become airborne if completely dry and which are very slow to settle out when suspended in water. The red-mud appears to be very difficult to dewater to a consistency of greater than 60% solids and its usefulness as a landfill material is questionable unless it is adequately mixed and covered with sand, soil or other suitable fill materials.

The company's proposal for washing and filtering the red-mud, placing the filter cake in well contained landfill cells and re-cycling and re-using to a maximum the water component of the wastes appear to be an acceptable approach toward control of these difficult wastes. If it should prove that the wastes cannot be handled and disposed of as proposed without causing pollution or nuisance problems or if suitable landfill area is depleted, a possible alternative means of disposal would be to barge the red-mud residues to approved dumping sites in the ocean. The material if deposited as a filter cake should sink rapidly with little visible or other effects and would appear to be compatible with natural deep ocean bottom deposits.

For land-filling the red-mud residues should be mixed with sand or soil, leveled and covered with soil with maximum, reasonable frequency so that the exposed red-mud area will be kept to a minimum.

Drainage waters from the red-mud fill area and perhaps from the bauxite handling and stockpile area should be pumped to the holding basins and treated and discharged with the other liquid wastes.

It is anticipated that neutralization of the liquid wastes will be required and if settling does not result in adequate clarification, coagulation and/or filtration of the waste waters prior to discharge may be required.

The company proposes to pump the treated waste waters into the Skipanon River at a uniform rate. If the company's estimate of daily average total waste volumes of approximately 37,000 gpd is correct, this would result in a uniform constant waste discharge of only 25 to 30 gpm. It is anticipated, however, that waste volumes to be discharged may exceed these estimates and for this reason and because summer flows in the Skipanon River are very low it is recommended that the wastes be discharged by pumping to the Columbia River.

STAFF RECOMMENDATIONS RELATIVE TO WATER QUALITY CONTROL

The staff recommends that the Northwest Aluminum Company proposal be preliminarily approved subject to final approval of detailed plans and specifications for all facilities relating to the control of potential water pollutants, and compliance with all conditions that may be imposed by waste discharge permit.

Recommended waste discharge permit conditions for this proposed installation are attached.

RECOMMENDED WASTE DISCHARGE PERMIT CONDITIONS

Applicant: Northwest Aluminum Company - Warrenton Plant

Expiration Date: 12/31/71

Application No.: 498R
Date Received: 5/7/68
County: Clatsop
River Basin: North Coast
Receiving Stream: Columbia River
River Mile:

1. "Wastes," as used in this permit, shall include treated sewage effluents, boiler plant and cooling tower blowdown waters, chlorine gas scrubber waters, spent cleaning solutions (acid), weak soda solutions (basic), red-mud slurry bleed waters, and red-mud residues (solids).

2. The applicant shall proceed to install waste handling, treatment, and control facilities in accordance with detailed plans and specifications to be submitted to and approved by the Sanitary Authority in advance of the start of construction of said facilities.

3. Liquid waste discharges shall be pumped to the Columbia River and shall not exceed 50 gallons per minute (gpm), exclusive of rain waters.

4. Sewage wastes shall be subjected to secondary or tertiary treatment, equivalent to at least 90% removal of Biochemical Oxygen Demand (BOD) and Suspended Solids, and effectively disinfected with chlorine prior to discharge or mixing with other wastes.

5. Liquid wastes shall be neutralized and clarified and otherwise treated as required to comply with effluent limits as follows:

    a. pH between 6.5 and 8.5.
    b. Turbidity not to exceed 50 Jackson Turbidity Units (JTU).
    c. Color not to exceed 100 color units.
    d. BOD or Chemical Oxygen Demand (COD) not to exceed 30 milligrams per liter (mg/l).
    e. Essentially free of settleable solids.
    f. Non-toxic as determined by 96-hour bio-assays of representative specimens of natural aquatic life of the area.

6. Red-mud residues shall be placed and completely contained in approved, diked areas, where it shall be mixed and covered with sufficient sand or soil so as to result in usable filled areas. These areas shall be covered with surface materials appropriate to the intended use or with sufficient soil to accommodate the growth of natural vegetation. Red-mud area drainage waters shall be contained and prior to any discharge or escapement shall be clarified, neutralized, and otherwise treated as required so as not to exceed effluent limits contained in item 5 above.

7. Unless otherwise agreed to by the Sanitary Authority, the applicant shall monitor the disposal and discharge of wastes in the manner and at frequencies stated below and submit reports of all monitoring data immediately following each month of operation:

   a. Flow:
      Continuous monitoring and recording at all discharge points.
   b. pH:
      Continuous monitoring and recording at all discharge points.
   c. Turbidity:
      Continuous monitoring and recording at all discharge points.
   d. Suspended Solids and Settleable Solids:
      Twice weekly at all discharge points.
   e. BOD or COD:
      Twice weekly at all discharge points.
   f. Color:
      Twice weekly at all discharge points.
   g. Chlorine residual of sewage treatment plant effluent:
      Daily.
   h. Bio-assays:
      Sufficient numbers to demonstrate non-toxicity of waste discharges on a current basis utilizing representative test organisms.
   i. Daily observation of outfall conditions relative to:
      1. Discoloration or visible turbidity.
      2. Sludge deposits.
      3. Oil films, foam or scum.
      4. Odors.
   j. Volume of red-mud cake (cu. yds.) disposed of daily.

8. In the event the permittee is temporarily unable to comply with any of the conditions of this permit, due to breakdown of equipment or other cause, the permittee shall immediately notify the Sanitary Authority of the breakdown or cause, and the steps taken to correct the problem and prevent its recurrence.

9. Authorized representatives of the Sanitary Authority shall be permitted access to the premises of all facilities owned and operated by the permittee at all reasonable times for the purpose of making inspections, surveys, collecting samples, obtaining data, and carrying out other necessary functions related to this permit.

10. Whenever a significant change in the character of the waste is anticipated or whenever a change in the waste to be discharged in excess of the conditions of this permit is anticipated, a new application shall be submitted together with the necessary reports, plans, and specifications for the proposed changes. No change shall be made until plans are approved and a new permit issued.

11. In the event that a change in the conditions of the receiving waters results in a dangerous degree of pollution, the Sanitary Authority may specify additional conditions to this permit.

12. This permit is subject to termination if the Sanitary Authority finds:

    a. That it was procured by misrepresentation of any material fact or by lack of full disclosure in the application.
    b. That there has been a violation of any of the conditions contained herein.
    c. That there has been a material change in quantity or character of waste or method of waste disposal.

MEMORANDUM

TO: State Sanitary Authority Members

FROM: Harold E. Milliken, Assistant Chief Engineer

DATE: June 28, 1968

SUBJECT: Construction Grants

We have received 42 applications for federal and state grants for sewage treatment, interceptors, and pump station projects for fiscal year 1969 requesting a total of $13,576,150 federal funds and $ 6,560,257 state funds for projects estimated at $30,290,322 in total cost.

It is expected that Congress will appropriate no more than $2,543,460 for such projects in Oregon and there is remaining in the state account $976,346 for sewage works projects.

The following pages contain tabulations of these projects and show the calculation of priority points.

The members of the Authority will recall that it made commitments to a list of applicants last year, not all of whom received a grant due to shortage of funds. Assuming that the Authority may wish to honor this commitment of last year, we have shown the proposed grants as Plan A on the attached sheet.

Since last year many communities have been working to increase their eligibility to receive grants by completing their financing and engineering plans.

Plan B shows the top projects as submitted or revised this year.

Also, one special project should be brought to your attention. Cascade Locks, which has had an application on file, has received a 50% grant from the Economic Development Administration for its complete sewer system, both collection and treatment. Does the Authority wish to make a state grant of 25% of the treatment cost in this case? This would require $33,650 of state grant funds only. It is expected that the project will be under construction soon since plans are completed.

State of Oregon

CRITERIA FOR DETERMINING PRIORITY OF ELIGIBLE PROJECTS FOR FEDERAL CONSTRUCTION GRANTS UNDER PL 84-660

In determining priority of eligible projects, the Oregon State Sanitary Authority will use the point system described below. No project will be considered eligible unless (a) it conforms with the state plan for control of water pollution, (b) its design conforms fully with the minimum requirements of the Authority, (c) the applicant gives adequate assurance that following the construction the sewage treatment works will be properly operated and maintained, and (d) the applicant is ready to start construction within the time required for encumbering the federal funds.

I. Points based on financial needs (20 points maximum)

A. Per capita assessed value (50% basis)

$ 500-$899	10	$2500-$2899	5
900-1299	9	2900- 3299	4
1300-1699	8	3300- 3699	3
1700-2099	7	3700- 4099	2
2100-2499	6	4100- and above	1

B. Total project costs per capita

$ 0-$ 24	1	$125-$174	6
25- 49	2	175- 224	7
50- 74	3	225- 274	8
75- 99	4	275- 324	9
100- 124	5	325- and above	10

II. Points based on water pollution control needs (20 points maximum)

A. Degree of treatment required

(1) Primary only. 4
(2) Intermediate. 6
(3) Secondary 8
(4) More than 85% BOD removal 10

B. Pollution abatement needs

(1) Abatement of existing water pollution which constitutes a hazard to the safety of a public water supply, shellfish growing area or waters used for irrigating garden crops. 10

(2) Formal order entered by Sanitary Authority directing applicant to abate pollution. 9

(3) Abatement of existing health hazard on land due to inadequate sewage collection or disposal . . 8

(4) Protection of recreation (swimming, boating). . 7

(5) Protection of animal, plant, fish and other aquatic life. 6

(6) Sewage treatment needed for serving future or proposed residential and other developments . . 5

(7) Protection of agricultural and industrial waters. 4

(8) Abatement of local nuisance conditions. 3

III. Points based on readiness to construct (25 points maximum)

A. Fiscal program

(1) Bonds voted and sold or cash on hand. 13

(2) Bonds voted but not sold. 10

(3) Sinking fund being accumulated or bond election scheduled 2

B. Engineering plans

(1) Final engineering plans and specifications completed 12

(2) Final engineering plans being prepared and scheduled to be completed within 30 days. . . . 8

(3) Final engineering plans being prepared and scheduled to be completed within 90 days. . . . 6

(4) Preliminary engineering (only) completed. . . . 2

IV. Efficient Utilization of Federal Funds (5 points maximum)

A. In accordance with coordinated area-wide plan. . . . 5

B. In accordance with limited area-wide plan. 2

C. In accordance with local plan. 1

Adapted by Sanitary Authority on April 11, 1963

Construction Grants — Table 1

No.	Applicant	Date Rec'd	Amount Requested	Proposed Project	Design Pop.
223	Bandon	6-8-67	$ 161,445	Interceptor, pump station, pressure main, sewage treatment plant, outfall	4,210
246	Bay City	6-15-67	131,000	Interceptor and sewage treatment plant	4,000
229	Bear Cr. S.A.	6-12-67	3,868,500	Interceptors and sewage treatment plant	136,840
214	Brookings	9-2-66	18,250	Interceptors and pump station	6,000
234	Clackamas Co.	6-14-67	2,612,760*	Interceptors and sewage treatment plant	50,000
253	Cloverdale	6-10-68	63,350	Interceptors and sewage treatment plant	320
257	Creswell	6-13-68	9,300	Chlorination facilities	1,425
202	Dundee	6-8-66	105,700	Interceptor, outfall, sewage treatment plant	1,000
239	Eugene	6-15-67	350,000	Interceptor	157,000
254	Eugene	6-11-68	436,500	Sewage treatment plant additions	440,500
256	Halsey	6-12-68	44,900	Interceptor, pump station & stabilization pond	800
242	Hammond	6-15-67	128,205*	Pressure system, sewage treatment plant interceptor	1,800
230	Hillsboro	6-12-67	921,250*	Sewage treatment plant, interceptor, pump station, expansion of irrigation, pump station	25,300
199	Jefferson	6-14-67	79,500	Interceptors and sewage treatment plant	1,175
221	Lake Oswego	4-27-67	37,400*	Springbrook interceptor	6,000
220	Lebanon	5-29-67	138,500	Westside interceptor	11,000
213	Malin	7-1-66	26,800	Lift station and sewage treatment plant	1,200

* 55%

Table 1 cont.

No.	Applicant	Date Rec'd	Amount Requested	Proposed Project	Design Pop.
226	Nehalem	6-8-67	53,500	Interceptor and sewage treatment plant STP	560
251	Newberg	5-16-68	388,200	Interceptor, pump station & sewage treatment plant modification	50,000
216	Oakland	12-9-66	86,220	Interceptor and sewage treatment plant	1,500
219	Odell S.D.	5-26-67	52,850	Sewage treatment plant	1,750
258	Ontario	6-14-68	175,090	Interceptor, outfall sewer, ponds, chlorination system	11,000
238	Pendleton	6-15-67	700,000	Sewage treatment plant expansion	343,650
224	Philomath	6-8-67	253,300	Sewage treatment plant additions	2,700
244	Portland	6-15-67	167,960*	Front Street interceptor	900
245	Portland	6-15-67	561,900*	Johnson Creek interceptor	45,000
249	Portland	4-29-68	141,930*	N. Rivergate interceptor & force main Phase I	6,648
222	Prineville	4-25-67	40,360	Interceptor replacement and pump station modification	5,500
233	Reedsport	6-14-67	239,300	Interceptor, pump stations, pressure main, sewage treatment plant	6,400
232	Salem	6-13-67	383,900*	West Salem interceptor, pump station, sewage treatment plant	4,000
218	Sheridan	5-17-67	27,000	Sewage treatment plant additions	2,500
225	Silverton	6-8-67	110,465	Sewage treatment plant expansion	35,000
228	Sublimity	6-12-67	65,035	Sewage treatment plant, interceptor, pump station	1,000

* 55%

Table 1 cont.

No.	Applicant	Date Rec'd	Amount Requested	Proposed Project	Design Pop.
240	Sunset Valley S.D.	6-15-67	$ 124,670	Interceptor to Uplands Sanitary District	18,000
236	Tigard 6-14-67	6-14-67	37,420*	Pinebrook interceptor	2,200
250	Tillamook	5-6-68	50,750	Sewage treatment plant improvements	7,000
237	Troutdale	6-14-67	195,250*	Pump station, pressure main, interceptor, sewage	1,500
259	Wallowa	6-14-68	83,300	Interceptor and sewage treatment plant	1,300
241	Warrenton	6-15-67	268,440	Pressure mains, pump station, sewage treatment plant	4,100
243	Wheeler	6-15-67	84,550	Interceptor and sewage treatment plant	1,980
255	West Linn	6-11-68	141,625*	Pump station, pressure main, interceptor	5,400
252	White City S.D.	5-27-68	9,775	Chlorine contact chamber modifications	5,750
	TOTAL		$ 13,576,150		

* 55%

Construction Grants

Table 2

No.	Applicant	Present Population	Assessed Value per Capita 50%	Project Cost Total	Project Cost Per Cap.	Bonds Required Amount	Bonds Required Voted	Bonds Required Sold	Engr. Plans ready days	Other Fiscal Program
223	Bandon	1,670	$ 2,510	$ 323,890	193	Not needed			60	Cash $81,720
246	Bay City	950	1,244	601,000	633	$ 342,185	No	No	180	Conn. Chge.$62,315
229	Bear Cr. S.A.	78,000	2,150	8,087,000	104	1,897,400	No	No	300	
214	Brookings	2,700	3,884	36,500	13	32,500	Yes	Yes	Complete	Project Completed
234	Clackamas Co.	18,500	1,670	5,471,308	2,960	1,600,000	3/24/68	No	10	
253	Cloverdale S.D.	158	3,326	167,700	1,060	62,425	No	---	120	Conn. Chge.$10,250
257	Creswell	1,100	1,770	18,600	19	Not needed	None		1	Cash $4,650
202	Dundee	450	3,181	405,900	900	118,000	Yes	FHA will buy	ready	Conn. Chge.$17,300 FHA grant$109,000
239	Eugene	76,200	3,542	700,000	9	Not needed				Cash $490,000
254	Eugene	76,200	3,542	873,000	11	218,250	No	---	300	Planning funds -O.K.
256	Halsey	450	2,344	311,500	690	250,000	1967	No	1	FHA grant$67,350
242	Hammond	530	2,307	479,600	900	240,300	No	---		FHA grant$52,820
230	Hillsboro	12,000	3,166	1,696,720	141	1,050,000	1/10/67	Yes	<60	
199	Jefferson	870	1,678	355,000	408	200,000	6/21/67	Part-ly	Complete	FHA grant$159,000
221	Lake Oswego	13,200	3,981	88,400	7	Not needed			Complete	$68,000 Assess.
220	Lebanon	6,500	2,662	277,000	43	34,250	Yes	Yes	Complete	Cash $35,000
213	Malin	560	1,270	57,580	103	31,000	Yes	Yes	Complete	

Table 2 cont.

No.	Applicant	Present Population	Assessed Value per Capita 50%	Project Cost Total	Project Cost Per Cap.	Bonds Required Amount	Bonds Required Voted	Bonds Required Sold	Engr. Plans ready days	Other Fiscal Program
226	Nehalem	210	1,810	$ 111,000	530	$ 25,250	Yes	No	<60	Cash $5,500 $69,000 bond voted
251	Newberg	4,790	2,403	781,400	162	200,000	No	---	270	
216	Oakland	800	1,721	370,000	462	133,000	Yes	Yes	<10	Cash $71,800 $78,000 FHA Grant
219	Odell S.D.	875	2,702	375,004	440	345,000	Yes	Yes	Comp.	Project completed
258	Ontario	6,090	3,438	636,974	104	330,000	10/17/67	6/1/68	10	Imp. Dist. $34,330
238	Pendleton	14,300	2,739	1,405,000	98	250,000				Cash $105,000
224	Philomath	1,570	1,967	531,600	338	151,650	No	No	Not Sch.	
244	Portland	384,000	3,744	303,930	0.80	Not needed			7	Cash $70,310
245	Portland	384,000	3,744	1,038,960	2.72	Not needed			Prelim.	Cash $272,730
249	Portland	384,000	3,744	258,060	0.67	Not needed			10	Cash $51,620
222	Prineville	3,770	2,744	80,720	21	Not needed			90	Cash $28,000
233	Reedsport	4,250	2,840	538,650	126	Not needed			1	Cash $130,000 $45,000 '69 Fiscal Yea
232	Salem	66,300	3,333	734,000	11	127,350	Yes	Yes	15	
218	Sheridan	1,830	1,565	54,000	29	9,200	No	No	120	Cash $4,300
225	Silverton	4,100	2,170	250,930	61	55,723	No	No	120	
228	Sublimity	560	1,633	145,070	260	38,267	No	No	200	
240	Sunset Valley	950	3,080	256,640	270	69,635	No	No	90	

Table 2 cont.

No.	Applicant	Present Population	Assessed Value per Capita 50%	Project Cost Total	Project Cost Per Cap.	Bonds Required Amount	Bonds Required Voted	Bonds Required Sold	Engr. Plans ready days	Other Fiscal Program
236	Tigard	3,700	4,707	$ 72,556	20	Not needed			Awarded	Cash $18,121
250	Tillamook	4,300	2,815	101,500	24	$ 5,375	No	---	120	Cash $20,000
237	Troutdale	620	1,738	658,000	1,060	215,000	Yes	No	10	Cash $50,000 $110,000 Revenue bonds
259	Wallowa	800	1,804	238,100	297	95,000	No	---	120	Cash $4,083
241	Warrenton	1,800	2,817	942,780	523	400,000	Yes	Yes	Complete	
255	West Linn	6,779	3,451	262,500	39	300,000	No	---	180	Bond election August 1968
243	Wheeler	220	2,491	172,700	785	35,875	No	---	180	Bond election July 1968
252	White City S.D.	2,000	6,471	19,550	10	Not needed			Complete	Cash $5,000 Contract awarded
	TOTAL			$30,290,322						

Construction Grants

Table 3

No.	Applicant	Priority Points: Assessed Value	Project Cost	Degree of Treatment	Pollution Abatement	Ready: Fiscal	Ready: Eng.	Efficient use of Funds	Total
223	Bandon	5	7	8	9	13	6	2	50
246	Bay City	9	10	8	10	2	2	2	43
229	Bear Cr. S.A.	6	5	8	10	2	2	5	38
214	Brookings	2	1	4	8	13	12	2	42
234	Clackamas Co.	8	10	8	8	10	8	5	57
253	Cloverdale	3	10	8	9	2	2	2	36
257	Creswell	7	1	8	9	13	12	2	52
202	Dundee	4	10	8	8	13	12	2	57
239	Eugene	3	1	8	8	13	6	5	44
254	Eugene	3	1	8	9	2	2	5	30
256	Halsey	6	10	8	9	10	12	2	57
242	Hammond	6	10	8	9	0	2	2	37
230	Hillsboro	4	6	10	7	13	12	5	57
199	Jefferson	8	10	8	7	10	12	2	57
221	Lake Oswego	2	1	8	8	13	12	5	49
220	Lebanon	5	2	8	7	13	12	5	52

Table 3 cont.

No.	Applicant	Priority Points: Assessed Value	Project Cost	Degree of Treatment	Pollution Abatement	Ready: Fiscal	Ready: Eng.	Efficient use of Funds	Total
213	Malin	9	5	8	7	13	12	2	56
226	Nehalem	7	10	8	9	10	6	2	52
251	Newberg	6	6	8	7	0	2	5	34
216	Oakland	7	10	8	8	13	12	2	60
219	Odell S.D.	5	10	8	8	13	12	2	58
258	Ontario	3	5	8	8	13	12	2	51
238	Pendleton	5	4	8	7	0	2	2	28
224	Philomath	7	10	8	7	0	2	5	39
244	Portland	2	1	8	9	13	12	5	50
245	Portland	2	1	8	8	13	2	5	39
249	Portland	2	1	8	9	13	12	5	50
222	Prineville	5	1	8	5	13	6	2	40
233	Reedsport	5	5	8	6	13	12	2	51
232	Salem	3	1	8	5	13	8	5	43
218	Sheridan	8	2	8	7	2	2	2	31
225	Silverton	6	3	8	9	0	2	2	30
228	Sublimity	8	8	8	3	0	2	2	31

Table 3 cont.

No.	Applicant	Priority Points: Assessed Value	Project Cost	Degree of Treatment	Pollution Abatement	Ready: Fiscal	Ready: Eng.	Efficient use of Funds	Total
240	Sunset Valley S.D.	4	8	10	9	2	6	5	44
236	Tigard	1	1	10	9	13	12	5	51
250	Tillamook	5	1	8	10	2	2	2	30
237	Troutdale	7	10	8	9	10	12	5	61
259	Wallowa	7	9	8	8	2	2	2	38
241	Warrenton	5	10	8	8	13	12	2	58
255	West Linn	3	2	8	8	2	2	5	30
243	Wheeler	6	10	8	10	2	2	2	40
252	White City S.D.	1	1	8	9	13	12	5	49

Plan A

Table 4

Project	Federal Grant	Cumulative Total	State Grant	Cumulative Total
Due previous grants	$ 101,740	$ 101,740		
215 Albany	143,630	245,370	$ 25,839#	$ 25,839
212 Portland	1,287,000*	1,532,370	585,000	610,839
199 Jefferson	79,500	1,611,870	39,750	650,589
213 Malin	26,800	1,638,670	13,400	663,989
236 Tigard	37,420*	1,676,090	17,010	680,999
230 Hillsboro	921,250*	2,597,340	418,750	1,099,749
Estimated Funds Available		- 2,543,460		- 976,346
Deficit		$ 53,880		$ 123,403

* 55%
# increase

Plan B

Table 5

Project	Priority Points	Federal Grant	Cumulative Total	State Grant	Cumulative Total
Due previous grants		$ 101,740	$ 101,740		
215 Albany		143,630	245.370	$ 25,839#	$ 25,839
212 Portland		1,287,000*	1,532,370	585,000	610,839
237 Troutdale	61	195,250*	1,727,620	88,740	699,579
216 Oakland	60	86,220	1,813,840	43,110	742,689
219 Odell S.D.	58	52,850	1,866,690	26,425	769,114
241 Warrenton	58	268,440	2,135,130	134,220	903,334
199 Jefferson	57	79,500	2,214,630	39,750	943,084
202 Dundee	57	105,700	2,320,330	52,850	995,934
256 Halsey	57	44,900	2,365,230	22,450	1,018,384
230 Hillsboro	57	921,250*	3,286,480	418,750	1,437,134
Estimated Funds Available			- 2,543,460		- 976,346
Deficit			$ 743,020		$ 460,788

* 55%
# increase

List Arranged by Points

Table 6

No.	Project	Priority Points	Federal Grant	Cumulative Total	State Grant	Cumulative Total
Due previous grants			$ 101,740	$ 101,740		
215	Albany		143,630	245,370	$ 25,839#	$ 25,839
212	Portland		1,287,000*	1,532,370	585,000	610,839
237	Troutdale	61	195,250*	1,727,620	88,740	699,579
216	Oakland	60	86,220	1,813,840	43,110	742,689
219	Odell S.D.	58	52,850	1,866,690	26,425	769,114
241	Warrenton	58	268,440	2,135,130	134,220	903,334
199	Jefferson	57	79,500	2,214,630	39,750	943,084
202	Dundee	57	105,700	2,320,330	52,850	995,934
256	Halsey	57	44,900	2,365,230	22,450	1,018,384
230	Hillsboro	57	921,250*	3,286,480	418,750	1,437,134
234	Clackamas Co.	57	2,612,760*	5,899,240	1,187,618	2,624,752
213	Malin	56	26,800	5,926,040	13,400	2,638,152
257	Creswell	52	9,300	5,935,340	4,650	2,642,802
220	Lebanon	52	138,500	6,073,840	69,250	2,712,052
226	Nehalem	52	53,500	6,127,340	26,750	2,738,802
258	Ontario	51	175,090	6,302,430	87,545	2,826,347
233	Reedsport	51	239,300	6,541,730	119,650	2,945,997

Table 6 cont.

No.	Project	Priority Points	Federal Grant	Cumulative Total	State Grant	Cumulative Total
236	Tigard	51	$ 37,420*	$ 6,579,150	$ 17,009	$ 2,963,006
223	Bandon	50	161,445	6,740,595	80,722	3,043,728
244	Portland	50	167,960*	6,908,555	76,345	3,120,073
249	Portland	50	141,930*	7,050,485	64,513	3,184,586
221	Lake Oswego	49	37,400*	7,087,882	17,000	3,201,586
252	White City S.D.	49	9,775	7,097,660	4,887	3,206,473
239	Eugene	44	350,000	7,447,660	175,000	3,381,473
240	Sunset Valley S.D.	44	124,670	7,572,330	62,335	3,443,808
246	Bay City	43	131,000	7,703,330	65,500	3,509,308
232	Salem	43	383,900*	8,087,230	174,500	3,683,808
214	Brookings	42	18,250	8,105,480	9,125	3,692,933
222	Prineville	40	40,360	8,145,840	20,180	3,713,113
243	Wheeler	40	84,550	8,230,390	42,225	3,755,338
224	Philomath	39	253,300	8,483,690	126,650	3,881,988
245	Portland	39	561,900*	9,045,590	268,909	4,150,897
229	Bear Cr. S.A.	38	3,868,500	12,914,090	1,934,250	6,085,147
259	Wallowa	38	83,300	12,997,390	41,650	6,126,797

Table 6 cont.

No.	Project	Priority Points	Federal Grant	Cumulative Total	State Grant	Cumulative Total
242	Hammond	37	$ 128,205*	$ 13,125,595	$ 58,275	$ 6,185,072
253	Cloverdale	36	63,350	13,188,945	31,675	6,216,747
251	Newberg	34	388,200	13,577,145	194,100	6,410,847
218	Sheridan	31	27,000	13,604,145	13,500	6,424,347
228	Sublimity	31	65,035	13,669,180	32,517	6,456,864
254	Eugene	30	436,500	14,105,680	218,250	6,675,114
250	Tillamook	30	50,750	14,156,430	25,375	6,700,489
255	West Linn	30	141,625*	14,298,055	64,375	6,764,864
225	Silverton	30	110,465	14,408,520	55,232	6,820,096
238	Pendleton	28	700,000	15,108,520	350,000	7,170,096

* 55%

increase

Plan A & C

A plan where grants are allowed for a single phase of the total project.

		Applicant	Total Project Cost	Federal Grant	State Grant	Bonds	Other	Funds Available Total
Reduced	199	Jefferson	$ 355,000	$ 55,500	$ 27,750	$200,000	$ 77,000	$360,250
Same	213	Malin	53,600	26,800	13,400	31,000	10,500	81,700
Same	236	Tigard	72,556	37,420	17,010		18,120	72,550
Reduced	230	Hillsboro	1,463,000	465,000	207,500	1,050,000		1,722,500
Reduced	237	Troutdale	658,000	143,000	65,000	325,000	50,000	583,000
Same	216	Oakland	370,000	86,220	43,110	165,000	149,800	444,130

	Federal Cumulative	State Cumulative
Brought over from Plan A	$ 1,532,370	$ 610,839
199 Jefferson	1,587,870	638,750
213 Malin	1,614,670	651,989
236 Tigard	1,652,090	668,999
230 Hillsboro	2,117,090	876,499
237 Troutdale	2,260,090	941,499
216 Oakland	2,346,310	984,609
Estimated Funds	2,543,460	976,346
Surplus	197,150 Short	- 8,263

TO : MEMBERS OF OREGON STATE SANITARY AUTHORITY

Mr. John D. Nosser, Chairman
Mr. Storrs S. Waterman
Mr. B. A. McPhillips
Mr. Herman P. Meierjurgen
Mr. Edward C. Harms, Jr.

FROM : Air Quality Control

DATE : June 28, 1968

SUBJECT: Status Report: Rex Mobile Homes, McMinnville, Waste Incineration

INTRODUCTION:

Rex Mobile Homes, located at the eastern outskirts of McMinnville, is engaged in the manufacture of large mobile homes. The operation generates a variety of refuse, including lumber scrap, cartons, tar paper and paper. The practice has been to incinerate this material in a wigwam burner, to which the refuse is charged in bin-sized batches by dumping from an elevated platform through a large opening in the side of the burner. The burner has been in a very poor state of repair for some time.

DISCUSSION:

In response to complaints, the problem was surveyed on July 5, 1967, and a letter dated July 7 addressed to Mr. Jack Paul, Manager, outlined the applicable regulations and recommended that the McMinnville sanitary landfill be utilized for disposal until an approved alternative solution to the problem could be developed.

Subsequently, Mr. Paul advised that Wasteco Incinerator Company of Tigard were developing a comprehensive plan for the conveying, storage and incineration of their wastes, such plan to include the structure to be built in a planned plant expansion.

On April 9, 1968, in response to new complaints, a survey was again conducted by staff engineer, Harold McKenzie and a representative of the McMinnville Fire Department. It was found that the waste burner was being used in violation of revised regulations pertaining to the construction and operation of wigwam waste burners which prohibit batch loading. Mr. Paul was in conference and time schedules did not permit a personal conference.

A letter to Mr. Paul dated April 12 outlined the findings in the survey and requested that by May 1st a definite proposal and time schedule for compliance be forwarded to the staff.

Mr. Paul's reply, dated April 17, stated that several proposals had been received concerning refuse incineration, that proposals had been requested from two additional Portland concerns, and that a definite decision as to which proposal to submit to us would be possible within the next several weeks. Advisory copies of all correspondence relating to the matter were forwarded by the staff to the Mid-Willamette Valley Air Pollution Authority.

Approximately April 24, Victor Prodehl of Mid-Willamette Valley Air Pollution Authority contacted staff engineer, Harold McKenzie, by telephone, requesting a joint visit to all problem sources in the McMinnville, Sheridan, Willamina and Grand Ronde areas for the purpose of accomplishing an orderly transfer of enforcement responsibility to the Mid-Willamette Valley Air Pollution Authority. A tentative date of May 6th was arranged, but an unavoidable conflict, followed by Mr. McKenzie's hospitalization for a knee operation, forced postponement until June 17th.

On June 17, Director Michael D. Roach and Victor Prodehl of MWVAPA visited Rex Mobile Homes with Mr. McKenzie. The plant manager was apprised of the regional plan of operation as provided under the Act of the 1967 Legislature. Mr. Roach also explained the policies and procedures of the MWVAPA as related to the specific problem at hand and that, as provided by law, the standards of the regional authority are no less stringent than those established by the Sanitary Authority.

Mr. Paul stated that all but one of the proposals he had requested had been received, that this was due that day but not yet received, and that he anticipated that an order could be placed by July 1st, if approved by MWVAPA.

Mr. Roach has since confirmed the discussions in a letter to Mr. Paul. The letter requests that by July 8th, Rex Mobile Homes forward to MWVAPA a signed acceptance of the following schedule for compliance:

Engineering and Procurement by July 16
Fabrication and Installation by August 16
Adjusted and in full operation by September 1

TO : MEMBERS OF OREGON STATE SANITARY AUTHORITY

Mr. John D. Mosser, Chairman
Mr. Storrs S. Waterman
Mr. B. A. McPhillips
Mr. Herman P. Meierjurgen
Mr. Edward C. Harms, Jr.

FROM : Air Quality Control

DATE : June 28, 1968

SUBJECT: Status Report: White City Plywood Company (Yamhill Plywood Company) Open Burning

INTRODUCTION:

The Yamhill Plywood Company, commonly known as the White City Plywood Company, operates a small veneer drying and plywood manufacturing plant in the city of McMinnville. The veneer for use in plywood lay-up comes to the plant from outside sources, and no raw logs are processed.

Residues from the operation consist primarily of plywood trim, sawdust, sander dust and waste veneer. All but the veneer waste is conveyed to a storage bin and then trucked away for use by farmers as mulch and as livestock bedding, the plywood trim being hogged before storage.

The type of hog in use on the plywood trim is not suited to the processing of waste veneer, which has been burned on the premises in an open fire with a semi-circular metal shield on its street side. The metal shield is actually the remaining portion of what was once a wigwam waste burner.

DISCUSSION:

In June of 1965 we were informed that this firm was in the process of building a new wigwam waste burner. A staff survey by Mr. Howard Smith disclosed that their old waste burner had collapsed and that the McMinnville Fire Department had issued an order that the mill be closed within 20 days if the old burner had not by then been replaced. At the time of the survey the replacement burner was approximately 3/4 completed.

Mr. Pilter, manager of the mill, was informed that the pending regulation governing construction and operation of wigwam waste burners might require major modifications of the burner after becoming effective on January 1, 1966. Mr. Pilter acknowledged this possibility and stated that he felt that the new burner could be used without creating a nuisance.

On April 9, 1968, in response to new complaints, the mill was again contacted and in company with a representative of the McMinnville Fire Department who was concerned about the existence of a fire hazard. The wigwam waste burner was found to have deteriorated until it provided only a partial shield for open burning. It was also found that the mill was

under new management and now operates under the name of White City Plywood Company. The new manager, Mr. Joe Gonyea, was informed of the regulations regarding open burning and requested by letter to advise us by May 1 of a definite date by which time the practice of open burning would be terminated and of the alternative method of disposal to be employed. An advisory copy of the requesting letter was forwarded to the Mid-Willamette Valley Air Pollution Authority.

On receipt of the advisory copy the Mid-Willamette Valley Air Pollution Authority office contacted staff engineer Harold W. McKenzie by telephone requesting a joint visit to all problem sources in the McMinnville, Sheridan, Willamina and Grand Ronde areas for the purpose of accomplishing an orderly transfer of enforcement responsibility to the Mid-Willamette Valley Air Pollution Authority. A tentative date of May 6 was arranged but an unavoidable conflict, followed by Mr. McKenzie's hospitalization for a knee operation, forced postponement until June 17.

On June 17, Director Michael D. Roach and Victor Prodehl of the Mid-Willamette Valley Air Pollution Authority visited White City Plywood Company with Mr. McKenzie. The mill manager was apprised of the regional plan of operation as provided under the Act of the 1967 Legislature. Mr. Roach also explained the policies and procedures of the Mid-Willamette Valley Air Pollution Authority as related to the specific problem at hand and that, as provided by law, the standards of the regional authority are no less stringent than those established by the Sanitary Authority.

Mr. Roach has since confirmed the discussions in a letter to Mr. Gonyea. The letter recommends that a hog be installed to allow disposal of the veneer waste in the same manner as the other wastes, and requests that by July 8 White City Plywood Company forward to the Mid-Willamette Valley Air Pollution Authority a signed acceptance of the following schedule of compliance:

Engineering, by	July 16
Procedure and installation, by	August 16
Adjustment and in full operation, by	September 1

TO : MEMBERS OF OREGON STATE SANITARY AUTHORITY

Mr. John D. Mosser, Chairman
Mr. Storrs S. Waterman
Mr. B. A. McPhillips
Mr. Herman P. Meierjurgen
Mr. Edward C. Harms, Jr.
Kenneth H. Spies
H. M. Patterson
E. J. Weathersbee

FROM : C. A. Ayer

DATE : June 27, 1968

SUBJECT: NORTH PORTLAND RENDERING PLANTS

This is the status of the North Portland rendering plant problem as of June 27.

Western States Rendering and Pacific Meat have signed contracts for installation of collection systems and afterburners. Plans were submitted May 23, approved May 27. The contracts were signed June 17 and 18. According to reports submitted by Wasteco, the firm with which these plants are contracting, the burners have been ordered and fabrication of dustwork has begun. Completion is scheduled for late July.

Three firms, Kenton, Brander and Associated Meats, retained Metz Engineering Company in March to design a system for control. Plans Specifically designed for Kenton were submitted May 17 and approved May 20. The engineer proposed installing the system first at Kenton, to make sure there were no unforeseen difficulties. Then, either the same system, or one with necessary corrections, would be installed at the other two. Contracts were submitted to the three companies June 10. Legal counsel for Kenton reviewed the contract and recommended the inclusion of a performance guarantee. After some negotiation, a new contract was submitted. Verbal agreement was made June 24 and the actual signing was done June 26. The new contract goes beyond the requirements of the Sanitary Authority order by incorporating a new feeding system which the engineer feels is necessary to guarantee consistent operation. Fabrication has begun, and the burner has been ordered.

A week before the contracts were submitted, the manager of Brander Meat Company, Mr. Walter Steele, was contacted by another engineer, whom Mr. Steele authorized to study the problem. This engineer, Mr. George Ward, has since suggested a program, somewhat complementary to Metz Engineering's, for a series of maintenance measures and controls on odorous sources not directly connected with the rendering operation as well as controls on rendering itself. It is realized by both Mr. Ward and Mr. Steele that these suggestions are coming a bit late, but their worth merits consideration.

Associated Meats has indicated acceptance of Metz Engineering's proposal. They have some facilities (condensers) already in operation which could be incorporated into a larger fume-control system. Also, their feeders are already sufficient. They prefer to sign a contract for what will be the final design, but Mr. Hotchkiss, the manager, did assure me that they will work with Metz Engineering.

The schedule for these three is: Controls at Kenton in the third or fourth week of July. Controls at the other two within about three weeks after placing an order. If Brander contracts with Mr. Ward, he will begin with a program that would control some of the individual discharge points within a week.

Counsel for Kenton, Brander and Associated Meats has requested an extension until July 15 for installing these systems.

Portland Rendering and Wilbur-Ellis are controlled, although further tests will be made.

Complaints

There have been 21 complaints in June. Four came from around Mock's Crest, two from about 20 blocks west of Western States, and the balance from within a few blocks south of Columbia Boulevard. Surveys by a staff member have confirmed the presence of odors south of Columbia Boulevard. The complainants have indicated, upon being asked, that they will be patient as long as real progress is being made.

SUMMARY

1. The rendering plants have shown a willingness to install control systems. They contacted engineers and contractors, and authorized studies in March and April. Arriving at satisfactory designs has been slower than was anticipated at the February meeting, due in part to the plants' desire to contract for a workable system without need for subsequent additional work.

2. The rendering plants have gone past the June 1 deadline still capable of creating a nuisance condition in North Portland, although the worst offender in 1967, Portland Rendering, has controls working.

3. For the three plants that have signed contracts, the completion dates in late July are the earliest technically feasible.

TO : MEMBERS OF OREGON STATE SANITARY AUTHORITY

Mr. John D. Mosser, Chairman
Mr. Storrs S. Waterman
Mr. B. A. McPhillips
Mr. Herman P. Meierjurgen
Mr. Edward C. Harms, Jr.

FROM : Air Quality Control Staff

DATE : June 28, 1968

SUBJECT: STANDARDS OF THE COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

The region, as required by ORS 449.855 (2), has submitted to the staff of the Sanitary Authority for approval, all quality and purity of air standards adopted by the regional authority. (A copy of Rule 2 is in the notebooks.) A public hearing on the rules and regulations of the Authority was held on May 10, 1968, and the rules were adopted by the Columbia-Willamette Air Pollution Authority the same day.

The staff has reviewed Rule 2 and finds the emission standards for (a) visible emissions, (b) ambient air standards for particle fallout and suspended particulates as included in emission standards, and (c) emission standard for particulates of 0.2 grains per cubic foot are as restrictive or more restrictive than standards of the Sanitary Authority and acceptable to the staff.

The Sanitary Authority does not have comparable standards for odors.

The staff has not attempted to determine the validity or reasonableness of the rules.

CONCLUSION:

It is the conclusion of the staff that the standards contained in Rule 2 may be approved with the exception of Section 2 - 2.3 Odors, page 20. The Sanitary Authority may wish to consider this standard in view of the definition of "objectionable odor" item (an) on page 18.

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY
104 SW 5th Avenue, Portland, Oregon (97204)

Rule 2 Air Pollution Control

Article 2-1 Definitions

Section 2-1.1

(a) "Agricultural Operation" means the growing of crops, the raising of fowls, animals or bees, as a gainful occupation.

(b) "Air Contaminant" means any gaseous, liquid or particulate matter whose presence in the outdoor atmosphere contributes to a condition of air pollution.

(c) "Air Pollution" means the presence in the outdoor atmosphere of one or more air contaminants in quantities, or characteristics and of duration which are, or may tend to be injurious to human, plant or animal life, or to property, or which unreasonably interfere with enjoyment of life and property.

(d) "Air Pollution Control Area" means a special area within the territory of the Authority established to control specific pratices or to maintain specific standards.

(1) "Air Pollution Control Area A" means

a. Any area in or within three (3) miles of the boundary of any city of more than 1,000 population but less than 45,000 population.

b. The area between two or more adjacent air pollution control areas, where the distance between the control area boundaries is three miles or less.

(2) "Air Pollution Control Area B" means any area in or within six (6) miles of the boundary of any city of 45,000 or more population.

(3) Whenever two or more cities have a common boundary, the total population of these cities will determine the air pollution control area classification and the municipal boundaries of each of the cities shall be used to designate the limits of the control area.

(4) Any area included within the boundaries of a Control Area A and a Control Area B shall be deemed to be in Control Area B.

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY
104 SW 5th Avenue, Portland, Oregon (97204)

Addendum to Section 2-1.1 (d)

Air Pollution Control Areas - April 1968

Clackamas County	Canby	3,100		
	Estacada	1,060		
	Gladstone	5,150		
	Happy Valley	1,110		
	Lake Oswego	13,200		
	Molalla	1,660		
	Oregon City	8,500		
	Sandy	1,410		
	West Linn	4,800	Milwaukie)	
			)	
			)	399,700
Multnomah County	Gresham	6,500	Portland)	
Columbia County	Clatskanie	1,090		
	Rainier	1,200		
	St. Helens	5,580		
	Scappoose	1,140		
	Vernonia	1,570		

Population figures from Population Estimates of Counties and Incorporated Cities of Oregon, July 1, 1967, prepared by Center for Population Research and Census, Portland State College.

(5) The annual population estimate issued by the Center for Population Research and Census, Portland State College, shall establish which municipalities will be used for determination of air pollution areas.

(e) "Air Pollution Control Equipment" means any equipment which has as its essential purpose a significant reduction (1) in the emission of air contaminants, or (2) in the effect of such emission.

(f) "Authority" means the Columbia-Willamette Air Pollution Authority.

(g) "Emission" means the act of passing into the atmosphere an air contaminant or a gas stream which contains an air contaminant, or the material so passed to the atmosphere.

(h) "Emission Point" means the location, place in horizontal plane and vertical elevation at which an emission enters the atmosphere.

(i) "Fire Permit Issuing Agency" means any city fire department, rural fire protection district, ~~water district~~, Forest Protection District, county court or board of county commissioners or their designated representative, as applicable.

(j) "Garbage" means putrescible animal and vegetable wastes resulting from handling, preparation, cooking and serving of food, and may contain up to 30% rubbish.

(k) "General Combustion Operation" means any operation in which combustion is carried on, exclusive of heat transfer operations, incineration operations and salvage operations.

(l) "Health Officers" means the duly appointed health officers, or their authorized representatives, of the political subdivisions participating in the Columbia-Willamette Air Pollution Authority.

(m) "Heat Transfer Operation" means the combustion side of any operation which (1) involves the combustion of fuel for the principal purpose of utilizing the heat of combustion-product gases by the transfer of such heat to the process material and (2) does not transfer a significant portion of heat by direct contact between the combustion-product gases and the process material.

(n) "Heavy Industrial Land Use Areas" means land which is designated for heavy industrial operations, including manufacturing.

(o) "Household Rubbish" means waste material and trash other than garbage, but including garden trash and prunings, normally accumulated by a family in a residence in the course of ordinary day to day living.

(p) "Incineration Operation" means any operation in which combustion is carried on in an incinerator, for the principal purpose, or with the principal result, of oxidizing wastes to reduce their bulk and/or facilitate disposal.

(q) "Incinerator" means a device, that meets the design and emission standards of these rules, for burning waste by controlled combustion. The term "incinerator" does not include other devices such as open or screened barrels or drums.

(r) "Commercial or Industrial Incinerator" means an incinerator having over 7.5 cubic feet storage capacity or 25 pounds per hour burning rate.

(s) "Household or Small Commercial Incinerator" means an auxiliary fuel-fired, portable, pre-assembled or job assembled, direct-fed combustion apparatus having not over 7.5 cubic feet storage capacity or 25 pounds per hour burning rate.

(t) "Land Clearing" means the removal of trees, brush, grass and building for disposal on the site in preparation for a land improvement or construction project.

(u) "Opacity" means the degree to which an emission reduces transmission of light and obscures the view of an object in the background.

(v) "Open Outdoor Fire" or "Open Burning" means the burning of any materials outdoors other than in an incinerator as defined in this section.

(w) "Operation" means any physical action resulting in a change in the location, form, or physical properties of a material, or any chemical action resulting in a change in the chemical composition or chemical or physical properties of a material.

(x) "Particle Fallout Rate" means the amount of particulate matter which settles out of the air in a given length of time over a given area as measured by sampling procedures used by this Authority.

(y) "Particulate Matter" means discrete particles of liquid, other than water, or a solid, as distinguished from gas or vapor.

(z) "Person" or "Persons" means any individual, public or private corporation, political subdivision, agency, board, department or bureau of the state, municipality, partnership, association, firm, trust, estate, or any other legal entity whatsoever which is recognized by law as the subject of rights and duties.

(aa) "Program Director" means the Program Director of the Columbia-Willamette Air Pollution Authority, or his deputy acting in his capacity as such deputy or under orders of the Program Director.

(ab) "Public Nuisance" means any operation or activity which causes or tends to cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endangers or tends to endanger the comfort, repose, health or safety of any such persons or the public or which causes or has a natural tendency to cause injury or damage to business or property.

(ac) "Refuse" means a mixture of rubbish and garbage.

(ad) "Residential and Commercial Land Use Areas" means land which is designated for individual dwelling houses, apartment houses, retail businesses and light industries.

(ae) "Ringelmann Chart" means the Ringelmann Smoke Chart with instructions for use as published in May 1967 by the United States Bureau of Mines.

(af) "Rubbish" means a mixture of mostly combustible waste such as paper, cartons, rags, lumber, wood scraps, oils, plastics, foliage, stubble, or other combustible agricultural material.

(ag) "Salvage Operation" means any operation in which combustion is carried on for the principal purpose, or with the principal result, of salvaging metals which are introduced into the operation as essentially pure metals, or alloys thereof, by oxidation of physically intermingled combustible materials; but excludes operations in which there is complete fusion of all such metals.

(ah) "Sanitary Authority" means the Oregon State Sanitary Authority.

(ai) "Smoke" means small gas-borne particles resulting from incomplete combustion, consisting predominantly of carbon, ash and other combustible material present in sufficient quantity to be observable, or, a suspension in a gas of solid particles in sufficient quantity to be observable.

(aj) "Suspended Particulate Matter" means the material in the air which is collectible on a filter under sampling procedures used by this Authority.

(ak) "Territory" means all areas within the boundaries of Clackamas, Multnomah and Columbia Counties.

(al) "Waste" means material as defined under Incinerator Design Standards of these rules.

(am) "Wigwam Waste Burner" means a burner which consists of a single combustion chamber, has the general features of a truncated cone, and is used for incineration of wastes.

(an) "Objectionable Odor" means any odor considered objectionable by 15 percent or more of the people exposed to it in their usual places of residence or employment. If less than 20 persons are exposed to the odor, then 75 percent of those exposed must consider the odor objectionable.

(ao) "Threshold Level of Olfactory Detection" means the odor perception threshold for 50 percent of the odor panel as determined by the ASTM procedure D1391-57, Standard Method for Measurement of Odor in Atmospheres (Dilution method), or an equivalent method.

(ap) "Standard Conditions" means a gas temperature of 60^{o} Fahrenheit and gas pressure of 14.7 pounds per square inch absolute.

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY
104 SW 5th Avenue, Portland, Oregon (97204)

Article 2-2 Emission Standards

Section 2-2.1 Visible Air Contaminants

(a) A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour, except for incinerators which shall not be more than one minute in any one hour, which is:

(1) As dark or darker in shade as that designated as No. 2 on the Ringelmann Chart, as published by the United States Bureau of Mines in Information Circular 8333 dated May 1967; or

(2) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke as dark or darker in shade as that designated as No. 2 on the Ringelmann Chart.

(3) These limitations shall not apply where the presence of uncombined water is the only reason for the failure of an emission to meet these limitations, or to open outdoor fires which otherwise are in compliance with these rules.

Section 2-2.2 Particulate Matter

No person shall cause, let, permit, suffer or allow any emission of particulate matter, which emission when combined with other emissions which are present in the ambient air, are in excess of the standards enumerated in this section; provided however, the emission standards herein provided for shall not be enforceable on the property surrounding the emission point, if such property is contiguous to that on which the emission point is located and is in the exclusive possession and control of the person responsible for the emission.

(a) Particle fallout rates shall not exceed

(1) Fifteen tons of particulate matter per square mile per month at representative sampling stations in residential and commerical land use areas;

(2) One and one half ton of lime dust as calcium oxide per square mile per month at representative sampling stations in residential and commercial land use areas;

(3) Thirty tons of particulate matter per square mile per month in heavy industrial land use areas.

(b) The concentration of suspended particulate matter in ambient air shall not exceed:

(1) 150 micrograms of particulate matter per cubic meter at representative sampling stations in residential and commercial land use areas;

(2) 20 micrograms of lime dust as calcium oxide per cubic meter at representative sampling stations in residential and commercial land use areas;

(3) 250 micrograms of particulate matter per cubic meter in heavy industrial land use areas.

(c) Notwithstanding the limitations in subsections (a) and (b) of this section, the particulate emission from any source shall not exceed 0.2 grain per cubic foot at standard conditions of temperature and pressure.

Section 2-2.3 Odors

No person shall cause, let, suffer or allow the emission of any objectionable odor, which when measured in residential or commercial land use areas:

(a) Requires dilution of one (1) volume of odorous ambient air with more than three (3) volumes of odor-free air at same conditions of temperature and pressure to reduce the odor intensity to the threshold level of olfactory detection, and

(b) Persists continuously for more than 30 minutes, or occurs for shorter periods at least three (3) times in any one hour period or six (6) times in any eight (8) consecutive hour period.

Section 2-2.4 Other Emissions

No person shall discharge from any source whatsoever such quantitites of air contaminants which cause or tend to cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which cause or have a natural tendency to cause injury or damage to business or property.

Article 2-3 Open Outdoor Fires

Section 2-3.1 General Requirements

(a) No person shall ignite, cause to be ignited, permit to be ignited, or suffer, allow or maintain any open outdoor fire anywhere in the territory of the Columbia-Willamette Air Pollution Authority, unless specifically regulated or allowed by other sections of these rules, or they have obtained a variance pursuant to Section 2-4.3 of these rules.

(b) No open outdoor fire allowed by this rule anywhere in the territory shall contain garbage, asphalt, petroleum products, paints, rubber products, plastic or any substance or material which normally emits dense smoke or obnoxious odors.

(c) Open outdoor fires allowed by these rules are not exempted from fire or burning permit requirements, or other applicable requirements, restrictions or limitations of fire prevention and protection agencies, but are exempt from the requirements in Article 2-2.

(d) No open outdoor fire shall be allowed, when after consultation with the Health Officers, the Program Director determines such fires will have an adverse effect on air quality. This restriction may be applied to the entire territory or to one or more parts thereof.

(e) Open outdoor fires in violation of these rules shall be extinguished by the responsible persons upon notice by the Program Director or his representative.

Section 2-3.2 Agricultural Operations

No person shall ignite, cause to be ignited, permit to be ignited, or suffer, allow or maintain any open outdoor fire containing grass, grain, stubble or other agriculture related combustible material except as authorized and permitted by Oregon Revised Statutes, Chapters 476, 477 and 478. The initial clearing of land for agricultural use shall be considered an agricultural operation.

Section 2-3.3 Commercial or Industrial Rubbish

No person shall ignite, cause to be ignited, permit to be ignited, or suffer, allow or maintain any open outdoor fire containing rubbish from commercial or industrial sources in any Air Pollution Control Area.

Section 2-3.4 Domestic Rubbish

No person shall ignite, cause to be ignited, permit to be ignited, or suffer, allow or maintain any open outdoor fire containing domestic rubbish in any air pollution control area, except open burning on-site of rubbish from any structure used exclusively as a dwelling for not more than four families is allowed throughout the territory.

Section 2-3.5 Fire Hazards Elimination

An open outdoor fire ignited, caused to be ignited, or suffered, allowed or maintained by an officer of a fire permit issuing agency for the prevention or elimination of a fire hazard is allowed throughout the territory.

Section 2-3.6 Land Clearing Operations

No person shall ignite, cause to be ignited, permit to be ignited, or suffer, allow or maintain any open outdoor fire that exceeds five (5) cubic yards of fuel per acre in any 48 hour period as part of any land clearing operation in any Air Pollution Control Area, except such outdoor fires containing greater amounts of fuel may be allowed;

(a) In Air Pollution Control Area A until 1 January 1970;

(b) In Air Pollution Control Area B outside the boundary of the City of Portland until 1 July 1969.

Section 2-3.7 Metal Salvage

No person shall ignite, cause to be ignited, permit to be ignited, or suffer, allow or maintain any open outdoor fire of motor vehicle bodies, and associated parts, railway cars, insulated wire, electric motors and coils or any other materials in any Air Pollution Control Area, or in any other area where such burning constitutes a public nuisance.

Section 2-3.8 Recreation Fires - Outdoor Cooking

(a) A bonfire or similar small fire for recreational purposes is allowed throughout the territory provided applicable requirements, restrictions or limitations of fire prevention and fire control agencies are met.

(b) A fire in an outdoor fireplace or barbecue for cooking of food for human consumption is exempt from all requirements of this rule.

Section 2-3.9 Refuse Disposal Sites

No person shall ignite, cause to be ignited, permit to be ignited, or suffer, allow or maintain any open outdoor fire in or at any refuse disposal site or refuse dump in any air pollution control area.

Section 2-3.10 Training for Firefighters

An open outdoor fire, or a fire in or on a structure, ignited, caused to be ignited, or suffered, allowed or maintained by an officer of a fire-permit issuing agency for the purpose of training local government employees or volunteers, civil defense volunteers or employees of private concerns in methods of fire fighting, is allowed throughout the territory.

Section 2-3.11 Wigwam Waste Burners

(a) Construction of wigwam waste burners or similar devices in any air pollution control area is prohibited without prior approval of the Authority.

(b) Wigwam waste burners or similar devices in existence and in normal use on the effective date of these rules may continue in use provided their operation is in compliance with the emission standards of these rules.

(This page revised 8 May 1968)

Article 2-4 General Rules

Section 2-4.1 Submission of Plans

(a) Plans and specifications, drawn in accordance with acceptable engineering practices, for any air pollution control equipment or any incinerator proposed for installation or for modification of any air pollution control equipment or any incinerator already installed, shall be submitted to the Program Director for review prior to construction and installation. Plans and specifications will include the estimated quantities of input and output of air contaminants together with estimated efficiency of the air pollution control equipment. A description of the process and a related flow chart shall accompany the plans and specifications for the air pollution control equipment or incinerators. A copy of the plans and specifications will be retained by the Program Director.

(b) Plans for any air pollution control equipment may be submitted by the person responsible for compliance with the provisions of these Rules to the Program Director for his review and opinion as to the adequacy of the equipment.

(c) Notwithstanding subsection (a) of this section, if the air pollution control equipment or incinerator is not patented and the person subject to these rules declares by affidavit his intent to seek a patent within one year, then such plans and specifications shall be deemed to be secret and not subject to disclosure, except for inspection by the Program Director on the person's premises.

Section 2-4.2 Schedule for Compliance

(a) A reasonable time for compliance with these rules shall be allowed by the Program Director to any person who will not be in compliance with these rules on the effective date, or to any person found by the Program Director at a later date not in compliance. Time for compliance shall include each of the following: time for engineering, time for procurement, time for fabrication and time for installation and adjustment.

(b) Persons responsible for emissions which will not be in compliance with these rules on their effective date, or persons responsible for emissions found by the Program Director at a later date not in compliance, shall submit to the Program Director for approval a schedule for compliance containing estimates of times

as specified in subsection (a) of this section. A request to amend the original schedule for compliance may be submitted within 90 days of the original request providing that material facts are submitted in writing indicating a different reasonable schedule is required for compliance.

(c) If a person who has been given such reasonable time for compliance fails either (1) to comply with these rules by the time specified, or (2) to make reasonable progress toward completion, at any phase, of such installations as are required for final compliance, the Program Director may require of such person such further reports as he deems necessary to show reasonable progress toward compliance. The Program Director may, if he finds unreasonable delay, proceed in accordance with the enforcement procedures contained in these rules.

Section 2-4.3 Variances

(a) The Board of Directors, by an order, may grant specific variances from the particular requirements or limitations of these rules to specific persons or class of persons or such specific air contaminantion sources, upon such conditions as it may deem necessary to protect the public health and welfare, if it finds that compliance with the air quality standards of these rules or any order issued pursuant thereto is inappropriate because of conditions beyond the control of the persons granted such variance or because of special circumstances which would render compliance unreasonable, burdensome or impractical due to special physical conditions or cause, or because the effect of the air pollution is minimal in comparison with the effect of abatement or substantial reduction of the emission, or because no other alternative facility or method of handling is yet available. In determining whether or not a variance shall be granted, in all cases the equities involved and the advantages and disadvantages to the persons affected and the occupation or activity, shall be weighed by the Board of Directors.

(b) Any person requesting a variance shall make his request in writing and shall state in a concise manner the facts to show cause why such variance should be granted.

(c) Variances shall be for a period of time not to exceed twelve months, but may be renewed for a similar period of time by the Board of Directors upon reapplication.

(d) A variance granted may be revoked or modified by the Board of Directors after a public hearing held upon not less than 10 days notice. Such notice shall be served upon the holder of the variance and all persons who have filed with the Board of Directors a written request for such notification.

(e) A copy of each variance granted shall be filed with the Sanitary Authority within 15 days after being granted.

Section 2-4.4 Upset Conditions

Emissions exceeding any of the limits established in these rules as a direct result of upset conditions in or breakdown of any operating equipment or related air pollution control equipment, or as a direct result of the shutdown of such equipment for scheduled maintenance, shall not be deemed to be in violation of these rules, provided all the following requirements are met:

(a) Such occurrence shall have been reported to the office of the Program Director as soon as reasonably possible; for scheduled maintenance, such report shall be submitted at least 24 hours prior to shutdown, and for upset conditions or breakdown, such report shall in any case be made within four hours of the occurrence.

(b) The person responsible for such emission shall, with all practicable speed, initiate and complete appropriate reasonable action to correct the conditions causing such emissions to exceed the limits of these rules and to reduce the frequency of occurrence of such conditions; and shall upon request of the Program Director submit in writing a full report of such occurrence, including a statement of all known causes and the nature of the actions to be taken pursuant to the requirements of this subsection.

Section 2-4.5 Sampling Procedures

(a) All sampling of particulate matter and other contaminants, shall be conducted in accordance with methods used by the Sanitary Authority or equivalent and acceptable methods of measurement. All methods used will be maintained in a file in the office of the Program Director, which is available for review by any interested person during normal office hours.

(b) When a violation of the ambient air standards set forth in these rules is caused by multiple discharges, determination shall be made of the amount of discharge from each source contributing to the violation. Upon request of the Program Director, the person responsible for a suspected source of air pollution shall make or have made a source test and shall submit a report to the Program Director, describing the nature and quantity of air contaminants emitted, the specific operating conditions when the test was made and other pertinent data describing the emissions. The source test measurements shall be conducted in a manner and with equipment acceptable to the Program Director.

(c) The Program Director is authorized to make source test measurements when the accuracy of a report of a source test measurement is at issue, when the emission is creating alleged effects upon human health, or when the verification of operating conditions is required.

(d) Upon request of the Program Director, the person responsible for emission of air contaminants shall provide in connection with such emission point and related source operations, such existing sampling and testing facilities or other mutually acceptable facilities exclusive of instruments and sensing devices as may be necessary for the accurate determination of the nature, extent, quantity and degree of air contaminants which are or may be emitted as a result of such operation.

Section 2-4.6 Heat Transfer and General Combustion Operations

(a) No person shall cause, let, permit, suffer or allow any emission from any heat transfer operation or any general combustion operation which does not comply with the emission limitations of these rules.

(b) Every person responsible for an emission covered by this section shall have and maintain means whereby the operator of the equipment shall be able at all times during the operation to know the appearance of the emission.

Section 2-4.7 Incinerator and Salvage Operations

(a) No person shall cause, let, permit, suffer or allow any emission from any incineration operation or salvage operation which does not comply with the emission limitations of these rules.

(b) Every person responsible for an emission covered by this section shall be able at all times during the operation to know the appearance of the emission.

Section 2-4.8 Responsibility for Rules Compliance

(a) The person who has registered pursuant to Section 1-3.1 of these rules shall be the person responsible for compliance with these rules.

(b) If no registration has been filed, then the person apparently in possession of the premises shall be responsible for compliance with these rules.

(c) Any person responsible for compliance with the air quality standards of these rules shall determine the means, methods, process, equipment and operations to comply with the standards.

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY
104 SW 5th Avenue, Portland, Oregon (97204)

Article 2-5 Commercial and Industrial Incinerators

Section 2-5.1 Design and Construction Standards

Notwithstanding any other section of these rules, construction of any article, machine, equipment or contrivance for commercial or industrial incineration or salvage operations shall be in accordance with the Multiple Chamber Incinerator Design Standards dated July 1966 on file in the office of the Program Director which are hereby approved and adopted, except that other devices found by the Program Director, after review of plans prior to construction, to be as effective as a multiple chamber incinerator may be approved.

Section 2-5.2

When a commercial or industrial incinerator is constructed or assembled on site, the Program Director shall be notified so that the internal dimensions may be determined while the incinerator is still open.

Section 2-5.3 Submission of Plans and Operating Instructions

Incinerator operating instructions shall be furnished by the supplier to the Program Director for approval coincident with submission of construction plans. These instructions shall include the requirements listed in The Multiple Chamber Incinerator Design Standards. The supplier shall furnish training in the operation of the incinerator to the purchaser prior to the required test operation.

Section 2-5.4 Test Operation

A test operation conducted by the supplier is required before a new incinerator, or an incinerator to which major modifications have been made, is approved for operation. Upon completion of acceptable test operation, the incinerator shall be approved for use and copies of the approved operating instructions will be signed.

Section 2-5.5 Sealing to Prohibit Use

The Program Director may affix a seal, stating use is prohibited, to any article, machine, equipment or contrivance for incineration or salvage operations,

(a) When requested to do so by the owner or operator; or

(b) After completion of construction and prior to required test operations.

(This page revised 8 May 1968)

Section 2-5.6 Classification of Waste Materials

(a) Type 1 Waste

Rubbish, consisting of combustible waste such as paper, cartons, rags, wood scraps, foliage, and floor sweepings from domestic, commercial and industrial activities. This type contains up to 25% moisture, up to 10% incombustible solids and has a heating value of approximately 6500 BTU per pound as fired. If the waste consists entirely of clean, untreated dry paper with a moisture content not over 15% the heating value is approximately 7590 BTU per pound.

(b) Type 2 Waste

Refuse, consisting of an approximately even mixture of rubbish and garbage by weight. This type is common to apartment and residential occupancy, contains up to 50% moisture, 7% incombustible solids and has a heating value of approximately 4300 BTU per pound as fired.

(c) Type 3 Waste

Garbage, such as animal and vegetable food wastes, and may contain up to 30% rubbish. This type contains up to 70% moisture, up to 5% incombustible solids and has a heating value of approximately 2500 BTU per pound as fired.

(d) Type 4 Waste

Animal solids and organic materials such as carcasses, organs and solid organic wastes from hospitals, laboratories, abattoirs, animal pounds and similar sources. Consists entirely of animal or human tissue. This type contains up to 85% moisture, up to 5% incombustible solids and has a heating value of approximately 1000 BTU per pound as fired.

(e) Type 5 Waste

Gaseous, liquid or semi-liquid materials from industrial processes. The composition, moisture content, amount of incombustible solids and BTU value vary in accordance with the predominant components.

(f) Type 6 Waste

Semi-solid or solid materials from industrial process. The composition, moisture content, amount of incombustible solids and BTU value vary in accordance with the predominant components.

Section 2-5.7 Exception to Incinerator Construction Standards

Any article, machine, equipment or contrivance for incineration or salvage operations in existence and in normal operation on the effective date of these rules which does not meet the construction standards of Section 2-5.1, but does meet the emission standards provided in Article 2-2, will be deemed to be in compliance with 2-5.1.

TO : MEMBERS OF OREGON STATE SANITARY AUTHORITY

Mr. John D. Mosser, Chairman
Mr. Storrs S. Waterman
Mr. B. A. McPhillips
Mr. Herman P. Meierjurgen
Mr. Edward C. Harms, Jr.

FROM : Air Quality Control

DATE : June 28, 1968

SUBJECT: ALLOCATION OF STATE FUNDS UNDER THE AIR QUALITY REGIONAL CENTERS ACT

Columbia-Willamette Air Pollution Authority

The Columbia-Willamette Air Pollution Authority has currently submitted;

(1) A project application for July 1, 1968 to June 30, 1968 in the amount of $300,000 ($75,000 State and local monies and $225,000 Federal monies). This budget contains office equipment.

(2) A supplemental application for August 1, 1968 to June 30, 1969 in the amount of $63,000 ($15,750 State and local monies and $47,250 Federal monies). This budget is primarily for data acquisition and motor vehicles.

(3) In addition the intent of the Authority is to receive a retention grant in the amount of $77,000 principally for the purpose of equipment purchases.

(4) The Authority has advised that of the allocated state funds (approved 12-28-67 for $30,180 for the period Jan. 1, 1968 to June 30, 1968) only $12,000 may be required for that period.

Current sources of revenue to support the program July 1, 1968 to June 30, 1969 are listed as follows:

Federal Grants	$330,000
Cities and Counties	73,333
State	36,667
	$440,000

RECOMMENDATION:

It is the recommendation of the staff that monies be allocated to the Columbia-Willamette Air Pollution Authority for the period July 1, 1968 to June 30, 1969 in the amount of $36,667, not to exceed $48,667 for the period January 1, 1968 to June 30, 1969.

NOTE:

To date the following Air Quality Regional Centers Act funds have been allocated:

To Agency	Date Approved	Covering Period	Amount
Lane Regional Air Pollution Authority	12-28-67	1-1-68 to 6-30-68	$9,677
Mid-Willamette Valley Air Pollution Authority	9-30-67	10-2-67 to 6-30-68	7,449
	4-26-68	7-1-68 to 6-30-69	9,024
		MWVAPA Subtotal	16,473
Columbia-Willamette Air Pollution Authority	12-28-67	1-1-68 to 6-30-68	30,180
	Current Revision	1-1-68 to 6-30-68	12,000
		7-1-68 to 6-30-69	36,667
		CWAPA Subtotal	48,667
		TOTAL Allocations, including current request	$74,817

16,473

90,680

H 2 10

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY
104 SW 5th Avenue, Portland, Oregon (97204)

Alternative Sources of Revenue: 1968-69 Budget

	A	B	C	D
Columbia County	$ 1,000	$ 1,000	$ 1,000	$ 1,000
Clackamas County	4,500	4,500	4,500	4,500
Multnomah County	31,000	36,250	36,250	36,250
City of Portland	13,500	18,750	18,750	18,750
Total	$ 50,000	$ 60,000	$ 60,500	$ 60,500
State of Oregon	25,000	30,250	30,250	30,250
Total Local	75,000	90,750	90,750	90,750
Federal Grant	225,000	225,000	272,250	272,250
Previous year carry-over				77,000
Total	$300,000	$315,750	$363,000	$440,000

Alternative A - Utilizes reduced contributions from participating subdivisions and State (except Columbia County from $860 to $1000) to match allocated Federal funds for budget of $300,000.

Alternative B - Continues present contributions from participating subdivisions (except Columbia County from $860 to $1000) but no additional Federal funds for budget of $315,750.

Alternative C - Continues present contributions from participating subdivisions and also an additional Federal supplemental grant of $47,250 for a budget of $363,000.

Alternative D - This is Alternative C to which has been added an estimated carry-over from current budget of $77,000 to provide maximum possible budget for fiscal 1968-69 without an increase of contributions from participating subdivisions. The carry-over may also be added to Alternatives A and B.

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY
104 SW 5th Avenue, Portland, Oregon (97204)

Alternative Proposals: 1968-69 Budget

	A	B	C	D
Personal Services	$211,614	$211,614	$215,466	$215,466
Operations and Maintenance	85,755	85,755	89,155	95,155
Equipment	2,631	18,381	58,379	129,379
Total	$300,000	$315,750	$363,000	$440,000

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY
104 SW 5th Avenue, Portland, Oregon (97204)

Proposed Expenditures: 1968-69 Budget

Personnel	Range	Monthly	A	Annual C	D
1. Program Director	F.R.	1,407	16,884		
2. Director, Technical Operations (Sr.Eng.)(v)	51(A)	986	11,835		
3. Director, Administrative Services	47(C)	931	11,170		
4. Associate Engineer	46(C)		10,837		
5. Associate Engineer (v)	46(A)	853	10,234		
6. Scientific Programmer	43(B)	802	9,630		
7. Assistant Engineer	41(D)	802	9,630		
8. Chemist 2	39(D)	757	9,090		
9. A.P. Specialist 2 (v)	39(A)	695	8,341		
10. Air Pollution Specialist 1	36(F)	735	8,819		
11. Air Pollution Specialist 1	36(B)	653	7,842		
12. Air Pollution Specialist 1	36(B)	653	7,842		
13. Air Pollution Specialist 1	36(D)	695	8,341		
14. Air Pollution Specialist (v)	36(A)	633	7,592		
15. Chemist 1	36(B)	653	7,842		
16. A. P. Field Representative 2	34(F)	695	8,341		
17. A. P. Field Representative 2	34(B)	614	7,363		
18. A. P. Field Representative 2 (v)	34(A)	593	7,114		
19. A. P. Field Representative 1	30(C)	551	6,614		
20. A. P. Field Representative 1 (v)	30(A)	511	6,136		
21. Senior Steno Clerk	26(G)	551	6,614		
22. Steno Clerk	21(C)	392	4,701		
23. Typist Clerk	20(C)	376	4,512		
24. A. P. C. Trainee 520 hours @ 2.75			1,430		
25. A. P. C. Trainee 520 hours @ 2.75			1,430		
26. Instrument Tech (5 mos) (v)	39(A)	695		3,475	

TOTAL		200,184	3,475
Less turnover		10,000	
Total Salary for budget		190,184	3,475
Fringe benefits, etc		21,430	377
Total personal services (10.84% of $197,684)		$211,614	3,852

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY
104 SW 5th Avenue, Portland, Oregon (97204)

Proposed Expenditures: 1968-69 Budget

			A	C	D
Operation and Maintenance					
205	Blueprint and photo		500		
235	Gas, oil		3,000		
250	Office supplies		2,500		
255	Tires, tubes		250		
260	Small tools		150		
299	Other commodities (includes lab supplies)		2,500		
310	Travel and transportation		2,000		
315	Mileage		---		
322	Equipment hire		5,660		
	Computer time	4,800		2,000	
	Key punch	840			
325	Rent (3400 sq.ft. @ $4.00 includes all services)		13,600		
335	Electric power (sampling stations		200		
355	Telephone and Telegraph		2,345		
	Office service	1,425		100	
	Toll charges	500			
	Leased line(Rivergate)	420			
370	Postage		500	500	
375	Printing, stationery, artwork, posters		1,200		
399	Other services		41,000		
	Tuition and fees	1,000			
	Consultant fees	2,500			
	Meteorological survey	20,000			
	Administrative support	10,000			
	Legal services	7,500			
	Moving expenses			800	
	Data network opr. & maintenance				6,000
420	Building repair or renovation		5,000		
430	Equipment repair		3,000		
450	Automobile repair		1,000		
620	Dues, books and periodicals		200		
640	Insurance		1,150		
	Total Operations and Maintenance		85,755	3,400	6,000

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY
104 SW 5th Avenue, Portland, Oregon (97204)

Proposed Expenditures: 1968-69 Budget

Equipment	A	C	D
3 Desks @185	$ 555		
3 Chairs @ 75	225		
2 File Cabinets	150		
2 Bookcases	130		
Dictators and transcribers	705		
Data acquisition		49,500	34,000
3 4-door Sedans		6,000	
Meteorological tower equipment			22,000
Sampling trailers (5 or 6)			10,000
1 Strip chart recorder (dual)			1,600
1 Oven (lab)			360
1 Apparatus, water distillation			1,000
1 Refrigerator (used)			100
1 Air conditioner and humidifier			600
Miscellaneous equipment	866	248	1,340
Total	$ 2,631	55,748	71,000

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY
104 SW 5th Avenue, Portland, Oregon (97204)

1967-68 Budget

Proposed Expenditures: 1968-69 Budget

Range	Monthly	Title of Position
F.R.	1526	1. Air Quality Control officer
49(B)	1047	2. Director Technical Operations (Sr Engr)
36(C)	757	3 Air Quality Progam Coordinator.
43(C)	827	4. Associate Engineer.
43(A)	903	5 Associate Engineer.
39(A)	714	6. Scientific Programmer.
43(A)	760	7 Associate Engineer
35(B)	653	8 Chemist
36 D	757	9. Supervising Sanitarian
33 D	695	10 Sr. Sanitarian
33(A)	572	11. Sr Air Sanitarian
—	—	12 —
—	—	13
—	—	14 Air Sanitarian
35(A)	614	15 Chemist
31(C)	653	16 Air Sanitarian
31(A)	633	17 Air Sanitarian
31(C)	572	18 Air Sanitarian.
31(A)	532	19 Air Sanitarian.
27(A)	473	20 Jr. Air Sanitarian
27(C)	511	21 Sr. Steno Clerk.
19(A)	335	22 Steno Clerk
18 E	376	23 Typist Clerk
520 hr @ 2.55		24 Air Quality Trainee
520 hrs @ 2.55		25 " " "
—	1	26 —

Total no. position 21 + 2 part time

Salary on 12 mo. 167,161

Personnel

		Range	Monthly	A	C	D
1.	Program Director	F.R.	1,407	16,884		
2.	Director, Technical Operations (Sr.Eng.)(v)	51(A)	986	11,835		
3.	Director, Administrative Services	47(C)	931	11,170		
4.	Associate Engineer	46(C)		10,837		
5.	Associate Engineer (v)	46(A)	853	10,234		
6.	Scientific Programmer	43(B)	802	9,630		
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16.	A. P. Field Representative 2	34(F)	695	8,341		
17.	A. P. Field Representative 2	34(B)	614	7,363		
18.	A. P. Field Representative 2 (v)	34(A)	593	7,114		
19.	A. P. Field Representative 1	30(C)	551	6,614		
20.	A. P. Field Representative 1 (v)	30(A)	511	6,136		
21.	Senior Steno Clerk	26(G)	551	6,614		
22.	Steno Clerk	21(C)	392	4,701		
23.	Typist Clerk	20(C)	376	4,512		
24.	A. P. C. Trainee 520 hours @ 2.75			1,430		
25.	A. P. C. Trainee 520 hours @ 2.75			1,430		
26.	Instrument Tech (5 mos) (v)	39(A)	695		3,475	

TOTAL	200,184	3,475
Less turnover	10,000	
Total Salary for budget	190,184	3,475
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TO : MEMBERS OF OREGON STATE SANITARY AUTHORITY

Mr. John D. Mosser, Chairman
Mr. Storrs S. Waterman
Mr. B. A. McPhillips
Mr. Herman P. Meierjurgen
Mr. Edward C. Harms, Jr.

FROM : Air Quality Control

DATE : June 28, 1968

SUBJECT: ALLOCATION OF STATE FUNDS UNDER THE AIR QUALITY REGIONAL CENTERS ACT

Lane Regional Air Pollution Authority

The Lane Regional Air Pollution Authority has currently submitted:

(1) A letter request for $16,073 in state funds for operation during the fiscal year July 1, 1968 to June 30, 1969.

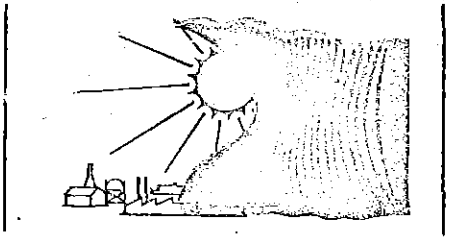
(2) A copy of the local budget showing local, state and federal funds for the fiscal year.

The Sanitary Authority had previously approved funds for the period January 1, 1968 to June 30, 1969, and also the federal grant application for the calendar year 1968.

RECOMMENDATION:

Monies in the amount of $16,073 be granted for the period July 1, 1968 to June 30, 1969 as provided in Section 19, Oregon Law 1967, Chapter 425.

CONTROL NOW-



FOR CLEAN AIR!

LANE COUNTY
AIR QUALITY CONTROL OFFICE
777 PEARL STREET
EUGENE, OREGON 97401
342-5221 • Ext. 288
Area Code 503

June 18, 1968

Mr. Kenneth Spies, Secretary & Chief Engineer
Oregon State Sanitary Authority
Oregon State Board of Health
1400 S.W. 5th Avenue
Portland, Oregon 97201

Dear Mr. Spies:

Under the Section 21 of Chapter 425, Oregon Law 1967, and the provision of Section 19 of said act, the Lane Regional Air Pollution Authority request the amount of $16,073 to be certified for the operation of fiscal year July 1, 1968, to June 30, 1969, in the form of State Grant and Aid.

The Lane Regional Air Pollution Authority is requesting the certification of eligibility for monies to be appropriated from the General Fund to be set aside for its operation during this period.

A copy of the budget for this period is being forwarded for your information. Also enclosed, is a copy of the Federal Appropriation Grant.

Sincerely yours,

Verner J. Adkison, Director
Lane Regional Air Pollution Authority

VJA/jj

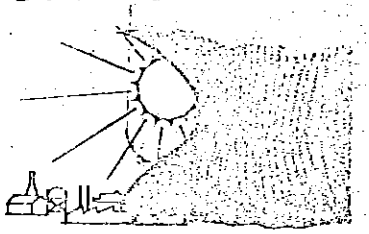
Division of
Sanitation & Engineering
Oregon State Board of Health
RECEIVED
JUN 24 1968

DNF	TEMP	PERM

Enclosures: Federal Grant Aid
Lane Regional Air Pollution Authority Budget

cc: Morris Mitchell, Finance Office
City of Eugene
Harold Patterson, Chief Engineer, Air Quality Control
Keith Parks, Administrative Assistant, Lane County
City Recorder, City of Springfield

CONTROL NOW



FOR CLEAN AIR!

LANE COUNTY
AIR QUALITY CONTROL OFFICE
777 PEARL STREET
EUGENE, OREGON 97401
342-5221 • Ext 288
Area Code 503

October 31, 1967

Grant No.: 67A-4003RI

Mr. Charles D. Yaffe
Sanitary Engineer Director
Chief, Control Agency Development Program
National Center For Air Pollution
Department of Health, Education, & Welfare
Public Health Service
Washington, D.C. 20201

Dear Mr. Yaffe:

Attached herewith for your review and approval are:

(1) Application for Air Pollution Control Program
(2) Narrative progress report for 1967
(3) Statement of Inventions
(4) Request for transfer of unexpended funds from 1967 budget to 1968 budget.

Sincerely yours,

Mr. Hugh McKinley
City Manager
Eugene, Oregon

Enclosures 4

DEPARTMENT OF
HEALTH, EDUCATION AND WELFARE
PUBLIC HEALTH SERVICE

APPLICATION FOR AIR POLLUTION CONTROL PROGRAM GRANT

UNDER SECTION 4 OF PUBLIC LAW 88-206

LEAVE BLANK

APPLICATION NUMBER	GRANT NUMBER
DATE RECEIVED	FILING DATE
☐ APPROVED ☐ DISAPPROVED	DATE
AVAILABLE NON-FED. FUNDS	ACCOUNT NUMBER
AMOUNT OF GRANT AWARD	DATE OF AWARD

1. NAME AND ADDRESS OF APPLICANT AIR POLLUTION CONTROL AGENCY

Lane County Air Quality Control District
(Eugene-Springfield-Lane County)
City Hall 777 Pearl Street
Eugene, Oregon 97401

NAME AND TITLE OF DIRECTOR

Verner J. Adkison
Air Quality Control Officer

TELEPHONE NO. (Area Code and Extension)

342-5221 Ext. 288

2.A. TYPE OF AGENCY

(Check one) ☐ STATE ☐ MUNICIPALITY ☐ INTERSTATE ☒ INTERMUNICIPAL

B. AREAS UNDER JURISDICTION:

Lane County, Oregon
City of Eugene, Oregon
City of Springfield, Oregon

3. TYPE OF APPLICATION *(Check one on each side of broken line.)*

☐ DEVELOPMENT | ☐ NEW PROJECT
☐ ESTABLISHMENT | ☐ REVISION OF APPLICATION NO. _____
☒ IMPROVEMENT | ☒ CONTINUATION OF GRANT NO. 67A-4003RI
☐ SUPPLEMENT TO GRANT NO. _____

4.A. TOTAL NON-FEDERAL FUNDS AVAILABLE FOR FISCAL YEAR IN WHICH GRANT APPLIED FOR IS TO BE USED:

$ 26,585.50

B. FUNDS SPENT IN FISCAL YEAR PRECEDING THE YEAR IN WHICH PROJECT IS INITIATED:

NON-FEDERAL $ 16,978.00
FEDERAL $ 0
TOTAL $ 16,978.00

5. PROPOSED DATES OF INITIAL (OR CONTINUATION) PERIOD OF PROJECT (NOT TO EXCEED 12 MONTHS)

	MONTH	DAY	YEAR
A. FROM	1	1	68
B. LATEST ACCEPTABLE STARTING DATE			
C. THROUGH	12	31	68

6. PROPOSED EXPENDITURES FOR INITIAL (OR CONTINUATION) PERIOD OF PROJECT.

A. NON-FEDERAL FUNDS $ 7,022.00
DATE WHEN THESE WILL BE AVAILABLE: January 1, 1968
B. FEDERAL FUNDS REQUESTED $ 21,066.00
C. TOTAL $ 28,088.00

7. PROPOSED PERIOD OF THE PROJECT (NOT TO EXCEED 36 MONTHS)

	MONTH	DAY	YEAR
A. FROM	1	1	67
B. TO	12	31	69

8. NAME, TITLE, AND MAILING ADDRESS OF OFFICIAL TO WHOM CHECKS SHOULD BE SENT.

Mr. Hugh McKinley
City Manager
City Hall - 777 Pearl Street
Eugene, Oregon 97401

TELEPHONE NO. (Area Code and Extension)

503 - 342-5221 Ext. 307

AGREEMENT: The applicant agrees that if a grant is made on the basis of this application, or on the basis of any revision, or amendment thereof, it will comply with all the applicable requirements and conditions of the regulations governing grants for air pollution control programs (42 C.F.R. Part 56) authorized by Section 4 of the Clean Air Act (Public Law 88-206) and with such additional conditions as the Surgeon General may impose prior to or at the time of the grant award.

9. OFFICIAL AUTHORIZED TO SIGN APPLICATION

NAME: Hugh McKinley
TITLE: City Manager
SIGNATURE: Hugh McKinley
DATE: October 31, 1967

CERTIFICATION:

I certify that Hugh McKinley is the City Manager of Eugene, Oregon and is authorized by Res. No. 1309 to act for the city in this matter.

M/E. Lane, Director of Finance

BUDGET SUMMARY FOR PERIOD SHOWN I EM 5, PAGE 1
(NOT TO EXCEED 12 MONTHS)

ITEM	PROGRAM EXCLUSIVE OF PROJECT	PROJECT			GRAND TOTAL
		NON-FEDERAL	FEDERAL	TOTAL	
	A	B	C	D	E
PERSONNEL	$ 11,367.00	$ 4,086.75	$ 12,260.25	$ 16,347.00	$ 27,714.00
EQUIPMENT	3,649.00	1,312.75	3,938.25	5,251.00	8,900.00
SUPPLIES	1,845.00	663.75	1,991.25	2,655.00	4,500.00
TRAVEL	615.00	221.25	663.75	885.00	1,500.00
OTHER	2,050.00	737.50	2,212.50	2,950.00	5,000.00
TOTAL	$ 19,526.00	$ 7,022.00	$ 21,066.00	$ 28,088.00	$ 47,614.00

11. BUDGET SUMMARY FOR PERIOD SHOWN IN ITEM 7, PAGE 1

YEAR	PROGRAM EXCLUSIVE OF PROJECT	PROJECT			GRAND TOTAL
		NON-FEDERAL	FEDERAL	TOTAL	
	A	B	C	D	E
FIRST	$ 16,978.00	$ 6,408.00	$ 19,224.00	$ 25,632.00	$ 42,610.00
SECOND	19,526.00	7,022.00	21,066.00	28,088.00	47,614.00
THIRD	16,978.00	15,022.00	45,066.00	60,088.00	77,066.00
TOTAL	$ 53,482.00	$ 28,452.00	$ 85,356.00	$ 113,808.00	$ 167,290.00

12. PROGRAM EXPENDITURES FOR THREE FISCAL YEARS PRIOR TO PROPOSED PROJECT

FISCAL YEAR	BUDGETED	ACTUAL EXPENDITURES
19____	$	$
19____	$	$
19____	$	$

REMARKS

BUDGET SUMMARY FOR PERIOD SHOWN I EM 5, PAGE 1
(NOT TO EXCEED 12 MONTHS)

ITEM	PROGRAM EXCLUSIVE OF PROJECT	PROJECT			GRAND TOTAL
		NON-FEDERAL	FEDERAL	TOTAL	
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PERSONNEL	$ 11,367.00	$ 4,086.75	$ 12,260.25	$ 16,347.00	$ 27,714.00
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TOTAL	$ 53,482.00	$ 28,452.00	$ 85,356.00	$ 113,808.00	$ 167,290.00

12. PROGRAM EXPENDITURES FOR THREE FISCAL YEARS PRIOR TO PROPOSED PROJECT

FISCAL YEAR	BUDGETED	ACTUAL EXPENDITURES
19____	$	$
19____	$	$
19____	$	$

REMARKS

ORIGINAL

DETAILED BUDGET FOR PERIOD SHOWN IN M.5, PAGE 1
(NOT TO EXCEED 12 MONTHS)

13. PERSONNEL

JOB TITLE	NUMBER IN SPECIFIED JOB CLASS	PERCENT OF TIME SPENT ON PROJECT	SALARY CHARGEABLE AVAILABLE	NON-FEDERAL FUNDS AVAILABLE	FEDERAL FUNDS REQUESTED
A	B	C	D	E	F
Air Quality Control Office	1	59	$ 6,142.21		
Air Quality Technician	1	59	4,308.18		
Air Quality Inspector	1	59	4,036.11		
Secretary	1	59	1,871.17		
		SUB-TOTAL	$ 16,357.67	$ 4,089.42	$ 12,268.25

14. EQUIPMENT	CHARGEABLE TO PROJECT		
Time lapse camera	$ 875.00		
Meterological recorders	1,800.00		
4 Tape Aisi samplers	1,200.00		
Calculator	750.00		
6 High Volumes	400.00		
Labware & Spectronic 20	226.00		
OTHER EQUIPMENT			
SUB-TOTAL	$ 5,251.00	$ 1,312.75	$ 3,938.25

15. CONSUMABLE SUPPLIES	CHARGEABLE TO PROJECT		
Office Miscellaneous supplies	450.00		
Postage	$ 350.00		
Printing, Xerox	350.00		
Filters, Tapes, Charts	855.00		
Lab Chemicals	650.00		
OTHER SUPPLIES			
SUB-TOTAL	$ 2,655.00	$ 663.75	$ 1,991.25

16. TRAVEL	CHARGEABLE TO PROJECT		
Training & Regional meetings	$ 885.00		
SUB-TOTAL	$ 885.00	$ 221.25	$ 663.75

17. OTHER	CHARGEABLE TO PROJECT		
Meotologe	$ 1,000.00		
Engineering	1,950.00		
SUB-TOTAL	$ 2,950.00	$ 737.50	$ 2,212.50

18. GRAND TOTAL	$ 28,088.00	$ 7,022.00	$ 21,066.00

19. WORKABLE PROGRAM (See Instructions)

See Page #4

20. PROJECT DESCRIPTION AND JUSTIFICATION (See Instructions)

See Page #4

#19

The only change in workable program consist of the following staff positions:
Assistant Air Quality Control Officer position deleted as existing personnel resigned and experienced personnel were not available.

Secretary, part time, position was increased to full time as work load increased with public awarness of air pollution, expanded kraft odor problem, and project requirements.

Air Quality Control Inspector position became a full time position with issuance of fire permits, investigations of complaints, and increased monitoring equipment service.

Air Quality Control Technician position was created to coordinate technical operations and partake of, on the job training for Assistant Air Quality Control Officer. This position now fulfulls present needs for chemical engineer and consults with the Oregon State Sanitary Authority Staff when additional engineering is required.

#20

Programmed starts include zoning study and recommendations, increased coordination with Planning Commission. Outside consultants will evaluate program goals, operations, and order of priority. Laboratory equipment will be installed to analyse all local air quality monitoring.
Continual projects include improving source emission inventory and air quality monitoring. Long range regulations covering all new installations are to be proposed for adoption. Enforcement, educational clinics and public information programs will continue.

GRANTEE AGENCY'S FISCAL YEAR DATA

A. The 12 Month Period of Time Considered to be the Grantee Agency's Fiscal Year.

From: 7-1 (Month & Day) To: 6-30 (Month & Day)

In those instances where the Grantee Agency's Fiscal Year is the same as the award period, the item below need not be completed.

B. Non-Federal Air Pollution Control Expenditures by Grantee Agency Fiscal Year.

The Grantee is asked to report non-Federal expenditures for the immediate past fiscal year* and the two preceding fiscal years.

Fiscal Year	Date Month, Day, Year	Total Non-Federal Project Expenditures	Program Expenditures Exclusive of the Proje
Immediate past Fiscal Year	From: 7 / 1 / 66 To : 6 / 30 / 67	$2,728.96	$17,306.47
F. Y. 19___	From: ___ / ___ / ___ To : ___ / ___ / ___		
F. Y. 19___	From: ___ / ___ / ___ To : ___ / ___ / ___		

*The immediate past fiscal year is defined as that fiscal year which expired within the period covered by this annual report.

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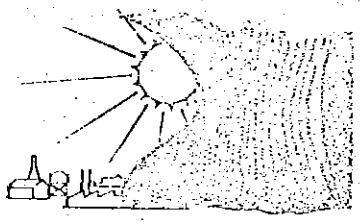

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Area Code 503

LANE AIR QUALITY CONTROL OFFICE 1967

An ancillary staff consisting of a full time secretary, a full time enforcement officer, and a part time lab technician were hired constituting a 210% increase of staff over the pre-project period. Training for new staff members included visible emissions, emission control, and air quality control.

The ambient air sampling program of this office has increased 100% this year as a result of the withdrawal of the Oregon State Sanitary Authority sampling network in this area. Fallout stations have increased from 15 to 30 with sodium, calcium, and sulfate ions run on one half of these. Two soiling index tape samples have been purchased and are now operating, an increase from none. Five high volume samplers have been purchased and are being operated, up from two prior to project, chemical ions being run on three of the five. Two field effect stations have been purchased, but have not been put into operation as the analytical procedures and equipment have not been secured. The Oregon State Sanitary Authority has not been able to accommodate our request for use of gas analysis equipment, time-lapse photography equipment, or chemical ion analysis in a reasonable time, (three to five months have been normal).

The laboratory facilities of the Oregon State Sanitary Authority have been utilized to run chemical ions as our program has had neither manpower nor facilities. All other examinations of fallout, high volumes, and tape samples have been done in our facilities in Eugene.

Mr. Earl Bates, Meteorologist in Charge, of United States Invironmental Services at the Eugene Airport, has assisted in issuing forecasts for proper burning conditions, inversions, etc., and has cooperated in studies correlating our ambient air data, and his meteorological data for the same period. He has worked with our consultant, meteorologist, Mr. Lowry, of Oregon State University, in determining locations and equipment standards for meteorological stations being established in the Valley. Two meteorological stations have been installed this year. These record wind speed, direction, and temperature. This office has refrained from source emissions analysis as it is felt that the high cost of equipment could not be justified on a local level. No commercial laboratories are available in this area, and the cost of contracting to bring in equipment from California would be prohibitive. Dr. Richard Boubel, Mechanical Engineer, Oregon State University, has been retained to assist in data analysis.

The Air Quality Control Office assumed responsibility for issuing all burning permits other than at one and two family residences This has enabled us to eliminate most of the plastics, rubber, and asphalt compounds being burned in the metropolitan area. Inacquiescent fire departments control burning during critical periods. There has been a very effective reduction in commercial open burning

through cooperation, charges filed in municipal courts, and constant enforcement patrol to report all violations.

New State Laws have removed from this office jurisdiction over agricultural field burning. All building permits are reviewed for possible sources of pollution emissions and if it appears grave, permits are withheld until design is improved.

The local newspapers are averaging an article on air pollution in every other publication. All local radio and television stations have cooperated completely by allowing installation of equipment of their towers, and broadcasting requested announcements of general interest. This office is maintaining a library of books, pamphlets, slides, movies, etc., for loan upon request, and has furnished a speaker for every interested civic organization.

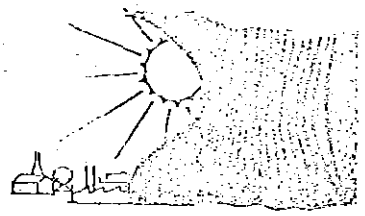
New Standards and ordinances are being proposed for adoption and should be presented to the local municipalities by January 1, 1968.

The Lane County Sanitary Land Fill Program is now in the planning stage to eliminate the remaining open dumps. Incinerators are not being recommended for installation as the use of sanitary landfill is being propounded as the only acceptable long range system of disposal. The emission inventory by the rapid survey technique method will be completed by December 31, 1967.

This office records all complaints, forwarding to the Oregon State Sanitary Authority those applicable to companies which the Oregon State Sanitary Authority has not relenquished jurisdiction. All complaints are investigated by personal

contact from a representative of this office. The office facilities and equipment have been improved to provide aesthetic and an efficient work area.

CONTROL NOW-



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342-5221 - Ext. 288
Area Code 503

The Lane County Air Quality Control Office had no inventions during 1967.

Verner J. Adkison
Lane County Air Quality Control Officer

TO : MEMBERS OF OREGON STATE SANITARY AUTHORITY

Mr. John D. Mosser, Chairman
Mr. Storrs S. Waterman
Mr. B. A. McPhillips
Mr. Herman P. Meierjurgen
Mr. Edward C. Harms, Jr.

FROM : Air Quality Control

DATE : June 28, 1968

SUBJECT: Oregon-Washington Air Quality Committee Report Number One. Adoption of Operational Procedures

Authority members have previously been furnished a copy of the Oregon-Washington Air Quality Committee Report Number One.

This Committee was established to develop a plan of air resource management in the border area, and has worked to accomplish the plan through the adoption of initial objectives as follows:

A. Maintain parallel program progress in the border areas including the development of comparable air quality objectives and goals and emission standards.

B. Identify and evaluate the problems of mutual concern along the border. These problems would include both area-wide and specific sources.

C. Agree upon uniform methods of measurement, analysis, and data reporting.

D. Enhance the coordination of local area control programs. Initially this will include the three Oregon counties and the five county Southwest Air Pollution Control Authority in Washington.

E. Promote public understanding and encourage agency consideration of the effects on air quality from urban and industrial development and projected land use.

F. Develop criteria for providing information to the states regarding plans for major industrial plant locations and expansions.

G. Create an organized public information program that will provide routine releases beginning with the Governor's declaration.

H. Development of a position statement on health effects.

I. Propose appropriate action to be taken when air quality objectives or standards are exceeded (action guides).

As is indicated in the report, the committee is working on a number of projects and at this time recommends adoption of the committee recommendations in the report as uniform operational procedures between the two states. The following is an abbreviation of those recommendations:

Recommendation 1 -- Sampling Station Criteria.

Each sampling station shall be installed to meet specifications outlined for air monitoring measurements. Data shall not be interchanged or compared from any stations that do not meet specifications adopted by the state agencies. The following types of stations shall be used to meet various monitoring needs.

A. Primary Air Mass Station (PAMS)
B. Primary Ground Level Monitoring Station (PGLMS)
C. Special Stations

The probe material at all stations shall be of a Pyrex type glass with Teflon gaskets and Teflon connecting probes. The probes shall be three-quarters to one-inch inside diameter and be kept at a minimum length consistant with the above station specifications.

Recommendation II - Measurement and Analysis Procedures.

Standard acceptable methods for measurement and analysis are described in the report. Other continuous and manual methods of measurement will be accepted if they have been shown to be comparable to the standard method in reproducability, accuracy, sensitivity, and freedom from interferences at the concentrations being measured and at similar conditions of measurement.

The report recommends methods of measurement for Carbon Monoxide, Sulfur Dioxide, Oxidant, and Suspended Particulate.

Recommendation III - Data Reporting Procedure.

All contaminant and meteorological data will be reported in such a manner that specific information can be exchanged between agencies. The general format of the U. S. Public Health Service data system will be used for classification of contaminants and methods. Sites will be numbered by county and city within each state. The appendix includes the proposed city-county coding system for each state. Although each agency may record data in specific formats for their own use, information as the minimum required for exchange between agencies has been established for CO, tape samplers and oxidant.

MEMORANDUM

TO: Members of the Sanitary Authority

FROM: Water Pollution Control Staff

DATE: June 21, 1968

SUBJECT: Shady Vista Mobile Park, Proposed Sewage Lagoon
Shady Cove, Oregon (Jackson County)

Attached is a letter from Mr. Eugene Smith who, in partnership with Mr. Frank Conklin, plans to develop the 49-unit Shady Vista Mobile Park at a site approximately 1½ miles east of Shady Cove, Oregon, in Jackson County.

During the summer of 1967, Mr. Smith retained an engineer, Mr. Richard Dalke of Albany, Oregon, to prepare and submit to the Sanitary Authority plans for a sewage lagoon to serve the trailer park. The plans were submitted to the Sanitary Authority staff on October 9, 1967. On October 16 certain revisions to the plans were recommended by the staff and application forms for a performance bond for maintenance were mailed to Mr. Smith. The plans were resubmitted in final revised form on November 8, 1967, and on November 9 Mr. Smith was advised that the plans were generally satisfactory; but, final approval could not be granted until the maintenance bond was on file with the Sanitary Authority.

Since early November Mr. Smith has tried unsuccessfully to secure a bond. In the attached letter, Mr. Smith explains the problem and requests the Sanitary Authority to accept the annual license which will be issued by the Jackson County Health Department as sufficient security, in lieu of a performance bond for maintenance.

Legal counsel, Mr. John Denman, is of the opinion that a county license is not a satisfactory substitute for a bond.

In view of Mr. Smith's conscientious efforts to develop a quality mobile home park at Shady Cove and his cooperative compliance with all other requirements of the staff, we recommend that either the Jackson County license be accepted by the Sanitary Authority as adequate security or that some other reasonable alternative be agreed upon.

Mr. Smith will be in attendance at the June 28 meeting of the Sanitary Authority to reply to any questions the Authority may have.

June 14, 1968

State of Oregon Sanitary Authority
State Office Bldg., room 968
1400 SW 5th Ave.
Portland, Oregon

Attention : Mr. Kenneth H. Spies
Subject : Sewage lagoon performance bond.
Reference : Previous correspondence and plans submitted for domestic sewage lagoon for Shady Vista Mobile Park, Shady Cove, Oregon.

Dear Sirs:

Since your approval of our plans for construction of a domestic sewage lagoon at Shady Vista Mobile Park, Shady Cove, Ore. we have been in almost continuous contact with a succession of Insurance Companies attempting to find one willing to write the required bond. Our latest attempt (we've run out of companies) was United Pacific Ins. Co. of Tacoma, Wash.,- thru Mansfield & Co. of Portland. There reply which follows was typical of Traveller's and all the others.-- "While your financial statement certainly is favorable, we find that the bond would remain in effect until the site would be absorbed by a governmental unit. Since the time element here is indefinite, we must decline.".

The Shady Cove area is in need of a quality Mobile Home Park. (our average space density will average 6 to 7 spaces per acre). We had hoped to have our park in operation by this spring, but inability to find a company willing to write the type of bond you require has caused considerable expense and loss of time.

We have submitted detail plans for our Mobile Home Park to the State Sanitary Engineer, State Plumbing inspector and County Sanitarian all in Medford and have received all the necessary approvals.

Our Park is privately owned, will be inspected periodically by the County Sanitarian and liscensed annually by the State. It would seem that these controls should provide adequate control measured to insure proper maintenance and operation of the sewage lagoon.

In view of the forgoing circumstances would it be possible to obtain permission to operate the lagoon without the bond?

Very Truly Yours,

Eugene P. Smith

Eugene P. Smith
2920 Park Terrace
Albany, Oregon

MEMORANDUM

TO: Members of the Sanitary Authority

FROM: Water Pollution Control Staff

DATE: June 21, 1968

SUBJECT: Shady Vista Mobile Park

Final plans for a gravity sewer from the mobile park and a 1.3 acre two-cell lagoon, including chlorination facilities and an outfall to Cusey Creek, have been submitted to the Sanitary Authority for approval.

Cusey Creek, which flows into the Rogue River approximately one mile downstream from the proposed lagoon, is dry during the summer months. Therefore, the lagoon is designed for seven months holding.

The plans are approvable. Recommended waste discharge permit conditions are attached for your consideration.

RECOMMENDED WASTE DISCHARGE PERMIT CONDITIONS

Applicant: Shady Vista Mobile Park

Expiration Date: 6/30/70

Application No.: 596
Date Received: 3/20/68
County: Jackson
River Basin: Rogue
Receiving Stream: Cusey Creek
River Mile:

1. Such waste collection, treatment, and disposal facilities as have been approved in writing by the Sanitary Authority shall be constructed in accordance with approved plans and operated in accordance with the following standards:

    a. At all times, all waste treatment facilities and equipment shall be operated and maintained at maximum efficiency and in a manner which will minimize waste discharges.
    b. The average daily flow of sewage into the treatment facilities during any dry weather month shall not exceed the design flow of 0.01 million gallons per day (MGD).
    c. During the period from April 15 to November 15 no effluent shall be discharged to the waters of Cusey Creek.
    d. During the period from November 15 to April 15 the monthly average effluent 5-day 20° C. Biochemical Oxygen Demand (BOD) concentration shall not exceed 30 milligrams per liter (mg/L) (2.5 lbs./day).
    e. At all times, the liquid effluent from the treatment facility shall receive adequate disinfection prior to discharge from the controlled confinement of the treatment facility. The effectiveness of disinfection shall be equivalent to that obtained by adequately mixing sufficient chlorine with the effluent to provide a minimum residual of 0.5 mg/L after 60 minutes of contact time at the average design flow.
    f. All screenings, grit, and sludge shall be disposed of in a manner approved by the Sanitary Authority such that it does not reach any of the waters of the state or create a health hazard or nuisance condition. A permanent record shall be maintained which indicates the quantity, method, and location of disposal of all sludge.

2. The permittee shall effectively monitor the operation of the treatment facility and shall submit reports on prescribed forms containing the data collected to the Sanitary Authority at the end of each calendar month. Data collected and recorded shall include, but not necessarily be limited to, the following parameters and minimum frequencies:

PARAMETER	MINIMUM FREQUENCY
Total Flow	Daily
Pounds Chlorine Used	Daily
Chlorine Residual (effluent)	Daily
pH (effluent before chlorination)	3 times per week

3. This permit allows the construction of sewer extensions and connections thereto provided that plans and specifications are submitted to and approved by the Oregon State Board of Health and the Sanitary Authority as required by ORS 449.245 and ORS 449.395.

4. In the event the permittee is temporarily unable to comply with any of the conditions of this permit, due to breakdown of equipment or other cause, the permittee shall immediately notify the Sanitary Authority of the breakdown or cause, and the steps taken to correct the problem and prevent its recurrence. A permanent record shall be maintained of all such occurrences.

5. Whenever a significant change in the character of the waste is anticipated or whenever a change in the waste to be discharged in excess of the conditions of this permit is anticipated, a new application shall be submitted together with the necessary reports, plans, and specifications for the proposed changes. No change shall be made until plans are approved and a new permit issued.

6. Authorized representatives of the Sanitary Authority shall be permitted access to the premises of all facilities owned and operated by the permittee at all reasonable times for the purpose of making inspections, surveys, collecting samples, obtaining data, and carrying out other necessary functions related to this permit.

7. This permit is subject to termination if the Sanitary Authority finds:

    a. That it was procured by misrepresentation of any material fact or by lack of full disclosure in the application.
    b. That there has been a violation of any of the conditions contained herein.
    c. That there has been a material change in quantity or character of waste or type of waste disposal.

8. In the event that a change in the conditions of the receiving waters results in a dangerous degree of pollution, the Sanitary Authority may specify additional conditions to this permit.

M E M O R A N D U M

To: Sanitary Authority Members Date: June 28, 1968

From: Lloyd O. Cox

Subject: Status Report - Evans Products, Corvallis

By way of review Evans Products produces approximately 80 Tons/Day of hardboard products and also produces separator boards for construction of wet cell batteries.

The plant waste discharge adds approximately 18,000 lbs. of BOD/day to the Willamette River at a point immediately upstream of the mouth of the Marys River near Corvallis. The company was instructed to provide secondary treatment at that location and retained Cornell, Howland, Hayes and Merryfield of Corvallis in the spring of 1967 to prepare plans and sepcifications for waste treatment. As a result CH_2M issued an effluent treatment study report to Evans on August 3, 1967, and included recommendations for a treatment method and preliminary design criteria and layout. The report set forth a time schedule which included acquisition of required property by September 20, 1967, with a construction completion date of July 15, 1968.

The initial site selected was within the city limits of Corvallis, but in mid-October the city planning commission passed a new ordinance forbidding the location of this type of facility within the city limits. During the ensuing months attempts were made to locate desirable property outside the city limits, apparently

with no success. On January 5, 1968, the Sanitary Authority staff was notified by letter that the purchase of property across the Willamette River from the plant in Linn County had been finalized.

In the meantime a decision was made by Evans to complete the engineering design work within their own company.

During the next several months Evans encountered additional problems concerning pressures by local residents who were opposed to the location of this facility in Linn County and in an area supposedly included in the Willamette Greenway project. Also, they encountered some problem in obtaining property on the Linn County side for location of the waste effluent line to the treatment facility which was owned jointly by the city of Corvallis and Benton County.

On May 22, 1968, final engineering plans and specifications were received for the treatment project. The plans were reviewed and in general met with our approval, but several modifications were requested. Prior to this time Evans had completed their survey work in the area, but construction was delayed because of high river flows. A delay was also encountered in obtaining a permit from the Corps of Engineers for the river crossing, primarily because several state agencies and the local government had to be assured that the project was compatible with other local future plans. Finally on approximately June 1, 1968, the permit was granted for the river crossing.

A letter was received by our office dated June 26, 1968, from Mr. Zenczak, Vice President, Evans Products, outlining progress to date and is as follows:

1) The river crossing pipeline is completed.

2) The discharge structure and pipe (outfall) will be installed by July 8.

3) Construction of the ponds is 25% complete, with the final completion scheduled for July 26.

4) Schedule wet tests of system by August 1. Expect full system will be in complete operation by September 1.

The waste discharge permit issued to Evans Products contained a provision which required that secondary treatment (reduction of discharge load to 2500 #BOD/day) be in operation by July 15, 1968.

A second letter was received on the same date from Evans' divisional engineer transmitting final construction plans and indicated that all revisions requested or recommended by the staff had been accepted. The staff sees no reason why final approval of plans for this project cannot be granted.

Mr. Zenczak's letter of June 26 requests that the Sanitary Authority extend Evans permit period to expire September 1.

EVANS PRODUCTS COMPANY / FIBER PRODUCTS DIVISION

POST OFFICE BOX "E" • CORVALLIS, OREGON 97330

June 26, 1968

REF: IW 2-2 Evans Products Company
Corvallis

Mr. Ely J. Weathersbee
Deputy State Sanitary Engineer
Oregon State Sanitary Authority
Post Office Box 231
Portland, Oregon 97207

Dear Mr. Weathersbee:

Enclosed is a progress report by our Engineering Department which also answers some of the questions in your letter of May 22, 1968.

I want to notify you that the project, in general, is on schedule--specifically:

1. The river crossing pipeline is completed.
2. The discharge structure and pipe will be installed in the river bed by July 8.
3. Construction of the pump pit will begin by July 1.
4. Construction of the ponds is 25% complete, with the final completion scheduled for July 26.
5. We are scheduling wet tests of the system by August 1. We expect the full system will be in complete operation by September 1.

In view of the above, we would like to request that you extend our permit which expires August 1, to September 1.

Very truly yours,

EVANS PRODUCTS COMPANY

P. Zenczak
Vice President

PZ:h

Enclosure

cc: H.W. Park

Memorandum

To : Sanitary Authority Members

From : Lloyd O. Cox

Date : June 28, 1968

Subject: Status Report, Wah Chang Albany Corporation, Albany

By way of review, Wah Chang Albany Corporation was called to appear before the Sanitary Authority for a hearing regarding the discharge of toxic wastes from its plant to Truax Creek on December 8, 1967. At that meeting a progress report was given by representatives of Wah Chang outlining the steps that had been taken to date to reduce the toxicity of their discharges and indicated Cornell, Howland, Hayes & Merryfield of Corvallis had been retained to study their entire waste control problem.

The Authority members moved that the hearing be continued until July 1968, and that the waste discharge permit be limited to August 1968, and that the permit be subject to the following three conditions:

1. Filing of a report by the Corporation's consulting engineers, CH_2M, by July 1, 1968.

2. Such monitoring of both the waste streams and receiving streams and bioassays as the staff may request.

3. That no steps be taken to expand any production during the life of the permit which would contribute to these waste streams over the level that prevailed in January 1968.

A permit incorporating these conditions in detail was drafted and adopted by the Sanitary Authority on December 28, 1967. (See attached copy of permit). This permit expires on August 31, 1968. The permit also limited for the study period waste effluent concentrations of particular chemicals and ions to levels as set forth in Wah Chang's waste discharge permit application. Two sets of effluent criteria were set forth, one set to be met by January 1, 1968, and a second set to be met by April 1968 after further anticipated controls and reductions had been effected.

A. Evaluation of Waste Disposal Problem

   1. The main objectives to be accomplished are removal or substantial reductions of ammonium ions (NH_4^+), thiocyanate ions (SCN^-) and methyl isobutyl ketone (MIBK) because of their toxic effect on fish life. At the present time, these chemical ions are found in the amounts of 45,500 lbs/day, 3,000 lbs/day and 2,000 lbs/day respectively.

2. Bioassays conducted during the last 6 months indicates a required dilution factor of as much as 80 to 1 to produce no mortalities of test fish in a 96 hour period.

3. The combined waste stream being discharged as measured on May 17, 1968, exhibited a chemical oxygen demand (COD) of approximately 900 mg/1 and a calculated BOD of 350 mg/1. This amounts to approximately 10,500 lbs/day COD and 4,000 lbs/day BOD going to the Willamette River. In addition the ammonia add a significant amount of fertilizer to the Willamette River.

B. Recommended Waste Control Facilities

1. The recently installed calcium fluoride precipitation system, suspended solids removal system and pH adjustment are effective.

2. The additional chemicals being discharged are a serious problem primarily because of their toxicity to the receiving stream. It is suggested that a six inch outfall line be installed immediately to the Willamette River to carry only the thiocyanate bearing streams (300gpm) as it is considered by the engineers in the report that ammonia removal is very necessary before any thiocyanate treatment can be considered.

3. Construction of facilities is now underway to alter in-plant processes which, if successful, will eliminate one waste stream. This includes a kiln and recovery of sulfuric acid from the off gases. This will reduce the discharge of ammonium ions by approximately 11,000 lbs/day, sulfate ions by 8,300 lbs/day and chloride ions by about 1,000 lbs/day. The delivery of the kiln is now scheduled for July 1.

4. Two alternative plans are considered for immediate further study, design and installation, and are as follows:

Alternative No. 1

Recovery of ammonium sulfate for sale as fertilizer plus deep well injection of the remaining toxic wastes. An exploratory oil well drilled by Humble Oil & Refining Co. to a depth of some 5,000 feet near Jefferson is being investigated alternately with the possible drilling of a new well on or near the plant site. This combined control system would eliminate the discharge of approximately 95% of all toxic components. The feasibility of producing fertilizer (propose to operate pilot plant) should be established by October 1, 1968 and design and engineering completed by December 1, 1968. This should produce an operational unit by June 1, 1969.

Alternative No. 2

The ammonium sulfate fertilizer plant would be operated in conjunction with the installation of a distillation plant for recovery and reuse of 28% ammonium hydroxide with ultimate disposal of the remaining toxic effluents directly to the Willamette River. This plan would reduce the discharge of ammonium ions by approximately 95%. The decision on distillation or deep well injection will be made by January 1, 1969, and a final design report to be completed and submitted prior to May 1, 1969. An additional 6 to 12 months would be required to complete the actual disposal installation.

The staff has evaluated the report and treatment plans outlined above and feel it is a reasonable approach to this waste discharge problem. Although a time span of some 1-1/2 to 2 years is anticipated before final controls are effected, it would probably be difficult to do the job outlined above in less time considering engineering time involved, equipment purchase and delivery, and construction.

However, it is the staff's opinion that the immediate routing of thiocyanate streams to the Willamette River should not be approved at this time. It is considered that adequate controls should be effected in the remainder of the system and the treatment of thiocyanates further considered before direct discharge to the Willamette River should be permitted.

Discharge Loadings

Wah Chang Albany Corporation
Albany, Oregon

Parameter	Nov. 1967	April 1968	
		*Anticipated	*Actual
Flow	3.0 MGD	3.0 MGD	1.2-1.6 MGD
pH	5	6.5	6.2-9.2
Suspended Solids	15,000 lbs/day	60 lbs/day	2,900 lbs/day
Ammonium	44,000	23,000	22,000
Sodium	5,500	19,500	7,200
Chloride	74,000	49,000	31,000
Sulfate	35,000	35,000	23,000
Thiocyanate	4,300	250	3,100
Fluoride	6,000	50	23
Calcium	---	11,000	2,700
MIBK (Methyl Isobutyl Ketone	---	---	2,000

* The loadings anticipated in April were based on 3.0 MGD whereas the actual flow in April was reduced to approximately 1.4 MGD. However, the numbers in the table were calculated on a comparison basis.

WAH CHANG ALBANY
P. O. BOX 460
ALBANY, OREGON 97321
(503) 926-4211

A TELEDYNE COMPANY

June 24, 1968

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

Dear Mr. Spies;

Attached is the report completed by Cornell Howland Hayes & Merryfield on the treatment of effluent waters from Wah Chang Albany Corporation. This report has been reviewed, and we are in general agreement with the recommendations submitted. We would like to present some points for your review and possible clarification, and have proposed a schedule for implementation of the plan as proposed by our consultants.

They recommend that steps should be taken immediatly to eliminate discharge of concentrated toxic wastes to Truax Creek. The method proposed in the report is installation of a six inch line with an effective dispersion system through which the primary toxic streams would be diluted and discharged into the Willamette River. An alternate to the installation of a six inch line is the installation of a large concrete line, (approximately 18 inches), and an appropriate dispersion system which would allow diversion of our entire effluent, including cooling water, directly in the Willamette River.

Either of the above approaches would be a satisfactory solution to the problems associated with the Truax Creek drainage area. We feel the larger line would provide a more reliable solution to the problem. From information gathered in the last six months from bioassays and information included in Chapter I of the report, one of these steps could be taken without danger to aquatic life in the Willamette River. Wah Chang Albany Corporation would appreciate the opinion of the Sanitary Authority staff as to the desirability of direct discharge of all or part of their effluent into the Willamette River. If a line is deemed desirable, early dispostion as to which method should be used would be appreciated, so that construction can be completed as soon as possible.

As far as treatment of high ammonia streams is concerned, Wah Chang Albany Corporation has authorized Cornell Howland Hayes & Merryfield to arrange pilot experiments for production of ammonium sulfate from the V-1 filtrate stream. Feasibility of producting fertilizer should be established prior to October 1, 1967, and design and engineering of a system should be completed by December 1, of this year. This should allow installation of an ammonium sulfate plant by June 1, 1969.

We will perform distillation pilot runs on the V-2 filtrate during the summer months. Concurrent with the pilot experiments on distillation, we will authorize Cornell Howland Hayes & Merryfield to further investigate the feasibility of deep well injection. We propose to decide which method is the most practical for the disposal of the V-2 stream by January 1, 1969. Final design engineering of the selected system would be completed and submitted to the Sanitary Authority staff prior to May 1, 1969.

We would appreciate your review of this proposal and the complete report as submitted by Cornell Howland Hayes & Merryfield, and would be pleased to meet with you to discuss these considerations in more detail.

Sincerely,

S. A. Worcester
Technical Director

SAW:eh

Enclosure: CH_2M Report Of Wah Chang Albany Corporation Effluent Treatment

OREGON STATE SANITARY AUTHORITY

WASTE DISCHARGE PERMIT

Issued To:			
Wah Chang Albany Corporation 1900 Old Pacific Highway P.O. Box 460 Albany, Oregon 97321 Attention: Mr. Richard P. Blunk Vice President			Permit No. 9 Date Expires 8/31/68 Page 1 of 3 Application No. 303 Date Received 11/30/67
County Linn	River Basin Willamette	Receiving Stream Truax Creek	River Mile 2

This WASTE DISCHARGE PERMIT is issued in accordance with the provisions of Chapter 426, Oregon Laws 1967, and is subject to the following conditions:

1. Prior to July 1, 1968, the permittee, assisted by Cornell, Howland, Hayes and Merryfield, shall file a report with the Sanitary Authority proposing methods, means and a time schedule for further controlling, treating and disposing of overall plant wastes in a manner which will result in continuous compliance with pertinent state statutes and water quality standards.

2. Overall plant waste water discharges shall not exceed substantially the quantities, and constituent concentrations listed under item IV, page 4, of permit application No. 303 filed by the permittee under date of November 30, 1967, as corrected by Richard P. Blunk's letter of December 22, 1967, except that after April, 1968, the pH of the waste discharge stream shall be maintained within the range of 6 to 7.

3. No expansion of production over January 1968 levels shall occur which will result in increased waste discharges or which will interfere with progress toward intended significant reductions in present waste discharges until satisfactory control over total plant wastes has been achieved.

4. All plant processes and equipment and all waste treatment and control facilities shall be operated and maintained at all times in a manner which will minimize waste discharges.

5. All contaminated waste streams including decanted liquid wastes from the sludge storage pond shall be collected and discharged, after appropriate treatment, at a single controlled waste discharge point where the flow and pH shall be continuously metered and recorded.

Oregon State Sanitary Authority **WASTE DISCHARGE PERMIT**	Permit No. 9 Date Expires 8/31/63 Page 2 of 3

6. Analyses of the waste discharge stream shall be made daily, unless and until sampling results might indicate that less frequent analyses will suffice, for the following:

NH_4^+	$SO_4^=$
Na^+	SCN^-
Ca^{++}	F^-
Heavy metal ions	Cl^-
Suspended solids	
Methyl isobutyl ketone	
Temperature	

In addition, during the effective period of this permit, data shall be developed and reported concerning temperatures and quantities of the various cooling water streams that are discharged separately from the main waste discharge stream.

7. Bioassays of the waste discharge stream shall be conducted in sufficient number to represent on a continually current basis the dilution with river water required to render the wastes non-toxic as evidenced by 96-hour bioassays using appropriate test fish.

8. The receiving stream shall be observed daily and physical and aesthetic qualities recorded which include:

Scum	Discoloration
Slime	Turbidity
Sludge deposits	Odor

9. Data gathered under items 6, 7 & 8 above shall be reported to the Sanitary Authority immediately at the end of each calendar month and any additional reports or data which may be required by the Sanitary Authority shall be promptly provided.

10. Sanitary wastes are to be disposed of in adequate and properly functioning septic tank and drainfield systems or other approved means.

11. Authorized representatives of the Sanitary Authority shall be permitted access to the plant premises at all reasonable times for the purposes of making inspections or surveys and for collecting samples or obtaining data and carrying out other necessary functions related to this permit.

Oregon State Sanitary Authority **WASTE DISCHARGE PERMIT**	Permit No. 9 Date Expires 8/31/68 Page 3 of 3

12. This permit does not allow the discharge of wastes other than those mentioned.

13. In the event the permittee is temporarily unable to comply with any of the above conditions of this permit, due to breakdown of equipment or other cause, the permittee is to immediately notify the Sanitary Authority. This report is to include pertinent information as to the cause and what steps are being taken to correct the problem and prevent its recurrence.

14. Whenever an increase in the waste to be discharged is anticipated, a new application shall be submitted together with plans and specifications for proposed changes. No change shall be made until plans are approved and a new permit issued.

15. This permit is subject to termination if the Authority finds: (1) That it was procured by misrepresentation of any material fact or by lack of full disclosure in the application; (2) That there has been a violation of any of the conditions thereof; (3) That a material change in quantity or type of waste disposal exists.

16. In the event that a material change in the conditions of the state waters utilized creates a dangerous degree of pollution the Authority may specify additional conditions to this permit.

OREGON STATE SANITARY AUTHORITY

By: _____

Title: Secretary & Chief Engineer

Date: December 28, 1967

MEMORANDUM June 28, 1968

TO : Members of the Sanitary Authority

FROM : Air Quality Control Staff

SUBJECT: Application for Certification of Pollution Control Facility for Tax Relief Purposes, No. T-37, Parts I and II.

This application was received on March 30, 1968. A summary of the contents and results of the staff review are given below.

1. Applicant: Crawford and Doherty Foundry Co., an Oregon Corporation
4604 S. E. 17th Avenue
Multnomah County
Portland, Oregon 97202
Phone: 236-2185
Kenneth M. Judd, President

The applicant produces steel castings of various shapes and sizes at the above address. The process involves melting metal scrap, making necessary alloy additions and pouring into sand molds.

2. The facility covered in this application consists of 3 induction type steel melting furnaces and directly associated controls and accessories. Installation was completed and operation began February 12, 1968.

3. The total installed cost of the facility was $91,954.58. An accountant's certification of this figure is attached.

4. Staff review:

Crawford and Doherty Foundry Co. previously operated three cupola type melting furnaces. The cupolas resembled miniature blast furnaces. Charges were composed of coke, scrap metal in alternate layers or crude mixtures. Sufficient limestone was required to flux the ash from the coke and form the slag. During melting, the coke was burned to furnish the required heat. Oxygen for combustion was supplied by an air blast which also aided heat transfer and caused the emission of metallic fumes, particulates and smoke. These emissions from the cupolas were in violation of the Portland Regional Air Pollution Control Authority code and became the concern of this agency. (see attached documents)

Air pollution controls for cupola type furnaces normally involve expensive equipment such as cyclone collectors and baghouses with the required hoods, ducts and fans. Mr. Kenneth M. Judd of Crawford and Doherty Foundry Co. has stated that installing this type of equipment would have cost approximately $125,000 to $150,000. The process change involving the use induction furnaces instead of cupola furnaces and costing less than standard air pollution control equipment was approved by the regional authority. The regional authority, now Columbia-Willamette Air Pollution Authority, has confirmed that the newly installed facility is in compliance (see CWAPA letter dated June 12, 1968).

The Sanitary Authority staff has concluded that, although the induction furnaces are not classical air pollution control equipment, the installation of these furnaces has resulted in an equivalent reduction of emissions at a substantially lower cost ($30,000 to $60,000) than that of classical control devices. In addition, the staff concludes that the principal purpose for installing these furnaces was to reduce atmospheric emissions as claimed by the company.

On the basis of the above conclusions, the staff recommends that a "Pollution Control Facility Certificate" bearing the actual cost figure of $91,954.58 be issued for the facility claimed in tax application No. T-37.

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

104 S.W. FIFTH AVENUE PORTLAND, OREGON 97204 PHONE 228-6141, EXT. 466

12 June 1968

RECEIVED
JUN 1 3 1968
Air Pollution

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

Attn: Mr. Fredric A. Skirvin
Associate Engineer

Gentlemen:

This is in response to your letter of 4 June 1968 requesting information concerning certification of a pollution control facility for tax purposes located at Crawford and Dougherty, 4604 S. E. 17th, Portland, Oregon.

We have inspected the induction furnaces while in operation and they are operating within compliance of the current Columbia-Willamette Air Pollution Authority Code. According to our records, there is no information indicating that certification should be denied for reasons outlined in Ordinance 449.635(3).

As stated in your letter, this agency did encourage the process change of installing induction type furnaces, replacing the cupola type furnaces to achieve a reduction in atmospheric emission.

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

Very truly yours,

W. Hanson

Wayne Hanson
Assistant Engineer

WH:ft

File No.
OREGON STATE SANITARY AUTHORITY
Waste Disposal Permit Program
Received JUN 1 3 1968
Appl. No: T-37

CITY OF PORTLAND, OREGON
DEPARTMENT OF PUBLIC AFFAIRS
FRANCIS J. IVANCIE, COMMISSIONER

BUREAU OF HEALTH
104 S. W. 8TH AVENUE
TELEPHONE 228-6141
THOMAS L. MEADOR, M.D.
CITY HEALTH OFFICER

22 August 1967

Crawford & Doherty Foundry Company
P. O. Box 02177
Portland, Oregon 97202

RECEIVED
AUG 25 1967
CRAWFORD & DOHERTY FDRY.

Attn: Kenneth M. Judd, President

Re: Air Pollution Controls

Dear Mr. Judd:

Thank you for your letter of 25 July 1967 advising that comprehensive studies are underway to produce the information required to install air pollution control systems that will bring compliance with the Air Quality Control Code.

We recognize that the costs for controls are substantial and that a reasonable amount of time is required for this planning. The Code has been in effect since 30 March 1964 and initially the industrial areas of the City were divided into six areas to permit more efficient use of the limited personnel. Two of these industrial areas were covered and industry contacted before the Air Quality Control staff made surveys in your area. In the early part of 1965 the Air Quality Control staff met with the United Metal Trades Association and informed that group about the provisions of the Code and how it effected the industry. It is our understanding that Crawford and Doherty was represented at this meeting.

However, the Code requires a maximum of cooperation and the plan that you proposed in your letter appears reasonable providing a definite proposal is formulated by 1 November 1967. May we receive a report by 15 September 1967 summarizing the progress made.

Enclosed is a reference list on air pollution controls in the foundry industry which was provided to the United Metal Trades Association. Much of the information is dated, but it may be of assistance to you.

Very truly yours,

THOMAS L. MEADOR, M. D.
City Health Officer

R E Hatchard

R. E Hatchard, Director
Air Quality Control Division

REH: jmr
Enclosure

Exhibit F

CRAWFORD & DOHERTY FOUNDRY CO.
Portland, Oregon

Certification of Pollution Control Facilities for Tax Relief Purposes

Part II - Application for Certification of Pollution Control Facility

Item C-3 and C-4: Materials, etc., Incorporated into Pollution Facility and Final Cost

Description	Final Actual Cost
2 Used Ajax Induction Furnaces	$19,000.00
1 New Induction Furnace	46,500.00
Payroll costs attendant to installation of furnaces and related equipment	4,745.16
Furnace pit construction	4,990.00
Furnace ramming components	1,750.00
Wiring for electric furnaces	5,527.29
Freight on furnaces and parts	3,588.41
Parts and supplies purchased to complete installation and equipping of electric furnaces	4,657.19
Building permits	399.12
Sundry costs for rental equipment and other miscellaneous items	797.41
Total	$91,954.58

We have examined this final actual cost summary of Crawford & Doherty Foundry Co.'s air pollution control facility relating to electric furnaces as of March 31, 1968. Our examination included such tests of construction accounting records and such other auditing procedures as we considered necessary in the circumstances.

Costs shown include direct material purchases, contractors' billings and other direct costs incurred, including labor, by Crawford & Doherty Foundry Co.

In our opinion, this final summary presents a true and correct representation of the actual costs, aggregating $91,954.58, incurred by Crawford & Doherty Foundry Co. in connection with the air control facility relating to electric furnaces at March 31, 1968.

Lybrand, Ross Bros. & Montgomery

Lybrand, Ross Bros. & Montgomery
Certified Public Accountants

March 31, 1968
Portland, Oregon

ATTACHMENTS TO EXHIBIT "E"

CITY OF PORTLAND, OREGON

DEPARTMENT OF PUBLIC AFFAIRS

FRANCIS J. IVANCIE, COMMISSIONER

BUREAU OF HEALTH
104 S. W. 5TH AVENUE
TELEPHONE 228-6141

THOMAS L. MEADOR, M.D.
CITY HEALTH OFFICER

31 October 1967

Crawford and Doherty Foundry Company
4604 Southeast 17th Avenue
Portland, Oregon 97202

RECEIVED
NOV 1 1967
CRAWFORD & DOHERTY FDRY.

Attention: Mr. Kenneth Judd, President

Re: Time for Compliance Agreement

Gentlemen:

Thank you for your progress report of 25 October 1967. We are glad that you have come up with a solution that you feel is feasible for your melting processes. It is the opinion of the AQC staff that an induction furnace of this size should meet the Code standards as long as relatively clean scrap is used.

Enclosed are two copies of the Time for Compliance Agreement regarding the installation of the induction furnaces in your plant to meet Air Quality Control Code requirements.

Please return one signed copy of the Agreement to the Air Quality Control office. The second copy is for your use.

If dates shown for completion of the phases of the project are not realistic, please mark the new dates on one copy and return it to our office. Your prompt response will be appreciated.

Very truly yours,

THOMAS L. MEADOR, M. D.
City Health Officer

R. E. Hatchard, Director
Air Quality Control Division

REH:jmr
Enclosures (2)

CITY OF PORTLAND BUREAU OF HEALTH
Air Quality Control Division
104 SW 5th Avenue (97204)

TIME FOR COMPLIANCE AGREEMENT

The Air Quality Control Code (Ordinance #118114) became effective 30 March 1964. Persons responsible for emissions that were not in compliance with this Code on the effective date are required to provide the Health Officer with a written schedule showing when violation emissions will be in compliance with this Code (Section 13-1202.) A reasonable time for compliance shall include each of the following: time for engineering, time for procurement, time for fabrication and time for installation and adjustment (Section 13-1201).

The following agreement for compliance must be completed, otherwise the Code requires the Health Officer to proceed with enforcement and judicial action as provided for in Section 13-802.

I, Kenneth M. Judd (Officer of company or corporation), President (Title)
as a duly elected or appointed officer of the Crawford and Doherty Foundry Company (Name of Company)
located at 4604 SE 17th Avenue, Portland, Oregon
agrees that aforesaid company will proceed to bring emissions from the
Cupolas (Processes, equipment, practices, etc.) into compliance with the Air Quality Control Code on the following time schedule:

Engineering shall be completed by 1 January 1968 with procurement of necessary equipment to be made by 1 February 1968; followed by fabrication and shipment to be completed by 1 June 1968; and finally, installation and adjustment to be accomplished by 1 December 1968.

It is understood that in accordance with Section 13-1202, the original estimate on time may be amended within ninety (90) days of the original estimate providing that material facts are submitted in writing indicating a different reasonable time is required for compliance and further, it is recognized that the person's right of variance is not affected.

Progress reports will be submitted as each of the aforementioned time schedules are met or as required by the Health Officer.

Signed this date 10/1/67

By /s/ Kenneth M. Judd
(name and title)

For LPD Inc.
(company)

The Health Officer is in agreement that this is a reasonable time for compliance and will not institute enforcement or judicial action as long as the times and intent of this contract are not defaulted by the other party.

Signed this date 31 Oct 67

By R. E. Halsted
(Health Officer or his representative)

CITY OF PORTLAND, OREGON

DEPARTMENT OF PUBLIC AFFAIRS

FRANCIS J. IVANCIE, COMMISSIONER

BUREAU OF HEALTH
104 S. W. 8TH AVENUE
TELEPHONE 228-6141

THOMAS L. MEADOR, M.D.
CITY HEALTH OFFICER

9 January 1968

Crawford and Doherty Foundry Co
1600 Southeast 17th Avenue
Portland, Oregon 97202

RECEIVED
JAN 12 1968
CRAWFORD & DOHERTY FDRY.

Attention: Mr. Kenneth Judd, President

Gentlemen:

Thank you for your letter of 2 January 1968. The equipment and installation schedule meet the requirements of the Time for Compliance agreement of 1 November 1967.

May we request we be kept informed of any development which would change substantially the dates in your letter of 2 January.

May we also take this opportunity to express our appreciation for your cooperation in the program for cleaner air for Portland.

Very truly yours,

THOMAS L. MEADOR, M.D.
City Health Officer

R.E. Hatchard

R.E. Hatchard, Director
Air Quality Control Division

REH:cr

MEMORANDUM

June 28, 1968

TO: Members of the Sanitary Authority

FROM: Harold L. Sawyer

SUBJECT: Pollution Control Facility Tax Relief Program

In order to implement the provisions of ORS 449.605 to ORS 449.645, the Sanitary Authority, on October 5, 1967, approved the printing of application forms for Tax Relief on Pollution Control Facilities. To date 46 applications have been received and 19 certificates have been issued for facilities, with a total actual cost of $3,936,478.89. A statistical breakdown on these applications is as follows:

	AQC	WPC	Total
A. Number of applications received	25	21	46
(1) Part I, only, (requesting determination of eligibility)	(7)	(6)	(13)
(2) Parts I & II (requesting certification)	(18)	(15)	(33)
B. Number of certificates issued	9	10	19
C. Actual cost of certified facilities	$224,306.46	$3,712,172.43	$3,936,478.89

Experience in processing the applications has clearly shown weaknesses in the present application form. It appears to be too general and is frequently misinterpreted and submitted incomplete. The staff plans to submit a revised form to the Authority for comment and approval as soon as revisions can be made.

One area where modification may be desirable has to do with obtaining the cost of facilities. Since ORS 449.635 requires the Sanitary Authority to certify the actual cost of a facility, and since the Sanitary Authority has no available staff member qualified to audit such costs, the present application form requires the applicant to submit "a report which gives an itemized breakdown of the actual costs of the facility and bears the certification of an independent public accountant or certified public accountant that the costs therein are true and correct representations of the actual cost of the facility....." Applicants frequently ask whether documents such as invoices or billings can be submitted to substantiate the costs.

The following modification of procedures is presented for discussion with the idea that it be incorporated into a revised application form:

> Before a certificate can be issued by the Sanitary Authority, the actual cost of the facility must be verified and certified by a (or an independent) registered public accountant or certified public accountant. If the actual cost of the facility is less than $10,000, positive documentation of the costs and a (notarized) certification statement signed by the applicant may be accepted by the Sanitary Authority in lieu of the accountant's certification.

The three applications which follow this memo are presented both as examples pertinent to this discussion and for formal action. None include an accountant's certification of costs, but instead include a variety of documentation. The staff reports are presented without final recommendation pending determination by the Authority regarding acceptance of alternative documentation of costs.

MEMORANDUM

June 28, 1968

TO: Members of the Sanitary Authority

FROM: Water Pollution Control Staff

SUBJECT: Application for Certification of Pollution Control Facility for Tax Relief Purposes, No. T-26, Parts I and II

This application was received on March 22, 1968. A summary of the contents and results of the staff review are given below:

1. Applicant: The Borden Chemical Company
A Division of The Borden Company
470 South Second Street
Springfield, Oregon 97477
Phone 746-8461

The applicant owns and operates an industrial chemical manufacturing facility in which formaldehyde solutions and synthetic industrial adhesives requiring formaldehyde as a raw material are produced.

2. The facilities covered in this application consist of two separate projects as follows:

A. Waste collection trenching installed to funnel wash water and area drainage containing wastes from the truck loading and adhesive storage area to the treating tanks to abate and prevent pollution of the Willamette River.
B. Waste water collection trenching in the vicinity of the newly installed adhesive reactor to collect and convey spillage and wash water to the existing treatment tanks to prevent pollution of the Willamette River.

Project "A" was completed and placed in operation June 9, 1967. Project "B" was completed in November of 1967.

The treatment facilities mentioned had been previously installed and consist of tanks for pH adjustment and settling of solids. The clarified liquid is then discharged to the Springfield city sewer system. The solids are collected and hauled to the Lane County land fill dump site.

3. The total costs of the installation as claimed in the application are as follows:

Project A	$3,732.69
Project B	1,625.09
Total cost	$5,357.78

The applicant provided documentation of the costs for Project A. The costs for Project B are estimates based on costs derived from Project A and are not supported by documentary evidence.

4. Staff review:

Area drainage and wash water from the truck loading and adhesive storage area previously went to a drain ditch and then to the Willamette River. It is the opinion of the staff that the principal purpose of the collection trenches in Project A is to prevent pollution of the Willamette River and, therefore, this facility is eligible for certification. It is the opinion of the staff that the facilities included in Project B are also for the principal purpose of collecting area drainage spills, etc., and preventing their discharge to the Willamette River. There is a question regarding the costs claimed for Project B. The construction in Project A required removal of existing blacktop and concrete to install the collection trenches. The construction in Project B was in a new area and apparently similar difficulties were not encountered; therefore, the cost per foot of trench in Project A should be greater than in Project B. Project B is a part of a larger contract and actual costs are apparently not known. The company, therefore, calculated a cost per foot factor from Project A and applied that to Project B.

If alternate documentation of costs is acceptable to the Authority, the staff could recommend the certification of Project A because documentation of the costs is provided. However, due to the lack of documentation of costs, the staff cannot recommend certification of Project B.

EXHIBIT E

Part II

C. 4.

Item 1 - Approximately 232 feet of concrete reinforced drain trenching with 18 inch wide steel grate cover and trench construction detail as shown in detail Z/1 of the attached drawing 1050-2, Rev. 1, this detail being typical for the trenching installed in both Item and Item 2 below. Actual plan location of this trenching is shown in drawings 1048 and 1081. Cost of installation of Item 1 was a lump sum bid of $3,070.00, plus extras of $662.69, totalling $3,732.69, or a cost per lineal foot of $16.09. Enclosed is a copy of the invoice for this job from D. L. Endicott, contractor, (their job #67-33). ← Project "A"

Item 2 - Approximately 101 feet of trenching with the same details of construction as Item 1 above. Cost was included in a lump sum bid by D. L. Endicott, contractor, on their job #67-71 and invoiced 11/27/67 along with other items included in the bid. Estimated cost for this trenching would be the same per foot as in Item 1 above, for a cost of $1,625.09 (101 feet x $16.09). ← Project "B"

Total cost of facilities claimed was:

Item 1	$3,732.69
Item 2	$1,625.09
Total	$5,357.78

Checked and approved for accuracy
[signature]
Wks Mgr

Date: 6/9/67

Cont. #

Job # 67-33

928-3530

P. O. Box 722

D. L. ENDICOTT

General Contractor

Albany, Oregon 97321

To: Borden Chemical Company
470 So. Second St.
Springfield, Oregon

PO 7217 484.00 posted 6-14-67
PO 7134 248.69 posted 6-9-67

EXT. ORD. APPR.

CHECK NO. 2914

6/14/67

SPRINGFIELD, OREGON

Drainage Trench.

Work complete per quote..... 3,070.00

Less Previous Billing..... 3,000.00

70.00

Authorized Extras:

Cut 28' asphalt.....	15.22
Cut 112' Concrete.....	59.87
Remodel existing trench	50.32
36' of additional drain trench....	512.28
Trench T.T.L.R. Isl....	25.00
	662.69

Due this billing..... 732.69

Date 22/67

Cont

Job 67-33

928-3530

P. O. Box 722

D. L. ENDICOTT

General Contractor

Albany, Oregon 97321

To: Borden Chemical Company
470 South Second Ave.
Springfield, Oregon

Drain Trench.

Work complete to date.....33,000.00

5-16-67

ACCT. NO.	PO 1134 7217
EXT. OKD.	
CHECK NO.	2373
DATE	5/11/67

SPRINGFIELD, OREGON

check
5-12-67

MEMORANDUM

June 28, 1968

TO: Members of the Sanitary Authority

FROM: Water Pollution Control Staff

SUBJECT: Application for Certification of Pollution Control Facility for Tax Relief Purposes, No. T-34, Parts I and II

This application was received on April 12, 1968. A summary of the contents and results of the staff review are given below:

1. Applicant: Glen P. Ireland, Owner
Dairyfolks Holstein Farm
Rt. 2, Box 398
Forest Grove, Oregon 97116
Phone 357-2515

The applicant owns and operates a 100-cow dairy farm located 5 miles north of Forest Grove in Washington County.

2. The facility covered in this application consists of an excavated sump, manure pump, irrigation pipe and sprinkler head, along with necessary materials to install these facilities. The animal wastes from the loafing shed areas around the dairy barn are scraped or washed into the sump and then thin-spread on the pasture land in a controlled fashion using a specially designed sprinkler head. Installation of the facility was completed on July 24, 1967. An experimental operation to test this method of disposal was started on January 5, 1967.

3. The total cost of the installation, according to the application, is $3,237.83. Documentary evidence for some of these costs was provided by the applicant. Copies of this documentation are attached.

4. Staff review:

The method of waste disposal which the applicant has installed at the present time appears to be the most reasonable and economical method for minimizing the quantities of animal wastes from a dairy operation which reach the waters of the state. Some of the wastes will undoubtedly reach the waters of the state during heavy storm periods as a result of surface run-off. However, during the dry weather months when water quality is critical, all of the wastes should be retained on the land. Although the waste has some fertilizer value when spread on the land, the applicant estimates this would be less than the cost of operating the pump and equipment.

An accountant's certification of cost was not submitted by the applicant. Documentation in the form of invoices marked "Paid" and a cancelled check were provided for all of the costs, except the estimated 100 hours of farm labor at $1.25 per hour, or $125.00. The costs supported by documentation total $3,112.83.

It is the opinion of the staff that this facility is eligible for certification as a pollution control facility.

Attachment

EXHIBIT B

PART II-C-4

In purchasing the manure pump and all it's activating parts thru my local implement dealer where I have and open account all the time and this expenditure was also charged, there is no check for any one piece of equipment to submit. Therefore, I submit receipt of billing showing charge of total of parts. Described as numbered:

1. Pump and Motor
2. Recirculation agitation unit
3. Mounting for sprinkler head
4. Sprinkler head
5. Electrical switch board panel
6. 1520 feet 4'' pipe to transport waste
7. Couplers to join pipe
8. Locks or latches to hold pipe at joints
9. 280 feet of 3'' pipe to move waste forther
10. Couplings to join 3'' pipe
11. Latches to lock couplings to pipe
12. Plugs for sprinkler outlets in couplers
13. One elbow
14. Reducers-4'' to 3'' and 3'' to 4''

Assembly and installation, near halfof which was electrical, cost much more than 100 hours of farm labor @ $1.25 per hour equals $125.00 and $60.00 for a drag line to dig the pit (check enclosed) brings a total installed cost to date of:

$3052.83 as delivered
125.00 labor
60.00 drag line

$3237.83 Total

Allen P Richards

OLIVER SALES & $ERVICE

SERVICE ' $ VALUE

AUTHORI... DEALER

31440 T.V. Hwy.
Midway 8-1169
Hillsboro, Oregon

"FINEST IN FARM MACHINERY"

CUSTOMER'S ORDER NO. ____ DATE Feb 9 1967

SOLD TO Glen Ireland

ADDRESS ____

SALESMAN ____

QUANTITY	PARTS NUMBER	DESCRIPTION		PRICE	AMOUNT	
280	3" x 40"	Alum Pipe	9		123	20
17	CH-3	Couplings	10		29	40
17	Blw 3	Latch	11		9	45
7	3/4	Plugs	12		1	40
1	CC3		13		6	05
2	EMF4		14		27	40

2

Paid
AB

14001

RECEIVED BY ____

TOTAL 196 90

564 ALL CL... AND RETURNED GOODS MUST BE ACCOMPANIED BY THIS BILL.

OLIVER SALES & $ERVICE

SERVICE WITH $ VALUE

AUTHORIZED DEALER

31440 T.V. Hwy.
Midway 8-1169
Hillsboro, Oregon

"FINEST IN FARM MACHINERY"

CUSTOMER'S ORDER NO. ____ DATE Jan 5 1967

SOLD TO Glen Ireland

ADDRESS Rt. 2 Box 398
Forest Grove Oregon

SALESMAN ____

MDSE. SOLD CASH	CHARGE	C.O.D.	MDSE. RETD. CASH	CREDIT	REC'D ON ACC'T	NOTE
	2853					

QUANTITY	PARTS NUMBER	DESCRIPTION	PRICE	AMOUNT
1	Mitchell 25 HP Pump			
2	Hyd. Agitator			
3	Cart (Rubber Tire)			
4	104 Rainbird			
5	Pumping Plant Panel			
6	1520 ft 4" Mainline			
7	38 Couplers			
8	38 Band Latch		2853	93

2

Paid
AB

13468

RECEIVED BY ____

TOTAL

564 ALL CLAIMS AND RETURNED GOODS MUST BE ACCOMPANIED BY THIS BILL

FIRST NATIONAL BANK OF OREGON

FOREST GROVE BRANCH • FOREST GROVE

NO. 96-90/1232

S-

7-24- 1967

PAY TO THE ORDER OF Syl[illegible]

$60.00

Sixty [illegible] DOLLARS

PROCESSED
JUL 28 1967
FIRST NAT'L BK. OF OREGON

GLEN P. IRELAND
LILLIAN M. IRELAND
ROUTE 2, BOX 398
FOREST GROVE, OREGON 97116

shovel

Glen P. Ireland

⑆1232⑉0090⑆ 0 02772 3⑈ ⑈0000006000⑈

MEMORANDUM

June 28, 1968

TO: Members of the Sanitary Authority

FROM: Water Pollution Control Staff

SUBJECT: Application for Certification of Pollution Control Facility for Tax Relief Purposes, No. T-43, Parts I and II

This application was received on May 27, 1968. A summary of the contents and results of the staff review are given below:

1. Applicant: Albert Ebner
   Mt. Angel Meat Company
   Rt. 1, Box 192
   Mt. Angel, Oregon 97362
   Phone 845-2917

   The applicant is owner and operator of a small slaughterhouse about 1 mile north of Mt. Angel, Oregon.

2. The facility covered in this application consists of a two-stage lagoon system. The anaerobic unit has a detention time of approximately 7 days. The aerobic unit has a surface acre of approximately ½ acre and enough volume to store the effluent during the dry summer months. The installation of this facility was completed in September 1967. Operation commenced before completion in June of 1967.

3. The total cost of the facility is $12,824.41. An accountant's certification of costs was not included with the application. Subsequently, the applicant's attorney submitted documentation of the costs incurred for engineering and construction. Copies of this documentation are attached.

4. Staff review:

   This facility was installed to replace a failing septic tank system, which was allowing untreated wastes to enter Zollner Creek. By letter dated March 3, 1967, Mt. Angel Meat Company was informed of the water pollution problem and requested to take immediate steps to install a more effective method of waste treatment or disposal.

   The applicant was requested by letter dated June 5, 1968, to provide an accountant's certification of costs for this facility. Additional cost information was submitted by the applicant's attorney by letter dated June 6, 1968. In a subsequent phone conversation, the attorney for the applicant indicated that he would have an accountant submit a certification of costs; however, it has not been received. He expressed a desire to have the application acted on at this meeting, if possible.

   It is the opinion of the staff that this facility is eligible for certification as a pollution control facility.

Attachment

BERNARD F. BEDNARZ
ATTORNEY AT LAW
209 SALEM FEDERAL BLDG.
580 STATE STREET
SALEM, OREGON 97301

TELEPHONES 363.6141 OR 581.5773

June 6, 1968

State of Oregon
Oregon State Sanitary Authority
State Office Building
1400 S. W. 5th Avenue
Portland, Oregon

Attention: Harold A. Sawyer, Supervisor
Waste Discharge permit program

Dear Mr. Sawyer:

Pursuant to your letter of June 5, 1968, I am enclosing a copy of the billing we have received from the Scharff Brothers Contractors who installed the lagoon, and the billing from Clark & Groff Engineers, Inc., who engineered the transaction. We do not have the actual billing for the land, but I do have the policy issued by the Pioneer National Title Insurance Company showing that we paid $4,000.00 for the land itself.

In summary, we paid $4,000.00 for the land, $7,293.89 for the construction, and $1,530.52 for engineering. This gives us our total costs of $12,824.41.

Pursuant to your letter, if it is still desired, I can procure the statement from the accountant showing these figures. If there are any further questions as to this, please contact this office.

With best regards;

Bernard F. Bednarz

BFB/wyd
Enclosures

EXCAVATING

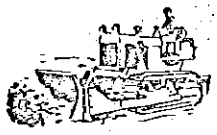
TELEPHONE 362-5568
24 HOUR SERVICE

STATEMENT

STUART Bros.

SEWER · WATER · SEPTIC
CONTRACTORS
EVERYTHING FROM MFG. TO CLEANING

DOZING



1155 20TH ST. SE
SALEM, OREGON
(97302)

DATE 10-13-67

Mt. Angel Meat Co.
Mt. Angel, Oregon

Terms: 30 days net; 8% on overdue accounts

	by-pass -- septic tank	CHARGES	BALANCE
LABOR		42.00	
MATERIALS		50.64	
PERMITS			
STREET PATCH			
COMPRESSOR			
EXCAVATING		81.25	
DOZING		173.89	

STATE OF OREGON, } ss.
County of Marion

I, the undersigned, attorneys for Mt Angel Meat Co do hereby certify that I have prepared the foregoing copy of Bill and have carefully compared the same with the original thereof; that it is a correct transcript therefrom and of the whole thereof.

Salem, Oregon

Rec'd by check -
10/13/67
Stuart Bros

EXCAVATING

TELEPHONE 362-5568
24 HOUR SERVICE

STATEMENT

SCHARFF BROS.
SEWER · WATER · SEPTIC
CONTRACTORS
EVERYTHING FROM MFG. TO CLEANING

DOZING

1155 20TH ST. SE
SALEM, OREGON
(97302)

Mt. Angel Meat Company
Mt. Angel, Oregon

DATE October 1, 1967

Terms: 30 days net; 8% on overdue accounts

		CHARGES		BALANCE	
LABOR	Contract	$7251.	00		
MATERIAL	Credit	$131.	00		
PERMITS					
STREET PATCH					
COMPRESSOR					
EXCAVATING					
DOZING					
				$7120.	00
				173.	57
				7293.	57

STATE OF OREGON, } ss.
County of Marion

I, the undersigned, of attorneys for [illegible] do hereby certify that I have prepared the foregoing copy of Bill and have carefully compared the same with the original thereof, that it is a correct transcript therefrom and of the whole thereof.

Salem, Oregon

Pay Check
10/13/67
Scharff Bros

STATEMENT

CLARK & GROFF ENGINEERS, INC.

ENGINEERING ARTS BUILDING 3276 COMMERCIAL STREET S.E.
SALEM, OREGON 97302
AREA CODE 503 PHONE 585-2362

CONSULTANTS . . .
CIVIL • SANITARY • STRUCTURAL • MUNICIPAL ENGINEERING

LLOYD K. CLARK P.E.
GILBERT GROFF P.E.
WARREN W. CLARK P.E.
WILLIAM C. LIGHT P.E.
WAYNE A. TAYLOR P.E.
C. H. STEKETEE, JR. P.E.
A. C. GIERING, R.P.L.S.

October 16, 1967

Mt. Angel Meat Co.
Route 1, Box 192
Mt. Angel, Oregon 97362

Job Order Number: 67049
Description: Waste Disposal

Engineering Fee:

Construction Cost	$7,251.30
Engineering Fee	10%

Fee Now Due: $7,251.30 x 10% = $725.00

Actual Cost on Time Basis:

Principal Engineer		
4 Hours @ $20.00 per hour	$ 80.00	
Project Engineer		
87 Hours @ $15.00 per hour	1,305.00	
Design Engineering		
5 Hours @ $20.00 per hour	100.00	
Drafting		
29 Hours @ $9.00 per hour	261.00	
8¼ Hours @ $6.50 per hour	53.63	
Total Cost	$1,799.63	
Amount Billed		$ 725.00

Survey Work, Inspections & Testing:

Engineering Survey		
4½ Hours @ $9.00 per hour	$ 40.50	
2½ Hours @ $8.00 per hour	20.00	
2 Man Crews - 12½ Hours @ $15.00	187.50	
3 Man Crew - 5½ Hours @ $20.00	110.00	
Inspections		
20 Hours @ $8.00 per hour	160.00	
Testing & Drilling Equipment	194.50	
Travel Expense	93.02	
Amount Due		805.52
Total Amount Now Due		$1,530.52

STATE OF OREGON, County of Marion } ss.

I, the undersigned, attorney for [illegible], do hereby certify that I have prepared the foregoing [illegible] copy of [illegible] and have carefully compared the same with the original thereof, that it is a correct transcript therefrom and of the whole thereof.

Salem, Oregon

10-20-67

ACCOUNTS DUE AND PAYABLE 10TH OF MONTH FOLLOWING BILLING DATE.
6½ % INTEREST CHARGED ON ACCOUNTS 60 DAYS PAST DUE.