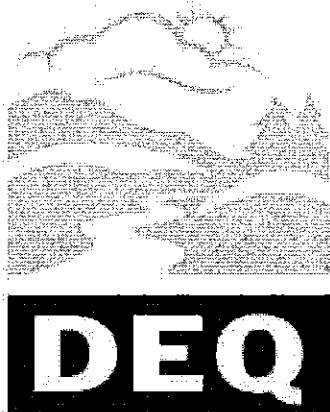


11/14/1968

**OREGON STATE SANITARY
AUTHORITY MEETING
MATERIALS**



State of Oregon
**Department of
Environmental
Quality**

This file is digitized in **black and white** using Optical Character Recognition (OCR) in a standard PDF format.

Standard PDF creates PDF files to be printed to desktop printers or digital copiers, published on a CD, or sent to client as publishing proof. This set of options uses compression and downsampling to keep the file size down. However, it also embeds subsets of all (allowed) fonts used in the file, converts all colors to sRGB, and prints to a medium resolution. Window font subsets are not embedded by default. PDF files created with this settings file can be opened in Acrobat and Reader versions 6.0 and later.

AGENDA

State Sanitary Authority Meeting

10:00 a.m., November 14, 1968

Room 72, Portland State Office Building

10:00 a.m.

A. Regional Air Quality Control Authorities

2:00 p.m.

B. City of Newberg - Industrial waste and sewerage program

C. Timber Products - order

D. Variance for Wah Chang

E. Union Carbide

F. New date for hearing on the matter of car bodies in Sandy River

MINUTES OF THE 134th MEETING
of the
Oregon State Sanitary Authority
November 14, 1968

The 134th meeting of the Oregon State Sanitary Authority was called to order by the Chairman at 2:10 p.m., November 14, 1968, in Room 72 of the State Office Building, 1400 S.W. 5th Avenue, Portland, Oregon. Members present were John D. Mosser, Chairman; B.A. McPhillips, Herman P. Meierjurgan and Storrs Waterman. Mr. Edward C. Harms, Jr., was unable to attend because of a conflicting obligation and Mr. Kenneth H. Spies, State Sanitary Engineer and Sanitary Authority Secretary was unable to attend because of illness.

Participating staff members were: E.J. Weathersbee, Deputy State Sanitary Engineer; Arnold B. Silver, Legal Counsel; Harold M. Patterson, Chief, Air Quality Control Program; H.W. McKenzie, C.A. Ayer, Ron Householder and F.A. Skirvin, Associate Engineers; and E.R. Lynd, Supervisor, Municipal Waste Treatment Program.

CITY OF NEWBERG

Mr. Weathersbee stated that the city of Newberg had requested to be placed on the agenda in order to request an extension of time for the United Flav-R-Pac Cannery at Springbrook to comply with the conditions of its waste discharge permit. He also called the members' attention to a staff memorandum report contained in the notebooks which has been made a part of the permanent files.

Mayor Belanger and members of the City Council were present to represent the city.

Mr. Joe Schneider, attorney, advised that after January 1, 1969, if certain requirements were not met, the Springbrook plant would have to close down which would mean the loss of quite a large payroll to the Newberg area.

Mayor Belanger gave a brief history of the city's efforts to resolve this problem as follows:

In January 1966, the engineering firm of Cornell, Howland, Hayes and Merryfield (CH₂M) was retained by council action to make a study of the water and sewer needs for the city. This report was completed

and presented to the council in September 1967. In May of this year the city made formal application to the Department of Housing and Urban Development (HUD) for a \$47,000 loan to finance the drawing up of the final plans and specifications for an estimated \$782,000 addition to the present sewerage system. Also, at the same time the city made application for both state and federal grants. Mr. Robert Paul, Acting Director of HUD, acknowledged receiving the application for the engineering loan but stated that no funds were available at the present time. The Oregon State Sanitary Authority was unable to grant a priority to the city for a 660 federal-state grant.

In the meantime, the city has taken options on land that it will need for expansion. The Council feels it would be rather hard to vote on a bond issue without knowing how much it is going to cost the city or how much they would receive from state and federal funds. All of this takes time.

Mayor Belanger also pointed out that United Flav-R-Pac has a \$350,000 peak payroll of 350 employees which the city would like to keep and requested the Oregon State Sanitary Authority to help by bearing with United Flav-R-Pac and their problem until the city can make available to them the sewage disposal facilities they require and also to help the city obtain the engineering loan of \$47,000 and to get the city's federal and state grants as soon as possible.

Mr. Meierjurgan asked how far the cannery was from Newberg, and how close the nearest sewer line was.

Mayor Belanger stated the cannery was approximately two miles from the city center and the city sewer line was at the high school approximately one-third to one-half mile away. He also stated that the treatment plant presently is not adequate to handle the sewage from United Flav-R-Pac. \$400,000 of the proposed \$800,000 sewerage project will be used to expand the present treatment plant to handle this industrial load. The city is asking for 50% federal and 25% state grant and would come up with a bond issue of about \$200,000.

The Chairman asked the city why they didn't get a loan locally or try for a bond issue for the full amount subject to repayment from the state and federal grants when they are available.

Mayor Belanger stated they would consider this.

Mr. Weathersbee called the attention of the Chairman to about a dozen letters which had been received asking for an extension of time for this cannery to meet the permit conditions. He also pointed out that the present load from the cannery is about 700 lbs. of BOD/day and it is projected that the load would increase by about 10 times by next year through the addition of a corn pack.

Mr. Richard Reiter said the company disposes of its industrial wastes in two anaerobic ponds, but that domestic sewage goes to a septic tank and drainfield. He also stated that surface aerators could be added which should not be a major cost item or the wastes could be disposed of by land irrigation.

The Chairman told the city representatives they should go to the cannery and tell them to explore some of these possibilities; they should understand the point that a corn pack is quite a bit different from most other vegetables in that it has a great deal higher strength waste and the problems of handling are not the same.

He pointed out that a loan from the Federal Government to plan for a sewer would have to be paid back and rather than face a lot of delays in getting that money the city should arrange some way to get it locally. He also stated that the 75% combined state and federal grants are assigned on the basis of readiness to construct and judging from where the city stands now, it would be at least year after next before they would be in line for a state and federal grant.

No formal action was taken.

TIMBER PRODUCTS COMPANY

Mr. Thomas E. Brownhill, attorney for Timber Products Company, presented a review of this problem. Discussion centered around a proposed order that was being considered for adoption by the Sanitary Authority as a result of the hearing held in Medford, October 24, 1968, concerning air pollution allegedly caused by Timber Products Company.

Mr. Brownhill stated that three basic problems were involved: One deals with trucking, dumping and storage of materials that goes to the hardboard plant; another is the wigwam waste burner and open burning; and the third is the cyclones.

Mr. Brownhill stated that the company proposes to spend \$125,000 and totally inclose the place where the trucks are dumped and add more covered storage facilities plus a 36-foot high enclosure to protect the wet (green) storage area.

He also stated that the company would be agreeable that the order provide that no dry material be stored outside the covered storage, but they did want to be allowed to store green material outside, but within the 36-foot high enclosure. He said it was the company's opinion that the 36-foot high enclosure would be high enough so that the wind could not carry anything over the top. The company proposed to do this by June 30, 1969.

With regard to the wigwam waste burner, Mr. Brownhill said that the company is going to shut it down regardless of what happens. The wood materials now being burned in the burner are going to be burned in the dryer furnace. He said that they have authority from the owners to spend \$50,000 to convert the dryer furnace to burn this material and it is expected that this will be completed by April 1, 1969. He also said that the open burning had been completely eliminated and that the company is certainly agreeable that there be absolutely no open burning.

Mr. Brownhill stated that the cyclones were a more complicated problem, that CH₂M had been retained to make tests and that a report should be done by February 1. He indicated that the company would prefer to wait until the tests have been made before committing itself to any action on the cyclones.

The Chairman raised the question as to whether or not the company could dispose of the material now being burned in the wigwam waste burner in a sanitary landfill or by some other means and shut down the burner immediately.

Mr. Brownhill and other company representatives stated that the company had no suitable landfill site on its own property and the extremely fine material would be difficult to handle and transport to another site. They also expressed the fear that the sander dust could cause a water pollution problem if an attempt were made to dispose of it in a fill.

Harold McKenzie suggested that as an interim procedure, the company could reduce air pollution from the wigwam burner considerably by modifying the method of feeding the material to be burned.

After considerable discussion, Mr. Graham who lives near the Timber Products Company mill in Medford and who has long complained of the air pollution from the mill, indicated that he could go along with an interim solution for 3 or 4 months, provided the problem would be solved then.

With regard to item 2, Mr. Brownhill asked the staff to explain what they meant by flooding or other procedures to permanently extinguish any smoldering fires that might occur after November 1.

The Chairman replied that if an open burning problem continues, the company must either scoop the material out with a cat or dike around the smoldering area and flood it so that the fire is put out. It was agreed that any other control procedure could be used as long as it was effective.

With regard to item 3, Mr. Brownhill stated that a directive had been put out that the trucks be covered coming and going. He also stated that there was some question as to whether or not the regulations of the safety division of the Workmens Compensation Board will allow workers to climb up on an empty truck to put the tarps on, but the company will comply "provided that this does not violate the safety regulations of the Safety Division of the Workmens Compensation Board of Oregon."

The company had no objection to item 4 and indicated that the roads could be oiled before August 1.

Considerable discussion followed on the matter of open storage and truck dumping. In response to a question from the Chairman, company representatives indicated that the proposed covered storage would accommodate about 60% of their stored wood materials.

The Chairman asked why, if they could build a truck dumping enclosure and storage for 60% of their wood supply for \$125,000, couldn't they build covered storage for the remaining 40%.

Mr. Brownhill replied that he thought it might be possible to get authority to do this.

After considerable discussion concerning possible air cleaning devices for the cyclones, it was agreed that the company could not do much about this until CH₂M completed its testing study and report.

It was MOVED by Mr. Mosser, seconded by Mr. Waterman and carried to amend and enter the following order which is attached to and made a part of these minutes.

VARIANCE FOR WAH CHANG

Mr. Fritz Skirvin gave a brief synopsis of a staff report on this subject. This report has been made a part of the permanent files in this matter.

There was much discussion at this point regarding the Zirconium calciner kiln under Item VII of the schedule for compliance agreement set up by Mid-Willamette Valley Air Pollution Authority, and Item IX C - fume controls for the Columbium-Tantalum operations to be installed and in operation by October 31, 1969, or at startup, whichever occurs last.

Mr. Weathersbee asked Mr. Skirvin if he participated in the drafting of this variance.

Mr. Skirvin replied that he did not participate in the drafting of the variance, but he was aware of the conditions.

In reply to a question from the Chairman regarding the status of the controls on the carbide plant, Mr. Skirvin stated that Wah Chang will modify the hood system and install a multiclone, but that the sub-micron silicon-dioxide plume will persist and violate the opacity regulation. Mr. Skirvin further stated that the company is investigating a process change that would eliminate this particular operation completely.

The Chairman said as he understands it, Mid-Willamette Valley Air Pollution Authority has granted a variance until December 1969.

Mr. Skirvin said the variance had been granted until October 15, 1969, but that Wah Chang wanted it to December 31, 1969. However, the rules of Mid-Willamette Valley Air Pollution Authority do not allow them to grant a variance for more than one year.

The Chairman then stated that the company wanted the variance to extend to December 31, 1969, and Mid-Willamette Valley Air Pollution Authority gave them only until October 15, 1969, with the indication that if they came back in October, they would get an extension to December 1969.

Mr. Skirvin said it was anticipated that they would get an extension at that time.

The Chairman then said it would be up to the staff as to whether or not Wah Chang should be prohibited from getting an extension on their variance when it comes up in October. He asked what there is in their experimental period that would take them to December, and is it practical for them to have a reasonable test and then make up their minds whether to quit the present process or control the present process by October 15.

Mr. Skirvin said, yes, it is possible. He said in the application for the variance Mr. Blunk indicated that Wah Chang will start operating three of the sand chlorinators in April 1969; and at that time, when the chlorinators are evaluated, they will proceed to put in enough of them to put them up to the required production.

It was MOVED by Mr. Mosser, seconded by Mr. Meierjurgan and carried that Mid-Willamette Valley Air Pollution Authority be instructed not to extend the variance beyond the one-year period for which it was initially granted.

Mr. Roach of the Mid-Willamette Valley Air Pollution Authority said he believed that if the variance is granted only until October 15 the company will operate in non-compliance until December. He said he believes his staff has done a considerable amount in two months' time in getting the company on a schedule to comply by December 1969, and that the Board should take this into account.

The Chairman said it looked to him like there was some slack time in the schedule as the company is supposed to start up the new experimental process in April, and the company said it takes 14 to 18 weeks to get a baghouse if they decide that the new process is unsatisfactory and want to continue with their present program. He said he did not see where the company said anywhere that it takes until December to get the new process in operation.

The Chairman said that he would be glad to look at the situation closer to the time (October 15), and reconsider the matter at that time; but that he feels there is some slack in the company's schedule and that the December date gives them more time than they may need to decide one way or another.

Mr. Roach said that he is afraid that possibly the company will operate in violation for the two and one-half month period.

The Chairman said he is still in favor of the motion as it stands.

UNION CARBIDE CORPORATION

Mr. Clint Ayer presented a staff report evaluating the air pollution control program at the Union Carbide Corporation plant. This report has been made a part of the Authority's permanent files in this matter.

The Chairman stated that he would like the staff's recommendations as to whether the Sanitary Authority should take further action.

Mr. Patterson stated that he did not think anything would be gained by a public meeting or public hearing in this matter.

Mr. Wally Priestly briefly went over the history of Union Carbide stating that the company had been in constant violation. He stated his belief that there are three ways the Sanitary Authority could deal with this situation. (1) The Sanitary Authority could decide that this is a new day and with Union Carbide set a new policy that there will be no additional production increases that would not have pollution control with them and proceed now to apply the statutes and issue an order. (2) He thought the Sanitary Authority might allow what is going on at the present time but as of June 1, 1969, start legal proceedings. (3) The Sanitary Authority could say that there is a real need for cooperation between Columbia-Willamette and the Sanitary Authority, accept their abatement schedule and start anew with the next plant.

Mr. Emory Crofoot, legal advisor to Columbia-Willamette, said that he had advised the Columbia-Willamette Air Pollution Authority board of directors that they could invite Union Carbide to a hearing, could enter an order ordering compliance, but under the provisions of the statutes Union Carbide could appeal that order to the circuit court and then to the supreme court of Oregon before Columbia Willamette could start any kind of program to carry out the orders that were issued. He said he also advised Columbia-Willamette it would take up to two years' time before legal authority could be initiated to go into an enforcement program, and that the plant would be under control long before that. Mr. Crofoot said he could see no reason for going to the expense of litigation on either side to try to accomplish something that would be accomplished in a shorter period of time and at less expense as far as Columbia Willamette Air Pollution Control Authority is concerned.

Mr. Crofoot also stated that Union Carbide has signed an enforceable agreement with Columbia-Willamette Air Pollution Authority whereby they agree to take certain steps by certain dates and if they fail to comply with that agreement they have waived their right to public hearing before the board and Columbia-Willamette Air Pollution Authority will be free to litigate directly.

The Chairman pointed out that the company has to have its engineering plans completed and its equipment ordered by January 1. If they fail to do that, action could be started at that time. If the company does not have all of its equipment fabricated and shipped by April 1, it would again be in violation of their agreement and action could be started at that time. He indicated his belief in this case that the controls would be effected by June 1. If they are not or if there is a schedule breakdown along the way, Columbia-Willamette will move rapidly to enforce against them, and if they did not, the Sanitary Authority would certainly at that time re-entertain a petition that it step into the picture. He said he could assure Mr. Priestly that this situation will not drag on beyond the schedule that has been set without action.

Mr. Waterman indicated concurrence with this statement.

CAR BODIES IN SANDY RIVER

The Chairman asked when the matter of car bodies in the Sandy River could be taken up again.

Mr. Silver said that it is a matter of when it would be convenient for the Board members and simply arranging for the room and getting a court reporter.

This matter was set over to the afternoon of December 12, beginning at 1:30 p.m.

Mr. Jack Erickson from the Oregon Auto and Truck Dismantlers said that his organization has been diligently studying this problem, and that they would like to offer whatever help they can to solve this problem.

Mr. George Ward said that he had been asked by the Oregon Building Association to extend a verbal invitation to both the staff and the technical staff to attend a 3-day seminar at the Hilton Hotel starting on December 7 at 10:45 a.m. He thought in particular the staff may be interested in the part of the seminar dealing with deep well injection.

There being no further business, the meeting adjourned at 4:40 p.m.

Respectfully submitted,


Ely J. Weathersbee
Acting Secretary

BEFORE THE SANITARY AUTHORITY OF THE STATE OF OREGON

11-21-68

IN THE MATTER OF:)
)
J. A. PRITZKER, Trustee for W. H. Gonyea,)
and Rockwood & Co., a Delaware corporation,)
as its interest may appear, doing business)
as TIMBER PRODUCTS CO.,)
)
CONCERNING AIR POLLUTION IN)
JACKSON COUNTY, STATE OF OREGON.)

FINAL ORDER

This matter having come on regularly for hearing on the 24th day of October, 1968, at the Jackson County Courthouse, Medford, Oregon, after due notice of said hearing was given to Timber Products Co. by registered mail, before the Sanitary Authority for the State of Oregon. Those members present and constituting a majority were John D. Mosser, Chairman, Herman Meierjurgan and Storrs Waterman. Arnold B. Silver, Assistant Attorney General, appeared for the Sanitary Authority, and Timber Products Co. appeared by its general manager; that at its duly called regular meeting of November 14, 1968, Timber Products Co. appeared by its attorney, Thomas E. Brownhill, of Eugene, Oregon, before the Sanitary Authority to submit alternative proposals to abate the air pollution existing in or near the City of Medford, County of Jackson, and State of Oregon, and to control discharge of air contaminants from the plant's facilities. The Sanitary Authority, having heard the testimony and evidence in this matter and received exhibits and after considering the alternative proposals submitted by Timber Products Co., and being fully advised in the premises, does hereby make and adopt the following:

FINDINGS OF FACT

1. That prior to 1965 and continuing to the within date of hearing, Timber Products Co. was informed and made aware of various air contaminants being emitted into the atmosphere from facilities and plants under its operation and control located on McAndrews Road in or near the City of Medford, County of Jackson, and State of Oregon.
2. That prior to 1965 and continuing to the within date of hearing, the Sanitary Authority has consulted with and sought the cooperation of Timber Products Co. in reducing or rendering less noxious

the firm's discharge of air contaminants into the atmosphere.

3. That private individuals have also brought their complaints of public nuisance conditions to the attention of Timber Products Co. over a long period of time.
4. That despite the attempts and efforts of the Sanitary Authority to enlist the voluntary cooperation of Timber Products Co. to arrive at methods and procedures reducing or rendering less noxious the firm's discharge of air contaminants, the company continued to discharge and emit air contaminants which pollute the air and surrounding area up to the date of this hearing.
5. That at the date of the hearing Timber Products Co. submitted proposals which were wholly insufficient to rectify the conditions of pollution and to offer substantial compliance with ORS Chapter 449 and the rules and regulations promulgated thereunder, or involved unreasonable delays, or both.
6. That Timber Products Co. has open burned refuse materials at dump sites within its facilities and plant area.
7. That dust, odors, soot, smoke, cinders and particulate matter and combinations thereof are being discharged into the air, atmosphere and surrounding area from the facilities and plants under the ownership, right, title and control of Timber Products Co. and have been and are causing pollution of the air and atmosphere and surrounding area in or near the City of Medford, County of Jackson, State of Oregon, for at least several hours per day and often on a continuous basis several days per week. The facilities include the company's unloading operations, cyclone collectors, wigwam burner, storage areas and open burning areas.
8. The abovementioned air contaminants unreasonably interfere with the enjoyment of life and property in the area in or near the City of Medford in the following manner:

- (a) Dust, soot, smoke, cinders and particulate matter collect upon and cover automobiles and residences and other property, cause soiling and the constant necessity for washing and cleaning.
 - (b) Ashes, soot, cinders, dust and particles have warped roofs by collecting under shingles and expanding.
 - (c) That the citizens of Medford and of the state of Oregon have been prevented from utilizing their yards and patios during warm weather months and have been compelled to keep windows and doors closed in extremely hot days.
 - (d) That businesses engaged in commercial body and fender work and painting have been compelled to re-paint vehicles and have lost clients because of the various air contaminants discharged by Timber Products Co.
 - (e) That visibility has been curtailed in many instances and interfered with normal human activity.
 - (f) That swimming pools and filters have been covered and plugged with particles of dust and cinders and other particulate matter preventing their reasonable use.
10. That the discharge of such air contaminants is a public nuisance in that it has and will continue to affect public health in the form of nose, ear and mouth conditions and irritations and that it unreasonably interferes with the recreational enjoyment and aesthetic beauty of public areas utilized by the people of the state of Oregon and of private property owned and utilized by the citizens of the City of Medford, Oregon.

Based upon the said Findings of Fact, the following Conclusions are made:

CONCLUSIONS

1. That the discharges of dust, fumes, odors, soot, smoke, cinders and particulate matter and combinations thereof into the air of the state of Oregon and upon surrounding areas are air contaminants, air pollution and air contamination within the meaning of the following statute of the state of Oregon:

ORS 449.760(2), (3), (4)

2. That Timber Products Co. is the air contamination source of air contaminants, air pollution and contamination within ORS 449.760(5).
3. That the discharge and emission of air contaminants into the atmosphere and upon surrounding areas is air pollution and air contamination and is a violation of the public policy of the state of Oregon as set forth in ORS 449.765(1) and 449.770 and violates ORS 449.760(3).
4. That the discharge of air contaminants in the form of dust, odors, soot, smoke, cinders and particulate matter and the combinations thereof into the air of the state and upon surrounding areas are violations of the following standards, rules and regulations of the Sanitary Authority promulgated into Oregon Administrative Rules, Chapter 334:

Section 21-006(2), (3), (4), (5), (8), (24), (27)

Section 21-011

Section 21-016

Section 21-021

Section 22-006

Section 22-011

Based upon the foregoing Findings of Fact and Conclusions, the following Decision and Order is entered and adopted:

DECISION AND ORDER

IT IS HEREBY ORDERED, ADJUDGED AND DECREED:

1. That on or before December 15, 1968, Timber Products Co. shall modify its wigwam waste burner to obtain better combustion of material and on or before April 1, 1969 shall cease and abate the operation and utilization of its wigwam burner for the combustion of any type of material. The burner shall not be reactivated until it and facilities for storing and feeding material to it have been reconstructed in accordance with plans and specifications submitted to the Sanitary Authority for approval not less than 30 days prior to the start of such reconstruction, and then only for such periods and in such manner as will result in no violation of applicable laws and regulations.
2. That on or before November 15, 1968, Timber Products Co. shall discontinue all open burning of plant refuse and residues and shall not deposit such substances on areas where previous open burning has occurred, nor shall it contract for nor permit said materials to be open burned at any location. In the event fire continues to burn or smolder in materials previously deposited in burning areas after December 15, 1968, flooding or other control procedures shall be undertaken to permanently extinguish it.
3. That on or before November 25, 1968, Timber Products Co. shall provide and require that all vehicles used for the transport of shavings or other wood residues to and from its plant's facilities shall at all times be fitted with covers, except for the process of loading or unloading, to prevent the escape of wood particles.
4. That on or before July 1, 1969, Timber Products Co. shall oil all open areas subject to vehicular traffic and utilize all other control procedures as are necessary to thereafter maintain and control dust of all kinds on a regular, continuous basis.

5. That on or before January 1, 1969, Timber Products Co. shall cease open storage and truck discharge of shavings and other wood residues, provided, however, that such deadline shall be extended to August 10, 1969, if on or before January 1, 1969, it has otherwise complied with this order and has agreed in writing to construct satisfactory unloading and storage facilities by August 10, 1969. Without prejudice to other satisfactory facilities which might be designed by the company, the following would be considered satisfactory:

I.

An enclosure with roof around its truck unloading facility, equipped with an exhaust ventilation and filtering system, with the exhaust air openings to be located at the end of the enclosure adjacent to the rear of the truck. The exhaust system shall:

- (a) Have a capacity to provide at least a three minute air change in the enclosure, or a velocity of 300 feet per minute through any and all enclosure openings, whichever is greater.
- (b) Incorporate filters having a manufacturer's certified rating of 90% removal of three micron-size particles.

II.

An enclosure with roof for the storage and bulk handling of all shavings or other wood residues. The enclosure shall be equipped with an exhaust ventilation and filtering system of such capacity as is necessary to produce a minimum negative pressure of 0.006 water gauge within the structure or a minimum inward velocity of 300 feet per minute through all exterior openings. The doors or other exterior openings shall be fitted with interlocks so that

those doors or exterior openings in opposite walls cannot be open at the same time. The exhaust system shall incorporate filters having a manufacturer's certified rating of 90% removal of three micron-size particles.

The truck unloading facility described above may be incorporated within the storage enclosure in which case its exhaust system may also serve as the exhaust system for the storage enclosure; provided that its capacity shall then be determined as the greater of the requirements specified for either facility.

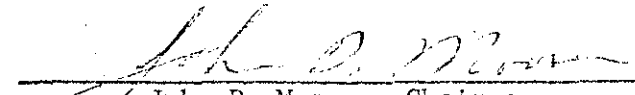
6. That on or before February 15, 1969, Timber Products Co. shall submit a complete study by an independent consulting engineer to the Sanitary Authority of discharges from all cyclone collectors and by April 1, 1969 shall submit plans and specifications to the Sanitary Authority for any necessary air cleaning or control devices that should be installed. The air cleaning or control devices shall be installed by Timber Products Co. on a schedule then to be directed by the Sanitary Authority. The schedule shall be made part of and incorporated by reference into this order.
7. That plans and specifications prepared by a registered engineer encompassing the above construction program shall be submitted to the Sanitary Authority for approval before construction and shall conform to the following schedules:

	<u>Plan Submittal</u>	<u>Construction Complete</u>	<u>Checkout and Activation</u>
(a) Item 5 I	Jan. 1, 1969	June 1, 1969	June 10, 1969
(b) Item 5 II	Feb. 1, 1969	Aug. 1, 1969	Aug. 10, 1969

8. An independent testing concern shall be retained by Timber Products Co. who shall conduct tests of the air volumes, velocities and filtering efficiencies of the air handling systems within 30 days of their activation, the results of which shall be submitted to the Sanitary Authority for examination upon completion of said

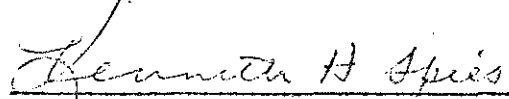
tests. Any deficiencies shall be promptly corrected.

Dated this 26 day of November, 1968.



John D. Mosser, Chairman,
Sanitary Authority of the State of Oregon

ATTEST:



Kenneth H. Spies, Secretary

TO : MEMBERS OF THE SANITARY AUTHORITY

John D. Mosser, Chairman
B. A. McPhillips, Member
Storrs Waterman, Member

E. C. Harms, Member
Herman Meierjurgan, Member

FROM : Air Quality Control

DATE : November 14, 1968

SUBJECT: VARIANCE GRANTED TO WAH CHANG CORPORATION BY MID-WILLAMETTE
VALLEY AIR POLLUTION AUTHORITY

Mid-Willamette Valley Air Pollution Authority has granted a variance to the Wah Chang Albany Corporation to operate its zirconium carbide plant until December 31, 1969. Because the rules of Mid-Willamette Valley Air Pollution Authority do not permit its variance grant powers to extend beyond one year, the actual variance is granted through October 15, 1969.

Under ORS 449.880, Variance powers of regional authority, the Mid-Willamette Valley Air Pollution Authority has submitted the variance for review of the Sanitary Authority. Section 3 of the statute reads as follows:

"A copy of each variance granted by a regional authority shall be filed with the Sanitary Authority within 15 days after it is granted. The Sanitary Authority shall review the variance and the reasons therefor within 120 days of receipt of the copy. If the Sanitary Authority determines that a variance should not be renewed, it shall direct the regional authority to deny any application for renewal. If the variance was granted for a period of more than one year, the Sanitary Authority may order the regional authority to reduce the period for which the variance was granted, but in no case shall such reduction cause the variance to be valid for less than one year."

Enclosed are the following:

1. A letter of transmittal dated October 24, 1968 from Michael D. Roach, Director, Mid-Willamette Valley Air Pollution Authority.
2. A copy of the ORDER GRANTING VARIANCE covering the period October 15, 1968 to October 15, 1969.
3. A copy of a letter from Wah Chang Corporation dated October 15, 1968, applying for a variance to Mid-Willamette Valley Air Pollution Authority.
4. A copy of the SCHEDULE FOR COMPLIANCE AGREEMENT by the Wah Chang Corporation and the Mid-Willamette Valley Air Pollution Authority.

REVIEW BY THE STAFF

The staff has reviewed the compliance schedule and the variance request and is in general agreement with the schedule.

RECOMMENDATION

It is recommended that the Mid-Willamette Valley Air Pollution Authority be ordered not to extend the variance beyond ~~December 31~~, 1969.

Oct 15 1969.
1 year period

PARTICIPATING COUNTIES:

BENTON
LINN
MARION
POLK
YAMHILL

MID-WILLAMETTE VALLEY AIR POLLUTION AUTHORITY
ROOM 4, 255 CHURCH STREET N.E. - TELEPHONE 581-1715
SALEM, OREGON 97301

RECEIVED

October 24, 1968

OCT 25 1968

Air Pollution

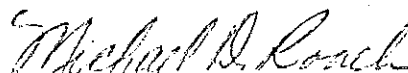
Mr. Harold M. Patterson
Chief, Air Quality Control
Oregon State Sanitary Authority
1400 S. W. Fifth Avenue
Portland, Oregon 97201

Dear Pat:

Enclosed is an order granting a variance to the Wah Chang Albany Corporation to operate its zirconium carbide plant until December 31, 1969. This variance is submitted for the Sanitary Authority's review in accordance with ORS 449.880(3). The Mid-Willamette Valley Air Pollution Authority recommends that in the Sanitary Authority's review, it grant a renewal after October 15, 1969, but not to exceed January 1, 1970.

Wah Chang Albany Corporation's application for a variance is included as well as their Schedule for Compliance agreement on other processes. The Mid-Willamette Valley Air Pollution Authority requests that you review this at your earliest possible convenience and Board meeting.

Sincerely yours,


Michael D. Roach,
Director

MDR/rlp
Encls.

cc: Mr. Sam Worcester
Wah Chang Albany Corporation



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

A TELEDYNE COMPANY

October 15, 1968

Michel S. Roach, Director
Mid-Willamette Valley Air Pollution Authority
255 Church Street, N.E.
Salem, Oregon 97301

Subject: APPLICATION FOR VARIANCE - ZIRCONIUM CARBIDE PLANT

Dear Mr. Roach:

Wah Chang Albany Corporation respectfully requests a variance for operation of the zirconium carbide plant, building 30, since it is anticipated that the operation of this plant will be discontinued during December, 1969.

In the production of zirconium at WCAC, the present process involves conversion of Zircon ($ZrSiO_4$), into zirconium carbide in a carbiding facility consisting of three single-electrode carbide furnaces connected in a three-phase electrical circuit. Zircon sand and coke are continuously fed, in particulate form, into the high temperature region of the furnaces where the conversion to zirconium carbide takes place. Dust is produced in the operation by expulsion of the particulate charge and by volatilization of SiO_2 . The purpose of the reduction of zirconium carbide is to provide a zirconium bearing compound which can be chlorinated to zirconium tetrachloride without the addition of heat from an outside source. In addition, the carbiding operation reduces the silicon content by volatilization of SiO_2 in the carbide. Chlorination of silicon is minimized so that the disposal of silicone tetrachloride is unnecessary.

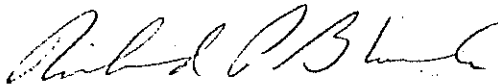
Zirconium tetrachloride can also be produced by direct chlorination of the zircon sand, provided chlorinators can be provided which will allow maintaining a reaction temperature of approximately $1200^{\circ}C$, and suitable condensers can be designed to recover the silicon tetrachloride formed. During the past year, WCAC has operated a sand chlorinator intermittently; however, technical difficulties have prevented scale up of this type of chlorinator. In a similar study, conducted at another zirconium plant, chlorinators similar to those used in Albany's pure chlorination facilities have been successfully used for chlorination of zircon sand. WCAC intends to have three chlorinators of similar design on line by April, 1969, and if such chlorinators prove to be satisfactory on a continuous basis, the zirconium carbide plant at Albany will be rendered obsolete. To minimize the need for zirconium carbide, WCAC is also procuring zirconium tetrachloride from a large domestic source; however, sufficient tetrachloride cannot be obtained from that source to allow shutdown of the zirconium carbide plant at this time.

October 15, 1968

Installation of equipment to bring the emission from the zirconium carbide operation into compliance with MWV-APA emission standards, would cost an estimated \$60,000. In addition, modification of the fume pick-up system must be completed before the specifications for a high efficiency fume control device can be finalized. We propose to proceed with modification of the fume pick-up system and installation of a Western Precipitation Multiclone scrubber which will remove approximately 75% of the solids now being emitted. This installation will be completed by April 1, 1969. Therefore, with deliveries of 14 to 18 weeks for bag houses, an acceptable fume control system could not be installed before August or September. Since WCAC anticipates shut down of the carbide facility during December, 1969, the expense of a bag house installation does not appear to be justified.

An engineering study of a system for controlling emissions in accordance with the rules of MWV-APA, (0.2 grain per standard cubic foot of exhaust gas and opacity equivalent to No. 2 on the Ringleman Chart), shall be submitted to the MWV-APA by June 1, 1969. On July 1, 1969, Wah Chang will submit a status report on discontinuing the operation of the zirconium carbide plant in December, 1969. At that time, if such a shutdown appears to be impossible, Wah Chang will order the required emission control equipment so that any operation after January 1, 1970, will be in accordance with MWV-APA emission standards.

Sincerely,



Richard P. Blunk
Vice President

SAW:RPB/jks

MID-WILLAMETTE VALLEY AIR POLLUTION AUTHORITY
255 Church Street N.E.
Salem, Oregon

SCHEDULE FOR COMPLIANCE AGREEMENT

The Mid-Willamette Valley Air Pollution Authority by virtue of the enactment of Chapter 425, Oregon Laws 1967 (ORS 449.850 to 449.920) became vested with the power and duty of exercising the functions and duties of the State Sanitary Authority with respect to air quality control in the five counties constituting its region and boundaries, including the statutory duty of encouraging voluntary cooperation by all persons concerned in controlling air pollution and air contaminants. Persons responsible for emissions of air contaminants in violation of the statute or rules and standards of the Authority are therefore requested to provide the director of the Authority with a written schedule showing when violation emissions will be in compliance with the statutory or regulatory requirements, which schedule shall include the time for engineering, time for procurement, time for fabrication and time for installation and adjustment. Failure to complete the agreement on request of the Director will subject the persons, firms or corporations involved to the enforcement procedures and the judicial action provided in ORS 449.895 and 449.990(16).

NOW, THEREFORE, in consideration of the foregoing recitals, it is agreed as follows:

1. I, R. P. Blunk, Vice President, as a duly elected or appointed officer of the Wah Chang Albany Corporation, located at Albany, Oregon, agree that aforesaid Company will proceed to bring emissions into compliance with the Authority's Rules and Regulations on the following time schedule for the various processes itemized below:

I. ZIRCONIUM CARBIDE PRODUCTION, BUILDING 30.

(See attached application for a variance. This variance must be approved by the Mid-Willamette Valley Air Pollution Authority (MWV-APA) and reviewed by the Oregon State Sanitary Authority in accordance with ORS 449.880.)

II. CRUDE CHLORINATION, BUILDING 14.

- A. Operator check lists on the barrel filling and material handling procedure must be submitted to the MWV-APA and implemented by the Wah Chang Albany plant by October 15, 1968.
- B. Routine monitoring on the crude chlorination scrubber efficiency with results available on request by the MWV-APA shall be implemented by February 28, 1969.
- D. Crude chlorinators are projected to be converted to direct sand chlorinators by December 31, 1969.
 - 1. Feasibility report on the above conversion shall be submitted to the MWV-APA by July 1, 1969.

2. If the projected conversion is unfeasible, engineering plans for adequate control on the crude chlorination shall be submitted to MWV-APA by September 1, 1969.
3. Crude chlorination shall either be converted or adequately controlled by December 31, 1969.

III. DIRECT SAND CHLORINATION (NEW)

- A. Engineering plans for the adequate control of the above shall be submitted to MWV-APA by July 1, 1969.
- B. The direct sand chlorinators shall be adequately controlled by December 31, 1969.

IV. FEED MAKEUP, BUILDING 11

- A. Engineering plans on new feed makeup, process and controls shall be submitted to MWV-APA by November 1, 1968.
 1. Scrubber on above process shall be installed by February 28, 1969.
 2. An operator check list on the above process shall be submitted to MWV-APA and implemented by Wah Chang Albany plant by February 28, 1969.
- B. The old feed makeup, Building 11, shall be shut down by February 28, 1969.

V. PRECIPITATION, BUILDING 11

Test results on emissions from the precipitation tank shall be submitted to MWV-APA by November 15, 1968.

VI. ROTARY VACUUM SYSTEM, BUILDING 11 (Zr/Hf SIDE)

- A. Engineering plans for control of the ammonia from the Zr/Hf side of Building 11 shall be submitted to MWV-APA by November 15, 1968.
- B. Procurement of control equipment for the above process shall be accomplished by December 31, 1968.
- C. The controls for the above process shall be installed and operating by April 1, 1969.
- D. Routine monitoring on the ammonia system scrubber efficiency shall be implemented and results made available to MWV-APA upon request by April 1, 1969.

VII. CALCINERS, BUILDING 11

- A. Odor emissions shall be accomplished on the Hafnium Calciner by October 15, 1968.
- B. Test results on the new Zirconium Calciner shall be supplied to MWV-APA within thirty (30) days after startup of the new calciner.
 - 1. The Wah Chang Albany Corporation shall inform MWV-APA within seven (7) days after the actual startup of the above Calciner.
 - 2. Engineering plans for adequate controls of the above Calciner shall be submitted to MWV-APA within ninety (90) days after startup of the above Calciner.
 - 3. Adequate controls shall be installed and operating within two hundred seventy (270) days after startup of the above Calciner.

VIII. PURE CHLORINATION, BUILDING 1

- A. Routine monitoring for chlorine on the Pure Chlorination Scrubber shall be implemented and results made available to MWV-APA upon request by January 31, 1969.
- B. Any and all upset conditions in the above process shall be reported to MWV-APA in accordance with MUR 12-025 after October 1, 1968.

IX. COLUMBIUM/TANTALUM PRODUCTION, BUILDINGS 11 AND 13

- A. The Columbiu**m**/Tantalum operations will be temporarily shut down by ~~October 31, 1968~~ November 15, 1968.
- B. Engineering plans for fume control in the above process shall be submitted to MWV-APA by May 15, 1969.
- C. Fume controls for the above process shall be installed and in operation by October 31, 1969, or at startup, whichever occurs last.

2. I further agree to submit written progress reports within ten (10) days following each of the dates agreed above unless required otherwise by the Director.

3. I understand a request to amend the above Schedule for Compliance may be submitted within ninety (90) days of this date, provided that material facts are submitted in writing indicating a different reasonable schedule is required for compliance. I further understand that nothing contained in this agreement shall supersede the right to apply for a variance

as provided in MWR 13-005 through 13-025.

Signed this date Oct 11, 1968
By R. L. C. Blak
Vice President
Wah Chang Albany Corporation

The Director accepts the above schedules for compliance and progress reports and agrees not to institute further enforcement or judicial action for violations relating to the specific emission stated above provided progress reports are submitted as agreed and they indicate the compliance schedule is being met.

Signed this date October 15, 1968
By Michael D. Roach
Director
Mid-Willamette Valley Air Pollution
Authority

BEFORE THE MID-WILLAMETTE VALLEY AIR POLLUTION AUTHORITY

In the Matter of the Application)
for Variance)
) ORDER GRANTING VARIANCE
 by)
)
WAH CHANG ALBANY CORPORATION.)

This matter came on regularly to be heard before the Board of Directors of the Mid-Willamette Valley Air Pollution Authority on the 15th day of October, 1968, upon the application of Wah Chang Albany Corporation for a variance for operation of its zirconium carbide plant, and the Board having heard the representatives of the Wah Chang Albany Corporation, and having considered the recommendations of Michael D. Roach, the Director of the Authority, the Board finds that the conditions of ORS 449.810(1) have been met by reason of special circumstances which would render compliance with the Authority's Rules and Standards unreasonable, burdensome or impractical due to special conditions existing, namely, in that the installation of adequate controls on the zirconium carbide furnaces would entail a cost of approximately \$60,000 and if control equipment is ordered immediately such controls would only be in operation for approximately three months following their installation, by reason of the fact that the zirconium carbide plant is scheduled by the corporation to be terminated and shut down by December 31, 1969; and the Board further considering the fact that the corporation has entered into a written Schedule for Compliance Agreement with the director of the Authority providing a detailed time schedule for reduction and elimination of air pollution in the operation of its plant by the said corporation; Now
Therefore,

On motion duly made, seconded and passed, it was resolved by the Board as follows:

IT IS HEREBY ORDERED that the application for variance by the Wah Chang Albany Corporation for the operation of its zirconium carbide plant at Albany, Oregon, be granted for a period of one year, namely from the 15 day of October, 1968, to and including the 15 day of October, 1969.

IT IS FURTHER ORDERED that a copy of this Order shall be forthwith filed with the State Sanitary Authority pursuant to ORS 449.820.

DATED this 24 day of October, 1968.

MID-WILLAMETTE VALLEY AIR
POLLUTION AUTHORITY

By H B McElwain
Chairman

ATTEST:

Michael D. Rock
Director

TO : MEMBERS OF THE SANITARY AUTHORITY

John D. Mosser, Chairman
B. A. McPhillips, Member
Storrs Waterman, Member

E. C. Harms, Jr., Member
Herman Meierjurgan, Member

FROM : Air Quality Control

DATE : October 31, 1968, Prepared for the November 14, 1968 Sanitary
Authority Meeting

SUBJECT: UNION CARBIDE CORPORATION

At the October 25, 1968 meeting of the Oregon State Sanitary Authority at Bend, Oregon, the staff was directed to confer with and evaluate the air pollution control program at the Union Carbide Corporation plant located in North Portland.

BACKGROUND

Background information has been prepared by the staff.

Prior to December 17, 1965, partial control facilities had been installed on #1 and #4 furnaces and steps had been initiated by the company to minimize air pollution caused by their operation.

In the staff report to the Sanitary Authority on December 17, 1965, the furnaces were summarized as follows:

FURNACE #1

1. This is a covered furnace producing only calcium carbide.
2. A water scrubber was installed in 1963 and a new gas offtake was provided in December of 1964.
3. Company emission tests conducted in November 1965 show an emission reduction of 70 per cent over 1963 tests. November 1965 tests conducted by the company showed an emission rate of 6.4 lbs./hr.
4. Tests conducted by the staff still show that the particle fallout rate of lime dust allowed by the regulations of one ton per square mile per month plus a background value was exceeded at three of the sample stations on a median value basis and all stations on a maximum value basis.

FURNACE #3

1. This is an uncovered furnace and has no scrubber or controls.
2. The furnace is used to produce ferromanganese and ferrosilicon.
The company will refrain from making silicomanganese in this furnace.

3. Company emission tests conducted in 1965 gave emission rates as follows:
Ferromanganese 46. lbs/hr. (average of 2 measurements)
Ferrosilicon 83 lbs/hr.

FURNACE #4

1. This is a covered furnace producing silicomanganese, ferrosilicon, and ferromanganese.
2. The company proposes to change the offtake from the furnace and increase the scrubber capacity in January 1966. The reduction in emissions obtained by this procedure change on Furnace #1 was 70 per cent.
3. Company emission tests conducted in 1965 gave emission rates as follows:
Silicomanganese 120-160 lbs/hr.
Ferromanganese 6 lbs/hr.
Ferrosilicon No data on this furnace.

As a result of the complaints and the staff report as presented at the December 17, 1965 Sanitary Authority meeting, it was:

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

The company was advised of the action of the Authority in a letter dated December 27, 1965, and on February 21, 1966, in response to the action of the Authority, the Company submitted the following program for the installation of additional control facilities at their North Portland location. The following is an excerpt from that proposal:

- "1. Install a second gas offtake and a venturi-type fume scrubber on #4 furnace. This will include all ducting, stacks, and fluid waste disposal facilities. Estimated completion - September 1966.
2. Install a cyclonic scrubber at #1 furnace to improve fume collection from the tap hole exhaust system. Estimated completion - January 1967.
3. Increase the capacity of the existing gas collection system at #1 furnace by replacement and modifications as necessary to the blower, ducting system and regulating controls, thereby creating more under-cover suction and reducing the escape of fume above the cover. Estimated completion - June 1967.

The above represents an outline of the planned installation and completion dates which, of course, are dependent upon equipment delivery. Specific design features cannot be projected at this time but will be available as engineering progresses. Preliminary estimates indicate total cost at approximately \$135,000.00.

No. 3 furnace was shut down on November 15, 1965, and we have ceased all preparations for restarting this unit, although our production program indicates that the unit should run a minimum of six months during 1966. Prior to July of this year we plan to make an economic analysis regarding further operation of this furnace. The alternate will be the shipment of alloys to our West Coast customers from production facilities other than those in Portland.

As indicated in previous correspondence, if our decision is to operate #3 furnace, we will not produce silico-manganese. Analyses of our monitoring data and that presented to us by the Authority staff give no indication that emissions from this furnace, while producing products other than silico-manganese, contribute significantly to the total fallout or suspended particulate load in the plant vicinity. Visual observation supports this opinion.

If it is decided that #3 furnace is to remain inactive because of complaints and/or regulations with reference to air pollution, we will be unable to maintain jobs for approximately 40 employees whose annualized wages amount to approximately \$300,000.00. Additionally, local annual purchases of seven hundred thousand dollars, necessary to the operation of this unit, would be eliminated."

Because the staff was concerned relative to the efficiency of the proposed installation, it was requested in a letter dated March 22, 1966, to Union Carbide Corporation, "that plans covering the proposed control installations be submitted along with sufficient supporting data to show the basis of design and efficiencies proposed in fume recovery and control, as outlined in your letter of February 21, 1966, for review by this office.

It should be pointed out that if it is proposed to operate furnace #3, controls on furnaces on #1, #3, and #4 should be such that ambient air quality standards are met by June 1967. For this reason it is recommended that a stepped-up program of installation of the controls on furnaces #1 and #4 be adapted so that such studies and tests can be completed in time to assist in determining the controls necessary on furnace #3 so that the controls may also be installed on that furnace by June 1967 if it is proposed to operate that furnace."

At the June 29, 1966 meeting of the Sanitary Authority, a staff report was presented which recommended conditional approval of the proposal of February 21, 1966 because insufficient data was available on plant emissions and equipment efficiencies to fully evaluate all aspects. At that time it:

"was MOVED by Mr. McPhillips, seconded by Mr. Meierjurgan, and carried that the Sanitary Authority grant conditional approval to Union Carbide's proposal of February 21, 1966, including current additions and plans subject to:

1. The Company's meeting ambient air standards by June 1967.
2. Continued staff review of the company's proposal, construction progress, and measurement of ambient air.
3. Measurement by the company of the efficiency of the air cleaning equipment installed, and the company's providing the results of the tests together with grain loading and gas flow rates.
4. The company conduct a dust suppression program in the material storage, handling, and transportation area beginning with the current season."

PROGRESS BY UNION CARBIDE CORPORATION

A strike at the plant, lasting from August 31, 1966 until about May 1, 1967, somewhat slowed progress in installing the proposed controls. No controls were installed on the #3 furnace. The staff worked with the company in a cooperative ambient air quality study, a report of which was issued in late 1967.

It is the conclusion of the staff that the company was not in compliance with the ambient air standards by June of 1967 and was not in compliance when the jurisdiction of Union Carbide Corporation was transferred to the Columbia-Willamette Air Pollution Authority. The company has not submitted to the Sanitary Authority or to the Columbia-Willamette Air Pollution Authority measurements of the efficiency of the air cleaning equipment installed or provided the results of these tests together with grain loading and gas flow rates for evaluation by the Columbia-Willamette Air Pollution Authority.

JURISDICTION OF COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

In a letter dated June 5, 1968, Union Carbide Corporation submitted their proposal as a result of needs by the company to produce standard ferromanganese. The company stated that if immediate action could be taken, a substantial boost to its operations and subsequent employment of 30 to 40 additional personnel can be realized. The following is an excerpt from that letter.

"Situation and Proposal

Two of our three furnaces, #1 unit on calcium carbide and #4 unit on silicomanganese, are covered and so equipped that we feel they meet requirements of air pollution controls.

No. 3 unit, an open furnace which has not operated on manganese products since November 1965, is the unit now needed to take advantage of the opportunity that has been presented.

This will require nearly half a million dollars, it appears, for an installation of air pollution control which is considered one of the most efficient means available (Bag House).

The additional business and contribution to the economy of the area, we feel, warrants our preparation to restart the furnace now and work toward satisfactory collection controls consistent with all possible expediting of materials and work required.

Incidentally, from past experience in producing standard ferro-manganese in an open furnace, there have been periods of no significant fumes from the stack.

Although this unit has been needed for production on many occasions in the past we have brought in material from the East rather than installing pollution controls which required such large expenditures."

The Columbia-Willamette Air Pollution Authority staff evaluated the proposal and received additional information concerning design, cost and scope of the project.

The evaluation by the staff and report to the Columbia-Willamette Air Pollution Authority resulted in that Authority providing for a compliance schedule for a bag house installation to bring the emissions from #3 furnace and #4 furnace in compliance with the regulations of the Columbia-Willamette Air Pollution Authority by June 1, 1969.

CONCLUSIONS OF THE STAFF

The judgment of the Columbia-Willamette Air Pollution Authority is that the present program will bring furnace #3 and #4 in compliance with regulations of that Authority. Furnace #1 has not been observed frequently enough to evaluate the current problem; however, it is concluded by the Sanitary Authority staff that the calcium oxide (CaO) particle fallout is in excess of that provided by Section 21-026 of Oregon Administrative Rules. This conclusion is based upon a staff report dated December 1967 entitled "Air Pollution in the St. Johns Area, Portland, Multnomah County", issued and distributed to the Columbia-Willamette Air Pollution Authority, Union Carbide Corporation and other interested parties. The Columbia-Willamette Air Pollution Authority is continuing to evaluate emissions from the #1 or carbide furnace and the current intent of that program, if there is currently a violation, to bring that furnace and related facilities in compliance by the June 1, 1969 date.

Because the Sanitary Authority staff ceased operating samplers in the vicinity of the Union Carbide plant in February of 1968, we have no information to indicate the problem is other than violation of Oregon Administrative Rules, Chapter 334, Section 21-011, Smoke Discharge, and similar regulations of the Columbia-Willamette Air Pollution Authority. The Columbia-Willamette Air Pollution Authority is not measuring particulate fallout rates or suspended particulate levels in the vicinity of Union Carbide.

Attached are copies of the following:

Letter of October 22, 1968, from CWAPA
Letter of August 26, 1968, from CWAPA to Union Carbide Corp.
SCHEDULE OF COMPLIANCE AGREEMENT between Union Carbide Corp. and
CWAPA.

KHS
10-28-68
To: AD-2362
HMP

COLUMBIA-WILLAMETTE AIR POLLUTION AUTHORITY

104 S.W. FIFTH AVENUE

PORTLAND, OREGON 97204

PHONE 228-6141, EXT. 466

22 October 1968

BOARD OF DIRECTORS

- M. James Gleason, Chairman
Multnomah County
- Robert L. Glosenger
Columbia County
- Fred Stefani
Clackamas County
- Francis J. Ivancie
City of Portland
- Mark A. Grayson
City of Portland
- Richard E. Hatchard
Program Director

Kenneth H. Spies, Secretary
Oregon State Sanitary Authority
1400 Southwest 5th Avenue
Portland, Oregon 97201

RE: Union Carbide Corporation

Dear Mr. Spies:

Enclosed is a copy of the Schedule for Compliance Agreement which the Columbia-Willamette Air Pollution Authority Board of Directors approved, somewhat reluctantly, during the 23 August 1968 meeting.

Since that time, the staff has maintained surveillance over the plant operations. Plant surveys were made on 23 and 25 September. Part of this work was to establish whether the proposed plans to control the fumes discharged from Furnace #4 during the tapping process would bring the furnace operations into compliance. Our investigations indicate that this addition would bring Furnace #4 into compliance when the baghouse installation project is completed.

If you desire any additional information, please feel free to contact us.

Very truly yours,

R. E. Hatchard
R. E. Hatchard
Program Director

REH:j1
Enclosure

Sanitation & Engineering
Oregon State Board of Health
RECEIVED
OCT 24 1968

DNF	TEMP	PERM
-----	------	------

28 August 1968

Mr. L. R. O'Brien
Manager Portland Works
Union Carbide Corporation
P. O. Box 03070
Portland, Oregon 97203

Dear Mr. O'Brien:

Thank you for the signed Schedule for Compliance which you delivered to our office on 22 August 1968. The Board of Directors of the Columbia-Willamette Air Pollution Authority considering the Furnace #3 operations and the proposed control installations accepted the program for compliance. We are returning one copy for your files which we have signed. It is our understanding that the work on Furnace #4 includes provision for handling fumes from the tapping operation.

The Authority members were very cognizant of the eleven-month period of time required to complete the installation, and instructed me to advise you to make every effort to minimize the discharges from both Furnace #3 and #4. May we stress that the operating personnel be alert to the need to make every operational protection against discharging excessive air contaminants. The Board also expects Union Carbide to complete the installation at the earliest possible time.

Please feel free to contact us whenever we may be of assistance.

Very truly yours,

R. E. Hatchard
Program Director

REH:jl
Enclosure

ROUTING	
To	Noted by
J	✓
WF	WF
WS	WS
TB-JH	BGA
From:	
Action:	

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

SCHEDULE FOR COMPLIANCE AGREEMENT

Article 2-2 of Rule 2 (Ordinance No. 1) of the Columbia-Willamette Air Pollution Authority became effective 1 July 1968. Persons responsible for emissions that were not in compliance with Article 2-2 on the effective date or for emissions found by the Program Director at a later date not in compliance, are required to provide the Program Director with a written schedule showing when violation emissions will be in compliance with Article 2-2 (Section 2-4.2). A reasonable schedule for compliance shall include each of the following: time for engineering, time for procurement, time for fabrication and time for installation and adjustment.

The following agreement for compliance must be completed, otherwise Section 2-4.2 requires the Program Director to proceed with enforcement and judicial action as provided for in Oregon Revised Statutes 449.855 (2) and 449.800 (5).

I, L. R. O'BRIEN, as MANAGER of
(Name) (Title)

Union Carbide Corporation, Mining and Metals Division, located at 11920 North
(Name of Company)

Burgard Avenue, Portland agree that aforesaid Company will proceed to bring emissions from the Furnaces # 3 and #4
(Processes, equipment, practices, etc.)

into compliance with Article 2-2 of the Columbia-Willamette Air Pollution Authority on the following time schedule:

Engineering will be completed by 1 January 1969, with procurement of necessary equipment to be made by 1 January 1969; followed by fabrication and shipment to be completed by 1 April 1969; and finally installation and adjustment to be accomplished by 1 June 1969.

I further agree to submit written progress reports within ten (10) days following each of the dates agreed above, unless required otherwise by the Program Director.

I understand a request to amend the above schedule for compliance may be submitted within ninety (90) days of this date provided that material facts are submitted in writing indicating a different reasonable schedule is required for compliance. I further understand that nothing contained in this compliance agreement shall supercede the right to apply for a variance as provided in Section 2-4.3.

Signed this Date 8-22-68

By [Signature]
(Name)

Manager
(Title)

For Union Carbide Corp. Mining and Metals Div.
(Company)

The Program Director accepts the above schedules for compliance and progress reports and agrees not to institute further enforcement or judicial action for violations relating to the specific emission stated above provided progress reports are submitted as agreed and they indicate the compliance schedule is being met.

Signed this Date 23 Aug 68

By [Signature]
(Program Director)

FR02 NG012 23/21/68 1608/1611

PF AM NG

L R O'BRIEN - PF

CC L P TWICHELL - AP

CC W G PIPER - NG

CC H LITZEL - NG

CC J P TRUNZO - NG

CC E BOND - NG

CONFIRMING OUR TELEPHONE CONVERSATION OF THIS DATE, PLEASE BE ADVISED OF THE FOLLOWING SCHEDULE FOR THE INSTALLATION OF THE DUST ABATEMENT FACILITY FOR NO. 3 FCE. AT PORTLAND

ENGINEERING COMPLETE -- JANUARY 1969

PROCUREMENT OF PRINCIPAL ITEMS OF EQUIPMENT COMPLETE - JANUARY 1969

FABRICATION AND DELIVERY OF PRINCIPAL ITEMS OF EQUIPMENT COMPLETE--

APRIL 1969 0

INSTALLATION AND START-UP COMPLETE - JUNE 1, 1969

WE WILL KEEP YOU ADVISED OF ANY CHANGES TO THE ABOVE SCHEDULE

F L MAZZONE NIAGARA

Asst. Director of Engineering

Union Carbide Corporation

Mining and Metals Division



STATE OF OREGON
HOUSE OF REPRESENTATIVES
SALEM

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

Dear Mr. Spies,

The Union Carbide Metals plant located on north Burgard Road in Portland continues to emit huge quantities of pollutants into the air.

This summer the Union Carbide Company simultaneously announced it's intention to restart electric Furnace No. 3 and to place it into continuous production. Production began in July 1968, the air pollution controls are promised by June 1969. Besides being in violation of existing air pollution regulations, such operation disregards the understanding arrived at during their 1966-67 dealings with the Oregon State Sanitary Authority staff that Furnace No. 3 (being with controls what-so-ever) would not be reoperated (or at least would not be reoperated on a regular or continuous basis) without first installing some air pollution control equipment.

Union Carbide Company is now under regulation of the Columbia-Willamette Air Pollution Authority and was given approval in September to continue operation of Furnace No. 3 (started in July) because of their stated intention of abatement. This approval was given in spite of the State law, in spite of the history of the Union Carbide case, and in spite of citizen objections.

Because of continued citizen dissatisfaction with Union Carbide caused air pollution, and

Because of the discussions we have had with Oregon State Sanitary Authority staff members, Columbia-Willamette Air Pollution Authority staff members, and industry representatives which all agree Union Carbide is in violation of Oregon Administrative Air Pollution Rule No. 21-011,

We request the Oregon State Sanitary Authority, by the power given in ORS 449.905 call to a hearing the Columbia-Willamette Air Pollution Authority and the Union Carbide Company.

Sincerely,

STATE REPRESENTATIVE

Wally Priestley

Wally Priestley

CONCERNED CITIZENS FOR CLEAN AIR

Bill Luch, Chairman

Bill Luch

Lucy Halter, Sec.-Treas.

Lucy Halter

Dick Crouchley, Past Chairman

Dick Crouchley

Howard Galbraith, Board Member

Oregon Administrative Air Pollution Rules (Chapter 334)

21-011 SMOKE DISCHARGE. 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 hour which is:

(1) As dark or darker in shade as that designated as number 2 on the Ringelmann Chart as published by the U.S. Bureau of Mines, August 1955, or,

(2) Of such opacity as to obscure an observers' view to a degree equal to or greater than does smoke described in sub-section (1) of this section.

generally
It is ^{generally} conceded by the Oregon State Sanitary Authority staff, the Columbia-Willamette Air Pollution staff, an industry representative, and the contention of the Concerned Citizens for Clean Air that Union Carbide's Furnace No. 3 as presently operated is in continuous violation of this regulation.

Oregon Revised Statutes

ORS 449.905 ". . . if the Sanitary Authority has reason to believe that an air quality control program in force in the territory of a regional authority is being administered in a manner inconsistent with the requirements of ORS 449.760 to 449.830 and 449.850 to 449.920 or is being administered in a manner lacking uniformity throughout the territory of the regional authority, the Sanitary Authority shall conduct a hearing on the matter, after not less than 30 days' notice to the regional authority."

BEFORE THE SANITARY AUTHORITY OF THE STATE OF OREGON

IN THE MATTER OF:)

J. A. PRITZKER, Trustee for W. H. Gonyea,)
and Rockwood & Co., a Delaware corporation,)
as its interest may appear, doing business)
as TIMBER PRODUCTS CO.,)

FINAL ORDER

CONCERNING AIR POLLUTION IN)
JACKSON COUNTY, STATE OF OREGON.)

This matter having come on regularly for hearing on the 24th day of October, 1968, at the Jackson County Courthouse, Medford, Oregon, after due notice of said hearing was given to Timber Products Co. by registered mail, before the Sanitary Authority for the State of Oregon. Those members present and constituting a majority were John D. Mosser, Chairman, Herman Meierjurgan and Storrs Waterman. Arnold B. Silver, Assistant Attorney General, appeared for the Sanitary Authority, and Timber Products Co. appeared by its general manager. The Sanitary Authority, having heard the testimony and evidence in this matter and received exhibits, and then, being fully advised in the premises, does hereby make and adopt the following:

FINDINGS OF FACT

1. That prior to 1965 and continuing to the within date of hearing, Timber Products Co. was informed and made aware of various air contaminants being emitted into the atmosphere from facilities and plants under its operation and control located on McAndrews Road in or near the city of Medford, County of Jackson, and State of Oregon.
2. That prior to 1965 and continuing to the within date of hearing, the Sanitary Authority has consulted with and sought the cooperation of Timber Products Co. in reducing or rendering less noxious the firm's discharge of air contaminants into the atmosphere.
3. That private individuals have also brought their complaints of public nuisance conditions to the attention of Timber Products Co. over a long period of time.

4. That despite the attempts and efforts of the Sanitary Authority to enlist the voluntary cooperation of Timber Products Co. to arrive at methods and procedures reducing or rendering less noxious the firm's discharge of air contaminants, the company continued to discharge and emit air contaminants which pollute the air and surrounding area up to the date of this hearing.
5. That at the date of the hearing Timber Products Co. submitted proposals which were wholly insufficient to rectify the conditions of pollution and to offer substantial compliance with ORS Chapter 449 and the rules and regulations promulgated thereunder, or involved unreasonable delays, or both.
6. That Timber Products Co. has open burned refuse materials at dump sites within its facilities and plant area.
7. That dust, odors, soot, smoke, cinders and particulate matter and combinations thereof are being discharged into the air, atmosphere and surrounding area from the facilities and plants under the ownership, right, title and control of Timber Products Co. and have been and are causing pollution of the air and atmosphere and surrounding area in or near the city of Medford, County of Jackson, State of Oregon, for at least several hours per day and often on a continuous basis several days per week. The facilities include the company's unloading operations, cyclone collectors, wigwam burner, storage areas and open burning areas.
8. The abovementioned air contaminants unreasonably interfere with the enjoyment of life and property in the area in or near the city of Medford in the following manner:
 - (a) Dust, soot, smoke, cinders and particulate matter collect upon and cover automobiles and residences and other property, cause soiling and the constant necessity for washing and cleaning.
 - (b) Ashes, soot, cinders, dust and particles have warped

roofs by collecting under shingles and expanding.

- (c) That the citizens of Medford and of the State of Oregon have been prevented from utilizing their yards and patios during warm weather months and have been compelled to keep windows and doors closed in extremely hot days.
- (d) That businesses engaged in commercial body and fender work and painting have been compelled to repaint vehicles and have lost clients because of the various air contaminants discharged by Timber Products Co.
- (e) That visibility has been curtailed in many instances and interfered with normal human activity.
- (f) That swimming pools and filters have been covered and plugged with particles of dust and cinders and other particulate matter preventing their reasonable use.

10. That the discharge of such air contaminants is a public nuisance in that it has and will continue to affect public health in the form of nose, ear and mouth conditions and irritations and that it unreasonably interferes with the recreational enjoyment and aesthetic beauty of public areas utilized by the people of the State of Oregon and of private property owned and utilized by the citizens of the city of Medford, Oregon.

Based upon the said Findings of Fact, the following conclusions are made:

CONCLUSIONS

- 1. That the discharges of dust, fumes, odors, soot, smoke, cinders and particulate matter and combinations thereof into the air of the State of Oregon and upon surrounding areas are air contaminants, air pollution and air contamination within the meaning of the following statute of the State of Oregon:

ORS 449.760(2), (3), (4)

2. That Timber Products Co. is the air contamination source of air contaminants, air pollution and contamination within ORS 449.760(5).
3. That the discharge and emission of air contaminants into the atmosphere and upon surrounding areas is air pollution and air contamination and is a violation of the public policy of the State of Oregon as set forth in ORS 449.765(1) and 449.770 and violates ORS 449.760(3).
4. That the discharge of air contaminants in the form of dust, odors, soot, smoke, cinders and particulate matter and the combinations thereof into the air of the state and upon surrounding areas are violations of the following standards, rules and regulations of the Sanitary Authority promulgated into Oregon Administrative Rules, Chapter 334:

Section 21-006(2), (3), (4), (5), (8), (24), (27)

Section 21-011

Section 21-016

Section 21-021

Section 22-006

Section 22-011

Based upon the foregoing Findings of Fact and Conclusions, the following Decision and Order is entered and adopted:

DECISION AND ORDER

IT IS HEREBY ORDERED, ADJUDGED AND DECREED:

1. That on or before December 15, 1968, Timber Products Co. shall *modify* its *NW* burner to obtain better combustion * on *April 1 1969* cease and abate the operation and utilization of its wigwam

burner for the combustion of any type of material. The burner shall not be reactivated until it and facilities for storing and feeding material to it have been reconstructed in accordance with plans and specifications submitted to the Sanitary Authority.

for approval not less than 30 days prior to the start of such reconstruction, and then only for such periods and in such manner as will result in no violation of applicable laws and regulations.

2. That on or before November 15, 1968, Timber Products Co. shall discontinue all open burning of plant refuse and residues and shall not deposit such substances on areas where previous open burning has occurred, nor shall it contract for nor permit said materials to be open burned at any location. In the event fire continues to burn or smolder in materials previously deposited in burning areas after December 15, 1968, flooding or other control procedures shall be undertaken to permanently extinguish it.
3. That on or before November 25, 1968, Timber Products Co. shall provide and require that all vehicles used for the transport of shavings or other wood residues to and from its plant's facilities shall at all times be fitted with covers, except for the process of loading or unloading, to prevent the escape of wood particles.
4. That on or before ~~August~~ ^{July} 1, 1969, Timber Products Co. shall oil all open areas subject to vehicular traffic ^{and} or utilize other control procedures as are necessary ^{to maintain and} to control dust ^{of all areas}.
5. That on or before January 1, 1969, Timber Products Co. shall cease open storage and truck discharge of shavings and other wood residues; provided, however, that such deadline shall be extended to August 10, 1969, if on or before January 1, 1969, it has otherwise complied with this order and has agreed in writing to construct satisfactory unloading and storage facilities by August 10, 1969. Without prejudice to other satisfactory facilities which might be designed by the company, the following would be considered satisfactory:

I.

An enclosure with roof around its truck unloading facility, equipped with an exhaust ventilation and filtering system, with the exhaust air openings to be located at the end of the enclosure adjacent to the rear of the truck. The exhaust system shall:

- (a) Have a capacity to provide at least a three minute air change in the enclosure, or a velocity of 300 feet per minute through any and all enclosure openings, whichever is greater.
- (b) Incorporate filters having a manufacturer's certified rating of 90% removal of three micron-size particles.

II.

An enclosure with roof for the storage and bulk handling of all shavings or other wood residues. The enclosure shall be equipped with an exhaust ventilation and filtering system of such capacity as is necessary to produce a minimum negative pressure of 0.006 water gauge within the structure or a minimum inward velocity of 300 feet per minute through all exterior openings. The doors or other exterior openings shall be fitted with interlocks so that those doors or exterior openings in opposite walls cannot be open at the same time. The exhaust system shall incorporate filters having a manufacturer's certified rating of 90% removal of three micron-size particles.

The truck unloading facility described above may be incorporated within the storage enclosure in which case its exhaust system may also serve as the exhaust system for the storage enclosure; provided that its capacity shall then be determined as the greater of the requirements specified for either facility.

by February

Feb 15, 1969

submit complete
study

6. That on or before ~~June 1, 1969~~, Timber Products Co. shall provide air cleaning devices for the air discharged from all cyclone collectors. The air cleaning devices shall have a manufacturer's certified rating of 90% removal of three micron-size particles.

plan by April 1, 1969
from schedule
by SA

7. That plans and specifications prepared by a registered engineer encompassing the above construction program shall be submitted to the Sanitary Authority for approval before construction and shall conform to the following schedules:

	<u>Plan Submittal</u>	<u>Construction Complete</u>	<u>Checkout and Activation</u>
(a) Item 5 I	Jan. 1, 1969	June 1, 1969	June 10, 1969
(b) Item 5 II	Feb. 1, 1969	Aug. 1, 1969	Aug. 10, 1969
(c) Item 6	Jan. 1, 1969	June 1, 1969	June 10, 1969

8. An independent testing concern shall be retained by Timber Products Co. who shall conduct tests of the air volumes, velocities and filtering efficiencies of the air handling systems within 30 days of their activation, the results of which shall be submitted to the Sanitary Authority for examination upon completion of said tests. Any deficiencies shall be promptly corrected.

Dated this _____ day of November, 1968.

John D. Mosser, Chairman,
Sanitary Authority of the State of Oregon

ATTEST:

Kenneth H. Spies, Secretary

INFORMAL STAFF REPORT

TO : MEMBERS OF THE STATE SANITARY AUTHORITY

John Mosser, Chairman
Herman Meierjurgen
Storrs Waterman

E. C. Harms, Jr.
B. A. McPhillips

FROM : AIR QUALITY CONTROL STAFF

DATED : November 14, 1968

SUBJECT: WIGWAM WASTE BURNER PROGRAM IMPLEMENTATION

INTRODUCTION:

This report is an informational presentation to the Authority Members concerning future implementation of the wigwam waste burner program. It presents for consideration the promotion of the "pooled-burner" concept as a means of accelerating progress toward (a) a reduced number of burners in operation, and (b) superior performance of those burners remaining.

HISTORICAL SUMMARY:

The following highlights are offered to provide historical perspective for the discussion which follows:

January 1, 1966. Effective enforcement data for the original WWWB regulation which required that certain stipulated modifications be installed.

June 29, 1966. Staff report outlined results of first six months efforts in implementing the regulation. It was noted that effectiveness of the regulation was hampered by two factors: (a) lack of burner operator proficiency, and (b) insufficient fuel with which to reach a desired exit temperature of 600°. It was noted that:

"Insufficient fuel will become an increasing problem as utilization of wood waste progresses. The end result is almost universally a burner too large for the fuel load, but needed as a stand-by for the full volume of fuel it will receive in the event of break down in a critical part of the salable waste material flow."

December 13, 1966. Staff report analyzed the results of surveys of over 130 waste burners and listed the five most significant factors limiting the effectiveness of the program:

- (a) The response of industry in incorporating the required modifications.
- (b) Inadequacy of engineering design evident in the modifications being installed.
- (c) Lack of operating proficiency.
- (d) Limitations in fuel quantity and quality of burner capability.
- (e) Trends in utilization (decreasing fuel quantity), and their impact on the efficacy of the "required modification" approach.

It was estimated that only 62% of the burners surveyed had sufficient fuel with which to attain an exit temperature of 600°. It was further stated that "Planning must be predicated on the assumption that the point will eventually be reached when the wigwam burner in physical compliance with the present regulation will in few cases constitute a satisfactory disposal device".

Six alternative methods were suggested, one of which read as follows:

"A single wigwam waste burner, or a correctly designed incinerator, centrally located, to receive the waste transported from several mills, operated on a cooperative or corporate basis. The central facility could provide uniform fuel feed rate from bulk storage. A full time operator would be justified with operation and maintenance costs pro-rated to the member mills."

It was further stated:

"A program toward this end will thus require that industry be encouraged and supported in a collective endeavor to develop improved alternative methods of incineration. While it is possible for individual mills to independently develop acceptable alternative methods, a joint effort should produce superior and more economical solutions at less cost for development to each of its participants. The collective endeavor could take the form of a non-profit organization to which individual mills subscribe and contribute and which would satisfy the requirements for a federal air pollution abatement or solid waste disposal grant."

The report concluded with a number of staff recommendations, among which was the following:

"Staff recommendation is that industries be required by September 30, 1967 to have obtained approval from the Sanitary Authority of a plan and schedule for such a program of development and demonstration. It is further recommended that all replacement installations shall have been completed by December 31, 1968."

January 30, 1967. Staff report further defined the recommendations contained in the December report, designated certain areas of the state as of critical concern, and recommended that the Authority:

"Request of the timber products industries that a program and time schedule for the development, demonstration, and installation of alternative methods be submitted by September 30, 1967. At that time and upon evaluation of the proposals and schedules which have been submitted, the Authority may consider advancing or extending the December 1968 termination date as conditions then pertaining may warrant."

It was further recommended that the then current regulation pertaining to construction and operation of wigwam waste burners should be rescinded except for that portion which prohibited wigwam waste burner construction without Sanitary Authority approval.

February 21, 1967. An Authority motion was adopted instructing the Secretary to advise the timber products industry of the Authorities intention to adopt one of the following alternative policies:

- (a) To add regulations providing for the improved operation of wigwam burners, including provisions for minimum exit temperatures, recording pyrometers, use of auxiliary fuel, exit gas treatment devices, and such other requirements as may be necessary to provide efficient combustion under varying rates of fuel feed and (with) or without intermittent or batch loading, or
- (b) To prohibit the use of wigwam burners in accordance with the staff recommendations of January 30, 1967.

April 25, 1967. In response to invitations mailed to 972 forest products industries and to 8 industry associations, an Authority meeting was held to "receive information, proposals, and expressions from industry as to their views regarding proposed policy and revisions to the regulations." A staff report was presented which included a photographic survey of the wigwam burners in the Medford area to illustrate the effect of both adequate and inadequate fuels on smoke emissions. Following industry testimony, the Authority adopted a motion instructing the staff to prepare a redraft of the wigwam burner regulation which would in effect rescind the modification requirements and add a new provision prohibiting "intermittent and casual use".

July 10, 1967. The Authority approved a proposed draft of changes to the regulation, and authorized a public hearing.

August 11, 1967. Public Hearing, at which AOI suggested certain changes.

September 22, 1967. Final draft of the regulation presented and approved.

Concurrently with the above, and during his interim tenure as Chairman of the Authority, Governor Tom McCall instructed the staff to meet with

industry representatives to determine the most pressing needs in the wigwam burner program. In this meeting it was concurred that the most pressing need was for education.

In response, the staff embarked on the preparation of a manual for use as a text in work-shop sessions. Considerable research and field tests was conducted in the process; previously accepted data was found to be in error and much new data was developed to fill gaps in the known technology. Immediately upon publication, the manual was used as a text in two, one-day technical sessions held in Medford with approximately 60 industry representatives in attendance.

PROGRAM IMPLEMENTATION

From a brief over-look of the history of the program, it will be seen that it has progressed on a trial and error basis from theoretical beginnings to more practical application as experience has provided cumulative knowledge in both the area of engineering technology and of enforcement methods. The initial concept was oriented toward methods rather than results. Field experience soon proved that the theory was not of universal application.

Next, the emphasis was on requiring industry to develop the methods while subject to a revised regulation which prohibited the most undesirable means, while in effect requiring acceptable results (satisfaction of discharge standards). When the responsibility for developing improved methods was placed on industry under the implied threat of the adoption of a deadline for burner phase-out, its response was to do what had been suggested: To establish a research and development program at the Forest Products Laboratory, a non-profit research organization subscribed to by the timber industries and eligible for a Federal grant. To date the laboratory has been engaged in a study program and will not be able to embark on a research and demonstration phase unless additional Federal monies are forthcoming.

Throughout the program, the staff may be considered to have been engaged in its own research and development program. This was necessitated by:

- (1) the need for best "state of the art" technology to apply in its review of applications for new burner construction,
- (2) for evaluation of individual industry proposals for burner improvement and for providing recommendations where requested, and
- (3) for conducting an educational program in an area almost totally devoid of engineering data or dependable design criteria. Consulting Engineers had not been blessed with the needed information, and those contractors engaged in the field have approached individual problems as an art and not a science, and without the technical capability to apply basic engineering principles.

CURRENT PROGRAM

In brief, staff efforts prior to March 11, 1968 have been preparatory to an informed program. This program is geared to maximum effectiveness of limited personnel which dictates that concentrated effort be applied on a progressive, area-by-area, planned program of education followed by field assistance, with enforcement action where necessitated by lack of constructive effort. Initiated in Jackson County and now to be expanded into Josephine County, it is anticipated that the next area of concern will be in Douglas and then in Coos County. Concurrently, staff assistance is available to the regional authorities. The technical session has already been presented under the invitation and sponsorship of the Columbia-Willamette Air Pollution Authority.

NEEDS FOR PROGRAM ACCELERATION

Verification of much of the data developed in the preparation of the manual is necessary before it is released in "cook book" form as a supplement (Section 2) of the manual. Section 1 deals with principles and concepts only.

Upon verification of the "cook book" data from field tests of burners which have been modified in accordance with staff recommendations, Section 2 can be finalized and released. Thereafter, mills will have in their possession the needed information for proceeding without staff assistance in the modification of their burners in accordance with the best "state of the art" information that we can assemble. Staff time can then be applied almost entirely to an enforcement program.

The second need is founded on a concept first propounded in the June 29, 1966 staff report with the statement that "insufficient fuel will become an increasing problem as utilization of wood waste progresses. The end result is almost universally a burner too large for the fuel load, but needed as stand by for the full volume of fuel it will receive in the event of break-down in a critical part of the salable waste material flow."

The solution to this problem was suggested in the December 1966 staff report which read, "a single wigwam waste burner or a correctly designed incinerator, centrally located, to receive the waste transported from several mills, operated on a cooperative or corporate basis. The central facility could provide uniform fuel feed rate from bulk storage. A full time operator would be justified with operation and maintenance costs pro-rated to the member mills."

The need for this approach is of course even greater today than it was in 1966 and will continue to become progressively more important in the future. A first step in this direction is evidenced in three mills in Jackson County that have been induced to plan their own individual bulk storage facilities from which hogged residues can be reconveyed to the burner at its correct design rate. (Example: Boise Cascade Corporation, Medford)

In many instances, mills will find it difficult to justify the expense of such an installation in view of a very minimal quantity of residues. One apparent answer is to truck transport the materials to a single, central, "co-op burner".

The staff has endeavored to promote this concept through the Southern Oregon Timber Industries Association, and a meeting of representative mill owners was arranged for its presentation. The matter was assigned to an existing SOTIA committee for development, but to date nothing concrete has been forthcoming.

SUMMARY

The purpose of this report, as stated in the introduction, is to present for consideration the promotion of pooled-burner facilities throughout the state as a possible answer to the inevitable decrease in residues from individual mills. The problem is that of finding an effective method for bringing about the organization of such cooperative groups in an industry characterized by staunch individualism.

Office Memorandum •

OREGON STATE BOARD OF HEALTH

To: H. M. Patterson

Date: Nov. 14, 1969

From: Mabel Saari

Subject: Certified Copy of Lane Regional Air Pollution Authority Regulations

I received a telephone call late Thursday afternoon from Michael Murphey, District Attorney of Lane County, Lane County Courthouse, requesting a certified copy of the Order approving the LRAPA regulations as of Dec. 13, 1968.

He needs this for Monday morning.

sent to ABS