

SEVENTEENTH MEETING
OF THE
OREGON AIR POLLUTION AUTHORITY

October 25, 1956

The seventeenth meeting of the Oregon State Air Pollution Authority was called to order by the Chairman at 2:00 P.M. Thursday, October 25, 1956 in Room 36, State Office Building, 1400 S.W. 5th Avenue, Portland, Oregon. Those present were Carl E. Green, Chairman, Merle S. West, Vice Chairman, Mr. R. P. Dixon, Dr. Harold M. Erickson, Members and Kenneth H. Spies, Acting Secretary, Charles D. Burt, Legal Advisor, R.E. Hatchard, Chief of the Air Pollution Control Section and W. J. Whitsell, Associate Engineer, R. D. Nance and R. H. Percy, Chemists, State Board of Health.

MOTION RE: MINUTES OF PREVIOUS MEETING

The Acting Secretary summarized the minutes of the sixteenth meeting of June 22nd, 1956. The Chairman declared that if there were no corrections or additions the minutes would stand approved as prepared by the Secretary.

PROPOSED REGULATIONS AND STANDARDS TO CONTROL AIR POLLUTION

The Chairman requested Mr. R. E. Hatchard to explain changes made in the proposed regulations and standards since the last meeting.

Mr. Hatchard stated that the Authority had authorized the preparation of proposed rules and regulations to control air pollution at the December 1955 meeting primarily to assist municipal officials with organization of local programs. He explained that over 400 copies of the initial draft of the proposed regulations had been sent to interested industrial organizations, city officials, consulting engineers, planning and zoning commissions and others. Mr. Hatchard advised that the comments and recommendations received on the first draft had been used in modification and clarification of various sections included in the revised draft. He pointed out that the regulations were being formulated under the provisions of Section (5) 449.725 Oregon Revised Statutes and that the Authority's specific objectives were as follows:

1. To establish methods of measurement that will assist in the application of effective control wherever necessary.
2. To establish concentration ranges for air contaminants that have been measured intensively and which may be used in municipal air pollution programs.
3. To promote and stimulate the organization of complete community control efforts.
4. To clarify what is considered reasonable air pollution based upon data obtained from state-wide air sampling since 1952.
5. To prevent excessive expenditure for the installation of control measures which may provide a higher degree of correction than should be required based upon the local topography, meteorology and land use.
6. To prevent new air pollution problems being created by stimulating the installation of appropriate controls.

Mr. Hatchard explained that there are two basic approaches to establishing regulations for community control; one is to regulate the discharges at the source and the second is to base the regulations upon the effects created in downwind areas. He explained that the discharge limitation at the source had been used primarily in local smoke and dust control programs in other parts of the country mostly for emissions from combustion processes. He pointed out that there are several disadvantages to this approach when applied to general air pollution control since no allowance is made for the number of individual sources existing within a single pollution zone and that this approach gives no consideration to local differences in topography, meteorology or land use.

He stated that in the Authority's proposed regulations that only smoke control provisions were based upon discharge at the source and that this regulation is based upon the American Society of Mechanical Engineers recommendations. He stated that suggested limitations for other air contaminants have been developed from air sampling data obtained from both area surveys and the investigation of specific complaints throughout the state since 1952 and that these regulations were based upon the effects produced in the vicinity of the discharge source.

He explained that the Authority believed that this approach would overcome the long-term disadvantages of reliance upon source regulation alone. Mr. Hatchard emphasized that several of the comments received indicated a misunderstanding regarding the proposed use of normal background values as stated in Sections 2.2, 2.3, and 2.4. He pointed out that actually what is proposed will require recognition of the presence of air contaminants originating from natural sources which are present at relatively constant levels over a large area during a particular period. He explained that the determination of this value within a municipality would be made by operating an air sampling station removed from the metropolitan sources of air pollution concurrently with sampling units being operated at stations within the city. The background values found at the rural sampling station would then be subtracted from the total concentrations found at the city stations. He added that this field practice has been used for over two years and has worked effectively.

He emphasized that the proposed regulations were based upon data from over 2,000 fallout samples collected within the state, the analyses of several hundred filters obtained from municipal sampling stations and published reports of comparable studies made in other states.

The Chairman stated that the Authority would now like to hear statements from others concerned with the proposed regulations.

Mr. Robert E. McKean, Mgr. Columbia Empire Industries Association, Inc., said that his statements represented the collective thinking of the Air Pollution Committee of the Association and that the Association's policy regarding air pollution control, which was adopted four years ago, was to support reasonable efforts to control present situations and prevent future air pollution contamination and that their organization would not oppose the adoption of appropriate regulation. Mr. McKean stated that he had hoped that members of the Authority could have received copies of reports regarding air pollution which the Association is obtaining, prior to the meeting today. He further stated that for the purpose of this meeting he would present the following conclusions based upon available information concerning Portland:

1. That at the present time air pollution is not a serious city-wide problem in the Portland area.
2. That smoke, fallout and other contamination in large amounts is caused by activities of the general public.
3. That particle fallout is a nuisance but it is not a health hazard.

Mr. McKean assured that their Association will do the best they can to inform various industries to obtain their opinions. He stated that the committee has held many meetings and at this time their Association requests the Authority to delay action on the proposed regulations until the Stanford Research Institute's report on Portland air pollution and other reports are available for study. Mr. McKean had with him a report from his sub-committee composed of consulting engineers, a report from J. H. Miller and a report from the Association's Director of Safety Hygiene Committee. He stated that he would supply the Authority's staff with copies of all reports so they can be studied and that when the Stanford report is received he would send a copy to the Authority and to the City of Portland committee also. It was further stated that Columbia Empire Industries Association had already spent \$10,000 on the Stanford report and are considering a proposal from Stanford Research Institute involving about \$30,000 for a more intensive investigation of Portland conditions.

He reported that he had made a survey of expenditures made by Association members for air pollution control installations during 1954 and the amount was over \$800,000 which did not include the large installations made by Reynolds Metals at Troutdale or Oregon-Portland Cement Company plant in Oswego.

The Chairman stated that this matter was before the Authority in February 1956 and at that time the matter was delayed until June to allow time for review and suggestions by industry and interested parties and because of a request for additional time from Columbia Empire Industries Association consideration of the regulation was postponed to today's meeting.

The Chairman stated that it was the Authority's intent to give a reasonable length of time for all concerned to review standards and submit recommendations to the

Authority's staff. Many recommendations and suggestions, he said, have already been incorporated in the revised regulations.

Mr. F. A. Yerke, Attorney representing Oregon-Portland Cement Company stated that Mr. F. E. McCaslin, President, Oregon Portland Cement Company, was present, and that they joined with Columbia Empire Industries Association in requesting the Authority to consider delay of the adoption of the regulations until the Stanford study and other reports are available. He stated he believed this request was reasonable, since the fact that if the standards were not adopted today it would not impair any action by the Authority with respect to any type of air pollution problem.

Mr. Yerke stated further that in addition to supporting the remarks made by Mr. McKean he had comments regarding the lime dust Section 2.4 but he believed this could wait if the delay was granted until the staff has had an opportunity to read and digest the Stanford Report and other reports. He stated he would be glad to send his reports in writing at a later date.

The Chairman asked if the members wished to hear further comments or defer them.

Mr. Dixon stated that the Authority could defer hearing the comments on lime dust until later in the meeting.

Mr. Fred Menzel, representing Rich Manufacturing Company, advised the Authority that for quite some time he has been working with the City and the Authority's staff regarding the dust problem at Rich Manufacturing Company. He stated he concurred with Mr. McKean in that he too would like further time for study of the standards before adoption. Mr. Menzel gave a little of the background of his company and said he knew the Authority was aware of the complaints which have been made regarding dust and vapor. He added that he had been working with the City and State to determine what type of control equipment should be installed to satisfy the City and State requirements. He stated that he had presented one proposal to the City which was referred to the Authority's staff for review and that it was recommended that he install collection equipment that would operate at 92 to 95% efficiency. The most expensive equipment, he added, would cost about \$100,000 and

only an 85% efficiency guarantee could be secured. He stated that from this experience it appeared that the standards are not equitable to everyone and that he would like to go into the matter further to get a better understanding of the problem.

The Chairman asked Mr. Menzel if he preferred to discuss this further with a member of the Authority's staff.

Mr. Menzel replied that he would.

Chester Sterrett of the Portland Chamber of Commerce stated his organization had submitted data to Mr. R.E. Hatchard and wished to know if that data was circulated to the Board members.

Mr. Hatchard stated that it was used by the staff in preparation of the revised regulations; however, it was not transmitted to each member of the Authority.

Mr. Sterrett explained that industry was very willing to cooperate with the Authority's staff and there would not be anything lost in taking more time to work out the application of the regulations in more detail. He stated he had further objections to some sections in the standards but that he would submit them in writing.

Mr. Irvin Luiten, representing Weyerhaeuser Timber Company, stated he had a few comments to submit and his first comment pertained to sub-section 1.3 where the word "predominantly" causes some concern since there were many conflicting opinions.

Mr. Luiten explained that their Klamath Falls plant was located in a primarily rural area but there were a few residences in the area. He added that their legal department thought it was feasible to delete the phrase after the word "predominantly".

The second comment, Mr. Luiten stated, regarded Section 2.5 since it was their understanding that the interpretation of a public nuisance is one which is of substantial detriment to the public. It was Mr. Luiten's thought that the word "substantial" should be added, and should be added after the word "annoyance".

He stated that the Weyerhaeuser Timber Company would also like to delay for more study of the revised regulations. He expressed their company's appreciation to the Authority for the assistance and cooperation in solving air pollution problems.

Mr. Dixon said he understood Section 2.5 was a direct quotation from the statute.

Mr. Hatchard replied that it was not a direct quotation but the Authority did not intend to add any meaning other than what was in the statute.

Mr. Burt stated also that Section 2.5 was not a direct quotation but that he did not believe this particular statement was more stringent than the Air Pollution Control Statute.

Mr. Fred Packwood, Attorney, Columbia Empire Industries Association, made the statement that they had hoped the Stanford report would have arrived in time to allow study before this meeting since there is so much technical material to consider. He urged the Authority to allow additional time before acting on the proposed regulations.

Mr. McKean requested a meeting with the Authority's staff when all reports are available so that all the information could be considered and discussed.

The Chairman asked how long a delay the industry representatives were requesting - 30, 45 or 60 days.

Mr. McKean replied that 30 days would be sufficient for their group.

Mr. Yerke stated they could be ready also in 30 days, and that all they are waiting for is the receipt of the Stanford report.

Mr. Hatchard stated that there was really nothing new in the proposed regulations since the staff had been using the regulations as a basis for establishing whether a public nuisance was present and to formulate general recommendations for control during the past two years. He also pointed out that the regulations are needed by city officials for use in local programs and also for use in preventing excessive discharges from new sources.

The Chairman stated that regulations which the Authority adopts are subject to modifications in the future as more information becomes available. The Chairman asked the Authority members what action they wished to suggest.

Dr. Erickson asked how a 30 day delay would affect the staff's activities during the next 30 days.

Mr. Hatchard replied that it would not alter staff activities in any way but that we are concerned about the basic policy of the Authority to encourage the medium and larger Oregon cities to work with the staff to develop local programs. He explained that Eugene had adopted an ordinance in May 1956 and that in Portland there is increased activity through Dr. Meador's office toward expanding the present program. Mr. Hatchard pointed out that the cities would probably delay until the Authority adopted regulations and from this standpoint it would be unfortunate if delays occurred.

Mr. Dixon felt there was a definite need for some code which is fair to the state and he stated he would like to review the correlation of the figures contained in the Stanford report which would apply to Section 2 which is the only one that has figures in it and the reference to the Ringelmann chart, etc. He explained that he wanted to be certain that the Authority and the Stanford report agreed on the figures included in the regulations. For this reason, Mr. Dixon stated that he would like to wait for the Stanford Research Institute's report.

The Chairman asked for a motion to be made; that industry have reports and comments submitted within 30 days from today, and that by the middle of December the Authority have a meeting for further consideration and adoption. The Chairman asked Mr. Hatchard if 30 days would give the staff enough time for review.

Mr. Hatchard replied that 30 days would be satisfactory.

Mr. Dixon stated that it was his impression that the Stanford report would verify or disagree with the findings of the staff.

Mr. Hatchard stated that it was his understanding that the Stanford Research Institute's report on Portland consisted of a review of all available data from industrial groups, city, state and federal agencies including the U. S. Weather Bureau. However, he explained, that unless the project had been increased he did not believe that the Stanford Research Institute report included any review of the Authority's proposed rules and regulations. He stated that the staff had provided Dr. Wohler of Stanford Research Institute with a report dated July 26, 1956

summarizing all air sampling completed in Portland since 1952 but that Stanford Research Institute was not collecting and analysing air samples independently.

Mr. Menzel informed the members that the Stanford Research Institute's report is not in criticism or against the proposed standards in any way; that it is merely a survey of the City of Portland and surrounding territory and a comparison with the City of Los Angeles problem; that they took into consideration all of the discharge sources in the city and made an over-all report. Mr. Menzel added that he thought the proposed Authority standards are too rigid and that they could be changed to be more equitable to industry and to the public.

Mr. Dixon asked if Mr. Menzel read the finished report.

Mr. Menzel stated he had read a preliminary report.

Mr. Dixon pointed out that this is a state-wide proposal and that Multnomah County was one of thirty-six counties.

Mr. Dixon stated that standards should be adopted before the first of the year and that then there would be something to work from and that actually we are all trying to solve the problem cooperatively.

MOTION RE: PROPOSED REGULATIONS AND STANDARDS TO CONTROL AIR POLLUTION

It was MOVED by Mr. West and seconded by Mr. Dixon and carried that the final consideration of regulations and standards be deferred until the next regular meeting of the Authority and that 30 days from today be granted to interested parties to submit additional data to the Authority for consideration.

PORTLAND: STAFF REPORT REGARDING PROPOSED EXPANSION OF CITY AIR POLLUTION PROGRAM

The Chairman requested Mr. Hatchard to report on activities in the City of Portland.

Mr. Hatchard explained that since the June 22nd, Authority meeting there had been considerable activity toward the expansion of the existing city program. He explained that J. J. Schuneman, an engineer representing the Public Health Service, Community Air Pollution Program, had made an intensive survey of Portland air pollution conditions during the week of July 9, and that this survey had been requested originally by Dr. Meador and endorsed by Dr. Erickson as State Health Officer.

Mr. Hatchard reported that the staff had conferred at length with Mr. Schuneman and that all available sampling data had been provided to him. He advised that copies of the Public Health Service report were received in early October and that each member had previously been sent one. He reported that a member of the staff has attended three meetings with the Portland Air Pollution Committee since June which included consideration of Mr. Schuneman's verbal report and also detailed consideration of a cinder and flyash problem in north Portland. Mr. Hatchard reported that the staff had been working with Dr. Meador and his staff to formulate suggestions for the revision of existing city air pollution ordinances and with the organization of an expanded city program.

He pointed out that the joint investigation of specific complaints within the city has continued; however, the lack of staff in both agencies has caused delays in bringing about needed corrections. He advised that it was extremely unfortunate that the additional public health engineer position, requested by the Authority for the current biennium, had been deleted since this position was essential to provide adequate advice and technical assistance to city officials with the development of appropriate local programs.

Mr. Hatchard concluded in saying that Dr. Meador, Health Officer, City of Portland, was present and may also wish to comment upon recent activities.

Dr. Meador stated the information in the Public Health Service report is a result from sampling surveys and the difficulties in handling local problems. He reported that the Mayor had requested that he prepare an ordinance which would be workable and enforceable and also to recommend sufficient personnel to operate the program. He explained that he is now waiting for the Stanford report and action by the Authority on the proposed regulations.

EMPIRE: CINDER AND FLYASH CONTROL AT CAPE ARAGO LUMBER COMPANY

The Chairman requested W. J. Whitesell to present a report regarding the correction of the cinder and flyash deposition in Empire.

Mr. Whitesell stated that a public hearing had been held at the June 22nd, Authority meeting and that as a result of these discussions the Authority directed that the

Cape Arago Lumber Company proceed with plans to correct the cinder fallout conditions; that the company cooperate with the Authority staff and submit a report of activities to bring about appropriate control within the next 90 days and that the public hearing be continued.

He reported that one of the Authority's engineers had visited the Cape Arago Lumber Company on August 13, 1956 and was advised that their chief engineer, Mr. Blake, was in Eugene obtaining information on cinder collectors. He stated that a letter dated August 16, was received from the Cape Arago Lumber Company advising that work had started on the installation of a cinder collector similar to the unit used by a steam generating plant in Eugene. He reported that on September 12, 1956 schematic plans for the cinder collector together with a description of test runs on its efficiency was received.

He stated that on October 11, 1956 another field visit was made to the Cape Arago Lumber Company and it was learned that one cinder collector was operating and returning trapped cinders to the boiler for further combustion. He explained that the company plans to operate this unit for several weeks to note any need for improvements and then proceed with the construction of the second unit.

He reported that the Authority's representative had conferred with Mayor Adams in Empire and learned that the City is very pleased with the progress being made. He stated that the fallout stations in Empire would be continued as a check upon degree of improvement made by the installations.

The Chairman stated that this progress report would be accepted by the Authority.

EASTSIDE: CINDER AND FLYASH DEPOSITION

The Chairman requested Mr. Hatchard to report on the status of the cinder and flyash deposition problem in Eastside.

Mr. Hatchard stated that at the June Authority meeting the members directed that the Coos Bay Lumber Company be notified again that they appear to be in violation of the Oregon Air Pollution Statute and that the Authority expected a statement from the company regarding their plans for compliance within the next 90 days. He explained that on July 10, 1956 the Georgia-Pacific Corporation acquired ownership

of the Coos Bay Lumber plants; and that on August 14th, a staff member had conferred with D. D. Dashney, former vice president of Coos Bay Lumber Company and now with the Georgia-Pacific Corporation's Coos Bay Division. He stated that at that time Mr. Dashney had indicated that the steam plant cinder control program would continue since the new company was aware of the situation before the ownership changed.

Mr. Hatchard stated that a letter was received on August 27, 1956 from Mr. Dashney advising that the files of the Coos Bay Lumber Company regarding the cinder and flyash problem had been transmitted to Mr. R. E. Flowerree, Vice President of the Georgia-Pacific Corporation for his review and instructions.

Mr. Hatchard reported that on October 11, a staff member had conferred with representatives of the Georgia-Pacific Corporation in Coos Bay and learned that no progress had been made by the new company. He stated that the city officials were advised of the present status. Mr. Hatchard reported that a letter had been sent on October 19th, to Mr. R.E. Flowerree and that a request had been made for a report regarding their company's plans; that unfortunately Mr. Flowerree had another commitment and could not be present at this meeting, however, the Secretary had a letter from the company regarding the situation.

The Secretary read a letter dated October 22, 1956 from R.E. Flowerree, Vice-President, Georgia-Pacific Corporation.

"Gentlemen: With reference to your letter of October 19, 1956 regarding the excessive cinder and flyash discharge from the steam plant stack, I regret to say that because of prior commitments I will be unable to attend the meeting of the Air Pollution Authority on October 25. However, confirming the conversation of October 23, with Mr. Whitsett, we would like to know: (1) if the installation made at Cape Arago at the lumber company near Coos Bay will meet the requirements of the Authority; and (2) if you have any further information on effective devices for elimination of flyash."

"It is Georgia-Pacific Corporation's intention to cooperate fully with the Air Pollution Authority, and as soon as we have received the above requested information

from you we will take steps to eliminate the flyash from the steam plant stack."

Yours very truly,

GEORGIA-PACIFIC CORPORATION

/s/ R.E. Flowerree, Jr.

The Chairman asked if the staff had answered this communication.

Mr. Hatchard replied it would be answered as soon as the requested information could be prepared.

~~The Chairman asked Mr. Hatchard if satisfactory progress was not being made.~~

Mr. Hatchard stated Mr. Flowerree's letter indicated that appropriate controls would be forth coming.

The Chairman suggested the staff proceed in cooperation with the company and submit a progress report at the next Authority meeting.

NORTH ALBANY: REPORT REGARDING CONTROL OF ODORS AT WESTERN KRAFT CORPORATION'S
KRAFT MILL

The Chairman requested Mr. Hatchard to report on the status of the control of odors at the Western Kraft Corporation's plant in North Albany.

Mr. Hatchard stated that at the June 22nd, Authority meeting arrangements had been made for conducting area odor surveys at a time when the management of the Western Kraft Corporation was experimenting with the use of an odor masking agent. He explained that this work had been completed and that subsequent area odor surveys had also been made and that a report had been prepared as of July 25, 1956 summarizing the odor conditions based upon these surveys and that the report had been sent to the company. He explained that the recommendations included with this report were as follows:

1. That additional odor control facilities were needed at the plant to be in conformance with the Oregon Statutes.
2. Appropriate equipment should be provided to treat the digester blow and relief non-condensable gases before discharge into the atmosphere.
3. That the discharge from the lime kiln operation be changed to prevent the drift at ground level.

He advised the Authority that members of the staff had conferred with company representatives regarding these recommendations and that the company had advised that an engineer was preparing specific plans for an odor control system to be incorporated in the expansion program.

Mr. Hatchard stated that a representative of the company was present and had a report to present.

The Chairman invited Mr. R. O. Beatty, Ass't to the President, Western Kraft Corporation, to present a report regarding their activities since the last meeting.

Mr. Beatty stated that the company is acutely aware of the odor problem created by the kraft mill and is deeply interested in doing everything feasible to abate it and still stay in business. He pointed out that most people fail to recognize the very minute quantity of such odor causing substances as mercaptans which are sufficient to be detectable and that this condition complicates the solution of the problem. Mr. Beatty advised the Authority that in the original plant construction there were several air purifying devices which tend to reduce the atmospheric discharges in various steps of the process; and that within the past six months a considerably larger induced draft fan motor was installed on the recovery boiler which should help in the reduction of the odors from the recovery furnace by combustion or oxidation of odor causing materials.

He stated also that they are completely re-working the vent stack from the lime kiln which would be completed next March or April and that this improvement would reduce lime dust and drift at ground level. He explained that this change was made in response to the Authority's recommendations in their letter of September 6th.

Mr. Beatty explained that other improvements were now under study which included an odor control system similar to that used at a kraft mill in Port Alberni, B.C.

He pointed out that such a system would include a rather elaborate blow-steam condensation system to remove the odor causing condensibles from the digester relief and blow gases ahead of the oxidation towers. He said that the study of economic feasibility is now being made and that it was quite a costly installation for a mill of their size. He stated that W. O. Nisey, Engineering Vice President, was

studying the matter of oxidation towers and would, of course, keep the Authority informed regarding the progress.

He stated that the experiments made with the use of Alamask P-6D odor masking agent were quite inconclusive. He explained that such materials replaced one odor with another which was less objectionable to some people but perhaps equally objectionable to others. He stated that perfect masking of all of the kraft mill odor sources would be virtually impossible and it hardly seems as desirable as mechanical or chemical removal. He stated their company had not completely discontinued experiments with such materials and that they would keep the Authority advised on any further progress in this connection.

He concluded by saying that a review of their activities during the twelve months, since their operation began, would show intense interest in providing appropriate odor controls and that the company appreciated the friendly cooperation of the Authority. He stated that if the company finds that the objectionable odors from the mill can be substantially reduced at a cost which will still permit their operation to be competitive, he assured the Authority those changes would be made.

BEAVERTON: STAFF REPORT REGARDING TECHNICAL ASSISTANCE REQUESTED BY CIRCUIT JUDGE C. H. FOSTER

The Chairman requested Mr. Whitsell to give a report upon the investigations at the Pacific Adhesives Company in Beaverton.

Mr. Whitsell stated that the Authority members may recall that complaints had been made by residents of Beaverton regarding odors from the Pacific Adhesives Company's plant which finally led to court action in which the City of Beaverton requested an injunction against operation of the plant. He stated that as a result of this action Circuit Judge C. H. Foster decreed that the plant's operation constituted a public nuisance and requested the Air Pollution Authority to complete an intensive investigation and make recommendations for further control. He reported that the staff had spent considerable time and effort on this matter which included area odor surveys, conferences with company officials, plant surveys, stack tests and

experimental runs on pilot plants. He stated that the investigation extended over a period of approximately 3 months and that on June 12, a report was submitted to the company including recommendations for further odor control.

He stated that a plant visit was made on August 30, and it was found that the company has complied with all recommendations; that a report had been submitted to Judge Foster. He stated that since the improvements were complete several area odor surveys had been made and that it was evident that considerable odor reduction had been affected. He pointed out that Judge Foster's decree now allows the City of Beaverton to request the Court for further hearings during the next six months to determine whether the plant still constitutes a public nuisance.

He stated that the correction of odor problems consumes a great amount of time and effort since odors do not lend themselves readily to known methods of physical and chemical treatment. He also pointed out that odor problems within the state are increasing in number.

The Chairman stated it appeared that satisfactory progress had been made.

OSWEGO: INSTALLATION OF DUST CONTROLS

Mr. Hatchard stated there were representatives here from Oregon-Portland Cement but this item was not on the agenda. Mr. Hatchard stated he had the opportunity to make a visit to the plant recently and that the plant management had been routinely collecting stack sampling data. He reported that Mr. Leche, Vice President, had conducted him through the plant and they had conferred with the Oregon-Portland technical staff. He stated that all the major work was completed and a report had been received from Mr. Leche summarizing the additional installations made.

Mr. Hatchard advised that the remaining part of the work of the Authority's staff is to resume the dust sampling study in Oswego to establish the present conditions. He explained that an extended period of time would be needed to advise the City of Oswego of conditions during the various weather conditions.

The Chairman stated that this matter was proceeding satisfactorily.

Mr. Hatchard stated while there may be minor problems which the study would determine there had been a real improvement and that it was a pleasure to report on their progress.

Mr. F.A. Yerke, Attorney representing Oregon-Portland Cement Company stated all the information had been provided to the staff previously and he had no additional information to present.

The Chairman suggested that the Secretary send a letter of thanks to Oregon-Portland Cement Company for proceeding to correct this matter.

STAFF REPORT: REGARDING AREA SURVEY IN THE DALLES.

The Chairman requested Mr. R. Nance to report upon the area study in The Dalles.

Mr. Nance reported that the purpose of this sampling is to establish background values for air concentration of fluorides before the Harvey Aluminum Company begins operation next year. He explained that an automatic impinger operating on a six hour cycle was collecting four samples per day at a station located at a State Highway Department Bldg., in The Dalles. Mr. Nance stated that sampling began August 24, and to date 210 samples had been collected and 76 have been analyzed and reported. He advised that the median concentration of fluorides recorded so far is 1.3 parts per billion, a value which is considered to be low and normal for this type of community.

He stated that uninterrupted sampling will be continued to the extent that weather conditions will permit and he pointed out that without automatic equipment, developed as authorized by the Authority, this program would not be possible.

He reported that the Authority had written the Harvey Aluminum Company when the project was announced in 1953 and that in their reply the company had assured the Authority that "they definitely will avoid any air pollution in connection with their aluminum reduction plant." He explained that the staff will be contacting the company again to advise them of the background survey data and to discuss air pollution controls for the plant which is now under construction.

STAFF REPORT: REGARDING AREA SURVEY IN ALBANY

Mr. Hatchard stated that representatives of the Sanitary Authority and the Air Pollution Authority had made a survey of the U.S. Bureau of Mines Zirconium processing plant in Albany to become familiar with the process. For the past few months

the Wah Chang Corporation has been operating the plant and was now constructing a new plant east of Albany to process part of the ore. He reported that the company will be installing dust and fume control systems to prevent later problems in the area. He stated that the staff would follow the progress.

NEW COMPLAINTS RECEIVED

Mr. Dixon asked if the new complaints had been received in writing.

The Secretary stated that they had.

PORTLAND REGARDING DUST DEPOSITION NEAR SMITHWICK CONCRETE PRODUCTS COMPANY

Henry G. Keeney, 1757 N.E. Morgan Street wished to present his case regarding dust from Smithwick Concrete Plant and he was aware that the staff was working on this nuisance. Mr. Keeney stated he attended a public meeting that was held recently where about 200 affected residents considered the problem and that Dr. Meador and Mr. Hatchard had explained the City-State investigations. Mr. Keeney stated that the Smithwick Company has been taking some measures to eliminate part of their dust nuisance; but the conditions are still bad in the residential district south of the plant. He explained that the stack dust discharge is one problem alone but there is a large amount of dust from other sources emitted which settles on the house roofs, fills the eave troughs and it was not possible to paint houses in that vicinity when a north wind blows. He stated the dust filtered into the homes and there still was much to be done to control the dust. Mr. Keeney stated he had received very good cooperation from the Authority's staff.

Mr. Hatchard stated that sampling activities have been carried on since last May and that there is considerable data available. He explained that there were some recent changes made at the plant but at this time the staff was not prepared to say what degree of correction has been brought about. Mr. Hatchard stated there is an intermittent dust deposition problem present. He stated this complaint goes back to 1950 when the original problem was presented at a public hearing before the City Commissioners; that it has been a matter that has had concern from the management. Mr. Hatchard explained that it was unfortunate the staff was unable to

complete the preparation of a report for submission to Dr. Meador, City Health Officer.

The Chairman asked Mr. Hatchard if a report could be submitted to the City by November 1st.

Mr. Hatchard replied that it could.

The Chairman stated this would then be accepted as a progress report and that the staff would proceed to work on this matter with the City.

REGARDING CINDER AND FLYASH DEPOSITION

The Secretary read a letter from Harry Reese dated July 6, 1956 regarding deposition of cinders on his residence near Asbland.

The Chairman asked if field investigations had been made.

Mr. Hatchard stated that District Engineer T. M. Gerow had made investigations and his observations were that nuisance conditions were present from cinder and flyash deposition and that the management of the company had been advised and that they have responded as to what actions they will take.

The Chairman asked if the staff had advised the complainants of the status and progress.

Mr. Hatchard replied that it had been done.

Mr. Dixon noted there were five cases on cinder and flyash and suggested that the Secretary get in touch with the offending parties and notify them and follow through in each case.

Mr. Charles M. Sanford of Associated Forest Industries requested the names of the lumber mills involved be sent to their organization.

The Chairman stated that the information would be provided.

CLACKAMAS COUNTY: DUST AND VAPOR FROM PORTLAND SAND & GRAVEL COMPANY

Mr. Hatchard stated the Authority has received 4 or 5 letters from residents and most were referred from the Clackamas County Health Department for investigation.

It was pointed out that this is a condition which requires sampling and field surveys which have been delayed because of previous commitments.

DOUGLAS COUNTY: PORTABLE ASPHALT PAVING PLANT - CENTRAL HEATING COMPANY

Mr. Hatchard stated that five complaints were received regarding dust and vapor from the Central Heating Company located about six miles north of Myrtle Creek. Mr. Glenn Byrnes, owner, was advised by letter on October 18, of a field investigation made by District Engineer Gerow that the dust and vapor from the plant were in violation of the statute. Mr. Hatchard stated that a reply was requested by October 24th, so that the actions of the company would be known prior to this meeting. However, no reply has been received.

Mr. Ray L. Beeler, Associated General Contractors, stated that they knew about this complaint and that it has been in existence for some time now.

Mr. West asked if the State Highway Commission included in their contract the phrase that the air pollution law must be complied with.

Mr. Hatchard replied that there has been no recent contact with Mr. Williams, State Highway Engineer; that the Authority routinely sends a copy to the Highway Department of letters if it involves any activities of one of their departments; that contractors and the Highway Department have been very cooperative in encouraging a solution.

Mr. Dixon asked how long the Central Heating Company would be operating before the contract was completed.

Mr. Hatchard stated that Mr. Gerow advised that there was 5 to 6 miles of paving to be completed.

Mr. Dixon asked if the State Highway Department had been advised of the situation.

Mr. Hatchard stated only by copy of letter sent to Mr. Byrnes.

The Chairman suggested that it would be more satisfactory to write the Highway Department separately and request their assistance.

Mr. Hatchard said the staff would follow this suggestion.

ADMINISTRATIVE MATTERS: REGARDING DEMONSTRATION PROJECTS UNDER GRANT-IN-AID PROVISION OF PUBLIC LAW 159.

Mr. Hatchard explained that in each members' notebook there was an announcement of a new Public Health Service Grant-in-Aid program to encourage the organization

of local and state demonstration projects. Mr. Hatchard stated we had written for detailed instructions from Public Health Service but the forms and instructions were not ready but could be expected soon.

The Chairman asked if Public Health Service would provide funds only or would personnel also be available.

Mr. Hatchard stated that it was understood that Public Health Service would grant funds to assist City and State demonstration projects but that personnel might be obtained for short term technical assistance.

The Chairman stated that if it were agreeable to the Authority to apply for application a grant should be made when appropriate projects such as the waste wood burner engineering study were organized.

OUT-OF-STATE TRAVEL TO ATTEND A SEMINAR ON THE ADMINISTRATION OF AIR POLLUTION CONTROL PROGRAMS.

Mr. Hatchard stated that there was the program in each notebook showing the subjects which will be discussed at the seminar and if the Authority approved that he planned to participate.

The Chairman asked what was the policy of the Board of Health and the Department of Finance and Administration regarding out-of-state travel.

Dr. Erickson stated there was a limitation on the amount of out-of-state travel, and there is some difficulties having funds allotted at this time; however, he stated that this is a very important meeting and perhaps the travel expenses could be provided from staff training funds.

The Chairman asked if funds would come from the Air Pollution Authority's budget.

Dr. Erickson replied that these funds are general health funds provided to the state from Public Health Service.

MOTION RE: OUT-OF-STATE TRAVEL TO ATTEND THREE DAY CONFERENCE

It was MOVED by Dr. Erickson and seconded by Mr. Dixon and carried that a representative of the technical staff be sent to this seminar to be held November 7th, to 10th, in Cincinnati, Ohio.

STATUS OF PROPOSED BUDGET FOR THE BIENNIAL PERIOD JULY 1, 1957 to JUNE 30, 1959.

Mr. Hatchard reported that the proposed budget would be reviewed by the Department of Finance at a meeting scheduled for October 26th, and that some additions had been made in the salaries item to conform with the new amounts.

Dr. Erickson added that the budget preparation had been complicated by the Civil Service Commission new salary schedule which increased the amounts and required revisions in the proposed budgets. He explained that the State Board of Health would have to show a great deal of justification for increases in the budgets. If this justification were shown to the Budget Director he in turn would recommend to the Governor that the increase be recommended to the Legislature.

The Chairman called the next Air Pollution Authority meeting for December 13, 1956.

The meeting was adjourned at 4:35 P.M.

Respectfully submitted,

K. H. Soles,
Acting Secretary

EIGHTEENTH MEETING
OF THE
OREGON AIR POLLUTION AUTHORITY

December 13, 1956

The eighteenth meeting of the Oregon State Air Pollution Authority was called to order by the Chairman at 2:00 P.M., Thursday, December 13, 1956 in Room 36, State Office Bldg., 1400 S.W. 5th Ave., Portland, Oregon. Those present were Carl E. Green, Chairman, Merle S. West, Vice Chairman, Mr. R. O. Dixon, members, Dr. Gordon C. Edwards representing Dr. Erickson, Kenneth H. Snies, Acting Secretary, Charles D. Burt, Legal Advisor, R. B. Hatchard, Chief of the Air Pollution Control Section and W. J. Whitwell, Associate Engineer, R. D. Nance and R. B. Percy, Chemists, State Board of Health.

MOTION RE: MINUTES OF PREVIOUS MEETING

The minutes of the seventeenth meeting held October 25, 1956 were summarized by the Acting Secretary. The Chairman declared that if there were no corrections or additions the minutes would stand approved as prepared by the Acting Secretary.

CHAPTER V "AIR POLLUTION CONTROL STANDARDS"

The Chairman stated that for the past year the Authority and its staff have been preparing regulations to prevent and control air pollution and that several drafts of the proposed regulations had been distributed for review and comment. He explained that the adoption of regulations had been delayed twice at the request of industrial organizations until the Stanford Research Institute Report and other information regarding air pollution was available for study. He stated that these reports have been released over a month ago and that the Authority wanted to give the proposed regulations final consideration today.

The Chairman asked Mr. Robert McKean, Manager, Columbia Empire Industries Inc., if their organization had statements to present regarding the regulations. Mr. McKean replied that eleven representatives desired to make reports. He said that several years ago when accusations were made regarding industrial sources,

their Association recognized that there was need for an unbiased report by a qualified organization regarding Portland air pollution.

He reported that on page 2 of the Stanford Research Institute report it was stated "that activities of the general public in the Portland area contribute approximately 75% of the compounds (hydrocarbons and oxides of nitrogen) which are thought to cause smog; manufacturing industry the remaining 25%". He stated that industry was glad to have this fact established and expected it would be important to the Authority since it was directly concerned with regulating the public sources also.

He stated that population and industrial growth was a factor to consider and quoted from page 12 of the report "on the basis of expected population and industrial growth, with no further control measures than exist at present, concentrations of smog-forming and other pollutants in the Portland atmosphere will probably increase by about 50% by 1965. Even this increase would not result in as high concentrations of smog-forming material as occur presently in Los Angeles". He concluded that other representatives had information to present at this time.

Herbert J. Weber, Director, Safety, Hygiene & Air Pollution Control Program, American Foundrymen's Society, Des Plaines, Illinois, stated he had studied the Stanford Research Institute's report and noted that atmospheric concentration of pollutants in Portland are only one-sixth of those in Los Angeles. He pointed out that inversions in Portland occur between one and seven o'clock in the morning when most industry is shut down; that allowing for growth the calculated emissions of SO_2 in 1965 would be 15% to 48% of the 1956 calculation for the Los Angeles area. He stated he was aware of the fact that this report was written especially for Portland but wanted to emphasize that the Portland area is the most heavily industrialized area in the state. He felt that the conclusion of the report would apply somewhat to other areas in the state but that there is no need to impose unnecessary restrictions. He pointed out that the foundry industry has always opposed state-wide codes because an emission limit adequate in one community may impose needless control in other communities. He felt it would be

improper to imply the Los Angeles code to perhaps Fresno where the conditions would not be the same.

He stated that the proposed regulations do not provide specific limitations for stack emissions. He asked how would one determine the normal background value when a specific city was already built up and when collection equipment is required what will be an acceptable collection efficiency. He pointed out that these factors are very important when one spends \$30,000 to \$125,000 for a piece of dust collection equipment, that an industry must have a guarantee from the supplier that it will satisfy the Authority. Mr. Weber stated that equipment manufacturers will not guarantee their equipment on the basis of these regulations since they can't guarantee a decrease in accordance with the area concentrations. Mr. Weber concluded that based on the Stanford Research Institute's report, the foundry industry submitted the following recommendations:

1. The Ringelmann Chart should not be used to evaluate emissions from foundries.
2. The amount of particulate fallout and the concentration of suspended particulate matter should be used only as a guide to determine the degree of control needed.
3. The cost for stack emission studies should be borne by the public.
4. The control of industrial sources where particle fallout or concentration of suspended material exceeds stated limits in no case should require a collection efficiency greater than 75% for any existing stack, and 85% for a new source.

Mr. Herbert Vonhof, M and M Woodworking Division, Simpson Logging Company, stated that he felt that the limitations on smoke density are unnecessarily severe as applied particularly to industries which are burning hog fuel. Mr. Vonhof stated he felt these standards to be severe for the following reasons:

1. According to the Stanford Report there is information which indicates there is no air pollution problem in this area at this time and therefore, there is ample time to prevent excess air pollution.

2. Unfortunately hog fuel often results in much more dense smoke discharge than in the regulations. The use of the hog fuel as a fuel is constantly being decreased with the event of natural gas and oil in this area and with the increased utilization of waste wood products, there is not so much burning of hog fuel. However, there are industries which are still dependent upon hog fuel in the boilers. He stated that changing to other types of fuel would impose a severe financial burden on industry.

3. Another important point is that hog fuel represents types of waste which can not be burned efficiently in power generating units and it would be very expensive to haul this material to a dump.

In conclusion Mr. Vonhof stated that he was fearful that under the proposed regulations corrective regulations may become repetitive. He explained that if there is 25% excessive fallout in an area from industry then each contributor would be asked to reduce the discharge and if the area is developing industrially it is logical to expect an increase in emissions which may again require further corrective action that could require the scrapping of the original equipment and obtain new equipment. Mr. Vonhof suggested that the regulations prescribe the stack allowances if and when corrective action is necessary so that an industry can take the action required and know it won't be called upon for further expenses until the industry can write off the original expenses.

Mr. E. G. Huffscht, representing Lumber Manufacturers Inc., stated that Mr. Gordon Wilkinson is unable to be present and had requested that the following statement be submitted.

"Our operation is a typical dutch-oven boiler operation, of the same type that is used by a great number of similar operations in this state.

A dutch oven is fed from the top by gravity feed, and is fired every one and one-half hours to four hours depending on the load on the boiler at the time. When fuel is being fed into the port from the top, a cross draft is created across

the top of the fire which results in dense black smoke. The duration of this smoke from the time the port is opened until all smoke dissipates is 12 to 15 minutes. During all other times of operation, there is no smoke as combustion is complete. Further, there is no indication of a fallout problem.

We feel that for this type of an operation, the proposed regulations should adopt provisions to these:

1. An allowance of 15 minutes in every 1½ hours. This is because it takes about one minute to open the port and start the fuel into the dutch oven, and about 2 minutes for the smoke to dissipate after the port is closed - equaling the 3 minute allowance under the regulations. We need an additional 10 minutes to load the dutch oven.
2. An increase in the Ringelmann reading to cover our smoke during the furnace loading period.
3. The reason for our belief that we need a change in the proposed regulations is that the only estimate we have been able to get on the cost of smoke control equipment was prohibitive.
4. Installation of a gas or oil fired furnace would cost approximately \$6,000 but the cost of fuel and getting rid of the wood waste we are now consuming would cost approximately \$5,000 per month. For instance, the nearest place that we can dump the wood waste is the dump at St. Johns, a 14 mile haul.

If the regulations are passed and enforced as written, our firm will be put out of business. Further, in the 10 years that this plant has operated, there has been only one complaint lodged, and in that case, smoke from the plant was held down to the ground, but the condition did not last for longer than 3 or 4 hours.

Again we would stress that this operation of ours is a typical dutch oven operation which is used throughout the entire state, and our case is not an isolated one. This type of installation is utilized by all sizes of industry - small, medium

and large.

We would urge that your regulations consider this problem, and that some equitable answer is found to it before these regulations are enacted."

Mr. Harvey Pullin, B. P. John Furniture Company stated that his firm too operates a dutch type oven; that they feed wet fuel and dry fuel; that they add fuel to the boilers twice an hour and the smoke lasts 10 to 15 minutes at a time. He stated that the alternatives available to their operation are out of the question; that they would have to install separate heating units which would be prohibitive. He felt their only alternative was to move out of town; that they are now contemplating a plant either in Mississippi or Carolina; that this move would be considered for a subsidiary plant. He stated that his plant management is now in a frame of mind that if the severe regulations are adopted they will consider a permanent removal.

Mr. Chester Sterrett, Portland Chamber of Commerce, Portland Mayor's Air Pollution Committee, stated it was his wish to hold up the regulations for consideration until the next meeting of the Air Pollution Authority. He stated that it seemed academic to him if the regulations were adopted that each one of the cities would have to establish regulations along the lines of the Air Pollution Authority's standards. Mr. Sterrett stated that he talked to a number of industries in the east which he felt he would like to see come here but the competition for new industry is quite intense. Mr. Sterrett stated that after the last hearing he dictated a memo embracing some of his thoughts on the subject which might be considered in the proposed rules and regulations. Mr. Sterrett stated further that he feared if the regulations were put down in black and white that the good will of industry may be lost; that it was necessary to deal with specifics and there would be the risk of including recommendations to follow that would eventually cause industry to move from this area.

He pointed out that the Authority has fallout levels figured for heavy industrial

districts; that in the new county zoning law and new city zoning law that there are three types of industrial areas. He stated as he understood the regulations the 45 tons per square mile per month fallout would only apply to the heavy industry areas and that general and light industrial areas would come under the residential categories.

He further said that he was concerned about the way in which these background levels and fallout requirements were written into the regulations; that in the long run these may cause more trouble and misunderstanding than all of it is worth.

Mr. Porter Yett, Sr., Assoc. General Contractors stated that asphalt paving plants are used state-wide but fortunately they are able to move every 3 to 4 months. He added that in the concentrated area of Portland there are about 7 paving plants operating and there have been no complaints recently. Mr. Yett said it was his understanding that there has been only 3 or 4 asphalt paving companies that have had any serious nuisance reports in the past years. He stated that contractors owning these plants and doing construction work in grading operations have discussed the matter and have no yardstick to depend upon as the dust and soot varies from day to day and county to county in all of Oregon. He stated whatever might be adopted in Portland would not be of help in Bend or Klamath Falls or Roseburg. Therefore, he felt they would be in a predicament should there be any legislation adopted to set restrictions.

Mr. Yett suggested that any regulations which might be found necessary should also be approved by the Oregon State Highway Department.

Mr. Fred Menzel, Rich Manufacturing Company, stated that most of this information he presented today to the Board has been presented at previous meetings. He added that sometime ago his company was advised of a number of complaints south of the plant and that he had contacted several of the equipment companies requesting they submit prices for types of control equipment. He said that these companies refused to give any guarantees of dust control and the type of equipment the

companies recommend range in price from \$14,000 to \$75,000 F. O. B.

Mr. Manzel stated that the estimate cost for his firm would range as high as \$60,000 to install control equipment. He explained that in addition to this each company recommended that his company install burners in the upper stack of the cupola which has been at a cost of approximately \$10,000. He stated with this equipment the discharge still could not pass the Ringelmann Chart standards. He said their estimate of the cost of just stack measurements is about \$6,000 and that the most expensive piece of dust control equipment would remove only 85% at an actual cost of \$73,000. Therefore, Mr. Manzel said, it stands to reason all of the foundries could not stand such an expensive outlay and as a result would cause some small size foundries to close or move out of Oregon. He felt therefore, the standards should be revised.

James K. P. Miller, Morris P. Kirk and Son, Inc., stated that if regulations such as these were adopted alone it would have a tendency to emphasize industrial air pollution problems which is the same approach as was taken initially in Los Angeles. However, Mr. Miller stated, that the problem today is more acute in Los Angeles than when the air pollution district was started. He stated that the approach of looking to industry for the initial effort to control air pollution has given the public the impression that air pollution is an industrial problem. He pointed out that this makes it difficult later to get public support for correcting public sources such as incineration and vehicle discharges. Mr. Miller stated that he thought the Authority intended to develop controls for other segments of the population but he urged that the whole picture be presented to the public at one time and not piece by piece.

He stated that he concurred in Mr. Weber's statements regarding the standards since it would be extremely difficult to appraise the background in Portland and that studies throughout the country indicate this is a difficult problem. He indicated that in Los Angeles the problem is being intensely investigated; that

in the Stanford Research Institute's report the figures indicate that the real culprits are the hydrocarbon vapors and gases in the air coming principally from the public. Mr. Miller further stated that if an industrial emission is controlled there is still the contaminants from public sources to cope with.

Mr. Fred W. Packwood, Attorney, Columbia Empire Industries, Inc., stated that his group had adopted the policy from the beginning that they do not intend to impose any legal stumbling block or hardship; that it is appreciated that the law is enacted for a purpose and that the Air Pollution Authority is trying to enforce it.

He further added that he firmly believed the proposed standards are premature, and that more study and research is needed. He stated that if the standards were not adopted at this time it would not prevent the Air Pollution Authority from going into the study of a specific source of pollution that was causing complaints.

Mr. Packwood stated he did not see how the proposed standards can operate as they are and that every heating engineer and every manufacturer of control equipment says the regulations will not work satisfactorily.

Mr. Hatchard stated that the intent of the area fallout regulation was to determine first if there was a problem then bring about control for the individual sources of that problem and that the regulations would be effective using this approach.

Mr. Weber stated that it seemed to him that the salient points would be that he would like to see the Ringelmann Chart used only to measure combustion emissions from a stack. As it is now, he stated, it is used in measuring discharges from vehicles, foundries and others. He stated that the method can not be used for non-combustion sources.

The next point of importance, stated Mr. Weber, is that the particle fallout rate and suspended particulate matter are excellent as a guide only to indicate if a problem exists. He explained that if there was a problem then a stack analyses is needed to decide upon the control needed. Mr. Weber stated he appreciated that the Air Pollution Authority has a job, and industry has a problem and that it was his hope with true cooperation that the Authority will produce a program

that will be a model to others.

Mr. Wendel asked Mr. H. Pullin if he had any suggestions for acceptable standards.

Mr. Pullin stated he was not an expert on this matter but he felt there was a problem of putting specifically in the regulations an allowance for certain substances beyond the control of the people causing the nuisance. He stated he realized the Authority has a responsibility to the public. He further added that the amount of time allowed for smoke issuance and the Ringelmann Chart's evaluation should be reviewed. He felt convinced the Ringelmann Chart is open to serious questioning, and that the time element was too restrictive without regard to particular types of industries.

Mr. Dixon stated that he operates two dutch oven-type boilers and that excessive smoke had been eliminated by controlling the fuel addition rate. He stated that this procedure is not expensive and is very practical.

Mr. Pullin informed Mr. Dixon that this would help but was not a complete solution. He stated that his firm used both wet and dry fuel and that the smoke emitted often was in the early morning before they started feeding dry fuel.

Mr. Dixon stated that according to Mr. Yett no complaints have been received by the Authority regarding dust from highway work, etc., and that this was probably because the public is very patient and long suffering as long as they will be provided with modern highways.

Mr. Yett said that he hoped that some understanding could be agreed upon to regarding the application of the standards to highway construction dust problems.

Mr. Dixon stated that it was his impression that this code is a guide to control and not mandatory by itself and that it is necessary to establish initial regulations.

The Chairman asked Mr. Hatchard to comment on the regulations pertaining to smoke and dust and asked if methods were available to satisfactorily control these discharges.

Mr. Hatchard quoted Dean George Gleason, School of Engineering, Oregon State College, that any discharges from combustion process through a stack can be satisfactorily controlled with known techniques. Mr. Hatchard pointed out that the staff's experience in the investigation of complaints specific problems show that in general satisfactory control measures can be installed, to satisfy the regulations proposed today without severe economic burden to industrial concerns. He stated that there have been several references to dust problems associated with asphalt paving plants and that the Authority had investigated 22 complaints near these plants during the past four years. He explained that in each case the problem was solved either by moving the plant to a remote location or providing control equipment. He stated that the staff has had excellent cooperation from Associated General Contractors and State Highway Commission in bringing about solutions.

Mr. Hatchard reported that the staff had conferred with representatives of several industrial organizations since the October 25, 1956 Authority meeting to consider the proposed regulations. He stated that several changes were made in the regulations as a result of these discussions. He stated that most of the remaining opposition is involved with the administration instead of the wording of the regulations.

Mr. Hatchard stated that several references have been made to statements contained in the Stanford Research Institute's report on air pollution which may be misleading. He explained that the staff questioned the validity of comparing Portland to Los Angeles County where there has been ten years of intensive control effort. He stated that in Portland there have been no complaints regarding the presence of the type of smog that cause human eye and throat irritation. He emphasized that Portland does not have this condition at present and that actually these regulations are directed to more elementary forms of air pollution such as smoke and dust emissions. He referred to Figure 1, page 3 of the Stanford Research Institute's report which graphically showed that most of the particulate matter in the Portland atmosphere is discharged from industrial sources.

Mr. Hatchard stated that there had been several statements made objecting to the use of the Ringelmann Chart for certain discharges. He explained that the staff has used the Ringelmann Chart only for primary combustion sources and agree that it should not be used for measurement of foundry dust, vehicle exhaust and others.

The Chairman asked if Mr. Whitsell wished to make a report.

Mr. Whitsell stated that he felt Mr. Hatchard had covered the main points but that he would like to point out that most of the statements made by persons opposing the regulations have been considered by the staff before. However, Mr. Whitsell stated that concern regarding the staff's ability to establish background values had been expressed. He referred to the definition of background in the regulations and stated that over a period of years the staff has accumulated data from area studies and complaint investigations.

Mr. Sterrett asked Mr. Whitsell if we had a situation like that of the Tillamook burn a number of years ago emitting all the ash into the air, would a flyash like this be added to the normal background value or disregarded.

Mr. Whitsell said it would not be disregarded; that we would have to consider it with other factors; and that if it had appreciable effect on the normal background then it would alter the values. Mr. Whitsell stated that it would tend to raise the level of the background value for the particular period but it might not affect the long-term background.

Mr. Miller stated he felt that it is entirely possible that the Air Pollution Authority could get complaints in which the excess of the fallout was not 15 tons per square mile per month. Mr. Miller wished to know what the Authority could do in a case of this kind.

Mr. Whitsell stated the Authority could possibly be placed at a disadvantage but the values in the regulations are a result of the staff's experience with complaints.

Mr. Wendel wished to know if the staff has had conferences with industries.

Mr. Hatchard stated he and Mr. Whitsell have attended a number of meetings and

that the recommendations and suggestions were used to prepare the revised regulations. Mr. Hatchard briefly outlined the sections which were clarified or changed since the last meeting.

The Chairman asked Dr. Edwards if he had any comments to make.

Dr. Edwards stated he was at somewhat of a loss to comment at length since he was substituting for Dr. Erickson and had only a short time to read the Stanford Research Institute's report. Dr. Edwards stated that Mr. Vonhof had said earlier that no serious air pollution problem existed in Portland and that Mr. Menzel likewise made a similar statement to the effect that no major air pollution problem existed.

The Chairman asked Mr. Vonhof if he wished to clarify his remarks.

Mr. Vonhof replied that was his statement which was made on the basis of the Stanford Research Institute's report; but whether a serious problem exists is one of relativity. He stated that the group had been referring to the Los Angeles problem and set it up as a standard and therefore this was the basis for his statement.

Dr. Edwards quoted this section from page 13 of the Stanford Research Institute's report. "However, the fact that the air concentrations presently are 25% as high as those encountered in Los Angeles during periods of intensive smog is ample cause for concern. Projected 1965 air concentrations for Portland show that the values might be 40% as high as those during intense Los Angeles smog (1956)." Again attention should be given to controlling present and future emissions in the Portland area, and on page 16, "particulate matter sampling by the Oregon State Air Pollution Authority under sponsorship of the Public Health Service showed that measured concentrations approximated those from cities of comparable size where air pollution problems are recognized, e.g. Cincinnati, Kansas City, Houston and San Francisco."

The Chairman stated that generally the standard of comparison is something ideal or at least satisfactory for water supply or waste treatment studies and similar

studies but in the Stanford Research Institute's report the comparison of Portland with Los Angeles is comparing Portland to the worst air pollution in the country. He pointed out that this appears to be a negative approach and we must not lose sight of the fact the comparison standard used is far from the ideal. He stated that over the last several years the staff has accumulated much data which has been presented at past meetings and that now the staff has summarized this data into regulations which are real and factual. The Chairman pointed out that the staff has been using this data as a guide in field activities during the past years and that regulations which may be adopted by this Authority can be amended in the future when additional data is available or when problems arise.

The Chairman assured the groups present that the members and staff have given serious consideration to the regulations.

Mr. West said that as he read and studied the Stanford Research Institute's report it seemed the difference in the problem from that of Los Angeles is largely meteorological.

The Chairman again emphasized the report indicated that there is a problem.

Mr. West said that practically all of the complaints which the Authority has received have come from locations within cities and that he believed that it is the policy of the Authority to encourage cities to take care of their own problems and that these regulations should serve as a guide for the cities in setting up local air pollution control programs.

Mr. Dixon added his opinion that the Authority has been operating for four years and is charged with the responsibility for adopting appropriate rules and regulations and he believed that it is time the Authority established some guide posts to assist local efforts.

Mr. Wendel stated that he concurred with Mr. Dixon's thoughts in that we must establish regulations which would become standards when considering cases which will come before the Authority.

Mr. Vonhof wished to make himself clear that he and his group are concerned with the general problem of the industries; that the paragraph Dr. Edwards quoted indicated there is cause for concern and no industrial representative will deny it. He stated that they are mainly concerned with the degree of corrective action proposed at this time.

The Chairman asked if a motion would be in order now.

Mr. Wendel suggested that the Secretary read the duties of the Authority.

The Secretary read Section 449.755 of the Statute.

Mr. Packwood requested the Chairman have the Secretary read from Section 449.730, sub-section (1) as he felt that is the key section to the Authority's action.

The Chairman asked the members if they wished to consider the regulations for adoption.

Mr. Wendel asked if most of the differences now existing could be reconciled if more time were provided.

Mr. Hatchard replied that the staff is confident that this will eventually happen when the regulations have been in effect for a period of time. He stated that the staff is very cognizant of the fact that the Authority represents the communities of Oregon, the cities, industrial and commercial groups as well as the public and that in the long range interest of each group we recommend the adoption of the regulations. He explained that it is essential that the State agency provide all concerned with appropriate standards applicable to particular problems.

Mr. Hatchard stated that the staff was happy to report that in conferences with the city officials it was found they share the same viewpoint; and that these regulations would stimulate the formation of local programs. He also pointed out that the fundamental objectives of the state statute will not be realized unless there is full cooperation by all parts of the community.

Mr. Vonhof stated that the Columbia Empire Industries Association, technical sub-committee, had met several times with the staff to discuss the regulations and reach an agreement, that the most important part of these discussions has been over-looked for we have not been discussing the points in agreement.

Mr. Miller stated that one of the big problems is determining the allowable discharge from a stack which is not included in the regulations.

Mr. Hatchard explained how the area concentration levels are related to the control of individual sources and how agreement is worked out between the staff and the person responsible for an excessive discharge. He stated that this approach is preferable to an arbitrary limitation required by regulations.

Mr. Miller asked what was more arbitrary than the opinion of one of the men on the Air Pollution Authority's staff who decides how much industry has to collect.

Mr. Miller asked what efficiency was expected by the staff and when decided why couldn't this be written in the standards.

Mr. Hatchard replied that regulations specifying collection efficiency would apply state-wide and could result in requiring too much or too little control since there would be no consideration of important local factors such as the number of discharge sources in the problem area, prevailing wind, elevations or unique characteristics of a particular discharge.

Mr. Hatchard explained that this is not an unusual problem; that the staff has arrived at general recommendations to persons responsible for correcting a particular source and that the ranges of collection efficiency recommended usually fall within what is accepted as good engineering practice. It was admitted that the staff has found special problems and that solutions have been developed by giving special attention to the unusual situation. Mr. Hatchard stated that the only difficulty with this approach is the small staff available. He stated plans and specifications have been carefully checked when sent in but frequently the plans do not come by request, and that the plans are needed to be certain the control provided is satisfactory.

The Chairman asked if it were not true that in the past the staff has consulted and conferred with industries having a discharge problem.

Mr. Hatchard stated it certainly was.

Mr. D. J. McNeil of Electric Steel Foundry wished to read Section 2.1 "Smoke Discharge". He stated that as far as the foundry industry is concerned it was felt the use of the Ringelmann Chart will be used regarding emissions other than smoke.

Mr. McNeil said that the phrase, "smoke from fuel burning equipment" is one of the factors which bothers a good number of people. He stated that the Ringelmann Chart should only be used to measure smoke from fuel burning equipment. He wished to know if it were not within the power of the Authority to change the regulations from time to time as circumstances develop. He stated that Mr. Weber expressed the statement concerning the foundry industry that control of stack emissions could remove 75% of the discharge without undue economic hardship. He said that he hoped the Authority would not expect 90% collection efficiency at this time although he advised that in future years improvements in control equipment will be made so that higher efficiencies will be economically feasible. He stated he saw no reason why industry could not have some definite limits. He said he believed from all discussions and contact with the staff that the work is being done impersonally and entirely fair.

The Chairman asked if there was any question regarding the use of the Ringelmann Chart for only smoke from fuel burning sources.

Mr. Hatchard replied that there was none since the staff agreed with the limitation.

Mr. Burt added that he believed the provisions in Section 2.1 are more a question of engineering than anything else; that from a legal point of view these regulations do not set up standards that every industry must immediately comply with. The Authority should set up a general standard; that industries in the

area who have a problem should get together with the staff and correct their individual problems. Mr. Burt emphasized that a violation of these regulations, assuming they were adopted, would ^{not} immediately determine that an industry was in violation of the state law. Mr. Burt concurred with the Chairman by saying the standards are more for the convenience of Air Pollution Authority than for anyone else.

Mr. Miller asked the Chairman what is the legal power of the Authority.

The Chairman stated that after an order has been adopted by the Authority it is possible for any person or groups affected to appeal the order in the circuit court.

Mr. Burt read Section 449.705 of the statute for clarification and stated that the Circuit Court would thoroughly review any order that was appealed and that if the Circuit Court thought the Authority's order was unreasonable it would be over-ruled. If the order were not over-ruled and not complied with then there would be basis for the Authority to obtain an injunction.

Mr. Wendel stated he did not remember an instance where an order was adopted except where good faith has been lacking; that he recalled only few instances where orders were necessary.

The Chairman stated it was time to consider a motion regarding the standards.

Mr. Dixon wished to ask that under the definition of smoke in Section 4.3, would it apply to gases emitted from a foundry.

The Chairman read from Chapter 5, Section 1.8 to clarify this question.

Mr. Menzel said it was then his understanding that the Board would not consider the discharge from a cupola with the standards based on the Ringelmann Chart.

The Chairman stated Mr. Menzel understood this point correctly.

Mr. Wendel said the Authority must have some starting place and now would seem the proper time to adopt these regulations.

The Chairman read from page 22, "Lime Dust", the major heading Chemical Substance, 2.4 a, and stated that later other substances added in addition to lime.

MOTION RE: ADOPTION OF AIR POLLUTION CONTROL STANDARDS

It was MOVED by Mr. Wendel and seconded by Mr. Dixon and carried that the Authority adopt the Rules and Regulations Pertaining to Air Pollution Control Standards.

CHAPTER I - III ADMINISTRATIVE PROCEDURES

The Chairman asked if the members had any comments or corrections regarding Chapter I, Administrative Procedures.

Mr. Dixon asked if the procedures will meet all of the requirements in the statute.

Mr. Burt stated he believed the regulations met all requirements of the statute.

Mr. Dixon wished to know if Mr. Burt had any further additions or corrections.

Mr. Burt stated there was one in Chapter I, Section 1.5, the definition of The Act. Mr. Burt stated it would be appropriate to add the words "and amendments thereto", to include any subsequent changes by the Legislature.

Mr. Wendel asked about the enforcement provisions in this Act.

Mr. Burt explained that the enforcement provisions were included in the Statute and would apply after a Public Hearing was held.

MOTION RE: ADOPTION OF RULES AND REGULATIONS PERTAINING TO PRACTICE AND PROCEDURE

It was MOVED by Mr. Dixon and seconded by Mr. West and carried that Chapter I ^{III} of the Rules and Regulations Pertaining to Administrative Procedures be adopted by the Authority with the addition of the phrase, "and amendments thereto." in Section 1.5.

CHAPTER V PUBLIC HEARINGS

The Chairman requested Attorney Burt to discuss the Public Hearings regulations.

Mr. Burt stated that Chapter IV, Sections on Public Hearings, are basically a set of rules which cover the procedure to be followed during a hearing. He

explained that the rules are written so that any person who appears at a hearing will know what procedures will be used and that he will have an opportunity to prepare his presentation and bring legal counsel along. Mr. Burt explained that regulations are included which will produce a written record of the hearing which is essential for appeal or enforcement actions.

The Chairman stated that he had one suggestion regarding the definition of the examiner on Page 9 of Chapter IV. Mr. Green proposed the addition (Item 1.1 page 9) to read, "the term examiner shall designate the Chairman of the Air Pollution Authority or the Authority or the members of the Authority as designated by the Chairman".

MOTION RE: CHAPTER V PUBLIC HEARINGS

It was MOVED by Mr. West and seconded by Mr. Wendel and carried that the Authority adopt the Rules and Regulations Pertaining to Public Hearing Procedures including the change in the definition of the examiner to read, "the term examiner shall designate the Chairman of the Air Pollution Authority or the officer designated by the Air Pollution Authority to conduct hearings and to act as Hearings Officer pursuant to Section 449.735, Sub-section (4) O.R.S."

NEW COMPLAINTS

North Albany: Regarding odor from the Western Kraft Corporation's mill.

The Secretary read a letter from Mr. Dale L. Turnidge, dated November 19, 1956 regarding the continued presence of oppressive fumes from the Western Kraft Mill north of Albany. The Secretary stated that a reply was sent to Mr. Turnidge dated November 28, 1956 advising him of the status of the Authority's studies and recommendations to the Western Kraft Corporation.

The Chairman asked Mr. Hatchard if any further action had been taken on this complaint.

Mr. Hatchard replied that District Engineer Merryman had conferred with Mr. Turnidge to explain in more detail what odor control installations had been completed and what further corrections were being planned.

The Chairman directed the staff to continue the investigations and cooperative work with the Western Kraft Corporation to bring about reduction of the odors.

Oswego: Regarding cement dust deposition.

The Secretary read a letter dated September 29, 1956 from R. Bradley Jones regarding the continued presence of cement dust in the city of Oswego. The Secretary stated that Mr. Jones had been advised that the study would be resumed in Oswego when other investigations now under way are completed.

~~The Chairman asked if a date had been set for resuming the sampling.~~

Mr. Hatchard replied that the staff is planning to resume the study during January.

Portland: Regarding odors from the Chipman Chemical Co., 6200 NW St. Helens Road.

The Secretary read a letter dated November 28, 1956 from Mrs. Fred D. Glennon requesting an investigation of a strong odor near the Chipman Chemical Company.

The Secretary advised since the source of the odor is within the city of Portland the complaint was transmitted to the Portland Health Bureau and Mrs. Glennon was notified that the city would make an investigation.

PUBLIC HEALTH SERVICE Demonstration Projects Program, Public Law-159

The Chairman requested Mr. Hatchard to discuss the new Public Health Service Demonstration Projects Program under provisions of Public Law-159.

Mr. Hatchard stated that recently Public Health Service had established a grant-in-aid program for demonstration projects related to air pollution and its control. He explained that these projects are for the purposes of evaluating or demonstrating the effectiveness of various methods of preventing or controlling air pollution problems, of assessing the type, extent and effects of air pollution and of planning, organizing and operate a program for the control of air pollution. He reported that an instruction manual had been sent to city officials and others who may be interested in the program. One application has been submitted to

the Authority from Oregon State College Engineering Experiment Station which concerned a grant request to support the waste wood burner research project.

Mr. Hatchard advised that the Authority had endorsed this application and urged the Public Health Service to make the grant of \$9,218. Mr. Hatchard reported that this grant request had reached Public Health Service in time to be considered with the first group of projects and it was hoped approval would be given in time so that the project could begin at Oregon State College in March 1957.

There are several potential projects in Oregon which could be organized and submitted to Public Health Service for approval. Mr. Hatchard reported that these projects should be planned on the basis of participation by the local, state and federal agencies. He pointed out that the new Harvey Aluminum Company's plant in The Dalles creates a need for additional area surveys. Another project could be an extension of air sampling and investigations in the city of Portland.

The Chairman suggested that the staff investigate the desirability of submitting applications for these projects and present a report at the next meeting.

The date for the next meeting was set at the call of the Chairman.

There being no further business the meeting adjourned at 5:00 P. M.

Respectfully submitted,

K. H. Spies,
Acting Secretary