

**9/23/1977**

**OREGON  
ENVIRONMENTAL QUALITY  
COMMISSION 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.

Environmental Quality Commission Meeting  
September 23, 1977  
Large Conference Room, Harris Hall  
125 East 8th Street  
Eugene, Oregon

9:00 am A. Minutes of July 15, July 29, August 12, August 30 and September 13, 1977 EQC Meetings

B. Monthly Activity Reports for July and August 1977.

C. Tax Credit Applications.

PUBLIC FORUM - Opportunity for any citizen to give a brief oral or written presentation on any environmental topic of concern. If appropriate the Department will respond to issues in writing or at a subsequent meeting. The Commission reserves the right to discontinue this forum after a reasonable time if an unduly large number of speakers wish to appear.

9:15 am D. Duraflake Division, Willamette Industries, Inc., Albany - Request for Variance from Emission Limitations to Operate the #105 Green Dryer Without Control Equipment Until January 1979. (Wilhite)

9:30 am E. Subsurface Rules, Lane County - Public Hearing to Receive Testimony on a Proposal to Amend the Permit Fee Schedule for Repair of Subsurface Sewage Disposal Systems in Lane County, OAR 340-72-010. (Osborne)

10:00 am F. Proposed Subsurface Moratorium, Dexter - Public Hearing to Receive Testimony on the Advisability of Imposing a Moratorium on Installation of New Subsurface Sewage Disposal Systems in the Dexter Area within Lane County. (Osborne)

10:15 am G. Teledyne Wah Chang, Albany - Consideration of Proposed Air Contaminant Discharge Permit for Rare Metals Plant. (Skirvin)

10:30 am H. Solid Waste Variances, Coastal Counties - Requests by Coastal Cities and Counties for Extensions of Variances from Rules Prohibiting Open Burning Dumps, OAR 340-61-040(2)(c). (Schmidt)

I. NPDES July 1, 1977 Compliance Date - Request for Approval of Stipulated Consent Orders for NPDES Permittees not meeting July 1, 1977 Compliance Date. (Bolton)

J. Sewage Works Construction Grants Priority List - Consideration of Adoption of Sewage Works Construction Grants Priority List for Federal Fiscal Year 1978. (Blankenship)

K. Sulfur Content of Fuels Policy - Consideration of Adoption of Proposed Policy on Use of Low Sulfur Fuels in Portland Metropolitan Area, OAR 340-22-010. (Weathersbee)

L. Noise Control Rules - Consideration of Adoption of Proposed Amendments to Noise Regulations for New Snowmobiles, OAR 340-35-025. (Hector)

M. Midwest Region - Report of Midwest Region Manager on Significant On-Going Activities in the Midwest Region. Report of Air Quality Division on Field Burning. (Adkison)  
(Freeburn)

---

Because of the uncertain time spans involved, the Commission reserves the right to deal with any item except D, E, F, G, and H at any time in the meeting. Anyone wishing to be heard on an agenda item that doesn't have a designated time on the agenda should be at the meeting when it commences to be certain they don't miss the agenda item.

The Commission will breakfast (7:30 a.m.) at the Eugene Hotel, 222 E. Broadway. Lunch will be at The Feed Mill Restaurant, 259 E. Fifth.

MINUTES OF THE EIGHTY-NINTH MEETING  
OF THE  
OREGON ENVIRONMENTAL QUALITY COMMISSION  
September 23, 1977

On Friday, September 23, 1977, the eighty-ninth meeting of the Oregon Environmental Quality Commission convened in the Large Conference Room of Harris Hall, 125 East Eighth Street, Eugene, Oregon.

Present were all Commission members: Mr. Joe B. Richards, Chairman; Dr. Grace S. Phinney, Vice-Chairman; Mrs. Jacklyn Hallock; Mr. Ronald Somers; and Mr. Albert Densmore. Present on behalf of the Department were its Director, and several members of the Department staff.

Staff reports presented at this meeting which contain the Director's recommendations mentioned in these minutes, are on file in the Director's Office of the Department of Environmental Quality, 1234 S. W. Morrison Street, Portland, Oregon.

AGENDA ITEM A - MINUTES OF JULY 15, 1977, JULY 29, 1977, AUGUST 12, 1977, AUGUST 30, 1977, and SEPTEMBER 13, 1977, EQC MEETINGS

Commissioners Somers MOVED that the minutes be approved with the exception that on the July 29, 1977, minutes, page 3, last paragraph, last sentence should read: "...with documentation of their intent to dedicate the island as a recreational park..." Commissioner Hallock seconded the motion and it was carried unanimously.

AGENDA ITEM B - MONTHLY ACTIVITY REPORTS FOR JULY AND AUGUST 1977

It was MOVED by Commissioner Somers, seconded by Commissioner Phinney and carried unanimously that the Monthly Activity Reports for July and August 1977 be approved as presented.

AGENDA ITEM C - TAX CREDIT APPLICATIONS

It was MOVED by Commissioner Somers, seconded by Commissioner Hallock, and carried unanimously that the Tax Credit Applications T-900 through T-912 and T-914 and T-915 be approved and that Pollution Control Facility Certification No. 623 be revoked.

PUBLIC FORUM

No one wished to speak on any subject.

AGENDA ITEM I - NPDES JULY 1, 1977, COMPLIANCE DATE - REQUEST FOR APPROVAL OF STIPULATED CONSENT ORDERS FOR NPDES PERMITTEES NOT MEETING JULY 1, 1977, COMPLIANCE DATE

Mr. Fred Bolton of the Department's Regional Operations staff, told the Commission that they had before them the consent order for the City of Seaside and that eight other orders had already been approved. He said that seven orders were under negotiation, of which Ross Island Sand and Gravel was one.

Mr. William Young, Department Director, said that at the Commission's July, 1977, meeting a motion was made to approve the consent order on Ross Island Sand and Gravel under the provision that the Company provide some assurance that the property owned by the Company would be dedicated as a public park after the Company had ceased operations. Mr. Young said that the Department had discussed this with the Company and the Bureau of Parks, and with information provided by the Governor's office, the Department felt that the provisions made by the Commission had been met. Mr. Young said it would be his recommendation that the Commission take official notice of the Department action to-date in this matter and that they authorize the consent agreement with Ross Island Sand and Gravel be signed.

It was MOVED by Commissioner Somers, seconded by Commissioner Hallock and carried unanimously that the Director's recommendation be approved.

AGENDA ITEM D - DURAFLAKE DIVISION, WILLAMETTE INDUSTRIES, INC., ALBANY--  
REQUEST FOR VARIANCE FROM EMISSION LIMITATIONS TO OPERATE THE #105 GREEN  
DRYER WITHOUT CONTROL EQUIPMENT UNTIL JANUARY, 1979

Mr. Paul Wilhite of the Department's Midwest Region Office, said that Duraflake Division in Albany had requested a variance from the opacity regulations and from the process weight regulations. He said that the Company had installed a two-stage venturi scrubber on one dryer, but it was considered unable to continuously comply with opacity limitations under all conditions. Mr. Wilhite said that the Company had requested a variance for the dryers until an adequate control system could be developed which will allow the dryers to operate in compliance with emission limits.

Mr. Wilhite outlined some corrections in the Evaluation Section of the staff report. He said the dryer had exceeded the 20% opacity limit, but it would be difficult to say that it generally exceeded that limit as stated in the report. He further stated that the dryer had met the particulate grain loading standards but that it had not met the opacity standard continuously. Mr. Wilhite said that the Company wished to state that the wet scrubber currently in operation on the 85 dryer had not been able to demonstrate continual compliance with the 20% emission limit. In response to Chairman Richards, Mr. Wilhite said that the dryer had demonstrated compliance but not on a continual basis.

In response to Commissioner Somers, Mr. Wilhite said that Duraflake's particular situation was unique in that a good portion of the heat source for firing the dryers was the exhaust from the existing wood and natural gas fired boilers. He further stated that the exhaust going through the dryers contained particulate matter from the wood burning whereas a veneer stack is a hydrocarbon blue haze plume. Therefore, he said that Duraflake was trying to control two types of pollutants at this source.

Commissioner Phinney asked if this was the same scrubber that was tested in 1975 and found to be out of compliance with the opacity standard. Mr. Wilhite replied that that was a larger unit and not the one on the scrubbers. He said he did not believe the scrubber had been tested for mass emission discharge. Commissioner Phinney said that a number of years before, when the Mid-Willamette Valley Air Pollution Authority had been considering the Duraflake permit, there were a number of complaints from neighbors. She asked if this was still the case. Mr. Wilhite said that a problem still existed with the facility and that there were requirements of testing the facility to see if it maintained compliance.

Commissioner Phinney said that because of the problems Duraflake had been causing their neighbors for many years, it seemed to her that emissions control equipment was on the bottom of the Company's priority list. She asked Mr. Wilhite if he felt that was true. Mr. Wilhite said that he thought the Company was interested in controlling emissions from their facility. He said that the technology was not yet available to control the particular types of emissions from this plant.

Commissioner Phinney said that the inspection report indicated that some control was not a matter of technology, but just paying attention to their emissions. Mr. Wilhite said that the Company realized that they had emission problems with the total facility and not just the dryers.

Commissioner Somers asked Commissioner Phinney if she was saying that sources seeking variance from a rule should first demonstrate that they have made an effort to comply with the rule. Commissioner Phinney said that she was getting at that and that she was uncomfortable about there being no dates in #5 of the summation to fulfill their compliance program. Mr. Wilhite replied that the testing dates for the initial retest of the existing sources on the plant site was approximately 90 days from the beginning of the staff report which was dated August 5, 1977. Commissioner Phinney said she felt uncomfortable about granting a variance until January, 1979 without a clear idea of what progress would be made at regular intervals.

Some discussion then followed among Commission Members and Mr. Wilhite about the particular time constraints that could be placed on the Company.

Commissioner Hallock asked if Duraflake was being required to implement simple controls such as closing doors and plugging holes in the buildings. Mr. Wilhite said that they were being required to control the obvious fugitive emissions. He said that it was not always evident where the emissions were coming from, but as they identified the sources the Department was working with the Company to get them controlled.

Commissioner Hallock said that as a part of the variance, the Company should be directed to control the sources of emissions identified on the August 5, 1977, inspection report.

Commissioner Somers MOVED, Commissioner Phinney seconded, and it was

carried with Commissioner Densmore dissenting, that this matter be postponed until later in the meeting, and that the Department meet with Company representatives to work out some specific compliance dates.

Commissioner Densmore asked how old the plant was. Mr. Wilhite replied that he did not recall the exact start-up date, but he believed it was in the late 50's or early 60's. Commissioner Densmore asked that when staff made a report to the Commission, they would include a short history of the facility.

AGENDA ITEM E - PUBLIC HEARING TO CONSIDER AMENDMENT TO OAR 340-72-010, SUBSURFACE AND ALTERNATIVE SEWAGE DISPOSAL. SETTING FEES FOR SPECIAL REPAIR PERMITS IN LANE COUNTY

Mr. T. Jack Osborne of the Department's Subsurface Sewage Section, presented the summation and Director's recommendation from the staff report.

Mr. Roy L. Burns, Director of the Water Pollution Control Division of Lane County, appeared on behalf of the Board of County Commissioners to request an addition to the special repair permit fees. Mr. Burns said that this amendment dealt with those applications eligible for assistance through the Farmers Home Administration Sections 502 or 504 loan and grant programs.

Commissioner Somers asked Mr. Ray Underwood, of the Justice Department, if by accepting Lane County's proposed amendment to the special repair permits, the Commission would be jeopardizing the permit fee program throughout the rest of the State. Mr. Underwood said he would need time to answer adequately.

Commissioner Somers MOVED, Commissioner Hallock seconded, and it was carried unanimously that the Director's recommendation including the proposed amendment by Lane County be approved, providing that later in the meeting Legal Counsel confirmed that the Commission would not be jeopardizing the permit fee program in the rest of the State.

Including Lane County's amendment, the "Special Repair Permits" section of OAR 340-72-010 would read as follows:

"Special repair permits shall be issued upon application therefor to the owner (or contract purchaser) to repair the system serving the owner (or contract purchaser) occupied housing unit located within the boundaries of any area which has been formally declared by the Lane County Board of Commissioners ("Board") or the Oregon State Health Division to be a health hazard area, or applicants receiving assistance through the Farmers Home Administration section 502 or 504 loan and grant programs or within an area defined in a sewer plan adopted by the Board recommending correction of individual systems; provided that a repair permit application and fee is filed not later than 30 days after the date of written notification that the applicant's system has failed."

Mr. Underwood appeared later in the meeting and said that the applicable statute was ORS 454.745(4), and he saw no problem in adopting the proposed Lane County amendment. He also said he did not feel that there would be an equal protection problem with regard to other counties.

Chairman Richards stated that the Commission, by unanimous consent, did not feel there would be a legal problem with the proposed amendment, based on advice of legal counsel.

AGENDA ITEM F - PUBLIC HEARING TO CONSIDER THE QUESTION OF IMPOSING MORATORIUM ON PERMITS AND FAVORABLE REPORTS OF SITE SUITABILITY FOR NEW SUBSURFACE SEWAGE SYSTEMS IN DEXTER AREA, LANE COUNTY

Mr. T. Jack Osborne of the Department's Subsurface Sewage Section, presented the Summation and Director's Recommendation from the staff report.

Mr. Roy L. Burns, Director, Lane County Water Pollution Control Division, presented a statement and staff report in support of the Moratorium in the Dexter Area of Lane County. This statement and staff report is made a part of the hearing record on this matter.

Commissioner Somers asked how many failing systems were there in the area. Mr. Burns said that 57 homes on 20 different properties were identified as failing. In response to Commissioner Somers, Mr. Burns said that these failing systems were on compliance schedules and repair actions begun. Chairman Richards asked if an owner refused to comply, who would have the enforcement authority. Mr. Burns said that enforcement authority rested entirely upon DEQ under contractual agreement.

It was MOVED by Commissioner Somers, seconded by Commissioner Hallock and carried unanimously that the Director's Recommendation be approved.

AGENDA ITEM L - CONSIDERATION OF ADOPTION OF REVISIONS TO OAR CHAPTER 340 SECTION 35-025 PERTAINING TO NOISE CONTROL REGULATIONS FOR THE SALE OF NEW SNOWMOBILES

Mr. John Hector, Supervisor of the Department's Noise Control Section, summarized the staff report for the Commission. He said that the Oregon State Snowmobile Association had petitioned the Commission and asked that new vehicle noise standards for 1979 and subsequent model year snowmobiles, now set at 75 dBA, be amended by maintaining the 78 dBA standard currently in effect for pre-1979 models. Mr. Hector said that subsequently, public hearings to consider the petition were held in Portland and Bend. He said that after evaluation of the testimony and Department information, the staff would recommend that the Snowmobile Association's petition be denied, and that the standards for the sale of new snowmobiles be amended such that the 75 dBA standard would not be effective until the 1981 model year. Mr. Hector further said that this would, in effect, grant the petitioner a two year delay in implementation of the standard.

Commissioner Phinney asked where the tolerance level of 2 dBA came from.

Mr. Hector said that this tolerance level was based historically on information provided by the Society of Automotive Engineers (SAE) standards. Mr. Hector said the Federal government did not have a tolerance level, however most states do.

Commissioner Densmore asked if by approving the Director's Recommendation, would the Commission be granting the petitioners what they asked? Mr. Hector replied that the petitioners asked that the 75 dBA standard be deleted entirely and that the 78 dBA standard be maintained. He further said that what the staff was recommending was to give the petitioners a two year delay on implementation of the standard.

Commissioner Hallock stated that she was not convinced that the petitioners had made their case for maintaining the 78 dBA standard, therefore she was going to vote "no" on the Director's Recommendation.

Mr. Hector said that a few years ago snowmobiles did not have any noise controls and states started adopting standards. At the time Oregon adopted standards in 1974, he said, the Department laid out a schedule they felt industry could meet to comply, based primarily on what other states were doing. Mr. Hector said that at that time the manufacturers thought they could meet that schedule. Mr. Hector further stated that the manufacturers had made significant strides and in general the snowmobile was a fairly quiet vehicle.

Commissioner Phinney asked what the actual difference was between the 75 and 78 dBA. Mr. Hector said that the manufacturer would have to reduce the accoustical output of the vehicle by a factor of 2. Chairman Richards asked what percentage reduction was 78 to 75 dBA. Mr. Hector said that subjectively it would be in the range of 30%.

Commissioner Densmore asked why 75 dBA was set in the beginning. Mr. Hector said he could not specifically remember why 75 was picked. In response to Commissioner Densmore, Mr. Hector said that there was not an auditory reason for the 75 dBA standard.

It was MOVED by Commissioner Somers, and seconded by Commissioner Densmore that the Director's Recommendation be approved. The motion failed.

Chairman Richards said he would have voted for the motion if the delay would have been until 1980 instead of 1981 with a chance to review at that time. Mr. Hector said he thought that would be agreeable to the petitioners.

Commissioner Densmore said he was concerned about setting a precedent to constantly moving deadline dates. He asked if there would be another way of going about this. Chairman Richards said he did not know of another way to do it. Mr. Hector said that there was a possibility that the Federal government would set standards, or have manufacturers label machines as to their noise levels.

It was MOVED by Commissioner Densmore, seconded by Commissioner Phinney



and carried unanimously that the Commission reconsider the Director's Recommendation.

It was MOVED by Commissioner Densmore, seconded by Commissioner Phinney and carried with Commissioner Somers and Commissioner Phinney dissenting that the Director's Recommendation be approved with the amendment to change the effective date from 1981 to 1980. The amended Director's Recommendation follows:

- "1. Deny the Oregon State Snowmobile Association petition asking that new vehicle noise standards for 1979 and subsequent model year snowmobiles now set at 75 dBA, be amended by maintaining the 78 dBA standard currently in effect for pre-1979 models.
2. Amend the standards for the sale of new snowmobiles, as attached, such that the 75 dBA standard is not effective until [1981] 1980 model year. Thus, as a future time, the Commission could, upon re-petition, reexamine the standard in light of improved noise reduction techniques and changes in Federal regulations."

AGENDA ITEM G - TELEDYNE WAH CHANGE ALBANY, MILLERSBURG - CONSIDERATION OF PROPOSED AIR CONTAMINANT DISCHARGE PERMIT FOR RARE METALS PLANT

Mr. Fritz Skirvin of the Department's Air Quality Division, presented the summation and Director's Recommendation from the staff report.

Commissioner Somers said that in view of the past history of this facility, he would suggest that on page 3 of the permit, number 3.a. should be deleted and replaced with "allow any odor off the Company premises." Mr. Skirvin said that he doubted that any facility in the State could maintain a zero odor off the plant site. Commissioner Somers said that the Company should give some consideration to the nuisance they caused up to this point.

Commissioner Somers said that they were not dealing with a company that was about to go under financially. He said that it should be possible to build a box over the plant and to filter the emissions so that no odors left the plant property. Mr. Skirvin said that the sources of the "cat box" odor that had been identified would be controlled, and that as other sources are identified they will be controlled also. Mr. Skirvin said that any operation was subject to such things as equipment failure and operator error and that he did not know how far the Commission could go legally. Commissioner Somers said that it was not beyond their authority to have them contain the facility in a building. Mr. Skirvin said that the rejuvenation of the hafnium process would be put into a building with new pollution control equipment. However, Mr. Skirvin said they did not plan to extend this across the plant.

Commissioner Phinney said she could not find in the permit where any provisions were made to monitor the odor. Mr. Skirvin said that odor surveying

would be done by the Department staff. Mr. Skirvin said that the human nose was very sensitive to the element that caused the "cat-box" odor and therefore the best way to judge an improvement would be by the smell.

Mr. Skirvin said that the permit levels were based on regulation requirements and Wah Chang's source test data that showed they can meet the levels.

Chairman Richards said that C2E had alleged that the Department had allowed Wah Chang to double its production. Mr. Skirvin said that production expansion took place while Mid-Willamette Valley Air Pollution Authority was in charge of the air quality in that county. He also said that it was his recollection that the Department had not approved the expansion as far as the water quality portion was concerned. Chairman Richards asked if it would be possible for the Company to increase production and exceed permit levels without Department knowledge. Mr. Skirvin replied that that was not possible and that it was the Department's intent to observe all source tests.

Commissioner Hallock asked if Wah Chang had ever been able to meet the permit limit, and had it ever been in consistent compliance with the existing permit. Mr. Skirvin said that the staff report stated that they were capable of complying with the conditions of the permit as proposed, and that they were currently in compliance with the proposed permit.

Commissioner Densmore asked if the plant site was in an air quality non-attainment area. Mr. Skirvin replied that it was considered a non-attainment area primarily because of the sampling site in the area.

Commissioner Densmore requested that periodic progress reports to the Commission be made on the odor situation at Wah Chang. He asked what would be a reasonable period of time for these reports. Mr. Skirvin said that quarterly progress reports would be reasonable.

Commissioner Somers expressed his distress at this situation and suggested that the permit be issued only until 1979 instead of 1981. Mr. Skirvin said that this would put a significant burden on the staff and the same result could be attained by strict enforcement of the permit conditions. Commissioner Somers repeated his feeling that the plant was capable of being contained in a box and that the air emissions could be treated to remove the odors. Commissioner Somers said that many other processes were required to filter their emissions. Mr. Skirvin said that an activated carbon filter has been tried, and it did not do the job successfully.

Commissioner Phinney said she was still concerned about monitoring the odor. Mr. Skirvin replied that routine odor monitoring would be part of the permit conditions. Mr. Skirvin said that this program would start immediately and in June of 1978 more comprehensive odor surveying would be done.

Mr. Kenneth Bird, Director of Environmental Control at Teledyne Wah Chang

Albany addressed the Commission. Mr. Bird said that the Company had two chemists working over a year to identify the specific compound that caused the "cat-box" odor. He said that that compound was identified in late 1976 and since that time they had tried to find out where the compound was formed and under what circumstances. Mr. Bird said they had installed equipment that, although not yet working up to expectations, had cut down the compound by over 50%. He said they were planning on moving and redesigning the entire hafnium oxide calcining operation and installing new odor control and particulate control equipment on that operation. Mr. Bird said that people had trouble identifying the particular compound smell and that they had odor complaints when the plant was completely shut down. He said that this compound is also associated with food processing and pulp processing.

Commissioner Somers asked how they were going to determine what best control practices were when Wah Chang was the only plant of its type operating in the Country at this time. He further said that the Commission had been repeatedly assured that the odor problem would be solved and that it had not been solved so far. Mr. Bird said that the problem had to be identified and the control strategy worked out before it could be implemented. He further said that this was being done systematically, and that it would take time.

Commissioner Somers asked if the proposed ammonia stripping operation would put more odor into the air. Mr. Bird replied that it would not, and that DEQ modeling had indicated there would be no odor impact off the plant site boundaries. In response to Chairman Richards, Mr. Bird said that their consultants tell them that Wah Chang was not the only source of this particular odor in the area, and it would be extremely difficult to identify what part was coming from Wah Chang.

Mr. Bird said that in Sections 4 and 20 of the proposed permit the word "possible" appeared several times and that the Company would prefer that they read "practicable" which would better reflect the working in the ORS.

Mr. Bird then addressed conditions 10, 11, and 12 of the permit saying that the Company felt it was beyond the scope of the Department to limit production and emissions as well. Mr. Bird said that the Company felt some reasonable expansion must be allowed to adjust for increased requirements for zirconium metal. Mr. Bird said they were dedicated to formulating acceptable programs and schedules to ultimately control and reduce effluent so that practicable limits are met, but that they were still faced with increasing requirements and they had to have some modest expansion. Mr. Bird agreed with Chairman Richards that that was what the proposed permit was saying.

Mr. Bird said that the Company would like to replace conditions 11 and 12 with the following:

"The permittee shall not increase production above base level until the ability to comply with conditions 2, 3, and 4 has been demonstrated, or until acceptable programs and time schedules for meeting these conditions have been submitted to and approved by the Department."

Mr. Bird said that the major odor areas which seemed to concern the Department were in the separations plant.

Mr. Bird said that by their own initiative the Company had reduced levels below those allowed in the existing permit and those in the proposed permit. He also said that many of the proposed limits were below State regulations primarily because the limits in the existing permit were achieved. Mr. Bird said he wanted to assure the Commission that the Company intended to improve the environmental quality of the zirconium hafnium process and have increased staff and allocated funds to do this. Mr. Bird estimated that compliance with the proposed permit would cost in excess of \$3 million in air pollution equipment alone.

Commissioner Densmore asked Mr. Bird if he felt it was reasonable to add to the permit a quarterly reporting system. Mr. Bird said he would agree to that.

In response to Chairman Richards, Mr. Skirvin said there would be no problem in substituting the word "practicable" for "possible" in conditions 4 and 20.

Chairman Richards stated for the record that he had received petitions from Community Focus, Corvallis, Oregon, on which there appeared to be approximately 225 names, complaining that there were not sufficient restrictions on the emissions of certain chemicals and demand that certain reviews be instituted by the Department. He also said that it appeared to him that from all the persons signing the petition approximately 20 were from Albany and the rest from Corvallis, Portland, and Eugene. This petition is made a part of the record on this matter.

Commissioner Somers MOVED, Commissioner Hallock seconded, and it carried with Commissioner Densmore and Commissioner Phinney dissenting, that the word "practicable" replace "possible" in conditions 4 and 20 of the proposed permit.

Commissioner Somers MOVED that on page 3, condition 3.a. of the proposed permit, the following replace the present wording: "to allow any odor off the company property." The motion died for want of a second.

Commissioner Densmore asked Mr. Skirvin who would define "public nuisance." Mr. Skirvin replied that he assumed it would be the public. In response to Commissioner Densmore, Mr. Underwood said that ultimately the courts would decide what constituted a public nuisance under a given set of circumstances. As a practical matter, Mr. Underwood said, the Department would advise the Justice Department of what they believed to be a public nuisance and ask for an opinion based on previous judicial decisions under similar circumstances.

It was MOVED by Commissioner Densmore, seconded by Commissioner Phinney and carried unanimously that an amendment to the proposed permit be added under the general conditions section to require that quarterly reports be made to the Commission on the Company's progress.

It was MOVED by Commissioner Somers, seconded by Commissioner Densmore and carried unanimously that the Director's Recommendation to proceed with issuance of the proposed Air Contaminant Discharge Permit for Teledyne Wah Chang Albany, as amended by previous motions, be approved.

AGENDA ITEM H - REQUESTS BY COASTAL CITIES AND COUNTIES FOR EXTENSIONS OF VARIANCES FROM RULES PROHIBITING OPEN BURNING DUMPS, OAR 340-61-040(2)(c)

Mr. Ernest Schmidt of the Department's Solid Waste Division, presented the summation and Director's Recommendation from the staff report.

Commissioner Densmore asked Mr. Schmidt to elaborate on the statement in the staff report that due to economic reasons private industry was unable to bid on the project and Clatsop and Tillamook Counties were left without a disposal system. Mr. Schmidt replied that there was a lack of market for composted material; however the Corporation, MBM, felt that within two years they could develop a market through one of their investors who owns a large number of stores in marketing compost in small quantities as potting soil/fertilizer. Further, he said, that during that two years they needed a bulk market to assure that they at least broke even. Mr. Schmidt said the area needed a landfill with or without composting abilities, however resource recovery was the long-range goal.

Ms. Eleanor Dye, Tillamook County DEQ/CAC Committee and Tillamook Solid Waste Committee, appeared before the Commission in favor of the Director's Recommendation but wanted to urge the Commission to stick to its deadlines. Ms. Dye said that there were three burning dump sites in Tillamook County and that they should be working toward the time when all burning dumps could be phased out and not wait until the last minute when an acceptable project became available. Ms. Dye presented pictures of the Pacific City site and said that it was at a saturation point and that they are already dumping on private property adjacent to the dump. Further, Ms. Dye, said that there was running water under the site and lechate was getting into adjacent waterways. She also said that the site could not be expanded because there was a lack of room.

Ms. Dye said that there was a need to provide the variance, but that much could be done in the interim to provide information and to comply with standards. She also said that a definite time for action should be made to provide direction and an example for the rest of the Oregon Coast.

Chairman Richards asked Ms. Dye if she was asking for immediate closure of the Pacific City site. Ms. Dye replied that she was asking that it be reviewed in view of the water contamination problem from the site.

Mr. William Adams of Yachats, Oregon, presented a statement in support of the variance. He said he wished the Commission to assure that adequate provisions were made to insure the public continued service without danger to the environment. Mr. Adams's written statement is made a part of the record on this matter.

Mr. Albert Palmer, Chairman, Clatsop County Board of Commissioners, said that they had been working with DEQ staff for the past several years to develop a suitable method of solid waste disposal in Clatsop County. Mr. Palmer said that the capacity in the existing sites was limited and they needed to continue burning in order to keep going until a suitable alternative method was developed. Mr. Palmer said that they would continue to work diligently with DEQ to solve the problem.

Chairman Richards asked Mr. Schmidt, if, in view of the testimony presented by Ms. Dye, the Director's Recommendation would be changed. Mr. Schmidt said it would not; however, the permit for the Pacific City site would come up for renewal late in October and improvements to the site could be required through the permit process. He also said that the possibility of closure of the plant would be continued to be investigated.

Chairman Richards requested that Mr. Schmidt work out increments of progress for each site and return later in the meeting with them.

CONTINUATION ON AGENDA ITEM D - DURAFLAKE DIVISION REQUEST FOR VARIANCE

Mr. Paul Wilhite said that they had been working with the Company since the morning session of the EQC meeting to try to pin down compliance dates for various phases of control at the facility. He said that original construction was done on the plant in 1959 with start-up in early 1960 and was under the authority of the Mid-Willamette Valley Air Pollution Authority until July of 1975 at which time control was assumed by the Department.

Mr. Wilhite then presented the following revised point #5 of the Summation:

5. Duraflake has requested a variance from the opacity limits until January, 1979. During this period the Company proposes the following program:
  - a) Operate existing dryer scrubber at maximum efficiency.
  - b) Evaluate other types of dryer control equipment which could meet opacity, grain loading, and process weight limits. Submit periodic progress reports by December 31, 1977, April 9, 1978, and June 3, 1978.
  - c) Retest other specified plant site particulate emission sources to determine the validity of existing emission data and submit report by November 5, 1977. Retest other specified points by February 1, 1978.
  - d) Evaluate and report on further control of fugitive emission sources. Immediate steps to be taken are:
    - (1) Self-closing personnel doors to be installed by October 1, 1977.
    - (2) Repair all external openings on walls by October 1, 1977.

- (3) Pull back green material pile out of the county roadway.
- (4) Submit a plan by October 15, 1977, to baghouse the mat trim and floor sweep cyclone and have installed as soon as possible, and no later than July 1, 1978, the baghouse control system.
- (5) Establish a wet roof cleaning system by January 1, 1979.

Other steps to be taken and reported on by February 1, 1978, are the comprehensive study of the dry materials storage systems including the ply trim buildings, truck dump buildings, and dry materials storage.

- e) Subject to prior approval by the Department, the most effective dryer control system available will be ordered by no later than June 30, 1978, and installed by no later than December 31, 1978.
- f) Plant-wide compliance with all Department regulations shall be attained by January 1, 1979.

With thanks to the staff for their quick work on this matter, Commissioner Hallock MOVED, Commissioner Phinney seconded, and it was carried unanimously that the Director's Recommendation to grant a variance from the opacity regulation and the process weight rule until January 1, 1979, be adopted.

CONTINUATION OF AGENDA ITEM H - SOLID WASTE VARIANCES FOR COASTAL COUNTIES  
OPEN BURNING DUMPS

Mr. Schmidt said that they were recommending that progress reports on the closure of the open burning sites be prepared and submitted to the Department on six-month intervals throughout the period of the recommended variance, the first report to be submitted December 1, 1977, for Clatsop County, Lincoln County, and Tillamook County; and in the case of Curry County, the first report to be submitted February 1, 1978. Further, in the case of Tillamook County only, special attention should be given to the conditions at the disposal sites at the present time.

In addition, Mr. Schmidt said that the following improvements had been worked out:

- (1) In regard to the Pacific City site, by November 1, 1977, surface water diversion would be provided, springs tiled out, the sludge pond be bermed to prevent overflow during the winter, that the west side of the face be renovated and covered, and the rat control program be commenced. By July 1, 1978, the west side of the face be renovated and covered.

- (2) In regard to the Tillamook site: By November 1, 1977, salvage be removed, a rat control program be commenced, and the springs tiled out.
- (3) In regard to the Manzanita site: By November 1, 1977, a rat control program be commenced and half of the face be covered and fenced off from access. Mr. Schmidt said that there was a possibility that this final requirement on the Manzanita site might not be met due to logistics that could not be addressed at this time.

Commissioner Somers MOVED, Commissioner Phinney seconded, and it was carried unanimously that the Director's Recommendation to grant the variances and the control program outlined by the staff be adopted.

AGENDA ITEM J - SEWAGE WORKS CONSTRUCTION GRANT PROJECT PRIORITY LIST

Mr. Tom Blankenship of the Department's Water Quality Division, presented the summation and Director's Recommendation from the staff report.

Chairman Richards asked for a review of the criteria on placing the priorities. Mr. Blankenship said that the criteria was a point system for assigning priority points to a project. He said that a number of categories were involved in the criteria one of which is a "need" category, another is "regulatory emphasis," the type of project and its present status, also the stream segment the facility would be placed upon. Evaluation was done in conjunction with the Regional Offices and the hearing process. Mr. Blankenship said that the primary emphasis was on water pollution control need.

Mr. Blankenship said that because of concerns expressed this year over the priority criteria ranking, the Director would be forming an advisory committee to evaluate the present criteria and to submit recommendations through the Director to the Commission by next March.

Mr. Blankenship said that essentially, the priority list was a way to determine which projects out of a large number of projects are going to be funded.

Mr. J. N. Hershburger, Hermiston, City Attorney for Stanfield, Umatilla, and Irrigon, testified on behalf of the Stanfield sewer project and the situation in Irrigon.

Mr. Hershburger said that the City of Stanfield was pleased that their priority points had been adjusted and wanted to inform the Commission that they were ready to begin their project within 90 days of funding becoming available. Mr. Hershburger said that if any of the projected 54 projects to be funded this year should for some reason be eliminated from the list, the City of Stanfield would appreciate taking that place.

In the matter of the City of Irrigon, Mr. Hershburger said that as a result



of information submitted to the Department regarding the suitability of the soil around the City of Irrigon for septic tanks, the City had been dropped from the priority list entirely and then replaced on the list after the July 29, 1977, hearing. He also said that because of the high water table in the area, a serious health hazard existed and that the area needed to be sewerred.

Chairman Richards asked if Mr. Hershburger was asking for a different ranking on the list for either Stanfield or Irrigon. He said he was asking for a different ranking for Irrigon because it should never have been taken off the list when its ranking was 149 and therefore should have a ranking of 73 instead of the present 127.

Mr. Blankenship said that there was a potential need on the part of the City of Irrigon and not existing pollution of ground and surface water.

Chairman Richards stated that anyone testifying who would want the priority ranking changed for any facility would have to pinpoint some inaccuracy in the ranking criteria.

Mr. James B. Dikison, City Recorder-Treasurer of the City of Stanfield, thanked the staff and the Commission for the revision of ranking for the City of Stanfield and requested to read into the record a letter regarding an archeological study of the proposed construction site. Chairman Richards asked if Mr. Dikison was satisfied with the current rating of the City of Stanfield. He replied he was, but if there was an opportunity for the ranking to be raised, the City would appreciate it.

Mr. Val Toronto, City Engineer for the City of Irrigon, said that since the July 29, 1977, hearing additional information regarding the soil conditions around Irrigon has been developed. He distributed a letter to the Commission containing this additional information.

Mr. Thor Mork, of the City of Waldport, stated that he was against the construction of sewers in Southwest Lincoln County because the cost of the sewers would be excessive to all except realtors and large land owners. Mr. Mork cited what he felt were several inaccuracies and omissions in the April, 1977, septic tank survey in Southwest Lincoln County. Mr. Mork said he felt the inspectors "saw what they wanted to see and missed what they wanted to miss." Mr. Mork alledged that he was not notified of the July 29, 1977, hearing and felt he had been deliberately excluded from any information regarding it.

Mr. David Abraham, Utilities Director for Clackamas County, appeared and said he had been directed to appear in the event that any adverse testimony had been given with regard to projects of interest to Clackamas County, and because there had not been, had nothing further to say.

Commissioner Densmore asked if any further information had come to light on how many projects might be funded. Mr. Blankenship said he did not have any more information than that already distributed to the Commission.

Chairman Richards asked if the information furnished by Mr. Toronto had a bearing on the ranking for the City of Irrigon. Mr. Blankenship said that the information supplied only reinforced the Department's evaluation of a potential need.

Commissioner Densmore asked Mr. Underwood if he should announce a conflict of interest because he is an officer of the City of Medford which had projects on the priority list. Mr. Underwood said he would recommend abstaining in the vote.

Commissioner Somers MOVED, Commissioner Hallock seconded, and it was carried with Commissioner Densmore abstaining, that the Director's Recommendation to approve the modified FY 1978 priority list and have the list become operational when Federal appropriations are authorized, be approved.

AGENDA ITEM K - SULFUR CONTENT OF FUELS - ADOPTION OF POLICY

Mr. Jack Weathersbee, of the Department's Air Quality Division, presented the background and the proposed State of Policy concerning sulfur content of residual fuel oil.

Commissioner Phinney asked if there could be a statement contained in the Policy Statement to the effect that if the data were available earlier than 1979 the dates may be moved up. Mr. Weathersbee said that these were the dates submitted to and accepted by EPA and he doubted that they would finish the Portland AQMA study much before the schedule in the State-ment. He said that it could be written in that if study results indicate sooner than those dates that a low sulfur rule would be needed, then the Department would make that known.

Commissioner Somers MOVED, Commissioner Phinney seconded, and it was carried unanimously that this matter be tabled until the October, 1977, EQC meeting.

AGENDA ITEM M - REPORT OF MIDWEST REGION MANAGER ON SIGNIFICANT ON-GOING ACTIVITIES IN THE MIDWEST REGION

Mr. Vern Adkison of the Midwest Region appeared to answer any questions the Commission might have on the report already submitted to the Commission. Commissioner Somers asked if there was a lawsuit about to be filed in regard to field burning. Mr. Adkison replied that the City of Eugene was proposing some litigation in regard to the legality of the field burning program with regard to the State Implementation Plan. Commissioner Somers complimented Mr. Adkison on his report.

Commissioner Somers asked Mr. Scott Freeburn of the Department's Air Quality staff if fees were refunded if a field was not burned. Mr. Freeburn said that the registration fees were lost but the other fees were not paid until the field was burned, therefore nothing would be lost to growers, but it would affect the Department budget.

Mr. Freeburn said that 170 thousand acres had been burned this year. Due to the hot weather in August and early rains, not as much burning had taken place as anticipated. Mr. Freeburn also said that there were some smoke problems this year and he listed them in his report.

Chairman Richards asked if with priority burning, there was no way to keep smoke out of the Eugene-Springfield area. Mr. Freeburn replied that that was correct and that priority areas were selected to avoid direct impact or safety problems and that the further downwind areas were sacrificed for these reasons. Chairman Richards asked if it would be worthwhile looking to see if any refinements could be made on the priority burning to reduce the amount of smoke that might be in the Eugene-Springfield area. Mr. Freeburn replied that that was something they had intentions of doing.

Mr. Young said that it was the Department's intent to make a substantial review report of the burning season and distribute it to the Commission and the Advisory Committee.

EQC MEETING DATES

The Commission approved the following meeting dates:

October 21 - Coos Bay  
November 18 - Bend  
December 16 - Medford  
January 27 - Hermiston/Boardman

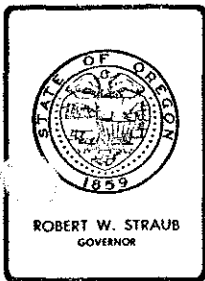
In response to Commissioner Hallock, Chairman Richards asked a staff response to the matter of public recourse on experimental system review.

In regard to the awarding of the Pollution Control Bond bid, Chairman Richards brought up that the purchaser had been informed of the matter brought up by Commissioner Somers at the award of the bid and that a special written response was not needed.

There being no further business, the meeting was adjourned.

Respectfully submitted,

  
Carol A. Spletstaszer



## Department of Environmental Quality

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 Telephone (503) 229- 5395

### M E M O R A N D U M

TO: EQC Members

Date: September 16, 1977

FROM: William H. Young, Director

SUBJECT: Topics of Discussion for Breakfast and Lunch at the September 23, 1977 EQC Meeting in Eugene

Many of the topics that you have requested we cover informally at the September 23rd breakfast or lunch meeting involve items that you have already received written information on at various times during the last two months. I would like to remind you of those items here so that you can refer to those documents or bring them to the meeting with you:

1. Roseburg Lumber, Dillard--Status of variance for air pollution regulations.
2. Audit Report, DEQ, July 1, 1975 to December 31, 1976--Review of audit comments.
3. Legislative Action on DEQ's Budget Request, July 28, 1977--Review of approved budget for 1977-79.
4. Staff Evaluation of C2E "Pollution Discharge Study" on Teledyne Wah Chang (to be distributed to EQC September 19, 1977).
5. Critical Situation Policy--USA Banks--Review of Water Rights relative to Banks Sewage Treatment Plant effluent (report attached).
6. Contested Case Hearings Status Report--EQC guidance on reporting format, frequency and mechanism.

Other items that you may wish to discuss include:

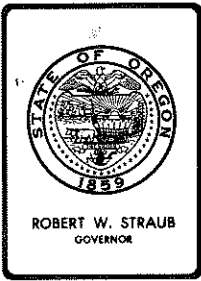
1. List of pending litigation against DEQ and EQC--Ray Underwood will distribute list at meeting and review important cases.
2. Future EQC meeting dates and places November through January.
3. Local items of concern--Vern Adkison will brief EQC on issues that are current topic of concern in the Eugene area that may be brought up during the Public Forum portion of the meeting.



Contains  
Recycled  
Materials

4. Mitigation of Civil Penalty against Al Peirce Lumber Company,  
Coos Bay--Execution of mitigation order.
5. Award of Pollution Control Bond Sale.

MJD:cs



## *Environmental Quality Commission*

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission  
From: Director  
Subject: Agenda Item B, September 23, 1977, EQC Meeting  
July and August Program Activity Reports

### Discussion

Attached are the July and August 1977 Program Activity Reports.

ORS 468.325 provides for approval or disapproval of Air Quality plans and specifications by the Environmental Quality Commission. Water and Solid Waste facility plans and specifications approvals or disapprovals and issuance, denials, modifications and revocations of permits are prescribed by statutes to be functions of the Department, subject to appeal to the Commission.

The purposes of this report are to provide information to the Commission regarding status of the reported program activities, to provide a historical record of project plan and permit actions, and to obtain the confirming approval of the Commission of actions taken by the Department relative to air quality plans and specifications.

### Recommendation

It is the Director's recommendation that the Commission take notice of the reported program activities and give confirming approval to the Department's actions relative to air quality project plans and specifications as described on page 8 of the July 1977 report (Appendix A), and on pages 10 and 11 of the August 1977 report (Appendix B).

*Bill*

WILLIAM H. YOUNG

M. Downs:eve  
229-6485  
9/14/77



Contains  
Recycled  
Materials

APPENDIX A

Department of Environmental Quality  
Technical Programs

Permit and Plan Actions

July 1977

Water Quality Division

	<u>Page</u>
112. . Plan Actions Completed - Summary	1
Plan Actions Completed - Listing	2
85. . Plan Actions Pending - Summary	1
24. . Permit Actions Completed - Summary	5
Permit Actions Completed - Listing	6
174. . Permit Actions Pending - Summary	5

Air Quality Division

11. . Plan Actions Completed - Summary	1
Plan Actions Completed - Listing	8
25. . Plan Actions Pending - Summary	1
21. . Permit Actions Completed - Summary	19
Permit Actions Completed - Listing	10
112. . Permit Actions Pending - Summary	9

Solid Waste Management Division

3. . Plan Actions Completed - Summary	1
Plan Actions Completed - Listing	12
10. . Plan Actions Pending - Summary	1
31. . Permit Actions Completed - Summary	13
Permit Actions Completed - Listing	14
47. . Permit Actions Pending - Summary	13

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air, Water & Solid

Waste Divisions  
(Reporting Unit)

July 1977

(Month and Year)

SUMMARY OF PLAN ACTIONS

	Plans Received		Plans Approved		Plans Disapproved		Plans Pending
	Month	Fis.Yr.	Month	Fis.Yr.	Month	Fis.Yr.	
<u>Air</u>							
Direct Sources	9	9	11	11			25
Total	9	9	11	11			25
<u>Water</u>							
Municipal	149	149	104	104			73
Industrial	13	13	8	8			12
Total	162	162	112	112			85
<u>Solid Waste</u>							
General Refuse	2	2	1	1			6
Demolition	1	1					2
Industrial	2	2	2	2			2
Sludge							
Total	5	5	3	3			10
<u>Hazardous Wastes</u>							
<u>GRAND TOTAL</u>	<u>176</u>	<u>176</u>	<u>126</u>	<u>126</u>			<u>120</u>



DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality Division

July 1977

PLAN ACTIONS COMPLETED - 112

County	Name of Source/Project/Site and Type of Same	Date Rec'd	Date of Action	Action	Time to Complete Action
	Municipal Sources - 104				
29	PACIFIC CITY WASTEWATER-INTERCEPTOR FINAL	V062177	070177	PROV APP	10
29	PACIFIC CITY STP - FINAL	V062177	070177	PROV APP	10
20	EUGENE GILLESPIE BUTTE	K070577	070577	PROV APP	0
10	N ROSEBURG SD SYLVAN HILLS SUBD	J062877	070577	PROV APP	07
26	TROUTDALE VALERIE TERRACE	J061777	070577	PROV APP	18
24	SALEM ALLEY BTW COMMERC & LIB STS	J062077	070577	PROV APP	15
24	SALEM-WALLACE CHAPMAN HILLS WEST	J062877	070577	PROV APP	07
23	ONTARIO PLAZA SUBD	J061577	070577	PROV APP	20
10	SUTHERLIN THE MEADOWS	J062377	070677	PROV APP	13
36	NEWBERG SPRINGBROOK ACRES	J062277	070677	PROV APP	14
9	BOARDMAN DILLABOUGH ST & WILLOW F DR	K062977	070777	PROV APP	08
35	FOSSIL CHLORINE CONTACT CHANNEL	G070777	070777	PROV APP	0
10	SUTHERLIN SUTHERLIN STP FINALS	V061577	071177	PROV APP	26
10	REEDSPORT FOREST VILLAGE	J063077	071177	PROV APP	11
24	SALEM MARKET ST NE WO 76 S 259	J062277	071277	PROV APP	20
3	ESTACADA CONREY SUBD	J062277	071277	PROV APP	20
24	SALEM SKYLINE VILLAGE PHASE 1	J063077	071377	PROV APP	13
24	NEWBERG VILLAGE PARK ADD	J062277	071377	PROV APP	21
8	BROOKINGS 5TH & EASY STS	J062877	071377	PROV APP	15
17	HARB-FRUIT LATERAL G-29	J063077	071377	PROV APP	13
26	MULTNOMAH CO SW CORONADO ST AT SW 55TH AV	J063077	071377	PROV APP	13
34	USA-DURHAM B CHESTNUT HILLS	J062877	071377	PROV APP	15
34	USA-DURHAM B FOREST GLEN II	J062877	071377	PROV APP	15
34	USA STRATFORD	J071177	071377	PROV APP	02
10	N UMPQUA SD MILLER OAKS SUBD - REVISED	J070777	071377	PROV APP	06
26	WOOD VILLAGE ARATA TERRACE	J070577	071877	PROV APP	13
34	FOREST GROVE FOREST GALE HTS 8 SUBD	J070577	071877	PROV APP	13
26	GRESHAM MARWYN TERRACE	J071377	071877	PROV APP	05
26	GRESHAM BLINFORD FARMS SUBD	J071377	071877	PROV APP	05
8	GOLD BEACH GOLD BEACH #24-418-19 CH #2	V071177	071877	APPROVED	07
11	CONDON CONDON AFB	V071877	071877	MEMO TO ERO	00
2	CORVALLIS CRESCENT VALLEY INT PRELIM	V070677	071977	VERB COMM	13
34	USA ALOHA OAK RIDGE LID	J070577	071977	PROV APP	14
26	PORTLAND NE PRESCOTT ST & NE 42ND AVE	J070577	071977	PROV APP	12
34	USA ALOHA SKYVIEW 595	J070577	071977	PROV APP	14
8	BROOKINGS PIONEER VILLAGE SUB	J071177	071977	PROV APP	08
26	PORTLAND N WYGANT ST	J071177	071977	PROV APP	08
34	PORTLAND FANNO CREEK INT RELOCATION	J070777	071977	PROV APP	12
9	STAGE STOP STAGE STOP MEADOWS I AND II	K070177	072077	PROV APP	19
30	PENDLETON BLUE MT HEIGHTS - REVISED	K070577	072077	PROV APP	15
9	SUNRIVER SUNRIVER EXPANSION OF STP	V061577	072077	PROV APP	35
26	LAKE OSWEGO FIR LAKE # 2	J071377	072077	PROV APP	07
20	VENETA 6TH STREET HUNTER AV-BOLTON	K071277	072077	PROV APP	08
20	EUGENE HORIZON WEST	K070677	072177	PROV APP	15
36	NEWBERG VILLAGE PARK ADD REVISED	J051877	072177	PROV APP	64
36	NEWBERG CAMELOT ACRES	K070877	072177	PROV APP	13
20	EUGENE RIGGS SUBD	K071977	072177	PROV APP	02
20	EUGENE OAK CREST	K071977	072177	PROV APP	02
3	MOLALLA SCH T & S, MOLALLA	V062877	072277	PROV APP	24
36	NEWBERG BOYER MEADOWS	J071577	072277	VERB COMM	07
36	MCMINNVILLE RIVER PARK III SUBD	J071377	072277	PROV APP	09
10	GREEN SD CLEAR VIEW	K071577	072277	PROV APP	07
34	USA BRONSON CR TRUNK PRELIM	V063077	072377	VERB COMM	23

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality Division

July 1977

PLAN ACTIONS COMPLETED (112 cont.)

County	Name of Source/Project/Site and Type of Same	Date	Date of			Time to Complete Action
		Rec'd	Action	Action	Action	
34	HILLSBORO	ROCK CR IRRIG PUMP SYST	H062877	072577	PROV APP	27
22	HARRISBURG	MEADOWLARK HAVEN REV	K071577	072577	VERB COMM	10
20	SPRINGFIELD	COLT PARK	K071577	072577	PROV APP	10
10	ROSEBURG	MOOSE TRACTS SUBD	K071177	072577	PROV APP	14
20	SPRINGFIELD	HOMWOOD SUBD	K072177	072577	PROV APP	04
20	SPRINGFIELD	5350 MAIN ST	K071577	072577	PROV APP	10
26	TROUTDALE	CORBETH	J070677	072777	PROV APP	11
34	TUALATIN	SUN MEADOW	J070577	072777	PROV APP	22
24	STAYTON	NORTHSLOPE ADD NO 3	K070577	072777	PROV APP	22
20	EUGENE	38TH ST PUD	K071577	072777	PROV APP	12
15	MEDFORD	ARBORWOOD	J071577	072777	PROV APP	12
3	WEST LINN	STURBIDGE GLEN	J071577	072777	PROV APP	12
18	ODELL SD	ODELL EXT	J071377	072777	PROV APP	14
20	SPRINGFIELD	RIDGEVIEW 2ND ADD	K071177	072777	PROV APP	16
20	SPRINGFIELD	4TH ADD TO SEEGER	K071177	072777	PROV APP	16
15	PHOENIX	APRIL ADDITION	K071177	072777	PROV APP	16
10	ROSEBURG	BELL PARK	J072077	072777	PROV APP	07
10	ROSEBURG	BELL PARK SUBD	J071877	072777	PROV APP	09
36	NEWBERG	BOULEVARD PARK PRELIM	J071577	072877	PROV APP	13
22	LEBANON	WALKER MANOR & MANOR ADD	IMP K071177	072877	PROV APP	17
2	CORVALLIS	FULSANG ADD	K070777	072877	PROV APP	21
30	STANFIELD	STANFIELD HTS	K072577	072877	PROV APP	03
5	SCAPOOSE	GREEN MEADOWS	K072277	072877	PROV APP	06
3	WEST LINN	MOODY INV CO PLAT LOTS 14-18	J071877	072877	PROV APP	10
26	MULTNOMAH CO	FOSS PLACE	J071877	072877	PROV APP	10
34	USA DURHAM	DURHAM CH NOS 37, 38, 39	V070777	072977	APPROVED	22
2	PHILOMATH	ASH-BROOK III	K070577	072977	PROV APP	24
34	USA FOREST GR	JULIE LEE PARK - CORNELIUS	K071577	072977	PROV APP	14
3	WEST LINN	GREEN HILLS IV SUBD	J071577	072977	PROV APP	14
20	SPRINGFIELD	Q STREET	K071577	072977	PROV APP	14
34	USA FOREST GR	LOR-MAR PLAT NO 2	K071577	072977	PROV APP	14
34	USA ALOHA	ROCK CR RANCH NO 2	K071577	072977	PROV APP	14
34	USA ALOHA	ROCK CR HIGHLANDS NO 7	K071577	072977	PROV APP	14
24	SALEM-WILLOW	WILLOW LAKE EXP CH NO 8	V071577	072977	APPROVED	14
34	USA DURHAM	CROCODILE ACRES	K071377	072977	PROV APP	16
15	BUTTE FALLS	BUTTE FALLS SCH II CH 6	V071377	072977	APPROVED	16
13	HINES	HINES CHANGE 1-2-3	V071377	072977	APPROVED	16
9	BEND	BEND CHANGE 7	V071177	072977	APPROVED	18
2	CORVALLIS	CORVALLIS CH 57	V070777	072977	APPROVED	22
26	PORT O PORT	MARINA CH ORDER NO 1	V071577	072977	APPROVED	14
34	USA	ROCK CR CONT 46 ADD NO 3	V071577	072977	APPROVED	14
29	NTCSA	WORK ORDER B-1-6	V071577	072977	PROV APP	14
10	GLENDALE	ADDENDA NOS. 1	V071577	072977	APPROVED	14
34	USA ALOHA	JESTA HILLS #3	K072677	072977	PROV APP	03
2	CORVALLIS	CORVALLIS CH 53, 62 & 64	V072277	072977	APPROVED	07
21	NEWPORT	NEWPORT-AGATE BEACH W 5-1977	K071977	072977	PROV APP	10
34	USA DURHAM	USA-DURHAM CH 34, 40, 41, 42	V071877	072977	APPROVED	11
31	UNION	UNION CHANGE 6	V071877	072977	APPROVED	11
34	USA ALOHA	185TH AVE EXT 586	K071877	072977	PROV APP	11
27	DALLAS	SHERWOOD FOREST #4	J072977	080177	PROV APP	03
10	TRI-CITY SD	CAMELOT PLACE SUBD-PHASE 1	J072277	080577	VERB COMM	14

Department of Environmental Quality  
 Technical Programs

Monthly Activity Report

Water Quality  
 (Program)

July 1977  
 (Month and Year)

Plan ACTIONS COMPLETED (112 cont.)

City and County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>Industrial Waste Sources --8</u>			
Clackamas	Crown Zellerbach-West Linn- Filter back wash line	7-1-77	Approved
Douglas	Douglas County Lumber I-5, Leachate control	7-5-77	Approved
Douglas	Douglas County Lumber I-5, Oil/Water Separator	7-5-77	Approved
Marion	Van Smooranburg Dairy Gervais, Uncontaminated water drainage system	7-8-77	Approved
Polk	Cedar Oaks Dairy, Dallas, Animal Waste Disposal and storm water control	7-13-77	Approved
Lane	Weyerhaeuser-Springfield Nutrient storage tank	7-18-77	Approved
Lane	Georgia Pacific-Toledo Seal water recirculation system	7-19-77	Approved
Marion	Edelweiss Egg Farm, Mt. Angel, Manure management	7-21-77	Approved

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality Division  
(Reporting Unit)

July 1977  
(Month and Year)

SUMMARY OF WATER PERMIT ACTIONS

	Permit Actions Received		Permit Actions Completed		Permit Actions Pending	Sources Under Permits	Sources Reqr'g Permits
	Month	Fis. Yr.	Month	Fis. Yr.			
	*   **	*   **	*   **	*   **			
<u>Municipal</u>							
New					3   3		
Existing	2	2			5		
Renewals			7	7	78   5		
Modifications	2	2	1	1	9		
Total	2   2	2   2	8	8	90   13	300   68	303   76
<u>Industrial</u>							
New	2   2	2   2	2	2	5   7		
Existing					1   3		
Renewals	2   2	2   2	12	12	30   7		
Modifications			2	2	8		
Total	4   4	4   4	15	15	54   17	433   89	439   99
<u>Agricultural (Hatcheries, Dairies, etc.)</u>							
New			1				
Existing							
Renewals							
Modifications							
Total			1			66   9	66   9
<u>GRAND TOTALS</u>	6   6	6   6	24	24	144   30	799   166	808   184

\* NPDES Permits

\*\* State Permits

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality  
(Reporting Unit)

July, 1977  
(Month and Year)

PERMIT ACTIONS COMPLETED (24)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Lincoln	Bumble Bee Seafoods Newport Plant	7-1-77	Discharge Eliminated
Multnomah	Port of Portland Ship repair	7-20-77	NPDES Modified
Marion	Stayton Canning Co. Brooks	7-20-77	NPDES Permit Renewed
Washington	City of Tualatin Sewage Disposal	7-20-77	NPDES Permit Renewed
Douglas	Woolley Enterprises Smith River	7-20-77	NPDES Permit Renewed
Lincoln	Paterson Seafood Newport	7-20-77	NPDES Permit Renewed
Douglas	Woolley Enterprises Drain	7-20-77	NPDES Permit Renewed
Coos	Eureka Fisheries Coos Bay	7-20-77	NPDES Permit Renewed
Multnomah	Pacific Supply Coop. Portland	7-20-77	NPDES Permit Renewed
Multnomah	Ash Grove Cement Portland	7-20-77	NPDES Permit Renewed
Washington	Ramada Inn Sewage Disposal	7-20-77	NPDES Permit Renewed
Multnomah	Anodizing, Inc. Portland	7-20-77	NPDES Permit Renewed
Multnomah	Crown Zellerbach Flexible Packaging	7-25-77	NPDES Permit Renewed
Lincoln	City of Toledo Sewage Disposal	7-20-77	NPDES Permit Renewed
Tillamook	Smith Pacific Shrimp	7-25-77	NPDES Permit Renewed

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality  
(Reporting Unit)

July, 1977  
(Month and Year)

PERMIT ACTIONS COMPLETED (24 cont.)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Umatilla	City of Pendleton Sewage Disposal	7-25-77	NPDES Permit Modified
Multnomah	City of Gresham Sewage Disposal	7-25-77	NPDES Permit Renewed
Tillamook	Hoy Bros. Fish & Crab Garibaldi	7-25-77	NPDES Permit Renewed
Josephine	George & Harvey Smith Placer Mine	7-25-77	NPDES Permit Issued
Lane	Douglas High School Sewage Disposal	7-25-77	NPDES Permit Renewed
Coos	Oregon State Highway Division Bullards Beach	7-28-77	NPDES Permit Renewed
Clackamas	Clear Creek Rainbow Ranch, Inc. Fish Hatchery	7-29-77	NPDES Permit Issued
Umatilla	Pendleton Grain Growers Pendleton	7-29-77	NPDES Permit Issued
Clackamas	Willow Island Mobile Estates Sewage Disposal	7-29-77	NPDES Permit Renewed
Linn	Permaneer Corp. ie; Woodex, Inc.	7-28-77	NPDES Permit Transfer

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality  
(Reporting Unit)

July 1977  
(Month and Year)

PLAN ACTIONS COMPLETED

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>Direct Stationary Sources</u>			
Multnomah (NC835)	Portland-Pacific Supply, Rivergate area. Fertilizer plant with bag- house control.		Removed from report until contract let.
Linn (NC900)	Teledyne Wah Chang. Zr oxidation station.	4/4/77	Approved.
Umatilla (NC925)	Eastern Oregon Hospital. Incinerator.	7/8/77	Approved.
Clatsop (NC928)	Bumble Bee Seafoods. Fish rendering.	6/29/77	Approved.
Linn (NC929)	Duraflake. Baghouse on gooseneck.	6/2/77	Approved.
Linn (NC936)	Woodex, Inc. Rotary dryer.	7/15/77	NC approved. Tax credit disapproved by EQC.
Multnomah (NC938)	Hercules Incorporated. Change of rosin solvent.	6/30/77	Approved.
Lane (NC939)	Weyerhaeuser - Cottage Grove. Boiler modifications.	6/8/77	Approved. (Tax credit only)
Clatsop (NC940)	Warrenton Lumber Co. New hogged fuel boiler.	6/21/77	Approved.
Portable (NC942)	J. C. Compton Co. Asphalt plant.	6/8/77	Approved.
Portable (NC949)	C. H. Stinson, Inc. Asphalt plant.	7/15/77	Approved.
Jackson (NC951)	Down River Forest Products. Vinyl line baghouse.	6/21/77	Approved.
Jackson (NC952)	Boise Cascade - Medford. Controls on eight cyclones.	6/27/77	Approved.

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality  
(Reporting Unit)

July 1977  
(Month and Year)

SUMMARY OF AIR PERMIT ACTIONS

	Permit Actions Received		Permit Actions Completed		Permit Actions Pending	Sources under Permits	Sources Reqr'g Permits
	<u>Month</u>	<u>Fis.Yr.</u>	<u>Month</u>	<u>Fis.Yr.</u>			
<u>Direct Sources</u>							
New	<u>4</u>	<u>4</u>	<u>2</u>	<u>2</u>	<u>15</u>		
Existing	<u>12</u>	<u>12</u>	<u>2</u>	<u>2</u>	<u>31</u>		
Renewals			<u>5</u>	<u>5</u>	<u>32</u>		
Modifications	<u>10</u>	<u>10</u>	<u>9</u>	<u>9</u>	<u>22</u>		
Total	<u>26</u>	<u>26</u>	<u>18</u>	<u>18</u>	<u>100</u>	<u>1717</u>	<u>1763</u>
<u>Indirect Sources</u>							
New	<u>2</u>	<u>2</u>	<u>3</u>	<u>3</u>	<u>12</u>		
Existing							
Renewals							
Modifications							
Total	<u>2</u>	<u>2</u>	<u>3</u>	<u>3</u>	<u>12</u>	<u>56</u>	
<u>GRAND TOTALS</u>	<u>28</u>	<u>28</u>	<u>21</u>	<u>21</u>	<u>112</u>		



DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality  
(Reporting Unit)

July 1977  
(Month and Year)

PERMIT ACTIONS COMPLETED (21)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>Direct Stationary Sources (18)</u>			
Clackamas	Oregon Portland Cement 03-1840, Modification	6/16/77	Permit Issued
Grant	Hudspeth Sawmill 12-0004, Modification	6/21/77	Permit Issued
Jackson	Oregon Military Department 15-0099, Existing	6/23/77	Permit Issued
Jefferson	Warm Springs Forest Products 16-0008, Modification	7/18/77	Addendum Issued
Klamath	Custom Rock and Paving 18-0012, Modification	6/23/77	Permit Issued
Linn	Linn County Dog Control 22-1503, Renewal	6/23/77	Permit Issued
Linn	Lebanon Community Hospital 22-5091, Renewal	6/23/77	Permit Issued
Linn	Scroggin Feed and Seed 22-5148, Modification	6/23/77	Permit Issued
Linn	Boise Cascade 22-7008, Renewal	6/21/77	Permit Issued
Marion	Department of General Services 24-5664, Renewal	6/23/77	Permit Issued
Multnomah	Louis Dreyfus Corporation 26-2000, Modification	6/27/77	Addendum Issued
Multnomah	Rich Manufacturing 26-2016, Modification	6/21/77	Permit Issued
Portable	Robert C. Gilbert 37-0010, Modification	6/23/77	Permit Issued
Portable	Rogue West, Inc. 37-0028, Modification	6/23/77	Permit Issued

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality  
(Reporting Unit)

July 1977  
(Month and Year)

PERMIT ACTIONS COMPLETED (21 cont.)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>Direct Stationary Sources (continued)</u>			
Portable	C. H. Stinson 37-0047, Renewal	6/23/77	Permit Issued
Portable	Three Way Portable Crushing 37-0158, Existing	6/21/77	Permit Issued
Portable	Babler Brothers 37-0168, New	6/21/77	Permit Issued
Portable	J. C. Compton 37-0173, New	6/21/77	Permit Issued
<u>Indirect Sources (3)</u>			
Washington	Washington Square Shopping Center, 1,200 spaces approved along with 2 restaurants and a 1,200 seat theater. File No. 34-6021	7/15/77	Final permit issued.
Multnomah	Mount Hood Highway (Ross Island Br.-52nd Ave. Section--Phase 1), 4 lane urban arterial highway. File No. 26-6029	7/29/77	Final permit issued.
Benton	East Parking Lot and Building No. 3, Hewlett Packard Advanced Products Plant--new plant building with 432 associated spaces. File No. 02-7010	7/29/77	Final permit issued.

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Solid Waste Division  
(Reporting Unit)

July 1977  
(Month and Year)

PLAN ACTIONS COMPLETED (3)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Linn	Lebanon Mill Landfill Existing Site Operational Plan	3/29/77	Approved
Lane	Prentice Wolf New Site Operational Plan	7/5/77	Letter of Authorization
Sherman	DeMoss Landfill Existing Site Closure Plan	7/13/77	Approved
Clatsop	Warrenton Landfill Existing Site Operational Plan	7/11/77	Approved

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Solid Waste Division  
(Reporting Unit)

July 1977  
(Month and Year)

SUMMARY OF SOLID AND HAZARDOUS WASTE PERMIT ACTIONS

	Permit Actions Received		Permit Actions Completed		Permit Actions Pending	Sites Under Permits	Sites Reqr'g Permits
	Month	Fis.Yr.	Month	Fis.Yr.			
<u>General Refuse</u>							
New					2		
Existing					21 (*)		
Renewals					4		
Modifications	2	2			2		
Total	2	2			29	184	186
<u>Demolition</u>							
New					1		
Existing					1		
Renewals					1		
Modifications							
Total					3	20	22
<u>Industrial</u>							
New			2	2			
Existing					7 (*-3)		
Renewals			1	1	3		
Modifications							
Total			3	3	10	90	94
<u>Sludge Disposal</u>							
New							
Existing							
Renewals	1	1			3		
Modifications							
Total	1	1			3	5	5
<u>Hazardous Waste</u>							
New							
Authorizations	4	4	28	28	2		
Renewals							
Modifications							
Total	4	4	28	28	2	1	1
<u>GRAND TOTALS</u>	<u>7</u>	<u>7</u>	<u>31</u>	<u>31</u>	<u>47</u>	<u>300</u>	<u>308</u>

\*Sites operating under temporary permits until regular permits are issued - total 24.

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Solid Waste Division  
(Reporting Unit)

July 1977  
(Month and Year)

PERMIT ACTIONS COMPLETED (31)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>General Refuse (Garbage) Facilities</u> - - - None			
<u>Demolition Waste Facilities</u> - - - None			
<u>Sludge Disposal Facilities</u> - - - None			
<u>Industrial Waste Facilities</u> (3)			
Linn	Willamette Industries new facility	6-23-77	Letter authoriz- ation issued.
Lane	Prentice Wolf new facility	7-5-77	Letter authoriz- ation issued.
Tillamook	Crown Zellerbach Hallinan Road existing facility	7-11-77	Permit issued. (renewal)
<u>Hazardous Waste Facilities</u> (28)			
Gilliam	Chem-Nuclear Systems existing facility	7-1-77	Two (2) disposal authorizations approved (wood treating chemicals and pesticides).
"	" " " existing facility	"	Six (6) verbal authorizations for small quantities of chemical wastes were confirmed in writing.
"	" " " existing facility	7-11-77	Disposal authoriz- ation approved (various toxic laboratory chemicals).

MONTHLY ACTIVITY REPORT

Solid Waste Division  
 (Reporting Unit)

July 1977  
 (Month and Year)

PERMIT ACTIONS COMPLETED (31 - cont.)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>Hazardous Waste Facilities</u> (continued)			
Gilliam	Chem-Nuclear Systems existing facility	7-12-77	Disposal authoriz- ation amended (flammable sludge).
"	" " " existing facility	7-15-77	Fifteen (15) verbal authorizations for small quantities of chemical wastes were confirmed in writing.
"	" " " existing facility	7-21-77	Disposal authoriz- ation amended (nitrate salts).
"	" " " existing facility	7-25-77	Disposal authoriz- ation approved (flammable sludge).
"	" " " existing facility	7-27-77	Disposal authoriz- ation amended (plating sludge).

APPENDIX B

Department of Environmental Quality  
Technical Programs

Permit and Plan Actions

August 1977

<u>Water Quality Division</u>	<u>Page</u>
12 . . Plan Actions Completed - Summary	1
Plan Actions Completed - Listing	2
25 . . Plan Actions Pending - Summary	1
27 . . Permit Actions Completed - Summary	7
Permit Actions Completed - Listing	8
160 . . Permit Actions Pending - Summary	7
 <u>Air Quality Division</u>	
211 . . Plan Actions Completed - Summary	1
Plan Actions Completed - Listing	10
62 . . Plan Actions Pending - Summary	1
58 . . Permit Actions Completed - Summary	12
Permit Actions Completed - Listing	13
103 . . Permit Actions Pending - Summary	12
 <u>Solid Waste Management Division</u>	
3 . . Plan Actions Completed - Summary	1
Plan Actions Completed - Listing	15
12 . . Plan Actions Pending - Summary	1
31 . . Permit Actions Completed - Summary	16
Permit Actions Completed - Listing	17
41 . . Permit Actions Pending - Summary	16

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air, Water & Solid  
Waste Divisions  
(Reporting Unit)

August 1977  
(Month and Year)

SUMMARY OF PLAN ACTIONS

	Plans Received		Plans Approved		Plans Disapproved		Plans Pending
	Month	Fis.Yr.	Month	Fis.Yr.	Month	Fis.Yr.	
<u>Air</u>							
Direct Sources	15	24	12	23			25
Total	15	24	12	23			25
<u>Water</u>							
Municipal	184	333	200	304			51
Industrial	10	23	11	19			11
Total	194	356	211	323			62
<u>Solid Waste</u>							
General Refuse	2	4	1	2			7
Demolition		1	1	1			1
Industrial	3	5	1	3			4
Sludge							
Total	5	10	3	6			12
<u>Hazardous Wastes</u>							
<u>GRAND TOTAL</u>	214	390	226	352			99



DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality Division

August 1977

PLAN ACTIONS COMPLETED - 211

County	Name of Source/Project/Site and Type of Same	Date Rec'd	Date of Action	Action	Time to Complete Action
	<b>Municipal Sources - 200</b>				
3	CLATSOP COUNTY WEST ARBOR ESTATES	K072077	072177	PROV APP	01
22	ALBANY MONTANYA VISTA,	K072077	080277	PROV APP	13
22	ALBANY DEERFIELD	K072077	080277	PROV APP	13
22	ALBANY MILLER ADD	K072177	080277	PROV APP	12
22	ALBANY EDGEWOOD ESTATES	K072177	080277	PROV APP	12
22	ALBANY 24TH & UMATILLA	K072177	080277	PROV APP	12
22	ALBANY 15TH AVF WEST OF GEARY	K072177	080277	PROV APP	12
22	ALBANY FFERRY STREET	K072077	080277	PROV APP	13
2	COVALLIS CORVALLIS CH NOS 66 & 68	V080277	080277	APPROVED	00
5	CLATSKANIE CLATSKANIE CH NO 3	V080277	080277	APPROVED	00
34	USA ROCK CR CONTR NO 42 CHANGE 2	V080277	080277	APPROVED	00
8	KNOXTOWN SD LAGOON EXPANSION	V071577	080377	VERB CMNTS	19
24	SALEM-WILLOW WOODSCAPE	J071577	080377	PROV APP	19
24	SALEM-WILLOW ASHWOOD PARK	J070577	080377	PROV APP	29
24	SALEM-WILLOW MACLEAY ESTATES NO 3	J070577	080377	PROV APP	29
24	SALEM WILARK PARK WEST NO 5	J072877	080377	PROV APP	06
24	SALEM COUNTRY ESTATES SUBD	J071577	080377	PROV APP	19
24	SALEM S PACIFIC RIGHT OF WAY	J072577	080377	PROV APP	09
24	SALEM S CENTRAL SALEM SSS REPL	J071277	080377	PROV APP	23
24	SALEM FIRCREST-PHASE II	J071177	080377	PROV APP	23
24	SALEM SKYLINE RD S FR DISTIN CT SW	J070777	080377	PROV APP	31
26	TRUXTONDALE CORBETH REV SHEET 8	J072877	080377	PROV APP	06
15	MENFORD BIG Y TRUNK SEWER	J072577	080377	PROV APP	09
21	GLADSTON SD FIR RIDGE ROAD	J072277	080377	PROV APP	12
15	BCVSA GRISSEM-BCVSA ON AVF A PREF.	J071577	080377	PROV APP	19
15	ROUHE RIVER WEST EVANS CREEK ROAD	J070777	080377	PROV APP	31
29	TWIN ROCKS TWIN ROCKS-BOR TURNER DEV	K071977	080477	PROV APP	16
23	VALE OREGON STREET PUMP STA REV	V071577	080577	PROV APP	21
24	SALEM WALT WEST APT COMPLEX	J072577	080577	PROV APP	11
24	SALEM VISTAVIEW EST	J072577	080577	PROV APP	11
24	SALEM NEVENS ADD	J072977	080577	PROV APP	07
3	GLADSTONE REVISED DEEP WOODS	J080277	080577	PROV APP	03
2	COVALLIS AIRPORT LAGOON SPRINKLERS	V061777	080577	PROV APP	48
9	REYBOND SEWER CLEANER TRUCK	V062077	080577	APPROVED	45
24	GRECHAM SW 27TH ST	J072277	080777	PROV APP	13
8	KNOXTOWN SD KNOXTOWN LAGOON IMPS REV	V080477	080877	PROV APP	04
2	COVALLIS CRESCENT VALLEY	V080577	080877	PROV APP	03
18	KLAYATH FALLS LYNNEWOOD 1ST ADD	K072577	080977	PROV APP	15
34	FOREST GROVE FOREST GROVE SS	J080477	080977	PROV APP	05
10	TRI-CITY SD REVISED CAMELOT PLACE PH I	J080877	080977	PROV APP	01
30	UMATILLA 2ND ST EXT	K072577	081077	PROV APP	16
27	W SALEM HIDDEN VALLEY EST #2	J071177	081077	PROV APP	33
26	PORTLAND SE CLATSOP ST & SE CLATS CT	J071877	081077	PROV APP	23
26	PORTLAND SW ORCHARD HILL LN, PL, WAY ET	J072177	081077	PROV APP	20
26	PORTLAND SW ROBERT CT	J072577	081077	PROV APP	16
26	PORTLAND SE BERKELEY PL, E OF SE TAC	J072277	081077	PROV APP	19
26	PORTLAND SW 14TH DR & SW KARI LANE	J072877	081077	PROV APP	13
26	PORTLAND JOHNS LANDG N OF SW SWEENEY	J072877	081077	PROV APP	13
8	HARBOR SD STAN & NATE SMITH RES	J072677	081077	PROV APP	15
36	NEBERG STEVAHN IMP	J072877	081077	PROV APP	13
27	DALLAS SHERWOOD FOREST #4	J072577	081077	PROV APP	16
3	CCSD #1 TRI CITY CENTER #1 & #2	J071177	081077	PROV APP	30
24	WOODBURN THE MEADOW PH I MEADOWPARK	J080277	081077	PROV APP	08

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality Division

August 1977

PLAN ACTIONS COMPLETED

County	Name of Source/Project/Site and Type of Same	Date Rec'd	Date of Action	Action	Time to Complete Action	
25	PORTLAND	SW WYNDHAM LANE	J080277	081077	PROV APP	08
26	PORTLAND	SE 79TH AVE	J080277	081077	PROV APP	08
36	MCMINNVILLE	PLAN SHEET #2269	J080277	081077	PROV APP	08
26	PORTLAND	SF KNAPP ST	J080377	081077	PROV APP	07
35	NEWBERG	SPAULDING OAKS	J080977	081077	PROV APP	01
20	EUGENE	ANNAMIDAZ SUBD	K072577	081177	PROV APP	17
20	EUGENE	3RD ADD FIRLAND HTS.	K072577	081177	PROV APP	17
20	EUGENE	HUMBOLDT SUBD	K072577	081177	PROV APP	17
20	EUGENE	LEO & BETTY DAVIS SUBD	K072577	081177	PROV APP	17
34	USA ALOHA	SPRINGRIDGE NO 2	K072677	081177	PROV APP	15
20	SPRINGFIELD	REXFORD SUBD	K072877	081177	PROV APP	14
2	SPRINGFIELD	BALDERSTON SEWER	K080977	081177	PROV APP	02
3	LAKE OSWEGO	MAPLE ST EXT	K080277	081177	PROV APP	09
34	USA DURHAM	BARTON SUBD TIGARD	K080277	081177	PROV APP	09
20	EUGENE	W.C. FIELDS SUBD	K080277	081177	PROV APP	09
20	EUGENE	TAX LOT 2100 MAP 18-03-16-30	K080277	081177	PROV APP	09
20	EUGENE	SAILOR FLATS SUBD	K080277	081177	PROV APP	09
24	USA DURHAM	RENEE PARK-TIGARD	K080377	081177	PROV APP	08
24	USA DURHAM	S# 77TH AVE IMP	K080477	081177	PROV APP	04
24	USA-SOMERSET	WROCK CREEK VILLAGE #2	K080477	081177	PROV APP	07
20	SPRINGFIELD	MAJOR PARTITION #540 B & C	K080477	081177	PROV APP	07
34	USA DURHAM	LAUNALYNDA PARK	K080577	081177	PROV APP	06
3	WEST LINN	HILL-HOUSE NO 2	J080577	081177	PROV APP	06
34	USA DURHAM	JACQUELYN COURT	K080977	081177	PROV APP	02
26	GRESHAM	CORNETT PARK	J080977	081177	PROV APP	02
20	SPRINGFIELD	FERNCREST FOR GERALD BALDER	K080977	081177	PROV APP	02
17	GRANTS PASS	DEWEY DRIVE	J080877	081177	PROV APP	03
34	USA TIGARD	KER-WOOD ESTATES	J081077	081177	PROV APP	01
22	HARRISBURG	MEADOWLARK HAVEN - REVISED	K081177	081177	PROV APP	00
17	GRANTS PASS	CAL PAC	J080877	081177	PROV APP	03
5	COOS COUNTY	CHARLESTON SD LAT E-1 & K-4	J072577	081177	PROV APP	17
32	ENTERPRISE	RIVER BEND MANOR MOBILE HOME	K072277	081277	PROV APP	21
15	CENTRAL PT	GREEN GLEN PHASE 1	K072877	081277	PROV APP	15
36	NEWBERG	BOYER MEADOWS IMPS	J072977	081277	PROV APP	14
34	TUALATIN	BOONES FERRY PLAZA	J080277	081277	PROV APP	10
34	TUALATIN	SUN MEADOW REVISED	J080477	081277	PROV APP	08
34	TUALATIN	STONFRIDGE SUBD	J081077	081277	PROV APP	02
3	WEST LINN	BRISTOL PARK	J072677	081576	PROV APP	20
1	BAKER	DIST #4 SEWER IMP	K072877	081577	PROV APP	18
1	BAKER	VIRGINIA AVENUE	K072877	081577	PROV APP	18
3	WEST LINN	WILLAMETTE STP PUMP BLDG	V071577	081577	PROV APP	31
5	SCAPPOOSE	OAK ST ADDITION	K080277	081577	PROV APP	13
20	EUGENE	MOUNTAIN VALLEY	K080277	081577	PROV APP	13
24	SALEM WILLOW	ACADEMY HTS	J080577	081577	PROV APP	10
5	SCAPPOOSE	SCAPPOOSE HTS NO 2	K080577	081577	PROV APP	10
3	BEND	CHOCTAW VILLAGE	K080977	081577	TC CRQ	06
26	LAKE OSWEGO	EVERGREEN-MIDDLE TRYON CR	K072877	081677	PROV APP	19
3	OREGON CITY	DELS ADD	J072677	081677	PROV APP	21
3	WILSONVILLE	THUNDERBIRD MOH HOMES UNIT 28	J072977	081677	PROV APP	18
36	MCMINNVILLE	NORTH ORCHARD	J080577	081677	PROV APP	11
17	CAVE JUNCTION	VALLEY VILLAGE	J081177	081677	PROV APP	05
3	LAKE OSWEGO	EVERGREEN KO-MIDDLE TRYON	V080177	081677	PROV APP	15
3	GLADSTONE	RIDGEGATE II SUBD	J072877	081777	PROV APP	20

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality Division

August 1977

PLAN ACTIONS COMPLETED

County	Name of Source/Project/Site and Type of Same	Date Rec'd	Date of Action	Action	Time to Complete Action	
26	GRESHAM	SHAKE RIDGE TERRACE SUBD	J080277	081777	PROV APP	15
8	BROOKINGS	KING STREET	K080277	081777	PROV APP	09
26	MULT CO	SUNLIGHT HOLDING CO WA-MU	J080377	081777	PROV APP	14
34	USA ALOHA	TANASBROOK	K080477	081777	PROV APP	04
36	NEBERG	500 BLOCK SHERMAN ST	J080577	081777	PROV APP	12
24	SALEM	CROISSON VILLAGE	J081077	081777	PROV APP	07
24	USA DURHAM	HAZELTRFE HILL	K081577	081777	PROV APP	02
34	USA DURHAM	HAVENCREST 608	K081577	081777	PROV APP	02
34	USA ALOHA	ELDON COURT 272	K081577	081777	PROV APP	02
34	USA FOREST GR	HANEY TRUCK LINE IND PARK	K081577	081777	PROV APP	02
34	USA FOREST GR	TARRYBROOKE IV	K081577	081777	PROV APP	02
34	USA ALOHA	ARNOLTI ADD 611	K081577	081777	PROV APP	02
27	DALLAS	GREENWAY PARK	J081177	081877	PROV APP	07
4	NORTH BEND	ASH ST	J081577	081877	PROV APP	03
17	GRANTS PASS	OREGON AVE	J081577	081877	PROV APP	03
15	PHOENIX	FREEDOM SUBD	J081677	081877	PROV APP	02
10	GLIDE	GLIDE PRESS SEW UNIT A FINAL	V061577	082277	PROV APP	68
15	ROGUE RIVER	ROGUE RIVER CATWALK	V080877	082277	PROV APP	14
24	KEIZER S.D.	WARNER PARK SUBD	J081177	082277	PROV APP	11
24	SALEM	BOONESBOROUGH PHASE 1	J081177	082277	PROV APP	11
21	TOLEDO	WESTWOOD TERRACE	J081577	082277	PROV APP	07
3	LAKE OSWEGO	BOONES BROOK NO 2	J081577	082277	PROV APP	07
34	FOREST GROVE	TALISMAN HILLS PLAT NO 2	J081577	082277	PROV APP	07
24	SALEM	SUNNYVIEW AVE EXT	J081577	082277	PROV APP	07
23	VALE	VALE PROJ PUMP STATIONS	V081577	082277	PROV APP	07
23	ONTARIO	E IDAHO AVE EXT	J081777	082277	PROV APP	05
6	NORTH BEND	CEDAR ST NEWMARK TO KINNEY	J081777	082277	PROV APP	05
34	TUALATIN	AKROYOOD SUBDIV	K082377	082377	PROV APP	00
6	BUNKER HILL	4TH & BUCHANAN ST	J081577	082377	PROV APP	08
24	SALEM	SERRA TERRA NO 2 PHASE 1	J081577	082377	PROV APP	08
5	COLUMBIA CITY	BILL HENSEL PROJECT	V080177	082377	PROV APP	22
22	ALBANY	EDGEWOOD ESTATES 1ST	K080377	082477	PROV APP	21
22	ALBANY	17TH AVE EAST OF GEARY	K080377	082477	PROV APP	21
34	USA DURHAM	PORTOLA AVE EXT -609-	J081177	082477	PROV APP	13
24	USA DURHAM	WATKINS PLACE	J081177	082477	PROV APP	13
8	GOLD BEACH	HOMER MOHN SUBD	J081877	082477	PROV APP	06
34	USA ALOHA	HERITAGE VIL 111	K081777	082577	PROV APP	08
9	BEND	HOLIDAY PARK	J081577	082577	PROV APP	10
34	USA ALOHA	MAPLE HILL SEWER 613	K081777	082577	PROV APP	08
34	HILLSBORO	CORNELL PLACE PHASE II	J081777	082577	PROV APP	08
3	WEST LINN	LOWER MARK LANE	J081777	082577	PROV APP	08
34	USA DURHAM	METZGER ACRE TRACTS 604E	K081777	082577	PROV APP	08
24	USA DURHAM	PEARL SUBD	K081877	082577	PROV APP	07
24	HILLSBORO	MAF AUGUSTA ACRES #2 SUBD	K080177	082677	PROV APP	25
34	HILLSBORO	JEWELL ACRES	K080177	082677	PROV APP	25
34	HILLSBORO	DANVILLE SUBD	K080177	082677	PROV APP	25
4	WARRENTON	WILDWOOD PUD & PS	K081577	082677	PROV APP	11
3	OREGON CITY	DFLS ADDITION	K080877	082677	PROV APP	18
15	ASHLAND	HERSEY ST IMPS	K081077	082677	PROV APP	16
4	WARRENTON	WARRENTON LID NO 1	K081577	082677	PROV APP	11
24	USA ROCK CR	ROCK CR LAB EQUIPT	V071377	082977	APPROVED	47
34	USA	LOWER TUAL INT CHANGE 1	V082377	082977	APPROVED	06
29	CLOVERDALE	CLOVERDALE SCHED I, CHANGE #2	V080377	082977	APPROVED	26

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality Division

August 1977

PLAN ACTIONS COMPLETED

County	Name of Source/Project/Site and Type of Same	Date Rec'd	Date of Action	Action	Time to Complete Action
4	ASTORIA VISTA PARK PHASE I	K080377	082977	PROV APP	26
2	CORVALLIS CORVALLIS CHANGE 65	V080477	082977	APPROVED	25
12	GLENDALE GLENDALE PROJ #2032-E-74 AD2	V080677	082977	APPROVED	21
2	CORVALLIS CORVALLIS CHANGE 56 REVISED	V080977	082977	APPROVED	20
12	GLENDALE GLENDALE 2032-E-74 ADD 3	V081077	082977	APPROVED	19
20	SPRINGFIELD LOT A & B MAJOR PART #509	K081177	082977	PROV APP	18
20	SPRINGFIELD RAVENWOOD	K081177	082977	PROV APP	18
20	SPRINGFIELD NORTHTOWNE I	K081177	082977	PROV APP	18
20	SPRINGFIELD 42ND & MAIN	K081577	082977	PROV APP	14
34	USA ROCK CR ROCK CREEK CONTR NO 52	V081577	082977	APPROVED	14
20	SPRINGFIELD N 62ND ST SANDRAS PLAT	K081577	082977	PROV APP	14
2	CORVALLIS DOROTHY ADD	K081777	082977	PROV APP	12
2	CORVALLIS IRONWOOD 2ND ADD	K081777	082977	PROV APP	12
34	USA BRONSON CR TRUNK	V081777	082977	PROV APP	10
5	CLATSkanie CLATSK PHASE II CHANGE 4	V082477	082977	APPROVED	05
31	COVE COVE CH R-1 TO SCH B	V082977	082977	APPROVED	00
6	NORTH BEND CHANGE ORDER NO 6	V080177	082977	APPROVED	28
16	REDFORD CONTRACT MOD NO 1- 4 CONT	V080177	082977	APPROVED	28
11	ARLINGTON ARLINGTON EXT	K080877	083077	PROV APP	22
24	SALEM SFW SIXACRES SUBDIV	K081577	083077	PROV APP	15
24	SALEM WIL L BAXTER PARK NO 3	K081577	083077	PROV APP	15
20	EUFENE EDGEWOOD MT III	K081177	083077	PROV APP	19
17	FRUIT-HARBECK ELIASON SUBD - UNIT 2	K081577	083077	PROV APP	15
24	ADWVILLE DEL MAR ADDITION NO 3	K081577	083077	PROV APP	15
24	WOODBURN SMITHS ADD NO 3	K081877	083077	PROV APP	12
24	SALEM SUNNYRIDGE SUBD	J081977	083077	PROV APP	11
34	USA ALOHA 185TH AVE IMP 615	K081977	083077	PROV APP	11
3	OAK LODGE SD WHITMIRE ADD	K081977	083077	PROV APP	11
17	GRANTS PASS GILBERT CREEK LATERAL	K081977	083077	PROV APP	11
2	CORVALLIS CHARLEMAGNE 1ST ADD	K082977	083177	PROV APP	02
20	EUFENE CRESCENT MOON #77 -1	K081777	083177	PROV APP	14
26	GRESHAM HOOD CENTER PROF BLDG	K081977	083177	PROV APP	12
16	MADRAS MADRAS SCHED S LAT A17	K081977	083177	PROV APP	12
10	RICE HILL W PRESCOTT AVE	K081977	083177	PROV APP	12
20	SPRINGFIELD WARDELL ACRES	K082277	083177	PROV APP	09
20	SPRINGFIELD RAINBOW DRIVE	K082277	083177	PROV APP	09
20	SPRINGFIELD MIMOSA PARK FIRST ADDN	K082277	083177	PROV APP	09
20	SPRINGFIELD EVERGLADE PARK REVISED	K082277	083177	PROV APP	09
3	OAK LODGE SD JAKES PLACE	K082477	083177	PROV APP	07
15	RODUE RIVER BROOKSIDE VILLAGE PHASE II	K082477	083177	PROV APP	07
17	GRANTS PASS SUNHILL SUBDIVISION	K082477	083177	PROV APP	07

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality  
(Reporting Unit)

August 1977  
(Month and Year)

PLAN ACTIONS COMPLETED -- 211

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>INDUSTRIAL WASTE SOURCES (11)</u>			
Yamhill	Stayton Canning - Dayton Aeration basin	8-1-77	Approved
Lincoln	Oregon Aqua Foods Newport - pond cleaning Waste water settling	8-1-77	Approved
Columbia	Reichold Chemical Deer Island, Scrubber water treatment, Prill tower	8-1-77	Approved
Yamhill	Sokol Blosser Winery Dayton-Waste treatment & Disposal facilities	8-2-77	Approved
Douglas	Douglas County Lumber 1-5, Back up pump for leachate	8-5-77	Approved
Linn	Champion Building Products Lebanon, Treatment & recirculation, misc. waste waters	8-17-77	Approved
Yamhill	Pamplin Hog Farm - Dundee Farrowing Manure tank	8-19-77	Approved
Columbia	Boise Cascade - St. Helens Lagoon, pH adjustment	8-23-77	Approved
Lincoln	Georgia Pacific - Toledo Oil/Water separator	8-26-77	Approved
Marion	Mallories Dairy - Silverton Barn Wash down water disposal	8-26-77	Approved
Multnomah	Palmco, Inc. - Portland Installation of Air Flotation Grease Separator	8-31-77	Approved

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality Division  
(Reporting Unit)

August 1977  
(Month and Year)

SUMMARY OF WATER PERMIT ACTIONS

	Permit Actions Received		Permit Actions Completed		Permit Actions Pending	Sources Under Permits	Sources Reqr'g Permits
	Month	Fis. Yr.	Month	Fis. Yr.			
	*   **	*   **	*   **	*   **			
<u>Municipal</u>							
New			2 <sup>1/</sup>	2	3   1		
Existing		2	3	3			
Renewals			2   3	9   3	75   2		
Modifications	3	5	1	2	9		
<b>Total</b>	<b>3</b>	<b>5   2</b>	<b>3   8</b>	<b>11   8</b>	<b>87   5</b>	<b>300   72</b>	<b>303   75</b>
<u>Industrial</u>							
New	1   1	3   3	5 <sup>1/</sup>	2   5	4   3		
Existing		2			1   5		
Renewals	3   1	5   3	5   3	17   3	42   5		
Modifications	1	1	3	5	8		
<b>Total</b>	<b>5   4</b>	<b>9   8</b>	<b>8   8</b>	<b>24   8</b>	<b>55   13</b>	<b>433   93</b>	<b>438   101</b>
<u>Agricultural (Hatcheries, Dairies, etc.)</u>							
New				1			
Existing							
Renewals							
Modifications							
<b>Total</b>				<b>1</b>		<b>66   9</b>	<b>66   9</b>
<b>GRAND TOTALS</b>	<b>8   4</b>	<b>14   10</b>	<b>11   16</b>	<b>36   16</b>	<b>142   18</b>	<b>799   174</b>	<b>807   185</b>

\* NPDES Permits  
\*\* State Permits

<sup>1/</sup> Includes 2 applications voided because facilities will not be constructed.

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality Division  
(Reporting Unit)

August 1977  
(Month and Year)

PERMIT ACTIONS COMPLETED (27)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Clatsop	Crown Zellerbach Pulp and Paper Mill	8-24-77	NPDES Permit Modified
Klamath	Town of Bonanza Sewage Disposal	8-29-77	State Permit Modified
Yamhill	Our Lady of Guadalupe Trappist Abbey Sewage Disposal	8-30-77	State Permit Renewed
Lane	Richardson Park - Lane County Plans & Open Space	8-30-77	State Permit Renewed
Josephine	Eureka Mining & Machine Inc. Gold Mining	8-30-77	State Permit Issued
Marion	North Marion Fruit (Edward Zach)	8-30-77	State Permit Issued
Clatsop	Warrenton Deep Sea Inc. Fish Processing	8-30-77	NPDES Permit Renewed
Clackamas	River Village Mobile Home Sewage Disposal	8-30-77	NPDES Permit Renewed
Clackamas	Oregon Society of Holy Names Marylhurst	8-30-77	NPDES Permit Renewed
Lane	Seneca Sawmill Lumber Products	8-30-77	NPDES Permit Renewed
Tillamook	Edmunds Fish & Crab Shrimp Processing	8-30-77	NPDES Permit Renewed
Lincoln	Beachside State Park (OSHD) Recreation Area	8-30-77	State Permit not required
Clackamas	Smith Enterprises Inc. (Lucky Seven Mine)	8-31-77	State Permit not required

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Water Quality Division  
(Reporting Unit)

August 1977  
(Month and Year)

PERMIT ACTIONS COMPLETED (27)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Lane	Springfield Quarry Rock Grave Mine	8-10-77	State Permit Renewed
Union	Burr Courtwright Sewage Disposal	8-10-77	State Permit Issued
Jackson	Central Point Sewage Disposal	8-10-77	State Permit Renewed
Coos	Ocean Spray Cranberries Berry Washing	8-10-77	State Permit Issued
Washington	Laurelwood Academy Sewage Disposal	8-10-77	State Permit Issued
Jackson	Emigrant Lake - Jackson County Domestic Sewage	8-10-77	State Permit Renewed
Deschutes	City of Bend Sewage Disposal	8-10-77	State Permit Renewed
Lane	West Coast Truck Lines Domestic Sewage	8-10-77	State Permit Issued
Lane	Bohemia Inc. (Umpqua) Saginaw Mill	8-10-77	State Permit Renewed
Lane	Georgia Pacific Prairie Road	8-10-77	State Permit Renewed
Malheur	Ore-Ida Foods Inc. Potatoe Processing	8-23-77	NPDES Permit Renewed
Washington	Tektronics Inc. Metal Plating	8-23-77	NPDES Permit Renewed
Lane	Simpson Extruded Plastic Plastic Pipe	8-24-77	NPDES Permit Modified
Columbia	Boise Cascade Corp. St. Helens Sawmill	8-24-77	NPDES Permit Modified



DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality  
(Reporting Unit)

August 1977  
(Month and Year)

PLAN ACTIONS COMPLETED

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>Direct Stationary Sources (16)</u>			
Polk (NC943)	Willamette Industries. Replacement of worn scrubber duct.	6/9/77	Canceled. <u>1/</u>
Union (NC946)	Boise Cascade Corp., LaGrande. Boiler improvements.	7/25/77	Approved.
Klamath Falls (NC947)	Weyerhaeuser - Klamath Falls. Lumber sander and baghouse.	7/22/77	Approved.
Multnomah (NC948)	FMC Corporation. Spray paint booth controls.	8/9/77	Approved.
Lane (NC953)	Weyerhaeuser - Springfield. Micro-computer for monitoring system.	7/29/77	Approved, tax credit only. <u>1/</u>
Coos (NC955)	Weyerhaeuser - North Bend. Veneer dryer air curtain and seals.	7/25/77	Approved.
Wallowa (NC956)	Hurricane Creek Lumber Co. New sawmill.	8/5/77	Approved.
Hood River (NC957)	Greg Oates. Orchard fan.	7/11/77	Approved, tax credit only. <u>1/</u>
Multnomah (NC958)	Boeing of Portland. Salt bath baghouse.	7/15/77	Approved.
Jackson (NC959)	Eugene F. Burrill Lumber Co. Smoke and steam flow meters on boiler.	8/17/77	Approved, tax credit only. <u>1/</u>
Marion (NC960)	Halton Tractor Co. Spray paint booth.	8/8/77	Approved.
Multnomah (NC961)	Boeing of Portland. Cyclone on grinders.	8/1/77	Approved.
Linn (NC962)	Meeker Fertilizer. Bulk fertilizer loading..	7/29/77	Approved.
Linn (NC970)	Champion Building Products - Lebanon. Replacement of 2 baghouses.	8/23/77	Approved.

1/ Not included in summary total.

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality  
(Reporting Unit)

August 1977  
(Month and Year)

PLAN ACTIONS COMPLETED

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>Direct Stationary Sources (continued)</u>			
Jackson (NC974)	Down River Forest Products. Baghouse on sander cyclone #14.	8/24/77	Approved.
Portable (NC976)	Barton Sand and Gravel. New portable rock crusher.	8/24/77	Approved.

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality Division  
(Reporting Unit)

August 1977  
(Month and Year)

SUMMARY OF AIR PERMIT ACTIONS

	Permit Actions Received		Permit Actions Completed		Permit Actions Pending	Sources under Permits	Sources Reqr'g Permits
	<u>Month</u>	<u>Fis.Yr.</u>	<u>Month</u>	<u>Fis.Yr.</u>			
<u>Direct Sources</u>							
New		4	1	3	14		
Existing	4	16	3	5	32		
Renewals			4	9	28		
Modifications	40	50	49	58	13		
Total	44	70	57	75	87	1721	1767
<u>Indirect Sources</u>							
New	4	6		3	16		
Existing							
Renewals							
Modifications	1	1	1	1			
Total	5	7	1	4	16	56	
<u>GRAND TOTALS</u>	49	77	58	79	103		

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality  
(Reporting Unit)

August 1977  
(Month and Year)

PERMIT ACTIONS COMPLETED (58)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>Direct Stationary Sources (57)</u>			
Southwest Region	39 permits converted to minimal sources	8/17/77	Permits Issued
Baker	Oregon Portland Cement Co. 01-0010, Modification	8/15/77	Addendum Issued
Baker	Oregon Portland Cement Co. 01-0029, New	8/2/77	Permit Issued
Benton	Green and White Rock Products 02-2125, Modification	7/25/77	Addendum Issued
Benton	Northside Lumber Co. 02-7082, Renewal	7/28/77	Permit Issued
Deschutes	Willamette Industries 09-0002, Renewal	7/28/77	Permit Issued
Douglas	Woolley Enterprises 10-0054, Modification	8/17/77	Addendum Issued
Harney	Edward Hines Lumber Co. 13-0001, Modification	7/25/77	Addendum Issued
Jackson	Georgia-Pacific 15-0058, Modification	7/28/77	Addendum Issued
Lincoln	Weathershed 21-0047, Modification	7/28/77	Permit Issued
Multnomah	Bunge Corporation 26-2003, Renewal	7/28/77	Permit Issued
Multnomah	Western Farmers Association 26-2181, Modification	7/28/77	Permit Issued
Multnomah	Colonial Mortuary 26-2803, Modification	7/28/77	Permit Issued
Multnomah	Colonial Mortuary 26-2984, Modification	7/28/77	Permit Issued

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Air Quality  
(Reporting Unit)

August 1977  
(Month and Year)

PERMIT ACTIONS COMPLETED (58)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>Direct Stationary Sources (continued)</u>			
Tillamook	Mohler Sand and Gravel 29-0035, Existing	7/28/77	Permit Issued
Tillamook	Nehalem Bay Ready Mix 29-0066, Existing	7/28/77	Permit Issued
Union	Boise Cascade 31-0011, Modification	8/16/77	Addendum Issued
Portable	Tillamook County Road Department 37-0034, Renewal	7/28/77	Permit Issued
Portable	DeAtley Corporation 37-0164, Existing	7/28/77	Permit Issued
<u>Indirect Source (1)</u>			
Washington	Hillsboro K-Mart Shopping Center, 874 spaces in reciprocal easement agreement with Hillsboro Payless. File No. 34-7001	8/22/77	Modification issued

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Solid Waste Division  
(Reporting Unit)

August 1977  
(Month and Year)

PLAN ACTIONS COMPLETED (2)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Yamhill	Publishers Paper New site Operational plan	8/12/77	Letter of author- ization.
Marion	Clausen Farm New site Operational plan	8/26/77	Letter of author- ization.
Lane	South Willamette Demolition Site New Site Operational Plan	8/8/77	Approved

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Solid Waste Division  
(Reporting Unit)

August 1977  
(Month and Year)

SUMMARY OF SOLID AND HAZARDOUS WASTE PERMIT ACTIONS

	Permit Actions Received		Permit Actions Completed		Permit Actions Pending	Sites Under Permits	Sites Rec'dg Permits
	Month	Fis.Yr.	Month	Fis.Yr.			
<u>General Refuse</u>							
New	2	2	2	2	3		
Existing	1	1			22 (*-20)		
Renewals			2	2	2		
Modifications		2	3	3			
Total	3	5	7	7	27	185	190
<u>Demolition</u>							
New					1 (*)		
Existing			1	1			
Renewals					1		
Modifications							
Total	0	0	1	1	2	21	21
<u>Industrial</u>							
New	2	2	2	4			
Existing			2	2	5		
Renewals	1	1	2	3	3		
Modifications							
Total	3	3	6	9	8	94	96
<u>Sludge Disposal</u>							
New							
Existing							
Renewals		1			3		
Modifications							
Total	0	1	0	0	3	5	5
<u>Hazardous Waste</u>							
New							
Authorizations	16	20	17	45	1		
Renewals							
Modifications							
Total	16	20	17	45	1	1	1
<u>GRAND TOTALS</u>	<u>22</u>	<u>29</u>	<u>31</u>	<u>62</u>	<u>41</u>	<u>306</u>	<u>313</u>

\*Sites operating under temporary permits until regular permits are issued - total 21.

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Solid Waste Division  
(Reporting Unit)

August 1977  
(Month and Year)

PERMIT ACTIONS COMPLETED (31)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
<u>General Refuse (Garbage) Facilities (7)</u>			
Benton	Coffin Butte Landfill Existing facility	8/3/77	Permit amended.
Yamhill	Newberg Landfill Existing facility	8/18/77	Permit amended.
Crook	Riverside Ranch Transfer Existing facility	8/18/77	Permit issued (renewal).
Marion	MacLaren School Existing facility	8/18/77	Permit issued (renewal).
Wallowa	Lostine Drop Box New facility	8/23/77	Permit issued.
Marion	Leroy Clausen New facility	8/26/77	Letter authorization issued.
Douglas	Elkton Landfill Existing facility	8/29/77	Permit amended.
<u>Demolition Waste Facilities (1)</u>			
Lane	South Willamette Landfill Existing facility	8/25/77	Permit issued.
<u>Sludge Disposal Facilities - None.</u>			
<u>Industrial Solid Waste Facilities (6)</u>			
Lake	Lakeview Timber Products New facility	8/5/77	Letter authorization issued.
Yamhill	Publishers Paper, Newberg New facility	8/16/77	Letter authorization issued.



DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

MONTHLY ACTIVITY REPORT

Solid Waste Division  
(Reporting Unit)

August 1977  
(Month and Year)

PERMIT ACTIONS COMPLETED (continued)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Lane	Mazama Timber Products Existing facility	8/25/77	Permit issued.
Hood River	Diamond Fruit Company Existing facility	8/29/77	Permit issued.
Klamath	Modoc Lumber Company Existing facility	8/29/77	Permit issued (renewal).
Tillamook	Weller Pit Existing facility	8/30/77	Renewal application denied.
<u>Hazardous Waste Facilities (17)</u>			
Gilliam	Chem-Nuclear Systems Inc. Existing facility	8/1/77	Five (5) verbal approvals confirmed in writing. (Small quantities of pesticides, lab chemicals, and PCBs).
"	"	8/1/77	Disposal author- ization approved. (Aerosol pruning product.)
"	"	8/16/77	Eight (8) verbal approvals confirmed in writing. (Small quantities of pesticides, PCBs, plating solution, etc.)
"	"	8/29/77	Disposal author- ization approved. (Pesticide waste.)

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TECHNICAL PROGRAMS

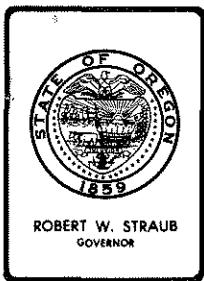
MONTHLY ACTIVITY REPORT

Solid Waste Division  
(Reporting Unit)

August 1977  
(Month and Year)

PERMIT ACTIONS COMPLETED (continued)

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
Gilliam	Chem-Nuclear Systems Inc. Existing facility	8/31/77	Disposal author- ization approved. (Chronic waste.)
"	"	8/22/77	Disposal author- ization amended. (Nitrate ester plastic liner.)



## Environmental Quality Commission

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

To: Environmental Quality Commission  
From: Director  
Subject: Agenda Item No. C, September 23, 1977, EQC Meeting

### Tax Credit Applications

Attached are review reports on 16 requests for tax credit action. These reports and the recommendations of the Director are summarized on the attached table.

### Director's Recommendation

It is recommended that the Commission act on the tax credit requests as follows:

1. Issue Pollution Control Facility Certificates for 15 applications: T-900, T-901, T-902, T-903, T-904, T-905, T-906, T-907, T-908, T-909, T-910, T-911, T-912, T-914 and T-915.
2. Revoke Pollution Control Facility Certificate No. 623, issued to Tax Credit Application T-667, as the facility is no longer in use (see review report and letter from Company, attached).

*Bill*

William H. Young  
Director

M.J. Downs:cs  
229-6485  
9/8/77

### Attachments

- (1) Tax Credit Summary
- (2) Tax Credit Application Table
- (3) 16 Review Reports



Contains  
Recycled

Attachment 1

TAX CREDIT SUMMARY

Proposed September 1977 Totals:

Air Quality	\$ 765,742.50
Water Quality	404,707.62
Solid Waste	-0-
	<u>\$1,170,450.12</u>

Calendar Year Totals to Date:  
(Excluding September 1977 Totals)

Air Quality	\$5,230,090.66
Water Quality	985,029.40
Solid Waste	446,661.00
	<u>\$6,661,781.06</u>

Total Certificates Awarded (Monetary Values) Since  
Beginning of Program (Excluding September 1977 Totals):

Air Quality	\$102,928,949.45
Water Quality	72,582,384.45
Solid Waste	13,609,675.18
	<u>\$189,121,008.79</u>

TAX CREDIT APPLICATIONS SUMMARY

Applicant/ Plant Location	Appl. No.	Facility	Claimed Cost	% Allocable to Pollution Control	Director's Recommendation
Weyerhaeuser Springfield	T-667	Sinclair white water filtering system			Revoke Certificate No. 623
Tektronix, Beaverton	T-900	Alternate power source	\$36,702.00	60% or more and less than 80%	Issue Certificate
Champion Building Prod. Willamina	T-901	Wastewater collection system	38,882.00	80% or more	Issue Certificate
Champion Building Prod. Willamina	T-902	Roof drainage collection and piping system	25,504.00	80% or more	Issue Certificate
Champion Building Prod. Willamina	T-903	Veneer dryer gas ducting and burning system	154,778.95	80% or more	Issue Certificate
Champion Building Prod. Mapleton	T-904	Wastewater collection system	26,859.00	80% or more	Issue Certificate
Champion Building Prod. Lebanon	T-905	Wood dust filtering system	285,970.00	80% or more	Issue Certificate
Champion Building Prod. Mapleton	T-906	Veneer dryer gas ducting and burning system	82,235.55	80% or more	Issue Certificate
Champion Building Prod. Willamina	T-907	Wastewater treatment system	11,973.23	80% or more	Issue Certificate

Applicant/ Plant Location	Appl. No.	Facility	Claimed Cost	% Allocable to Pollution Control	Director's Recommendation
Champion Bldg. Prod. Gold Beach	T-908	Wastewater recirculation system	\$16,344.00	80% or more	Issue Certificate
Champion Bldg. Prod. Gold Beach	T-909	Wood dust filtering system	105,599.00	80% or more	Issue Certificate
Champion Bldg. Prod. Roseburg	T-910	Wood dust filtering system	137,159.00	80% or more	Issue Certificate
Bohemia, Inc. Junction City	T-911	Wastewater system	39,091.16	80% or more	Issue Certificate
Owens-Illinois Portland	T-912	Wastewater disposal system	170,318.23	80% or more	Issue Certificate
Champion Bldg. Prod. Lebanon	T-914	Glue wastewater recirculation system	14,859.00	80% or more	Issue Certificate
Kaiser Gypsum Co. St. Helens	T-915	Oil spill containment dike	24,175.00	80% or more	Issue Certificate

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

REVOCATION OF POLLUTION CONTROL FACILITY CERTIFICATE

---

1. Certificate Issued To:

Weyerhaeuser Company  
Paperboard Manufacturing  
P. O. Box 275  
Springfield, Oregon 97477

2. Discussion

Pollution Control Facility Certificate 623 was issued to Weyerhaeuser Company October 24, 1975 in the amount of \$96,482.00 for a Sinclair whitewater filtering system for the #2 paper machine at their paperboard manufacturing plant in Springfield, Oregon. On July 22, 1977, the Company notified the Department that the facility named in Certificate 623 was no longer in use. Copies of the Company's letter to the Department, and the Pollution Control Facility Certificate are attached.

3. Summation

ORS 317.072(10) states: "Upon any sale, exchange, or other disposition of facility, notice thereof shall be given to the Environmental Quality Commission who shall revoke the certification covering such facility as of the date of such disposition."

Further, Condition No. 2 of Pollution Control Facility Certificate states: "The Department of Environmental Quality shall be immediately notified... if for any reason, the facility ceases to operate for its intended pollution control purpose."

4. Director's Recommendation

It is the Director's recommendation that the Environmental Quality Commission revoke Certificate 623, issued to Weyerhaeuser Company in the amount of \$96,482.00.

Attachments (3)

CASplettstaszer  
229-6484  
8/11/77

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY**POLLUTION CONTROL FACILITY CERTIFICATE**

Issued To: <span style="float: right;">Asst. Owner</span> <b>Weyerhaeuser Company</b> <b>Paperboard Manufacturing</b> <b>Post Office Box 275</b> <b>Springfield, Oregon 97477</b>	Location of Pollution Control Facility: <b>785 North 42 Street</b> <b>Springfield, Oregon</b> <b>Lane County</b>
Description of Pollution Control Facility: <b>Two rotary drum filters, one pump, and related piping and electrical controls.</b>	
Date Pollution Control Facility was completed and placed in operation: <b>March, 1974; April, 1974</b>	
Actual Cost of Pollution Control Facility: <b>\$ 96,482.00</b>	
Percent of actual cost properly allocable to pollution control: <b>Eighty percent (80%) or more</b>	

In accordance with the provisions of ORS 449.605 et seq., it is hereby certified that the facility described herein and in the application referenced above is a "pollution control facility" within the definition of ORS 449.605 and that the facility was erected, constructed, or installed on or after January 1, 1967, and on or before December 31, 1978, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air or water pollution, and that the facility is necessary to satisfy the intents and purposes of ORS Chapter 449 and regulations thereunder.

Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:

1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing water pollution.
2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose.
3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.

Signed 
 Title Loren Kramer, Director  
 Department of Environmental Quality  
 Approved by the Environmental Quality Commission

 on the 24th day of October 19 75





State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: Carol Splettstazer

Date: July 27, 1977

From: Dick Nichols

Subject: Tax Credit - Weyco - Springfield

Weyerhaeuser Company has notified us by letter (attached) that the pollution control facility for which certificate number 623 was issued, has been removed and is no longer in operation. We should notify the EQC of this and request they revoke the certificate pursuant to 468.185.



*AK* *MAA*  
Weyerhaeuser Company

P.O. Box 275  
Springfield, Oregon 97477  
A/C 503 • 746-2511

July 22, 1977

File 96244

Department of Environmental Quality  
1234 S.W. Morrison Street  
Portland, Oregon 97205

Attention: Mr. Kent Ashbaker

Gentlemen:

As indicated on the attached notice, the white water filtering systems for both paper machines were completed late in June. During the July 4th shutdown the Sinclair white water filtering system for #2 paper machine was removed.

The new SWECO filtering systems have been in operation since late in June, 1977.

Respectfully,

A. A. Coleman  
Technical Director

AAC:ls  
Enclosure

RECEIVED  
JUL 25 1977

Water Quality Division  
Dept. of Environmental Quality

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITYTAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Tektronix, Inc.  
P. O. Box 500  
Beaverton, Oregon 97077

The applicant owns and operates an industrial complex, manufacturing electronic equipment, oscilloscopes, information display and television products, located in Beaverton, Oregon.

2. Description of Claimed Facility

The facility described in this application consists of electrical gear providing an alternate power source from a second substation to the waste treatment plant.

Preliminary Certification for Tax Credit was requested September 2, 1976. Construction was initiated on the claimed facility October 7, 1976. Construction was completed, and the facility was placed in operation May 10, 1977.

Facility Cost: \$36,702.00 (Accountant's certification was provided.)

3. Evaluation of Application

NPDES Permit 2134 J, which expired July 31, 1977, required an alternate power source for the treatment plant. The facility, as installed and with the permittee's overall plan, will eliminate almost any possibility of effluent discharge without treatment. A preliminary certification for tax credit and plan approval was issued by the Department for the claimed facility prior to construction.

4. Summation

- A. Facility was constructed after receiving approval to construct and preliminary certification issued pursuant to ORS 468.175.
- B. Facility was constructed after January 1, 1967 as required by ORS 468.165(1)(a).
- C. Facility is designed for, and is being operated to a substantial extent for the purpose of preventing, controlling or reducing water pollution.
- D. The facility was required by applicant's NPDES permit and is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that chapter.
- E. The Company claims in their application that 72.5% of the cost is allocable to pollution control. The facility also serves as an alternate power supply to the Electro-Chem Building.

Appl T-900  
Date 8/30/77  
Page 2

5. Director's Recommendation

It is recommended that a pollution control facility certificate be issued for the facility claimed in application T-900, such certificate to bear the actual cost of \$36,702.00 with 60% or more and less than 80% allocable to pollution control.

W.D. Leshher/cs  
229-5318  
8/31/77

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Champion Building Products  
P. O. Box 10228  
Eugene, Oregon 97401

The applicant owns and operates a complete plywood plant, from peeler log storage to finished plywood, at Willamina, Oregon.

2. Description of Claimed Facility

The claimed facility consists of equipment which connects to the existing 8' x 12' veneer dryer washdown water sump. Sump water is pumped into a CF Bauer 48" Hydrasieve screen. Wood fiber falls into a drop box. Water falls by gravity to an 8,000 gallon holding tank. A 200 gpm, 30 hp pump discharges the cleaned water to the dryer washdown main.

Notice of Intent to Construct was made in 1975. Preliminary Certification for Tax Credit was not required.

Construction was initiated on the claimed facility April 1, 1976, completed November 1, 1976, and placed into operation December 31, 1976.

Facility Cost: \$38,882.00 (Certified Public Accountant's statement was provided.)

3. Evaluation of Application

Permit 1544-J, Condition S3, for the Willamina Plant, requires the elimination of veneer dryer washdown water. This requirement was accomplished by the above facility and was clearly for pollution control.

Plans were submitted July 9, 1975. The plan approval for this facility was given by the Department in 1975 pursuant to the statutes and rules then in effect. Construction was not commenced, however, until September 1976, after the statutes had been changed (in late 1975) to require a preliminary certificate (ORS 468.175) which was not obtained for this facility prior to construction. After consulting with legal counsel, we have determined that the applicant having obtained the plan approval required by the law then in effect, was not additionally required to apply for a preliminary certificate after the 1975 law change and prior to construction of the facility.

4. Summation

- A. Facility was constructed after receiving approval to construct issued pursuant to ORS 468.175.
- B. Facility was constructed on or after January 1, 1967 as required by ORS 468.165(1)(a).

Appl T-901  
Date 8/30/77  
Page 2

- C. Facility was designed for and is being operated to a substantial extent for the purpose of preventing, controlling or reducing water pollution.
- D. Facility was required by applicant's NPDES permit and is necessary to satisfy the intents and purposes of ORS Chapter 468, and the rules adopted under that Chapter.
- E. Applicant claims 80% of the facility cost is allocable to pollution control. The project is solely for pollution control.

5. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate be issued for the facility claimed in Application T-901, such certificate to bear the actual cost of \$38,882.00 with 80% or more of the cost applicable to pollution control.

W.D.Lesher:cs  
229-5318  
9/6/77

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Champion Building Products  
P. O. Box 10228  
Eugene, Oregon 97401

The applicant owns and operates a complete plywood plant, from peeler log storage to finished plywood, at Willamina.

2. Description of Claimed Facility

Plant roof water runoff is collected by the facility and discharged to the storm drain without mixing with process waste, which must be treated. Approximately 4,500 feet of PVC pipe (4" to 6") was involved.

Notice of Intent to Construct was made in 1974. Preliminary Certification for tax credit was not required.

Construction was initiated on the claimed facility September 30, 1976, completed and placed into operation December 31, 1976.

Facility Cost: \$25,504.00 (Certified Public Accountant's statement was provided.)

3. Evaluation of Application

A plan for collecting uncontaminated storm water at the Willamina Plant was approved by the Department of Environmental Quality letter of March 1, 1974. Collection of uncontaminated storm water and diversion from water to be processed makes for much more efficient waste water treatment.

The plan approval for this facility was given by the Department in 1974 pursuant to the statutes and rules then in effect. Construction was not commenced, however, until September 1976, after the statutes had been changed (in 1975) to require a preliminary certificate (ORS 468.175) which was not obtained for this facility prior to construction. After consulting with legal counsel, we have determined that the applicant, having obtained the plan approval required by the law then in effect, was not additionally required to apply for a preliminary certificate after the 1975 law change and prior to construction of the facility.

4. Summation

- A. Facility was constructed after receiving approval to construct issued pursuant to ORS 468.175.
- B. Facility was constructed on or after January 1, 1967 as required by ORS 468.165(1)(a).

Appl T-902  
Date 8/30/77  
Page 2

- C. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing water pollution.
- D. The facility was required by the Department of Environmental Quality and is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that Chapter.
- E. 80% or more of facility costs are claimed allocable to pollution control, The facility is solely for the purpose of water pollution control.

5. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate be issued for the facility claimed in Application T-902, such certificate to bear the actual cost of \$25,504.00 with 80% or more applicable to pollution control.

W.D.Lesher:cs  
229-5318  
9/6/77



State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Champion Building Products  
P. O. Box 10228  
Eugene, Oregon 97401

The applicant owns and operates a plywood manufacturing plant in Willamina, Oregon.

2. Description of Claimed Facility

The facility described in this application consists of a veneer dryer control system with costs consisting of:

Blower, duct work, dampers, nozzles, manifold	\$123,822.80
Foundation, controls, refractory work, misc.	30,956.15

Notice of Intent to Construct was approved by the Mid Willamette Valley Air Pollution Authority on January 15, 1975. Preliminary Certification was not required.

Construction was initiated on the claimed facility in April 1975, completed in January 1976, and placed into operation in February 1976.

Facility Cost: \$154,778.95 (Accountant's Certification was provided.)

3. Evaluation

In order to control the emissions from the veneer dryers as required by MWVAPA and Department regulations, the emissions were ducted to the two hogged fuel boilers where the smoke and blue haze are incinerated. This system is currently in operation and complies with all Department regulations. There is no economic benefit to the company. The primary purpose of this installation is air pollution control.

4. Summation

- A. Facility was constructed after receiving approval to construct under the rules of the Mid Willamette Valley Air Pollution Authority.
- B. Facility was constructed on or after January 1, 1967 as required by ORS 468.165(1)(a).
- C. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling or reducing air pollution.
- D. The facility was required by the Mid Willamette Valley Air Pollution Authority and is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that chapter.

Appl T-903  
Date 9/1/77  
Page 2

E. Applicant claims 80% or more of facility cost is allocable to pollution control and there is no return on investment, increased production, improved product quality, fuel savings or byproducts resulting from the installation of this facility.

5. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$154,778.95 with 80% or more allocable to air pollution control be issued for the facility claimed in Tax Credit Application T-903.

E.G. Woods/cs  
229-6480  
9/1/77

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Champion Building Products  
P. O. Box 10228  
Eugene, Oregon 97401

The applicant owns and operates a complete plywood plant from peeler log storage to finished plywood, at Mapleton, Oregon.

2. Description of Claimed Facility

The claimed facility is in two parts:

A. Collection and treatment of under plant contaminated wastewater.

A series of flumes and ditches was constructed under the mill to capture and transport lathe and compressor cooling water, drinking fountain water, boiler grate cooling water and miscellaneous surface drainage to a 4' x 23' receiving sump with screen and outlet baffles. A chopper transfer pump pumps these waters via a 4" pipeline to a hydrasieve screen to remove the particulate matter and into a two compartment 80' x 120' (100,000 gallon) treatment pond with outlet gravity oil separator and oil skimmer. The treated water passes through an open ditch and 12" culvert to the existing drain ditch.

B. Collection and diversion of uncontaminated storm and roof runoff:

The installation consists of roof drain collectors, PVC piping, downspouts and storm drains to the river. The function of the facility is to gather roof runoff water and discharge these waters without coming into contact and/or be considered as process water. Mapleton's NPDES permit does allow the discharge of uncontaminated roof drainage and storm water to the river.

Notice of Intent to Construct and Preliminary Certification for Tax Credit was not required.

The facility was started March 1973, completed March 1974, and placed into operation in May 1974.

Facility Cost: \$26,859.00 (Certified Public Accountant's statement was provided.)

3. Evaluation of Application

The facility was designed to remove various pollutants, including debris and oil and grease from plant effluent to the river and serves no purpose other than pollution control.

4. Summation

- A. Facility was not required to have prior approval to construct or Preliminary Certification.
- B. Facility was constructed after January 1, 1967 as required by ORS 468.165(1)(a).
- C. Facility is designed for, and is being operated to a substantial extent for the purpose of preventing, controlling or reducing water pollution.
- D. Facility was required by the Department of Environmental Quality and is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under Chapter 468.
- E. Applicant claims that 80% or more of facility cost is allocable to pollution control.

5. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate be issued for the facility claimed in Application T-904, such certificate to bear the actual cost of \$26,859.00 with 80% or more of the cost allocable to pollution control.

WDLesher:cs  
229-5318  
8/30/77

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Champion Building Products  
P. O. Box 10228  
Eugene, Oregon 97401

The applicant owns and operates a plywood plant in Lebanon, Oregon.

2. Description of Claimed Facility

The facilities described in this application are baghouses to control the emissions from seven cyclones with costs consisting of:

Filter, fans, ductwork, electrical work, etc. for cyclones #37 and #38	\$ 63,720
Filter, fans, ductwork, electrical work, etc. for cyclones #44 and #45	118,471
Filter, fans, ductwork, electrical work, etc. for cyclones #24, #25 and #27.	103,779

Approval to construct was granted by the Mid Willamette Valley Air Pollution Authority September 21, 1971. Preliminary Certification was not required.

Construction was initiated on the claimed facility in October 1971. The facility was completed and placed into operation in February 1972.

Facility Cost: \$285,970.00 (Accountant's Certification was provided.)

3. Evaluation

The applicant was in violation of Mid Willamette Valley Air Pollution Authority's process weight regulations. Therefore, the claimed baghouses were installed to collect the emissions from seven cyclones. The baghouses, except for upsets, have reduced the plant site emissions to less than that allowed by the MWVAPA process weight regulations. Baghouses are considered the best available method of controlling these types of emissions. The collected material has little value to the plant.

The baghouses are operating in a satisfactory manner and have reduced plant site emissions by over 100 pounds per hour. It is concluded that 100% of the cost of this facility is allocable to air pollution control.

4. Summation

- A. Facility was not required to have prior approval to construct or preliminary certification.
- B. Facility was constructed on or after January 1, 1967 as required by ORS 468.165(1)(a).

- C. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing air pollution.
- D. The facility was required by the Mid Willamette Valley Air Pollution Authority and is necessary to satisfy the intents and purposes of ORS Chapter 468, and the rules adopted under that chapter.
- E. Applicant claims 80% or more of facility costs are allocable to pollution control and there is no return on investment, increased production, improved product quality, fuel savings or byproduct resulting from the installation of this facility.

5 Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$285 790 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application T-905.

E.G. Woods/cs  
229-6480  
9/1/77

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Champion Building Products  
P. O. Box 10228  
Eugene, Oregon 97401

The applicant owns and operates a plywood plant in Mapleton, Oregon.

2. Description of Claimed Facility

The facility described in this application is a veneer dryer system with costs consisting of:

A. Masonry work on boiler firebox	\$ 1,378.84
B. Fabrication and installation of fan, motor, dampers	72,253.00
C. Two opposed blade dampers	750.00
D. Electrical installation	4,289.42
E. Concrete	234.00
F. Fire doors	1,744.50
G. Miscellaneous	1,585.42

Notice of Intent to Construct was made September 19, 1974. Preliminary Certification was not required.

Construction on the claimed facility was initiated October 1, 1974, completed February 1, 1975, and placed into operation March 1, 1975.

Facility Cost: \$82,235.55 (Accountant's Certification was provided.)

3. Evaluation

The applicant was in violation of the veneer dryer regulations of the Lane Regional Air Pollution Authority. In order to control the emissions from the dryer, the dryer stacks were capped off and the dryer emissions were ducted to the boiler for incineration of the smoke and blue haze. The only purpose of this installation is air pollution control. There are no economic benefits to the company.

The claimed facility is operating in a satisfactory manner and is in compliance with Lane Regional Air Pollution Authority regulations. It is concluded that 100% of the cost of this facility is allocable to air pollution control.

4. Summation

A. Facility was constructed after approval to construct was issued pursuant to ORS 468.175.

B. Facility was constructed on or after January 1, 1967 as required by ORS 468.165(1)(a).

Appl T-906  
Date 9/1/77  
Page 2

- C. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing air pollution,
- D. The facility was required by Lane Regional Air Pollution Authority and is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that chapter.
- E. Applicant claims 80% or more of facility costs are allocable to pollution control and there is no return on investment, increased production, improved product quality, fuel savings or byproducts resulting from the installation of this facility.

5. Director's Recommendation

It is recommended that a Pollution Control Certificate bearing the cost of \$82,235.55 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application T-906.

E.G. Woods/zs  
229-6480  
9/1/77



State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Champion Building Products  
P. O. Box 10228  
Eugene, Oregon 97401

The applicant owns and operates a complete plywood plant, from peeler log storage to finished plywood, at Willamina, Oregon.

2. Description of Claimed Facility

The facility's purpose is to collect contaminated under plant waste water for treatment before discharge to the log pond. Construction included ditches, trenches, piping, hydrasieve screen, three concrete sumps, two 300 gpm chopper pumps, one 500 gpm chopper pump, associated motors, foundations, valves, piping and electrical work.

Notice of Intent to Construct was approved March 1, 1974. Preliminary Certification for Tax Credit was not required.

Construction was initiated on the claimed facility April 1, 1975. The facility was completed and placed into operation August 20, 1975.

Facility Cost: \$11,973.23 (Certified Public Accountant's statement was provided.)

3. Evaluation

Prior to installation of claimed facilities, under plant drains and intermittent contaminated runoff water containing oil and grease and debris discharged directly to the river at several points. This contaminated water is now collected for removal of pollutants before discharge to the log pond.

The applicant was required to construct the improvements by the Department. An engineering report recommending treatment of under plant waste water was prepared for the applicant by an engineering firm, December 28, 1973. Department of Environmental Quality approval was granted by letter of March 1, 1974.

No profits will be derived from this facility. The only benefits are in pollution control.

4. Summation

A. Facility was constructed after receiving approval to construct issued pursuant to ORS 468.175.

B. Facility was constructed on or after January 1, 1967 as required by ORS 468.165(1)(a).

- C. Facility is designed for and is being operated to a substantial extent for the purpose of preventing controlling or reducing water pollution.
- D. The facility was required by the Department of Environmental Quality and is necessary to satisfy the intents and purposes of ORS Chapter 468, and the rules adopted under that Chapter.
- E. 80% or more of facility cost is claimed allocable to pollution control. The facility is solely for the purpose of water pollution control.

5. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate be issued for the facility claimed in T-907, such certificate to bear the actual cost of \$11,973 23, with 80% or more of the cost allocable to pollution control.

W.D.Lesher:cs  
229-5318  
9/2/77

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Champion Building Products  
P. O. Box 10228  
Eugene, Oregon 97401

The applicant owns and operates a complete plywood plant at Gold Beach, Oregon.

2. Description of Claimed Facility

The claimed facility consists of treatment and recirculation of glue washdown water for reuse. Waste water flows from the glue spreader cleaning operation, collected by troughs, to a concrete settling basin with plank cover. The settled water is pumped to a vertical storage tank. This water is pumped to the washdown main and to glue mixing. Piping, valves and fittings, concrete work, five pumps, electrical, miscellaneous materials and company labor were required.

Notice of Intent to Construct and Preliminary Certification for Tax Credit were not required.

Construction was initiated on the claimed facility in April 1971, completed in December 1972, and placed into operation in January 1973.

Facility Cost: \$16,344.00 (Certified Public Accountant's statement was provided)

3. Evaluation

The facility was required by Condition 6 of State Waste Discharge Permit 1155 which states:

"No glue wastes shall be allowed to enter the log pond or any waters of the state."

The system is closed with no discharge of glue waste waters since construction of the facility.

The application states that operating costs far exceed that of the water saved by recirculation. The only benefits derived are in pollution control.

4. Summation

A. Facility was not required to have prior approval to construct or preliminary certification.

B. Facility was constructed on or after January 1, 1967 as required by ORS Chapter 468.165(1)(a).

App1 T-908  
Date 8/31/77  
Page 2

- C. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling or reducing water pollution.
- D. The facility was required by the applicant's State Waste Discharge Permit and is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that chapter.
- E. Applicant claims 80% or more of facility costs are allocable to pollution control and that there is no return on investment, increased production, improved product quality, fuel savings or byproduct resulting from the installation of this facility.

5. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate be issued for the claimed facility, such certificate to bear the actual cost of \$16,344.00 with 80% or more allocable to pollution control.

W.D. Leshar/cs  
229-5318  
8/31/77

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Champion Building Products  
P. O. Box 10228  
Eugene, Oregon 97401

The applicant owns and operates a plywood plant in Gold Beach, Oregon.

2. Description of Claimed Facility

The facility in this application consists of three baghouses to control emissions from four cyclones. The facility costs consist of:

Three Carter Day Baghouses	\$68,549.00
Electrical, concrete, steel, fabrication, etc.	37,050.00

Notice of Intent to Construct and Preliminary Certification for Tax Credit not required.

Construction was initiated on the claimed facility June 1973, completed May 1974, and placed into operation August 1974.

Facility Cost: \$105,599.00 (Accountant's Certification was provided.)

3. Evaluation of Application

The applicant has installed three baghouses to reduce emissions from four cyclones at the plywood plant. The installation of these baghouses enabled the plant to meet the process weight regulation. The collected material is used as boiler fuel; however, there is no significant economic benefit to the company.

This facility is operating in compliance with Department regulations and has reduced emissions to the atmosphere by over 100 pounds per day. It is concluded that 100% of the cost of the facility is allocable to air pollution control.

4. Summation

- A. Facility was not required to have prior approval to construct or preliminary certification.
- B. Facility was constructed on or after January 1, 1967 as required by ORS 468.165(1)(a).
- C. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling or reducing air pollution.

Appl T-909  
Date 8/24/77  
Page 2

- D. The facility was required by the Department of Environmental Quality and is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that Chapter.
- E. The applicant claims that 80% or more of facility costs are allocable for pollution control. The facility is solely for pollution control.

5. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$105,599.00 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application T-909.

E.G.Woods:cs  
229-6480  
9/6/77

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Champion Building Products  
P. O. Box 10228  
Eugene, Oregon 97401

The applicant owns and operates a plywood plant in Roseburg, Oregon.

2. Description of Claimed Facility

The facilities described in this application are baghouses to control sander-dust emissions.

Notice of Intent to Construct and Preliminary Certification for Tax Credit are not required. Construction was initiated on the claimed facility in June 1973, completed in May 1974, and placed in operation in August 1974.

Facility Cost: \$137,159.00 (Accountant's Certification was provided.)  
Certification is claimed under the 1969 Act with 100% allocable to pollution control.

3. Evaluation of Application

The applicant has installed two Carter Day baghouses to control sanderdust emissions from four cyclones, #5, #6, #7 and #8. Control of these cyclones was necessary to meet grain loading and process weight limits. The installation of this equipment has reduced emissions to the atmosphere by approximately 130 pounds per hour.

4. Summation

- A. Facility was not required to have prior approval to construct or preliminary certification.
- B. Facility was constructed on or after January 1, 1967 as required by ORS 468.165(1)(a).
- C. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing air pollution.
- D. The facility was required by the Department of Environmental Quality and is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that Chapter.
- E. There are no economic benefits to the Company from these baghouses. The primary purpose is air pollution control. Therefore, 100% of the cost of the facility is allocable to air pollution control.

Appl T-910  
Date 8/31/77  
Page 2

5. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$137,159.00 with 80% or more allocable to pollution control be issued to the facility claimed in Tax Credit Application T-910.

E.Woods:cs  
229-6480  
9/7/77



State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Bohemia, Inc.  
Junction City Plywood Division  
2280 Oakmont Way  
Eugene, Oregon 97401

The applicant owns and operates a veneer laminating facility manufacturing plywood.

2. Description of Claimed Facility

The claimed facility consists of three treatment ponds. The first two are for receiving the settling of boiler blowdown and veneer dryer washdown. The third pond is used for storage, to be pumped back for reuse in dryer washdown and dryer fire deluge systems.

The claimed facility also consists of a closed cooling water system, closed glue waste water reuse system and a truck washdown water system. The truck wash water is discharged into the City sanitary system.

Pumps, piping and fittings, eight inch culvert, electrical, concrete construction, a cooling tower, Bohemia labor and miscellaneous materials were required.

Request for Preliminary Certification for Tax Credit was made May 12, 1976. Construction was initiated on the claimed facility in May 1976, completed in December 1976, and placed into operation in April 1977.

Facility Cost: \$39,091.16 (Certified Public Accountant's statement was provided.)

3. Evaluation

The total facility removes the following waste streams from discharging into the Willamette Basin:

- A. Boiler Blowdown
- B. Veneer Dryer Washdown
- C. Cooling Water
- D. Glue Waste Washdown
- E. Truck Washdown Water

Prior to the claimed facility completion, there were 12 discharge points from the plant. The Company has completely eliminated discharge of all industrial waste water.

4. Summation

- A. Facility was constructed after receiving approval to construct and Preliminary Certification issued pursuant to ORS 468.175.
- B. Facility was constructed on or after January 1, 1967 as required by ORS 468.165(1)(a).
- C. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling or reducing water pollution.
- D. The facility was required by the Department of Environmental Quality and is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that chapter.
- E. Applicant claims 100% of costs allocable to pollution control.

5. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate be issued for the facility claimed in Application T-911, such Certificate to bear the actual cost of \$39,091.16 with 80% or more allocable to pollution control.

W.D. Leshar/cs  
229-5318  
8/31/77

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Owens-Illinois, Inc.  
P. O. Box 20067  
Portland, Oregon 97220

The applicant owns and operates a plant to manufacture glass containers at 5850 N.E. 92 Drive in Portland, Oregon.

2. Description of Claimed Facility

The claimed facility consists of collection and treatment of industrial waste waters and discharge to the regional sewerage system. Major items of equipment were:

- A. Fabricated quarter-inch steel plate settling tank.
- B. Heil Model 601 PR corrugated plate oil/water separator.
- C. Badger open flow meter and recorder.
- D. 1800 ft. of 10 inch concrete sewer pipe to area sewerage system.

Excavation and other necessary labor was required.

Request for Preliminary Certification for Tax Credit was made March 8, 1976.

Construction was initiated on the claimed facility April 28, 1976, completed December 30, 1976, and placed into complete operation December 30, 1976.

Facility cost: \$170,318.23 (Certified Public Accountant's statement was provided.)

3. Evaluation of Application

The Department required that all waste waters be discharged to the areawide sewerage system within 60 days after service became available. This requirement was implemented by the claimed facility.

Project plans were approved and preliminary certification for tax credit was issued by Department of Environmental Quality letter of April 28, 1976.

There are no profits to be derived from the facility. The only benefits to be derived are in pollution control.

4. Summation

- A. Facility was constructed after receiving approval to construct and preliminary certification issued pursuant to ORS 468.175.
- B. Facility was constructed on or after January 1, 1967 as required by ORS 468.165(1)(a).

App1 T-912  
Date 8/30/77  
Page 2

- C. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling or reducing water pollution.
- D. The facility was required by the applicant's NPDES permit, and is necessary to satisfy the intents and purposes of ORS Chapter 468, and the rules adopted under that Chapter.
- E. 80% or more of facility costs are claimed allocable to pollution control. The sole purpose of this facility is water pollution control.

5. Director's Recommendation.

It is recommended that a Pollution Control Certificate be issued for the facility claimed in Application T-912, such certificate to bear the actual cost of \$170,318.23 with 80% or more of the cost allocable to pollution control.

W.D.Lesher:cs  
229-5318  
9/6/77

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
TAX RELIEF APPLICATION REVIEW REPORT

Appl. No. T-914  
Date 9/7/77

1. Applicant

Champion Building Products  
P. O. Box 10228  
Eugene, OR 97401

The applicant owns and operates a complete plywood plant at Lebanon, Oregon, near the South Sanitam River.

2. Description of Claimed Facility

The facility described in this application is a closed system for recirculating glue spreader waste waters for glue mixing and washdown. Main components consist of the following:

- A. Holding tank -- 8 ft. by 10 ft. with cone bottom and outlet pump.
- B. Piping and materials for modification of glue room, glue waste collection and recirculation system.
- C. Necessary pumps and motors.
- D. Plant and outside labor.

Notice of Intent to Construct and Preliminary Certification for Tax Credit not required.

The claimed facility was completed and placed into operation in October 1973. Certification is claimed with 80% or more of the cost allocated to pollution control.

Facility Cost: \$14,859. (Certified Public Accountant's statement was attached to the application.)

3. Evaluation of Application

The facility was required by the Department of Environmental Quality and approved by letter of July 19, 1971. Prior to this work, glue waste was discharged to the log pond. The plant now has a closed system no longer discharging glue waste waters.

The applicant claims that operating expenses far exceed any savings in water costs. Thus, the only benefits derived from the facility are in pollution control.

4. Summation

- A. Facility was constructed after receiving approval to construct issued pursuant to ORS 468.742.
- B. Facility was constructed on or after January 1, 1967 as required by ORS 468.165(1)(a).

Appl T-914  
Date 9/7/77  
Page 2

4. Summation (continued)

C. (continued)

Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling or reducing water pollution.

D. The facility was required by the Department and is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that chapter.

E. Operating expenses exceed the value of recovered or reused materials, thus the only benefits are pollution control.

5. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$14,859.00 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application Number T-914.

WDL:elk  
9/7/77

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
TAX RELIEF APPLICATION REVIEW REPORT

Appl. No. T-915

Date 9/7/77

1. Applicant

Kaiser Gypsum Company, Inc.  
St. Helens, OR 97051

The applicant owns and operates a plant for the manufacture of wood fibre insulation, acoustical and mobil home products utilizing wood chips and sawdust as raw materials, on the south side of St. Helens.

2. Description of Claimed Facility

The facility described in this application consists of a three sided compacted clay containment berm, approximately 325 ft. long, 8 ft. 10 in. high, placed around two fuel oil storage tanks. The berm is rip-rapped with rock on the water side.

Notice of intent to construct the claimed facility was submitted and Department of Environmental Quality letter of May 17, 1977 approved the project and granted Preliminary Certification for Tax Credit.

The claimed facility was completed and placed into operation in June of 1977. Certification is claimed with 100% of the cost allocated to pollution control.

Facility Cost: \$24,175.00. (Certified Public Accountant's statement was attached to the application.)

3. Evaluation of Application

The berm is containment for two fuel oil storage tanks which have a total capacity of 25,000 bbls. A possible oil spill or leakage from a ruptured tank will not reach Scappoose Bay, according to the application. This implements the Environmental Protection Agency spill prevention and contingency plan which is incorporated into Oregon NPDES permits.

4. Summation

- A. The claimed facility was constructed after receiving approval to construct and preliminary certification issued pursuant to ORS 468.175.
- B. Facility was constructed on or after January 1, 1967 as required by ORS 468.165(1)(a).
- C. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling or reducing water pollution.
- D. The facility was required by the Department and is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that chapter.
- E. No economic return is derived from investment in the facility.

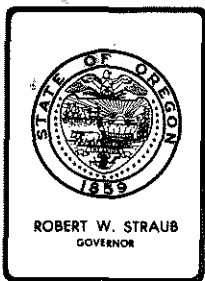
Appl T-915  
Date 9/7/77  
Page 2

5. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the cost of \$24,175.00 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application Number T-915.

WDL:elk  
9/7/77





## Environmental Quality Commission

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission  
From: Director  
Subject: Agenda Item D, September 23, 1977, EQC Meeting

Request by Duraflake, Division of Willamette Industries, Inc.  
for a Variance from the Opacity Regulation OAR 340-21-015(2)(b)  
and Process Weight Regulation APA Title 32-055.

### Background

Duraflake Division of Willamette Industries operates a particleboard plant in Millersburg, Oregon. The manufacturing process involves trucking in raw materials which consist of wet and dry wood wastes and the drying, grinding, mixing and pressing of the wood particles into particleboard. The plant has a capacity of 38,000 square feet per hour (3/4" basis) and is considered to be the second largest particleboard plant in the country.

In order to use the wood wastes, the moisture content must be reduced from 60% or more as received to less than 15%. The initial drying is done in two Heil rotary dryers. The company has installed a two-stage venturi scrubber on one dryer but it is considered unable to continuously comply with opacity limitations under all conditions. On May 3, 1977 Duraflake requested a variance from applicable Department regulations for the dryers until an adequate control system can be developed which will allow the dryers to operate in compliance with emission limits. The variance was requested until January 1, 1979.

### Evaluation

Limited ambient air sampling has been conducted in the Millersburg area. The ambient air samples collected by samplers located near the plant site often exceed the Federal ambient air standards. The primary standard for particulates is 75 ug/m<sup>3</sup> annual geometric mean and the 24 hour standard is 150 ug/m<sup>3</sup> not to be exceeded more than once per year. Violations in excess of 600 ug/m<sup>3</sup> have been recorded at a site in close proximity to the plant. Microscopic analysis of the samples indicates that approximately 90% of the collected material is wood fiber, a portion of which may be attributable to other sources.

There are approximately fifty emission points at the plant site requiring some further evaluation or source tests for compliance verification as will be discussed below.



Contains  
Recycled

In addition to materials handling cyclones, several other sources contribute to the overall plant site emissions. The truck dump, raw material storage area and press vents may be significant sources of particulate matter. It is intended that during the period of the variance these and other sources will be evaluated to determine their contribution to the plant site emissions. The press vents emit formaldehyde and additional testing will be conducted to confirm actual emissions.

In an attempt to comply with the permit issued by the Mid Willamette Air Pollution Authority, Duraflake installed a two-stage venturi scrubber on the smaller, #85 dryer. The emissions were tested in January, 1975. The test results indicate that the dryer operates well within the grain loading limit. However, the opacity from the dryer generally exceeds the 20% limit. The other dryer, #105, has no control equipment following the materials handling cyclone and is not considered in compliance with particulate or opacity limitations.

In order to determine compliance with the plant wide process weight limit and achieve compliance with ambient standards, emissions from all particulate sources including the dryers must be evaluated. Actual source test data does not exist for some sources and is of questionable accuracy for other sources because of the age and sampling methods used. Duraflake has agreed to source test representative sources to verify previous test data and emission estimates or to establish corrected actual emissions. These tests will be completed by November 1, 1977. The Department has made a detailed survey (Attachment 1) of the sources at the site. Duraflake and the Department have agreed upon the sources to be tested and test methods to be used. (These sources are listed in the Discussion section of Attachment 1.) This test program is already underway. In addition to the Department's evaluation, GCA Corp. under contract to EPA conducted evaluations of sources in the Millersburg area and relative to Duraflake also recommended further source testing to clarify the actual emission levels. This is consistent with the Department's findings. A specific control program will be developed when the emission testing and evaluations are completed.

The wet scrubber currently in operation on the #85 dryer has not been able to demonstrate compliance with the 20% opacity limit. It does significantly reduce the mass rate of emissions. Also of concern to the company are the high power requirements of this type of control equipment. There are other types of control equipment that can collect small particles effectively and have significantly lower power requirements. However, because of the temperatures and the types of particulate involved in this process, the company states that these types of control equipment must be evaluated in order to insure that a system is installed that will continuously meet all emission limitations.


#### Summation

1. The Department finds that significant ambient air problems exist in the Millersburg area. Duraflake Division of Willamette Industries is a significant contributor to that problem.

2. The existing point source emission data for some sources at Duraflake may be in error and therefore some retesting is necessary to determine compliance and/or establish accurate emission rates.
3. Additional control of fugitive emission sources may be required in order to consistently prevent ambient air violations.
4. There are additional types of control equipment which have the potential to solve the opacity problem and reduce the particulate emissions from the predryers. These types of equipment may also use less energy than the existing scrubber. Additional time is needed to allow evaluation of several control systems to insure that the most efficient system is selected and properly adapted to this source.
5. Duraflake has requested a variance from the opacity limits until January, 1979. During this period the company proposes the following program:
  - a) Operate existing dryer scrubber at maximum efficiency.
  - b) Evaluate other types of dryer control equipment which could meet opacity, grain loading and process weight limits.
  - c) Retest other specified plant site particulate emission sources to determine the validity of existing emission data.
  - d) Evaluate and report on further control of fugitive emission sources.
  - e) Subject to prior approval by the Department, the most effective dryer control system available will be ordered by no later than June 30, 1978, and installed by no later than December 31, 1978.
  - f) Plant-wide compliance with all Department regulations shall be attained by January 1, 1979.
6. The program proposed by Duraflake should allow enough time to control the predryers and any other noncomplying sources thereby attaining compliance with all Department regulations.

#### Recommendations

The Director recommends that the Environmental Quality Commission enter a finding that strict compliance with Department regulations would be unreasonable at this time and therefore Willamette Industries, Duraflake Division, be granted a variance from the Opacity Regulation OAR 340-21-015(2)(b) and the Mid-Willamette Air Pollution Authority process weight rule, Title 32-055 until January 1, 1979, subject to carrying out the program in 5(a-f) above.

  
WILLIAM H. YOUNG  
Director

Direct inquiries to F. A. Skirvin 229-6414.

#### Attachments:

1. Dept. Source Evaluation (See page 11 for sources to be tested)
2. Variance Request
3. Air Contaminant Discharge Permit #22-0143



State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

DEPARTMENT OF ENVIRONMENTAL QUALITY Attachment 1  
**RECEIVED**  
AUG 8 1977 INTEROFFICE MEMO

**AIR QUALITY CONTROL**

To: Willamette Industries - Duraflake File  
From: P. T. Willhite *SW*  
Subject: Inspection

Date: 8/5/77

On July 22, 1977 an inspection was made of Willamette Industries, Duraflake Division. The purposes of the inspection were to determine which sources needed additional source testing or retesting and where fugative emission control might be improved.

The emissions points at this facility may be categorized in equipment groupings.

The 100, 200, and 300 series is primarily material receiving, sizing, and predrying.

101 - Truck Dump

All material arrives through the truck dump building. The building is enclosed except at the north end where the trucks enter and leave. The trucks back into the building to the south end and discharge their material into a hopper which is equipped with a dragchain. Fugative emissions are predominantly from the dry material receiving system, but are also encountered when dumping green material.

Comments

1. The negative air system (101) is not in use. Plant personnel explained the air pick-up points were too near the raw material dump and were constantly being plugged. As the system was explained to me, I do not think it would improve emissions from the truck dump building.
2. Fugitive losses could be reduced minorly by tightening the building (ie - keep personnel door closed and repair exterior openings).
3. Control of material which remains on the truck after the dump and subsequently blows off, would help the area emissions.
4. Material escapes the building and is deposited on their property and on adjacent property.

### 201A - 201B - Green Material Refiners

The green material is belt conveyed from the receiving building to the outside green material storage pile. The material is then belt conveyed to the refiners for primary sizing. The air discharges from the refiners to systems 201A and 201B.

#### Comments

1. Tested emissions rates of 0.5 and 0.8 pounds per hour seem low. There were very light visible emissions.
2. A retest is recommended due to high velocity of air streams and their proximity to the ambient air samplers.

### 202 - Relay to Green Material Surge Bin

The material from 201A and 201B is then air conveyed to the green material surge bin cyclone 202.

#### Comments

1. Tests in January of 1976 show emissions less than 0.1 pounds per hour.
2. No visible emissions were observed.
3. No retest is recommended.

### 205 - Primary Cyclone From the Heil 85 Dryer

Part of the material from the realy cyclone (202) goes to the Heil 85 dryer. The dryer discharges through cyclone 205. The emissions from Cyclone 205 are now being treated with a scrubber operating with a 10 to 14 in water pressure drop.

#### Comments

1. Blue haze emissions were still in excess of 40% opacity.
2. There is no current test data on the system operating in the current mode.
3. Emission test is recommended.

### 203 - Primary Cyclone From the Heil 105 Dryer

The discharge from this dryer passes through cyclone 203. The emissions from this cyclone are uncontrolled.

### Comments

1. Opacity was greater than 60% during time of observation.
2. Source tests conducted in December of 1976 appear to show representative emissions from this source.
3. Retest is not recommended.
4. Emissions controls should be required.

### 204 and 205A - Relay Cyclone From the Dryer Cyclone

The material from cyclones 205 and 203 is air transferred through cyclones 204 and 205A.

### Comments

1. Both units were source tested in January of 1975 and showed emissions of 1.7 and 6.6 pounds per hour.
2. Both cyclones were operating in excess of 10% opacity. During the tests, opacity was judged less than 10% opacity.
3. Retesting is recommended.

### 206 - Bypass Relay Cyclone and Baghouse

Cyclone 206 operates only intermittently. Prior to July of 1977, emissions from the cyclone were vented via an "elephant trunk" to a location beside the building. Emissions are now controlled by a new baghouse.

### Comments

1. No visible emissions from baghouse.
2. No source test is recommended.
3. Material collected in baghouse is routed to the dry material storage building, where company officials say the dust problem has increased within the building.

### Dry Material Storage Buildings

Dry material is belt conveyed from the receiving building to the top of the dry material storage building. These belt conveyors

are all enclosed. The material is dropped off the belts inside the building and free fall to the storage piles.

The building has large doors on both the east and west sides. Additional dry storage buildings are provided for plywood trim. The plywood trim storage buildings have very large openings on the south side.

#### Comments

1. The west door on the dry material storage building is always open. Equipment operating in the building use this as a primary entrance/exit.
2. The east door is open a considerable amount of the time.
3. Dust conditions within the dry material building are extremely high.
4. Winds blowing through the building reintrain much dust.
5. Carryover and leakage from conveyors outside the building adds to the area dust problem.
6. All material that is openly or indirectly exposed to the wind has a chance of becoming reintrained, adding to the area dust problem.

#### 102 and 103 - Fir Shavings Cyclone & Hemlock Shavings Cyclone

These cyclones receive the dry shavings from silos adjacent to the dry material storage building. These silos are filled by enclosed belt conveyors.

#### Comments

1. Visible emissions were approximately 5% opacity.
2. The emission levels of 0.4 and 1.2 pounds per hour seems low.
3. Additional controls are recommended.
4. If no controls are added, sources should be retested.

#### 104 - Hog Reclaim Cyclone

This cyclone handles material from a reclaim silo.

#### Comments

1. Cyclone puffs from 0 to 10% opacity.

2. Emission level of 0.6 pound per hour is probably a good overall average but some periods are probably in considerable excess.
3. Additional control is recommended.
4. Source test is recommended if controls are not installed.

#### 301 - 302 - Plywood Trim Cyclones With a Scrubber

The plywood trim is passed through hammer mills. This material is then air transmitted through cyclones 301 and 302. Their exhaust is treated commonly by an American Air Filter type R wet rotoclone scrubber.

##### Comments

1. The observed opacity was greater than 5%.
2. The unit was source tested in July of 1972.
3. Emissions appear greater than the tested rate of 2.5 pounds per hour.
4. Additional source test is recommended.

#### 303 - 310 - Pallman Screen and Conveyor Vent

These cyclones handle very fine dry material from the Pallman operation. They have a common discharge through an AAF Type R wet scrubber.

##### Comments

1. The observed opacity was greater than 5%.
2. The unit was source tested in July of 1972.
3. Emissions appear greater than the tested rate of 2.1 pounds per hour.
4. Additional source test is recommended.

#### 311 - Refiner

This is another cyclone scrubber combination handling fine dust.

##### Comments

1. No source test data regarding emission rate. Company estimates 0.5 pounds per hour.



2. No visible emissions observed.
3. Source test is recommended to help determine compliance.

#### 401 - 403 - 405 - 407 - Primary Material Dryers

The refined dry and predried material goes through final drying process. There are four separate final dryers each with its own scrubber.

##### Comments

1. The units were all tested in 1969 with measured emissions 2, 2, 2, and 4 pounds respectfully.
2. There were visible, 5% opacity, emissions from the scrubbers.
3. Recommend additional observations and source tests.

#### 408 - Production Surge Bins

These surge bins handle final dried material.

##### Comments

1. The silos are well enclosed and exhausted to a baghouse.
2. No visible emissions from silos or baghouse.
3. No source test is recommended.

#### 409 - Relay to Blender Surge Bin

This cyclone relays the material from the production surge bins to the blender surge bin.

##### Comments

1. Emissions are controlled with the same baghouse as the 408 silos.
2. No emissions evident.

#### 508 - Line 2 MAT Trim

This unit handles the pre press (blended) trim material.

##### Comments

1. No emissions were evident.
2. No source test is provided in files.

3. Source test is recommended to confirm estimated emission of 2.5 pounds per hour.

#### 502 and 503 - Floor Sweeps Hogging Heads

This is additional prepress Mat material.

##### Comments

1. No emissions were observed.
2. Emissions estimates of 0.4 and 0.0 pounds per hour seem realistic.
3. no source tests are recommended.

#### 504 and 504A - Reject Pit Cyclone

504A is an alternate system to the 504 system handling reject material.

##### Comments

1. No emissions were observed.
2. Source test is not recommended.

#### 501 - 507 - Mat Trim and Floor Sweeps

These cyclones have "elephant trunks" venting their exhausts down between buildings.

##### Comments

1. Considerable material has accumulated on the ground at the discharge of these units.
2. A discharge system which does not lead to increased fugative emission should be installed.
3. If left as is, source tests should be conducted.

#### 508 and 508A - Line 2 Reject Pit

508A is an alternate to 508.

##### Comments

1. Observations on 508 indicates occasional puffing up to 5% opacity. This could be caused by material surges.

2. The company should investigate further the causes of the discharge surges.
3. Source test is recommended if surges cannot be corrected.

601 and 606 - Line 3 Reject Pit and Furnish to Blender

Comments

1. Both cyclones exhausted to a common scrubber.
2. No visible emissions observed.
3. Source test is recommended due to number of sources using common scrubber.

602 - Globe Saws Negative Air System

This is a cyclone - baghouse combination.

Comments

1. No visible emissions observed.
2. No source test is recommended.

603 - 604, 704 - 705, 706 - 707 - Sanders From Lines 3, 1, and 2

Comments

1. Operations looked excellent.
2. No apparent discharges.
3. No source test is recommended.

605 Hog Reclaim Cyclone

Comments

1. No source tests are on file.
2. Source test is recommended due to accumulation of material at discharge point.

509, 510, 511, 512, 607, 608, and 609 - Press Vents

These are all press vents from the particleboard presses.

Comments

1. Visible dust emissions not observed.

2. Considerable dust at base of 1 vent which had recently been cleaned out.
3. Material may build up within vents, become dislodged, and then become airborne on an intermittent basis.
4. More frequent clean out recommended.
5. Source tests recommended for each line.

701 and 708 - Globe Saws and Hog Reclaim

Comments

1. Exhaust routed to common scrubber.
2. No visible emissions observed.
3. Source tested in July 1972 at 2.1 pounds per hour.
4. Source test is recommended to substantiate emission levels.

702 - Porter Saws

Comments

1. No source tests are on file. Emissions estimated by company at 1 pound per hour.
2. No visible emissions observed and no build up around source.
3. Source test is not recommended.

703 - KVAL Saw

Comments

1. No source tests on file. Emissions estimated by company at 0.4 pounds per hour.
2. No visible emissions observed.
3. No sources test is recommended.

801, 802, 902, 907, 910, - #1 and #2 Sanderdust Bins, #1 Negative Air, Mill and Flake Negative Air, and Relay #902 to Dryer Bin Cyclones

Boiler area and miscellaneous air handling systems.

Comments

1. All routed to a common scrubber.

2. Scrubber also serves 601 and 606.
3. No visible emissions observed.
4. Source test recommended due to number of sources using common scrubber.

803 - #1 Boiler Feed

System handles dry dust.

Comments

1. Exhaust routed to baghouse.
2. No source test is recommended.

804 - #2 Boiler Feed

System handles dry dust.

Comments

1. Exhaust routed to baghouse.
2. No source test is recommended.

901 - #1 Blender Negative Air

Comments

1. Opacity of 5% observed.
2. Estimated emissions are 0.3 pound per hour.
3. No source tests have been performed.
4. A source test is recommended.

### Fugitive Emission

Fugitive emissions which contribute to dusty conditions off the property have not been sufficiently investigated. Some of the more obvious sources are:

1. Bulk transport of raw material by frontend loaders
2. Openings from the truck dump area
3. Openings in the dry material storage buildings
4. Any openings in the material conveyor systems
5. Accumulations resulting from upset operations
6. Open storage and handling of usable material from various clean-up processes

### DISCUSSION

A meeting was held with the company on August 4, 1977, to discuss the information contained in this memo. Prior to initiating source tests on all sources, I have recommended for testing, it was suggested that a limited number be tested initially. These tests may influence my recommendations depending on their outcome.

SOURCES TO  
BE TESTED

It was mutually agreed that the initial tests should be conducted on Cyclone 201A, Scrubbers A, G, H, both press vents from Line 2, cyclone 605 and cyclone 103. These tests could be conducted by the company within 90 days. All sources could be tested by the HV train with the exception of the press vents which would be subject to an additional gaseous sampling train. These units, I believe, are representative of worst case emitters for similar operating units.

Additional control of fugitive emission is necessary. More review of the subject is required before they can be adequately addressed.

PW/tlk

AIR SYSTEM EMISSIONS

8-1-77

<u>100 Series - Raw Material</u>	<u>#/Hr.</u>	<u>Control</u>	<u>Tested</u>	<u>Test Recommend.</u>
101 Truck Dump negative air		Disconti.	NA	---
102 Fir shavings to screen	.4	High Pres.	1969	Conditional
103 Hemlock shavings to screen	1.2	High Pres.	1969	Conditional
104 Hog reclaim to screen	.6	High Pres.	1969	Conditional
<u>200 Series - Pre-dry area</u>				
201A North Green refiner	.5	Low Pres.		Yes
201B South Green refiner	.8	Low Pres.		Yes
202 Relay to green dryer surge bin	0.0	High Pres.	1976	No
203 Primary from 105 dryer	32.0	Low Pres.	1976	No
204 Relay from 105 dryer	6.6	Low Pres.	1976	Yes
205 Primary from 85 dryer		AAF Scrubber		Yes
205A Relay from 85 dryer	1.7	Low Pres.	1976	Yes
206 Relay to Fir storage - bypass	0	Baghouse 8		No
<u>300 Series - Milling Area</u>				
301 Plywood trim to screen	2.5	Scrubber A	1972	Yes
302 Plywood trim to screen		Scrubber A		*
303 Screen to Pallmann bin	2.1	Scrubber B	1972	Yes
310 Pallmann conveyor vent		Scrubber B		*
311 PSKM refiner	.5	Scrubber C		Yes
<u>400 Series - Dryer area</u>				
401 #1 dryer primary	2.0	Scrubber D	1969	Yes
403 #2 dryer primary	2.0	Scrubber E	1969	Yes
405 #3 dryer primary	2.0	Scrubber F	1969	Yes
407 #4 dryer primary	4.0	Scrubber G	1969	Yes
408 Production Silo	0.0	Baghouse 4		No
409 Relay to Blender Surge Bin	0.0	Baghouse 4		No
<u>500 Series - Line #1 Area</u>				
501 Mat trim	2.5	Low Pres.		No
502 Floor sweeps and system #503	.4	Low Pres.		No
503 Hogging heads	0.0	Low Pres.		No
504 Reject pit (inside plant)	0.0	High Pres.		No
509 Press vent	1.3	Stack	1972	Yes
510 Press vent	1.3	Stack	1972	*
504A Alternate to 504		High Pres.		No
<u>500 Series - Line # 2 Area</u>				
506 Mat trim	1.0	Low Pres.		Conditional
507 Floor sweeps	1.0	Low Pres.		Conditional
508 Reject pit	.5	High Pres.		Conditional
508A Alternate to 508		High Pres.		Conditional
511 Press vent	1.3	Stack	1972	Yes
512 Press vent	1.3	Stack	1972	*

600 Series - Line #3 Area

	<u>#/Hr-</u>	<u>Control</u>	<u>Tested</u>	<u>Test Recommend.</u>
601 Reject pit	0.0	Scrubber H		Yes
602 Globe saws and negative air	0.0	Baghouse 5		No
603 Sander #3	0.0	Baghouse 3		No
604 Sander #3	0.0	Baghouse 3		No
605 Hog reclaim	3.0	High Pres.		Yes
606 Furnish to blender	0.0	Scrubber H		*
607 Press vent	1.3	Stack	1972	Yes
608 Press vent	1.3	Stack	1972	*
609 Press vent	1.3	Stack	1972	*

700 Series - Finishing Lines 1 & 2

701 Globe saws	0.0	Scrubber w/#708 I		Yes
702 Porter saws	1.0	Low Pres.		No
703 KVAL saw	.4	Low Pres.		No
704 & 705 Sander #1	0.0	Baghouse 1		No
706 & 707 Sander #2	0.0	Baghouse 2		No
708 Hog reclaim	2.1	Scrubber I	1972	*

800 Series - Boiler Area

801 #1 Sander dust bin	0.0	Scrubber H		Yes
802 #2 Sander dust bin	0.0	Scrubber H		*
803 #1 Boiler feed	0.0	Baghouse 6		No
804 #2 Boiler feed	0.0	Baghouse 7		No

900 Series - Miscellaneous

901 #1 Blender negative air	.3	Low Pres.		Yes
902 Mill and flake negative air	0.0	Scrubber H		*
907 Relay #902 to dryer bin	0.0	Scrubber H		*
910 105 dust burner feed	0.0	Scrubber H		*

80.2

\* CONTROL EQUIPMENT CONTROLS MORE THAN 1 SOURCE. TEST RECOMMENDATION STATED ABOVE



8/1/77  
PTW  
DURAFAXE

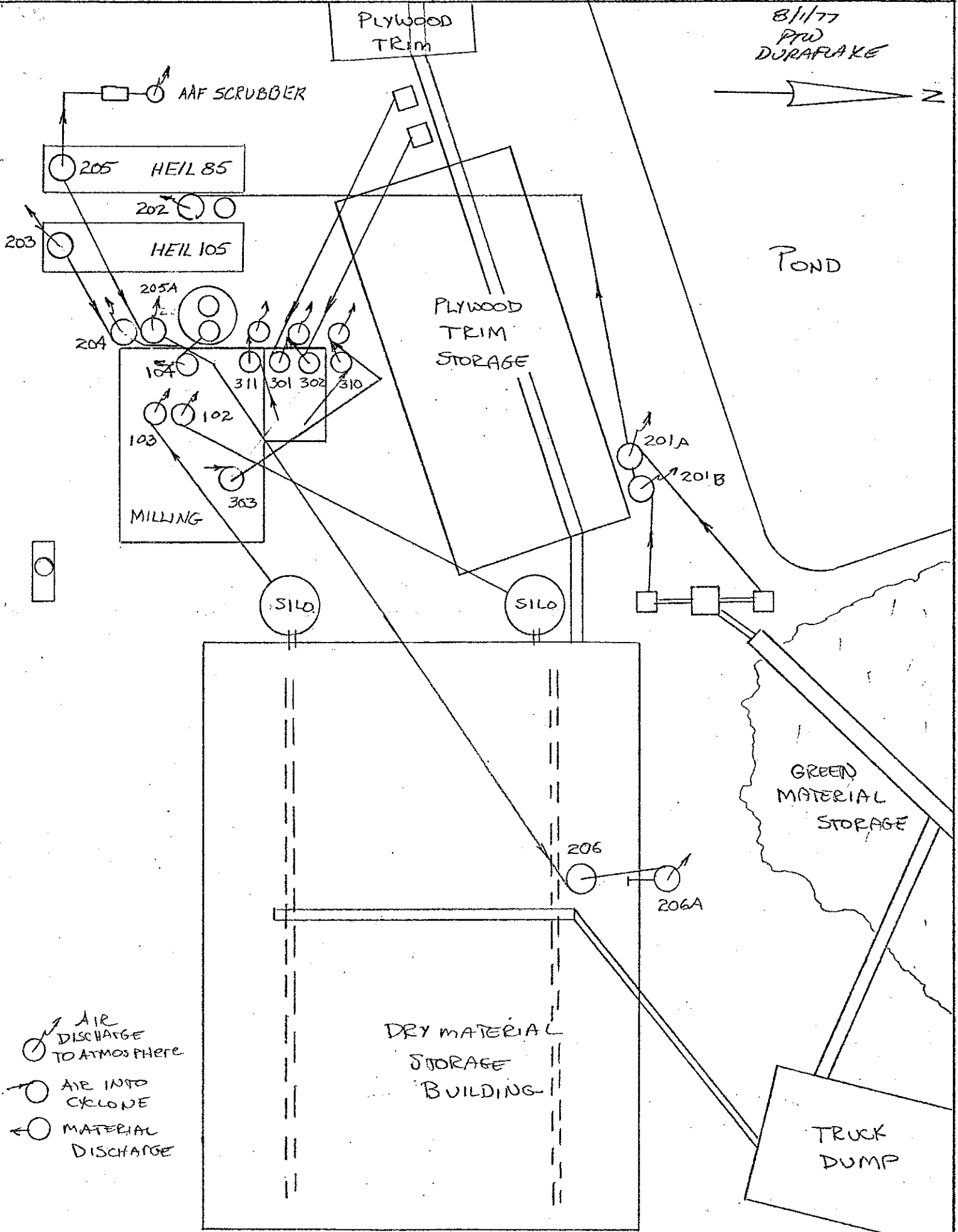
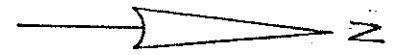
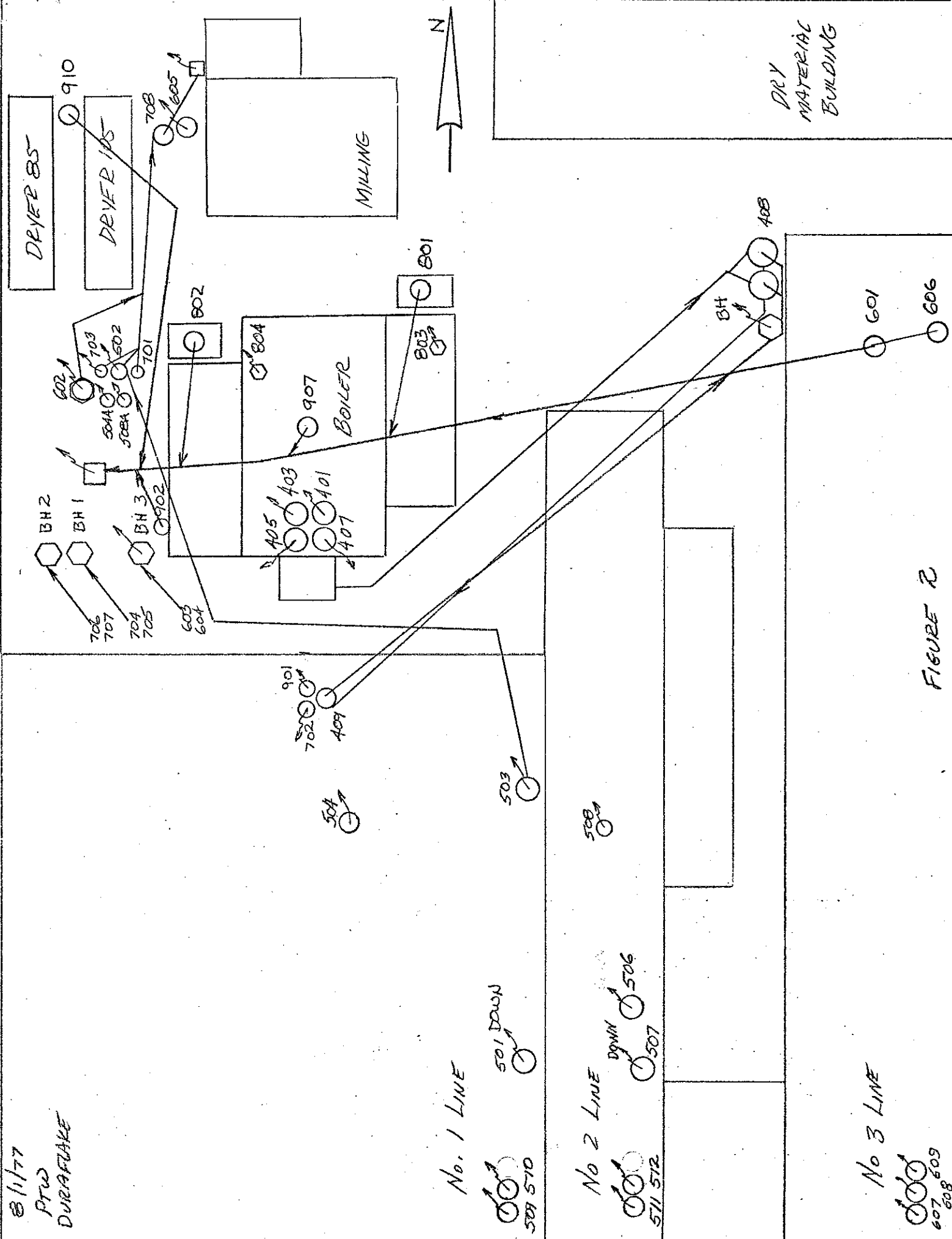


FIGURE 1



8/11/77  
PTW  
DURAFUKE

No. 1 LINE

508 510

501 DOWN

No. 2 LINE

511 512

DOWN 506 507

No. 3 LINE

607 609 608

FIGURE 2

Willamette Industries, Inc.

Duraflake Division

May 3, 1977

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITYRECEIVED  
MAY 4 1977

AIR QUALITY CONTROL



P.O. Box 428

Albany, Oregon 97321

503/928-3341

DEPARTMENT OF ENVIRONMENTAL QUALITY  
1234 S. W. Morrison Street  
Portland, Oregon 97205

Attn: Mr. E. J. Weathersbee

Gentlemen:

The inhabitants of the Millersburg area, as well as the inhabitants in the remainder of Oregon, are faced with energy problems as well as pollution problems. It seems that everything we do to solve the pollution problem just aggravates the energy problem. Our proposed solution to reduce the green dryer opacity level will be an attempt to compromise these two important problems.

1. With your approval, we will immediately activate the previously approved two stage AAF venturi scrubber on the 85 green dryer. This will get the 85 dryer in compliance at an energy usage rate in excess of 128,000 KWH per month.
2. With your approval, we will undertake another feasibility study for the 105 dryer to evaluate the new control equipment available to reduce opacity in an effort to find an acceptable unit with lower power demands than the two stage AAF venturi scrubber.
3. If by June 30, 1978 we can engineer a more efficient control system we will order said system and install it during our December, 1978 shutdown providing the equipment is available within that time span.
4. If by June 30, 1978 we can not engineer a more efficient control system we will order a two stage AAF venturi scrubber for the 105 dryer. This scrubber should be available for installation during our December, 1978 shutdown and operational in January, 1979.
5. A variance is requested to operate the 105 green dryer without control equipment until January, 1979.

continued . . . . .

CC - FAS  
VJA

DEQ  
Portland, Or

May 3, 1977


- 2 -

As previously indicated the venturi scrubber on the 85 green dryer will consume 128,000 KWH per month. A venturi scrubber on the 105 dryer will consume an additional 169,000 KWH per month for a total of 297,000 KWH increased load. These two control devices will increase our total electrical usage 8.7%, during a period we are trying to voluntarily curtail our usage 10%.

After you have analyzed our proposal we would like the opportunity to discuss it further prior to the June 24th EQC meeting.

Very truly yours,

WILLAMETTE INDUSTRIES, INC.



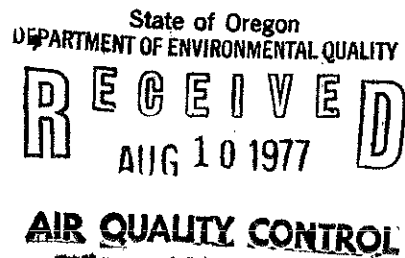
Tom Buglione  
Production Manager

TB:jw

## Willamette Industries, Inc.

Duraflake Division

August 8, 1977



P.O. Box 428

Albany, Oregon 97321

503/928-3341

DEPARTMENT OF ENVIRONMENTAL QUALITY  
1234 S. W. Morrison Street  
Portland, Oregon 97205

Attn: Mr. F. Skirvin

Gentlemen:

During our meeting of June 29, 1977 with the DEQ and EPA we were asked to base our variance request for the operation of the 105 green dryer in violation of standards on the provisions of ORS 468.345.

The specific variance request is outlined in our letter of May 3 to Mr. Weathersbee. In that letter we discuss the high energy usage for the venturi scrubber, the only control device that has proven effective to date. We agreed to operate the venturi on the 85 green dryer because it is already installed. But to install a new unit on the 105 green dryer would be an inefficient use of electrical energy -- especially when we are trying to curtail our usage 10% at the request of the local utilities. Section b of ORS 468.345 addresses this problem by stating that if compliance would be unreasonable, burdensome or impractical due to special physical conditions or cause, a variance may be granted. We believe that compliance at this time will be burdensome to the electrical requirements of the Willamette Valley. Section d of ORS 468.345 says that a variance may be granted if no other alternative facility or method of handling is yet available. Other than the venturi scrubber, we have not found another pollution control device to do the job. This variance will allow us until June 30, 1978 to find a more efficient control system than the venturi scrubber. If none can be found we will install a venturi and have it operational by February 15, 1979 pending receipt of equipment from our vendor.

In addition to the variance request we were asked to establish a program to evaluate our remaining emission sources in cooperation with the Eugene DEQ office. Paul Willhite's inspection report of August 5, 1977 outlines the representative testing we agreed to do within 90 days. The outcome of this test data will be the basis for any additional work required.

DEQ  
Portland, Or.  
Mr. F. Skirvin

August 8, 1977

- 2 -

If any other information is required for this variance request,  
please give me a call.

Very truly yours,

WILLAMETTE INDUSTRIES, INC

A large, stylized handwritten signature in black ink, appearing to read "Tom Byglione". The signature is written over the typed name and title.

Tom Byglione  
Production Manager

TB:jw

IID-WILLAMETTE VALLEY AIR POLLUTION AUTHORITY  
2585 State St., Salem, Oregon 97301  
Phone (503) 581-1715

Permit Number 220143  
Expiration Date 7-1-78

# Air Contaminant Discharge Permit

(Issued in accordance with provisions of MWVAPA Rules, Title 22)

Issued to: Duraflake Division, Willamette Application No. 63  
Industries, Inc.  
P.O. Box 907 Albany, Oregon  
Plant site: Albany, Oregon  
Issuance Date June, 1973  
Last Renewal July, 1975

Source(s) covered by this permit:

<u>Source</u>	<u>SIC No.</u>
<u>Particleboard Manufacturing Plant</u>	<u>2492</u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>

Approved:

David St. Louis  
David St. Louis, Interim Director

Air Contaminant Discharge Permit

Source(s): Particleboard Manufacturing Plant SIC No. 2492

1. Permitted Activities

1.1 Until such time as this permit expires or is modified or revoked, Duraflake Company, a division of Willamette Industries, Inc., is herewith permitted to discharge emissions in a controlled manner from the facilities located at Millersburg, Oregon. These emissions, permitted in accordance with the requirements, limitations and conditions of this permit, are based upon the maximum normal rates of production for the following sources:

36.9  
 x 3  
 ---  
 110.7

1.1.1 Particleboard manufacturing - ~~36,900~~ <sup>110.7</sup> ft<sup>2</sup>/hr (3/4" basis) or 122,185 lb/hr raw material input.

1.1.2 Fuel burning equipment:

<u>Type of Equipment</u>	<u>Type of Fuel</u>	<u>Maximum Heat Input BTU/hr or gallons/hr</u>
Babcock & Wilcox #1 Boiler	Sanderdust Gas Diesel (2)	47.5 million 5,000 lb/hr max. 50.0 million 50,000 ft <sup>3</sup> /hr max. 54.0 million 385 gal/hr max. (backup)
Babcock & Wilcox #2 Boiler	Sanderdust Gas Diesel (2)	47.5 million 5,000 lb/hr max. 50.0 million 50,000 ft <sup>3</sup> /hr max. 54.0 million 385 gal/hr. max. (backup)

1.2 Specific listing of requirements, limitations, and conditions contained herein does not relieve the permittee from compliance with all rules of the Mid-Willamette Valley Air Pollution Authority, nor waives the right of the Authority to require compliance therewith.

2. Performance Standards and Emission Limits

2.1 The permittee shall provide sufficient control apparatus to meet the requirements, limitations and conditions contained herein (MWR 32-005).

2.2 The maximum particulate discharge rate allowed by this permit shall not exceed that permitted by the process weight standard (MWR 32-050 through 32-070).

2.2.1 This standard restricts total particulate emissions from the particleboard plant to 46.46 pounds per hour.



Air Contaminant Discharge Permit

Source(s): Particleboard Manufacturing Plant SIC No. 2492

- 2.3 Except as specifically allowed by Section 4., the permittee shall not allow any discharge into the atmosphere from any single source of emission whatsoever of any air contaminants, for a period or periods aggregating more than three minutes in any one hour which is equal to or greater than 20% opacity (MWR 32-010-020) except:
- 2.3.1 Where the presence of uncombined water is the only reason for failure to meet the opacity requirements, such requirement shall not apply (MWR 32-025).
- 2.4 Except as specifically allowed by Section 4., the permittee shall not allow any discharge from any single source which exceeds 0.1 grains for each standard cubic foot of exhaust gas (except for sources existing prior to July, 1968 the permittee shall not allow any discharge which exceeds 0.2 grains) (MWR 32-030-035).
- 2.4.1 For fuel burning equipment the standard cubic foot shall be calculated to 12% carbon dioxide.
- 2.4.2 For refuse burning equipment the standard cubic foot shall be adjusted to 50% excess air or calculated to 12% carbon dioxide exclusive of carbon dioxide from auxiliary fuel.
- 2.5 The permittee shall not allow unnecessary amounts air contaminants to be discharged from buildings, roads, driveways, open areas, or materials handling processes.
- 2.5.1 The emission of particulate matter from buildings, roads, driveways, open areas, or material handling processes shall be controlled (MWR 32-040).
- 2.5.2 The permittee shall control particulate emissions such that the particulate fallout rate on adjacent properties does not exceed five (5) grams per square meter per month (MWR 31-005, 31-010).
- 2.6 Notwithstanding the general and specific emission standard and regulations of the Authority, the highest and best practicable treatment and control of air contaminant emissions shall in every case be provided by the permittee so as to maintain overall air quality at the highest possible levels, and to maintain contaminant concentra-

Air Contaminant Discharge Permit

Source(s): Particleboard Manufacturing Plant SIC No. 2492

tions, visibility reduction, odors, soiling and other deleterious factors at the lowest possible levels. In the case of new sources of air contaminants, particularly those located in areas with existing high air quality, the degree of treatment and control provided shall be such that degradation of existing air quality is minimized to the greatest extent possible (OAR 20-001).

2.6.1 The permittee shall control press vent formaldehyde emissions such that ambient formaldehyde concentrations do not exceed 0.5 parts per million (ppm) in residential areas and 2.0 parts per million (ppm) in industrial areas adjacent to the production plant.

2.7 The permittee is prohibited from causing or allowing discharges of air contaminants from sources not covered by this permit so as to cause the plantsite to exceed the standards fixed by this permit or rules of the Authority.

3. Upset Reporting and Scheduled Maintenance

3.1 In the event that the permittee is temporarily unable to comply with any of the provisions of this permit due to upsets or breakdowns of equipment, the permittee shall notify the Authority by telephone within one hour, or as soon as is reasonably possible, of the upset and of the steps taken to correct the problem.

3.2 Upset operation shall not continue longer than forty-eight (48) hours without approval nor shall upset operation continue during Air Pollution Alerts, Warnings, or Emergencies or at any time when the emissions present imminent and substantial danger to health (MWR 21-045).

3.3 For schedule maintenance, a report shall be submitted twenty-four (24) hours prior to shutdown of the air pollution control equipment providing that no such maintenance scheduled more frequently than one time in a ninety-day period may occur without prior approval by the Authority (MWR 21-045).

4. Compliance Schedule

4.1 Stipulation and Order No. 72-2492-68 issued by the Authority on November 28, 1972, shall be considered part of this Permit except that Section D-2 of the above Order shall be modified to read as follows:

Air Contaminant Discharge Permit

Source(s): Particleboard Manufacturing Plant SIC No. 2492

- 4.1.1 On or before December 31, 1974, that Duraflake submit proof of purchase of equipment to control both pre-dryers.
- 4.1.2 On or before January 15, 1975, that Duraflake submit final engineering plans and specifications to control both pre-dryers.
- 4.1.3 On or before March 1, 1975, initiate on-site construction.
- 4.1.4 On or before July 31, 1975, complete on-site construction.
- 4.1.5 On or before July 31, 1975, demonstrate compliance for both pre-dryers and the plant site.
- 4.2 Immediate notification of enforcement action will be issued by the Authority should any of the above requirements not be fulfilled.

5. Monitoring and Reporting

- 5.1 The permittee shall provide means whereby the operator of the equipment, process, or control apparatus shall be able to know the nature, appearance or condition of the emissions during operation to insure that it operates in continual compliance with the conditions of this permit.
- 5.2 Specifically, the permittee shall:
  - 5.2.1 Regularly monitor and inspect the operation of the plant to insure that it operates in continual compliance with the Rules and Regulations of this Authority.
  - 5.2.2 Submit a monthly summary of cyclone and conveyor plug-ups and report periodically on progress in identifying and correcting the cause of such upsets and in reducing the frequency of such upsets.

6. Conditions of Operation

- 6.1 The permittee shall at all times maintain and operate all air contaminant generating processes and all contaminant

Air Contaminant Discharge Permit

Source(s): Particleboard Manufacturing Plant SIC No. 2492

control equipment at full efficiency and effectiveness, such that the emission of air contaminants is kept at the lowest practicable level.

6.2 The permittee shall not use:

6.2.1 Any ASTM grade 4, 5, or residual fuel oil (PS 300, 400, Bunker C) containing more than 1.75 percent sulfur by weight (MWR 32-100).

6.2.2 Any distillate fuel oil containing more than 0.3 percent sulfur by weight for ASTM grade 1 fuel oil (PS 100 or stove oil) or 0.5 percent sulfur by weight for ASTM grade 2 fuel oil (PS 200 or diesel) (MWR 32-105).

6.3 The permittee shall periodically clean, adjust and otherwise maintain the fuel burning equipment to insure that operation is consistent with the manufacturer's specifications.

6.3.1 The permittee shall inspect and clean or replace any burner nozzles on a daily basis.

6.3.2 The permittee shall not attempt to operate equipment which has become defective and cannot provide clean, low emissions combustion.

6.4 All control measures for fugitive dust emissions contained in Stipulation and Order No. 72-2492-68, previously made a part of this permit, shall be maintained, operated, or employed.

7. Emergency Emission Reduction Plan

7.1 The permittee will implement an emission reduction plan during air pollution episodes when so notified by this Authority.

7.2 During Alert:

7.2.1 The B & W boilers will not be operated if the exhaust gases are not ducted to the pre-dryer emission control equipment, except for boiler lancing. Maximum utilization will be made of the 12 noon - 4 p.m. period for boiler lancing.

Air Contaminant Discharge Permit

Source(s): Particleboard Manufacturing Plant SIC No. 2492

The maximum possible reduction will be made in heat load demands consistent with continuing plant operations.

- 7.2.2 Substantially reduce plant emissions by curtailing, postponing, or deferring production.
- 7.2.3 Shut down sanding lines if sanderdust cyclones are not equipped with secondary collectors.
- 7.3 During Warning:
  - 7.3.1 Continue Alert measures.
  - 7.3.2 Shut down rotary dryers if not operating in compliance with emission standards.
- 7.4 During Emergency:
  - 7.4.1 Continue Alert and Warning measures.
  - 7.4.2 Shut down plant.
  - 7.4.3 Discontinue use of all motor vehicles except in emergencies with the approval of local or state police.

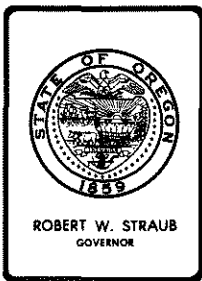
8. General Requirements for All Sources

- 8.1 The permittee is prohibited from conducting any open burning at the plantsite (MWR 33-005).
- 8.2 Disposal of waste residue in a landfill or other solid waste disposal area shall be done in a manner and at locations approved by the Department of Environmental Quality.
- 8.3 The permittee shall obtain approval in writing from the Authority for any change in the plant facility, production capabilities, or for any new emission sources prior to installation or modification of the equipment classified as an emission source or emission control equipment (MWR 21-010).
- 8.4 This permit is subject to suspension or revocation prior to its expiration date for any of the reasons listed below (MWR 22-005):

Air Contaminant Discharge Permit

Source(s): Particleboard Manufacturing Plant SIC No. 2492

- 8.4.1 Within sixty days after the sale or exchange of the permitted air contaminant source(s).
- 8.4.2 Upon change in the nature of activities, operations, air contaminant discharges from those of record on the last permit application.
- 8.4.3 Upon issuance of a new or modified permit to the same air contaminant source.
- 8.4.4 Upon written request of the permittee.
- 8.4.5 Misrepresentation of any material, fact, or lack of full disclosure in the application or other additional information requested therewith.
- 8.4.6 Violation of any of the requirements, limitations, or conditions contained herein.
- 8.5 Non-compliance with the terms of this permit may subject the permittee to imposition of a civil penalty or misdemeanor.
- 8.6 If the Authority finds that there is a serious danger to the public health or safety, or irreparable damage to a resource will occur, it may suspend or revoke a permit effective immediately (MWR 22-025).
- 8.7 The permittee shall allow Authority representatives access to the plantsite and record storage areas at all reasonable times for the purpose of making inspection, surveys, collecting samples, obtaining data, and otherwise conducting all necessary functions related to this permit.



## *Environmental Quality Commission*

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission  
From: Director  
Subject: Agenda Item E, September 23, 1977 EQC Meeting

Public Hearing to Consider Amendment to OAR 340-72-010,  
Subsurface and Alternative Sewage Disposal. Setting  
Fees for Special Repair Permits in Lane County.

### Background

Lane County, in an attempt to encourage repair and upgrading of large numbers of failing septic systems located by survey, is proposing a minimum repair fee under certain conditions. The objective in substantially lowering the repair fee is to encourage voluntary compliance and thereby reduce costly administrative and legal manhours. The proposed fee reduction is offered as an incentive for prompt action by individual home owners.

### Evaluation

Reduced fee schedules for repair permits are provided by Statute, upon county's request. Such a request has been submitted by Lane County. The Department has reviewed the request and supports the county proposal.

### Summation

1. Oregon Revised Statute (ORS) 454.745(1) establishes maximum fees for subsurface and alternative sewage disposal system permits.
2. Upon request from "contract" county, ORS 454.745(4) allows the Commission to establish reduced fees by rule if the county can show, to the satisfaction of the Commission, that with the requested lower fees it can otherwise finance the duties required of it by agreement with the Department.



Contains  
Recycled

3. The reduced repair fee is expected to encourage voluntary compliance with repair requirements. Reduced income is expected to be offset by reduced administrative and legal costs.

Director's Recommendation

It is the Director's recommendation that, after public hearing, the Commission adopt the proposed amendment to Oregon Administrative Rule (OAR) Chapter 340, Section 72-010, as set forth on Attachment "A."

*Bill*  
WILLIAM H. YOUNG  
Director

Jack Osborne/jms  
229-6218  
August 29, 1977  
Attachment: (1) Proposed amendment to OAR 340-72-010



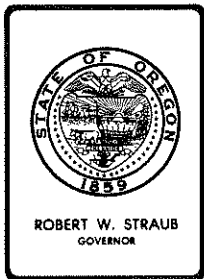
AMENDMENT TO  
 OREGON ADMINISTRATIVE RULES  
 CHAPTER 340, DIVISION 7  
 SUBSURFACE AND ALTERNATIVE SEWAGE DISPOSAL

OAR 340-72-010 add a new paragraph (e) to Subsection (4) to read as follows:

"and (e) The fees to be charged by the county of Lane shall be as follows:

- |    |                                   |       |
|----|-----------------------------------|-------|
| A. | Construction, installation permit | \$100 |
| B. | Alteration, extension permit      | \$ 25 |
| C. | Evaluation report                 | \$ 75 |
| D. | Repair permits                    |       |
|    | (i) Standard                      | \$ 25 |
|    | (ii) Special*                     | \$ 1  |

\*Special repair permits shall be issued upon application therefor to the owner (or contract purchaser) to repair the system serving the owner (or contract purchaser) occupied housing unit located within the boundaries of any area which has been formally declared by the Lane County Board of Commissioners ("Board") or the Oregon State Health Division to be a health hazard area, or within an area defined in a sewer plan adopted by the Board recommending correction of individual systems; provided that a repair permit application and fee is filed not later than 30 days after the date of written notification that the applicant's system has failed."



## *Environmental Quality Commission*

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission  
From: Director  
Subject: Agenda Item No. F, September 23, 1977, EQC Meeting

Public Hearing to Consider the Question of Imposing  
Moratorium on Permits and Favorable Reports of Site  
Suitability for New Subsurface Sewage Systems in  
Dexter Area, Lane County.

### Background

Oregon Revised Statutes (ORS) 454.685 provides that the Commission may issue an order limiting or prohibiting construction of subsurface or alternative sewage disposal systems in an area. The order may be issued only after public hearing for which 30 days' notice is given. In issuing the order the Commission shall consider the following factors for the proposed affected area:

- (a) Present and projected density of population.
- (b) Size of building lots.
- (c) Topography.
- (d) Porosity and absorbency of soil.
- (e) Any geological formations which may adversely affect the disposal of sewage effluent by subsurface means.
- (f) Ground and surface water conditions and variations therein from time to time.
- (g) Climatic conditions.
- (h) Present and projected availability of water from unpolluted sources.
- (i) Type of and proximity to existing domestic water supply source.
- (j) Type of and proximity to existing surface waters.
- (k) Capacity of existing subsurface sewage disposal systems.



Contains  
Recycled

Such order would issue in the form of an amendment to Oregon Administrative Rules (OAR) 340-71-020.

On June 8, 1977 the Lane County Board of Commissioners adopted Resolution 77-6-8-12 in which the Board requests the Commission to place a moratorium upon issuance of construction permits and favorable reports of evaluation of site suitability for new subsurface sewage disposal systems within the boundaries of the community of Dexter as shown on a map attached as Appendix A to Exhibit B.

#### Evaluation

Resolution 77-6-8-12 was the climax of an extensive study by the Lane County Environmental Health Division which revealed a large percentage of subsurface sewage systems in the Dexter area were either failing or suspected of failing. The survey conducted in May of 1976 found a failure rate of 27 percent with an additional 13 percent found to be marginally operative. Failing systems ranged from minor failures such as gray water discharge to massively failing drainfields or a total lack of a drainfield.

A survey of failing systems by Lane County Department of Environmental Management found that many of the failing systems could not be repaired on-site and many others where repairs would last a comparatively short period of time.

The only feasible method of correcting the problem of failing septic systems in the Dexter area appears to be construction of a community type sewerage system. It appears that a system to serve both Dexter and Lowell would be the most logical and feasible. Petitions circulated in the Lowell/Dexter area indicated a majority of the residents are opposed to formation of a district to provide sewerage facilities.

#### Summation

1. Lane County has requested the Commission to place a moratorium upon issuance of construction permits and favorable reports of site suitability for new subsurface sewage disposal systems in the community of Dexter.
2. Oregon Revised Statutes (ORS) 454.685 provides that the Commission may issue an order in the form of an administrative rule limiting or prohibiting construction of subsurface sewage disposal systems in an area after public hearing for which 30 days notice is given. The proposed rule is attached as Exhibit A.

EXHIBIT A

PROPOSED

Amend Oregon Administrative Rules 340-71-020 by adding a new subsection (8) to read as follows:

"(8) Pursuant to ORS 454.685, neither the Director nor his authorized representatives shall issue either construction permits or favorable reports of evaluation of site suitability for new subsurface sewage disposal systems within the boundaries of the following described geographic area of the State:

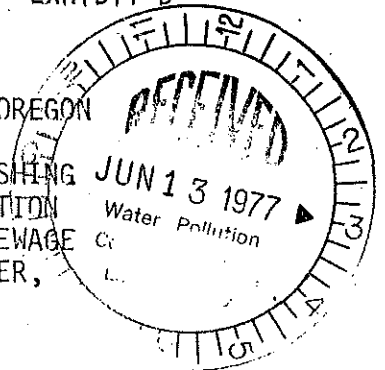
The area generally known as Dexter, and defined by the Boundary submitted by the Board of County Commissioners for Lane which is bounded on the Northeast by Willamette Highway #58, and contains those properties south westerly of Highway #58 in the following tax assessment maps of Lane County. Twp-19 R-01 Sec-16.2, Twp-19 R-01 Sec-16.32, Twp-19 R-01 Sec-16.31, Twp 19 R-01 Sec-16.42, and Twp-10 R-01 Sec-16 and index located totally within Lane County."

IN THE BOARD OF COUNTY COMMISSIONERS OF LANE COUNTY, OREGON

R E S O L U T I O N )

77-6-8- 12

IN THE MATTER OF ESTABLISHING  
A MORATORIUM ON CONSTRUCTION  
PERMITS FOR SUBSURFACE SEWAGE  
DISPOSAL SYSTEMS IN DEXTER,  
OREGON



WHEREAS, the Lane County Environmental Health Division, in a May, 1976, survey of on-site subsurface sewage disposal systems in the unincorporated community of Dexter, Oregon found a large percentage of these disposal systems to have failed or to be marginally operative, and

WHEREAS, the Lane County Water Pollution Control Division, through on-site investigations, has determined that the failing subsurface sewage disposal systems in the community of Dexter are caused by a combination of system age, the silty clay composition of the area soils, and poor installation and design practices during construction, and

WHEREAS, the high number of subsurface sewage disposal system failures in the community of Dexter represents a potential health hazard to the citizens of Dexter and, because the Dexter Reservoir attracts many visitors each year, to other Lane County residents, and

WHEREAS, the State of Oregon Environmental Quality Commission, pursuant to ORS 454.605 to 454.745, has been granted the authority over subsurface sewage disposal systems within the State of Oregon, and therefore be it hereby

RESOLVED that the State of Oregon Environmental Quality Commission be requested to place a moratorium upon the issuance of construction permits and favorable reports of evaluation of site suitability for new subsurface sewage disposal systems within the boundaries of Dexter, Oregon, hereinafter attached as Appendix A.

RESOLVED that this moratorium shall last only so long as the above-listed conditions continue to cause a high number of subsurface sewage disposal failures in Dexter, Oregon.

DATED this 8th day of June, 1977.

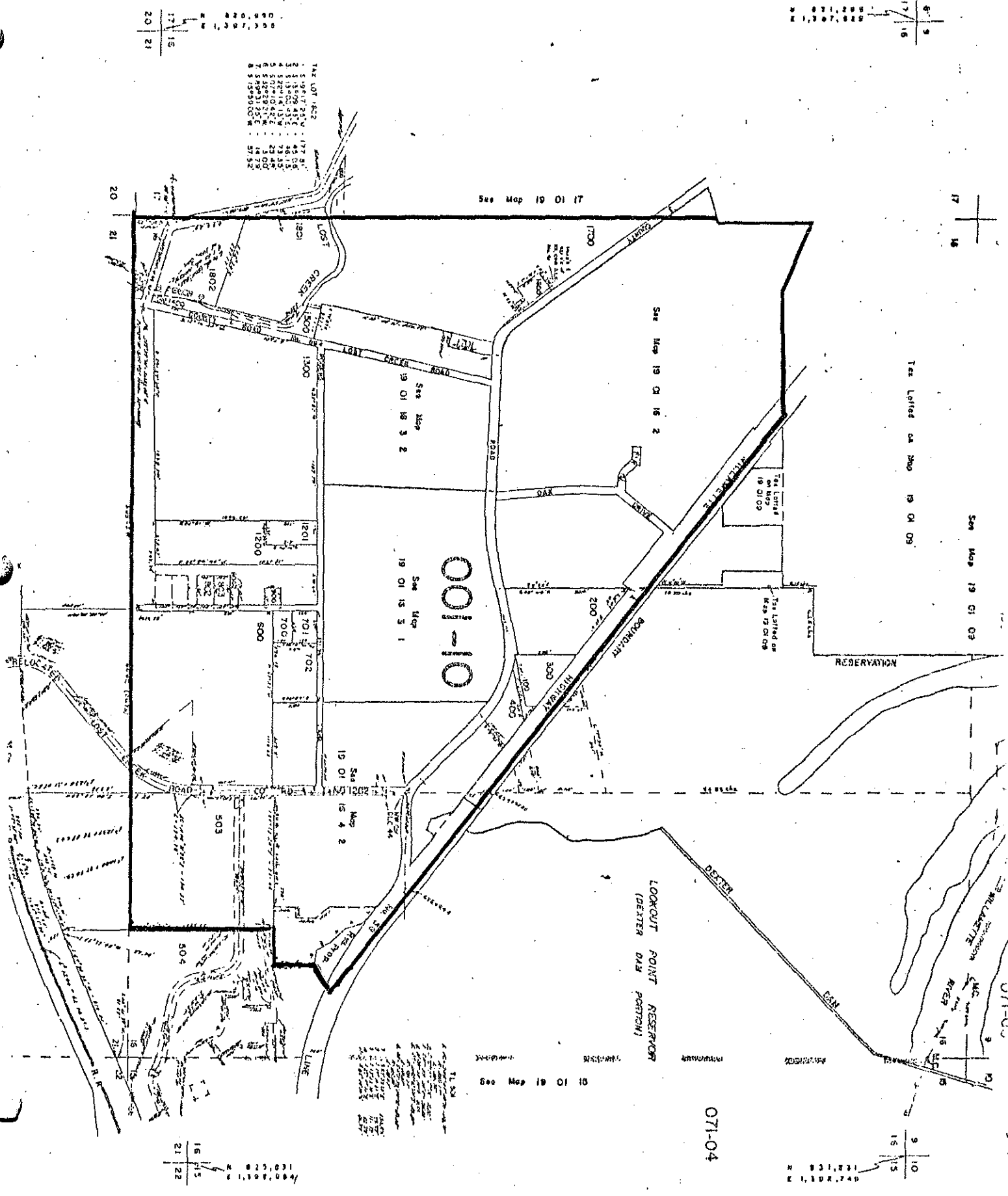
BOARD OF COUNTY COMMISSIONERS,  
LANE COUNTY, OREGON

*Archie Weinstein*  
Chairman

APPROVED AS TO FORM  
DATE *June 10 1977*  
*Arthur J. Carb*  
OFFICE OF LEGAL COUNSEL

# APPENDIX 'A'

## PROPOSED MORATORIUM BOUNDARY



TAX LOT 1802

1	1802.1	177.81
2	1802.2	43.15
3	1802.3	43.15
4	1802.4	73.35
5	1802.5	73.35
6	1802.6	23.45
7	1802.7	14.75
8	1802.8	14.75
9	1802.9	57.52

17 15  
20 21

17 15  
18 16

17 16

See Map 19 01 09  
See Map 19 01 03

See Map 19 01 17

See Map 19 01 16 2

See Map 19 01 16 3 2

See Map 19 01 15 3 1

See Map 19 01 15 4 2

See Map 19 01 10

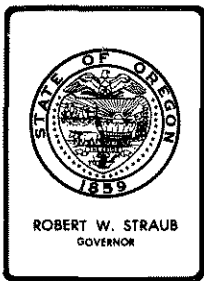
071-04

15 15  
21 22

15 10  
18 10

MORATORIUM BOUNDARY HEARING

The area generally known as Dexter, and defined by the Boundary submitted by the Board of County Commissioners for Lane which is bounded on the Northeast by Willamette Highway #58, and contains these properties south westerly of Highway #58 in the following tax assessment maps of Lane County. Twp-19 R-01 Sec-16.2, Twp-19 R-01 Sec-16.32, Twp-19 R01 Sec-16.31, Twp-19 R-01 Sec-16.42, and Twp-10 R-01 Sec-16 and index located totally within Lane County.



## *Environmental Quality Commission*

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission  
From: Director  
Subject: Agenda Item No. G, September 23, 1977, EQC Meeting

### Teledyne Wah Chang Albany, Millersburg - Consideration of Proposed Air Contaminant Discharge Permit for Rare Metals Plant

#### Background

Teledyne Wah Chang Albany (TWCA) is located at 1600 Old Pacific Highway, west of Interstate I-5 in Millersburg. The Company mainly produces and fabricates zirconium and hafnium in such forms as ingot, sheet, plate, rod, tube, tube-blanks, foil and special shapes. Columbium is also being produced and fabricated at this time.

The air quality matters at this facility were under the jurisdiction of the Mid-Willamette Valley Air Pollution Authority (MWVAPA) until July 1, 1975, when that Regional Authority ceased operations. The MWVAPA issued an Air Contaminant Discharge Permit to TWCA in 1973. This permit contained an October 1, 1975 expiration date. TWCA is currently operating under this original permit which was extended pursuant to OAR 340-14-030 by their timely submission of a renewal application in August 1975.

The Department held a two session public hearing in Albany on March 17, 1977 regarding a proposed permit. The Hearing Officer's report, the proposed permit under consideration at that time, the public notice, and a staff statement regarding that proposed permit are in the Appendix of this report. The correspondence and written statements received by the Department since the public notice was issued on February 14, 1977 through the hearing have been listed in the Hearing Officer's report.

#### Evaluation

The testimony received by the Department has ranged in scope from the Company's contribution to the Albany area economy to the adverse impacts on livability, property values and possibly health. The Citizens for a Clean Environment (C<sub>2</sub>E), an environmental group centered in Corvallis, submitted extensive technical materials which amounted to the largest single source of testimony.



Contains  
Recycled



Since the hearing, the Department has evaluated all of the testimony to the greatest extent practicable. The evaluation has included a modeling analysis of ground level impacts due to stack emissions, reviewing the literature regarding health effects of sulfates, MIBK emission surveys, plant inspections and engineering reviews of the technical process and related testimony. Since essentially all of the technical testimony was submitted by C<sub>2</sub>E, the Department has twice met with C<sub>2</sub>E representatives to discuss the evaluation results. These meetings have served to resolve many but not all of C<sub>2</sub>E's concerns.

The Department's modeling analysis indicated that 1976 stack emission levels of sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO) and particulates (TSP) may have significant off-site impacts. Stack emissions of chlorine (Cl<sub>2</sub>), gaseous chlorides (Cl<sup>-</sup>) and ammonia (NH<sub>3</sub>) were determined to have insignificant off-site impacts. Sulfate (SO<sub>3</sub> or H<sub>2</sub>SO<sub>4</sub>) was determined to be below levels considered to cause adverse health effects in sensitive individuals.

The off-site impact of the "cat box" odor is considered to be TWCA's most significant problem at this time. This analysis is based on testimony received and Department observations.

Plant site surveys and inspections have identified localized in-plant areas of significant concentrations and mass emissions of MIBK. Engineering analysis and inspection of the process determined that MIBK venting was not a process necessity. MIBK is not considered to be a contributor to the blue haze or any other identified off-site problem at this time.

The Department has prepared a revised proposed permit which is under consideration here today. The revised proposed permit is contained in the Appendix of this report. The major revisions since the hearing include:

1. The addition of metric units in Condition No. 2.
2. A revised odor limit in Condition No. 3. This new language was obtained from the MWVAPA regulations which are still in force and is considered to be equally if not more restrictive than the previously proposed odor limit.
3. A requirement that the stack emission components to be measured shall be as specified by the Department (Condition No. 6). This was suggested by C<sub>2</sub>E.
4. A date for completing installation of specified continual monitoring capabilities has been added to Condition No. 7. Some of the equipment required here is currently installed.
5. Monthly instead of quarterly reporting is now required in Condition No. 9.
6. Feasibility studies for reducing carbon monoxide and MIBK emissions have been added as a result of C<sub>2</sub>E testimony (Condition Nos. 14 and 15).

7. Several compliance schedule dates have been extended due to more refined dates and time lost during TWCA's July 1977 shutdown and employee strike (Condition Nos. 20, 21, 22, 23, 24 and 25). Four schedules remain unchanged (Condition Nos. 26, 27, 28 and 29).

Minor revisions generally include wording changes for clarification purposes.

The permit as now proposed is expected to have the following effects on emissions:

1. Immediate compliance with the permit is required even if it means reducing current production levels (Condition No. 10). No increase in current production levels in those areas related to atmospheric emissions is allowed without Department approval (Condition No. 11). Production capacity increases in these areas will not be approved until compliance with Condition Nos. 2, 3 and 4 has been demonstrated or until programs and time schedules for doing so have been approved by the Department (Condition No. 12). TWCA is considered to be capable of immediately complying with the revised permit while operating at existing production levels.
2. "Cat box" odor will be substantially reduced upon completion of a process modification (Condition No. 20) and a new hafnium oxide precipitation and calcining system (Condition No. 23). The process modification which has been installed and is operating, will reduce the in-process formation of the odorous compound. The new controls associated with the hafnium oxide system will reduce the emission of the material from this activity. The success of these and other efforts, generally aimed at in-process containment, will be measured by the odor limits set forth in Condition No. 3.
3. Sulfur dioxide emissions must be reduced by about 90% to comply with emission limits in Condition No. 2. The compliance schedule for reducing SO<sub>2</sub> is set forth in Condition No. 26. TWCA has recently installed a caustic scrubber on the zirconium oxide calciner which will be source tested in the near future. If this device does not attain the required SO<sub>2</sub> reduction, it will provide necessary data to design an adequate system which will be subsequently installed in the prescribed time frame. The caustic scrubber data will also provide new SO<sub>3</sub> (H<sub>2</sub>SO<sub>4</sub>) information. If this information indicates SO<sub>3</sub> (H<sub>2</sub>SO<sub>4</sub>) levels are significant, the Department would propose to add emission limits for these materials by modifying the permit.
4. Feasibility studies for reducing CO and MIBK emissions are required in Condition Nos. 14 and 15 respectively. Schedules for any programs to reduce these emissions will be added to the permit as they are developed.
5. Particulate emissions will be reduced by completing most of the compliance schedules.
6. All procedures used in emission testing and ambient monitoring must be approved by the Department. All emission testing must be prescheduled to facilitate Department observation (Condition Nos. 6, 7 and 8).

7. Production figures and all testing/monitoring data must be reported to the Department on a monthly basis.

Compliance with the conditions in the revised proposed permit, especially the emission limitations and control programs, will result in substantial reduction in emissions from the TWCA plant. Some of these, such as "cat box" odor and particulates, will be readily noticeable. The information required by this permit and Department inspections may lead to the implementation of additional control programs during the duration of the permit. The Department proposes to add any compliance schedules to the permit as they are developed by modifying the permit. Public notices are routinely issued for permit modifications.

#### Summation

1. Teledyne Wah Chang Albany produces and fabricates zirconium, hafnium and columbium at its plant in Millersburg.
2. TWCA has submitted an application for renewal of their Air Contaminant Discharge Permit which was issued by Mid-Willamette Valley Air Pollution Authority.
3. The MWVAPA permit was extended and is in effect until a renewal is issued by the Department.
4. The Department conducted a two session public hearing in Albany on March 17, 1977 regarding the issuance of a proposed permit.
5. The Department has evaluated all of the testimony received to the greatest extent practicable by modeling analysis, reviewing the literature regarding health effects of sulfates, surveying MIBK emissions, inspecting the plant, reviewing technical/engineering parameters of portions of the production process and twice conferring with the supplier of technical testimony, C<sub>2</sub>E.
6. The Department considers the "cat box" odor to be the most significant off-site problem at this time.
7. The 1976 stack emission levels of SO<sub>2</sub>, CO and particulates may have significant off-site impacts.
8. The 1976 stack emission levels of Cl<sub>2</sub>, gaseous Cl<sup>-</sup>, NH<sub>3</sub>, and SO<sub>3</sub> (H<sub>2</sub>SO<sub>4</sub>) were determined to have insignificant off-site impacts.
9. Emissions of MIBK were identified but are not considered to be a contribution to the blue haze or any other identified off-site problem at this time.
10. A revised proposed permit was prepared which includes the following changes:
  - a. Addition of metric units;
  - b. A revised odor limitation;
  - c. Additions based on testimony received;

- d. Changes in compliance schedule time frames primarily necessiated by the plant shutdowns in July and August 1977; and
  - e. Changes in wording for purposes of clarification.
11. The revised proposed permit has the following significant conditions or impacts:
- a. Immediate compliance with permit conditions is required;
  - b. Current production levels in areas related to atmospheric emission cannot be increased without Department approval;
  - c. Production capacity in areas related to atmospheric emissions will not be approved until compliance with emission limits has been demonstrated or until programs and schedules for doing so have been approved by the Department;
  - d. "Cat box" odor will be substantially reduced and must comply with existing ambient odor standards;
  - e. SO<sub>2</sub> emissions will be reduced by about 90%;
  - f. Feasibility studies for reducing CO and MIBK are required;
  - g. Particulate emissions will be reduced;
  - h. All emission testing and monitoring must be in accordance with methods approved by the Department and the results reported monthly.
12. The revised proposed permit will result in substantial reductions in atmospheric emissions from the TWCA plant in a prioritized and scheduled manner.
13. Additional control programs may be identified and developed as a result of the information required by this permit or by Department inspections.
14. Any additional compliance schedules or emission limitations developed from the special studies will be incorporated in the permit by modification after appropriate public notice.

Director's Recommendation

The Director recommends that the Commission authorize the Director to proceed to issue the revised proposed Air Contaminant Discharge Permit for Teledyne Wah Chang Albany.



WILLIAM H. YOUNG

F. A. Skirvin:sw  
(503) 229-6414  
9/19/77

Attachments (4): Air Contaminant Discharge Permit No. 22-0547; memo regarding 3-17-77 public hearing; 2-14-77 notice of public hearing; staff statement for public hearing.

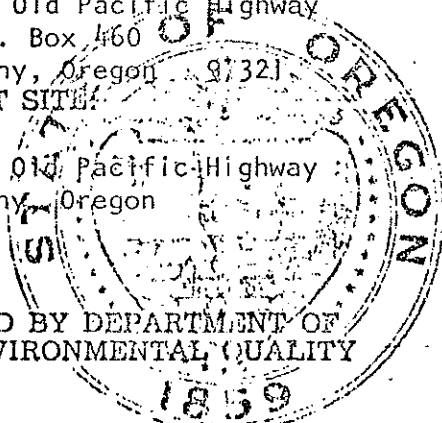
# PROPOSED

Permit Number: 22-0547  
Expiration Date: 4/1/81  
Page 1 of 11

## AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality  
1234 S.W. Morrison Street  
Portland, Oregon 97205  
Telephone: (503) 229-5696

Issued in accordance with the provisions of  
ORS 468.310

<p>ISSUED TO: TELEDYNE WAH CHANG ALBANY 1600 Old Pacific Highway P. O. Box 460 Albany, Oregon 97321</p> <p>PLANT SITE: 1600 Old Pacific Highway Albany, Oregon</p> <p>ISSUED BY DEPARTMENT OF ENVIRONMENTAL QUALITY</p>  <p>_____ William H. Young                      Date Director</p>	<p>REFERENCE INFORMATION</p> <p>Application No. 0583</p> <p>Date Received September 8, 1975</p> <p>Other Air Contaminant Sources at this Site:</p> <table border="1"><thead><tr><th>Source</th><th>SIC</th><th>Permit No.</th></tr></thead><tbody><tr><td>(1) _____</td><td></td><td></td></tr><tr><td>(2) _____</td><td></td><td></td></tr></tbody></table>	Source	SIC	Permit No.	(1) _____			(2) _____		
Source	SIC	Permit No.								
(1) _____										
(2) _____										

### SOURCE(S) PERMITTED TO DISCHARGE AIR CONTAMINANTS:

Name of Air Contaminant Source	Standard Industry Code as Listed
PRIMARY SMELTING AND REFINING OF ZIRCONIUM, HAFNIUM AND COLUMBIUM	3339

### Permitted Activities

Until such time as this permit expires or is modified or revoked, the permittee is herewith allowed to discharge exhaust gases containing air contaminants including emissions from those processes and activities directly related or associated thereto in accordance with the requirements, limitations and conditions of this permit from the air contaminant source(s) listed above.

The specific listing of requirements, limitations and conditions contained herein does not relieve the permittee from complying with all other rules and standards of the Department.

PROPOSED

Performance Standards and Emission Limits

1. The permittee shall at all times maintain and operate all air contaminant generating processes and all contaminant control equipment at full efficiency and effectiveness, such that the emissions of air contaminants are kept at the lowest practicable levels.
2. The permittee shall comply with the following emission limitations:
  - a. Particulate emissions from any single air contaminant source unless noted otherwise shall not exceed any of the following:
    - 1) 0.1 grains per standard cubic foot (0.23 gm/m<sup>3</sup>); and
    - 2) An opacity equal to or greater than twenty percent (20%) for a period aggregating more than three (3) minutes in any one (1) hour.
  - b. Particulate emissions from the zirconium oxide calciner shall not exceed the following:
    - 1) Until September 1, 1978, 0.2 grains per standard cubic foot (0.46 gm/m<sup>3</sup>); and
    - 2) After September 1, 1978, 0.1 grains per standard cubic foot (0.23 gm/m<sup>3</sup>).
  - c. Particulate emissions from all zirconium/hafnium production processes shall not exceed a total of 25.0 pounds per hour (11.4 kg/hr) or 110 tons per year (100 mt/yr).
  - d. Gaseous emissions from any single air contaminant source shall not exceed any of the following:
    - 1) A maximum total concentration of chlorine (Cl<sub>2</sub>) and chloride ion (Cl<sup>-</sup>) equal to 100 ppm;
    - 2) Until September 1, 1978, excluding the zirconium oxide calciner, a maximum concentration of sulfur dioxide (SO<sub>2</sub>) equal to 1000 ppm and  
  
After September 1, 1978, including the zirconium oxide calciner, a maximum concentration of sulfur dioxide (SO<sub>2</sub>) equal to 400 ppm; and
    - 3) A maximum total concentration of ammonia (NH<sub>3</sub>) and ammonium ion (NH<sub>4</sub><sup>+</sup>) equal to 50 ppm.

PROPOSED

- e. Gaseous emissions from all zirconium/hafnium production processes shall not exceed any of the following:
- 1) Thirty (30) tons per year (27 mt/yr) of total chlorine ( $Cl_2$ ) and chloride ion ( $Cl^-$ );
  - 2) Until September 1, 1978, 600 tons per year (550 mt/yr) of  $SO_2$ ;
  - 3) After September 1, 1978, 90 tons per year (82 mt/yr) of  $SO_2$ ; and
  - 4) Two (2) tons per year (1.8 mt/yr) of total ammonia and ammonium ion.
3. By no later than June 1, 1978, the permittee shall control the "cat-box" odor (3-mercapto-4-methyl-2-pentanone) emissions so as:
- a. Not to cause a public nuisance;
  - b. No two measurements made beyond the plant site boundaries within a period of one (1) hour, separated by fifteen (15) minutes, are equal to or greater than a scentometer No. 0 or equivalent dilutions in areas used for residential, recreational, educational, institutional, hotel, retail sales or other similar purposes; and
  - c. No single measurement made in all land use areas other than those cited in (b) above shall equal or be greater than a scentometer No. 2 or equivalent dilutions.
4. The permittee shall at all times control ancillary sources of air contaminants such as, but not limited to, building openings, roads, driveways, open areas and material handling processes so as to maintain the highest possible level of air quality and the lowest possible discharge of air contaminants.

#### Monitoring and Reporting

5. The permittee shall effectively inspect and monitor the operation and maintenance of the plant and associated air contaminant control facilities. A record of all such data shall be maintained for a period of one year and be available at the plant site at all times for inspection by the authorized representatives of the Department.
6. The permittee shall perform at least three prescheduled source tests per year on all emission control systems in the zirconium/hafnium production process. The emission components to be measured in each of these stacks shall be specified by the Department. All tests shall be conducted in accordance with the testing procedures on file at the Department or in conformance with applicable standard methods approved in advance and in writing by the Department.

PROPOSED

7. By no later than June 1, 1978, the permittee shall install, calibrate, maintain and operate in a manner approved by the Department, emission monitoring systems for continually monitoring and recording emissions of chlorine and chloride from the sand chlorination off gas system, the pure chlorination emission control system, silicon tetrachloride refining and storage vent emission control system, of sulfur dioxide from the zirconium oxide calciner emission control system, and carbon monoxide from the sand chlorination off gas and pure chlorination emission control systems.
8. The permittee shall continue to maintain and operate in manners approved in writing by the Department, systems for monitoring ambient concentrations of ammonia and ammonium ion, chlorine, and chloride.
9. The permittee shall prepare and submit a monthly report to the Department including, but not necessarily be limited to the following parameters:
  - a. The monthly production of the separations plant in terms of total oxide and the total monthly production of zirconium sponge.
  - b. The results of all ambient air measurements made.
  - c. The results of all emission monitoring and testing data.
  - d. The monthly usage of natural gas.

Special Conditions

10. The permittee shall limit or control the level of production at or below base level production as necessary such that the limits of this permit are immediately and continuously met. (Base level production for the purpose of this permit shall be 50,000 pounds per day of total oxide produced averaged over a calendar month as processed through the separations plant.)
11. The permittee shall not increase current production levels in any of those portions of the zirconium or hafnium processes which cause or contribute to atmospheric emissions without specific written approval of the Department.
12. The permittee shall not increase production capacity of any of those portions of the zirconium or hafnium processes which cause or contribute to atmospheric emissions until the ability to comply with the limits of conditions 2, 3 and 4 has been demonstrated, or until acceptable programs and time schedules for meeting these conditions have been submitted to and approved in writing by the Department.
13. The permittee shall maintain at the plant site for review by the Department written operating procedures, preventative maintenance schedules and procedures, and environmentally acceptable methods to be employed during process upsets or equipment failures for the following areas:
  - a. Sand chlorination
  - b. Feed make-up



**PROPOSED**

- c. Separations
  - d. Precipitation and filtration
  - e. Zirconium oxide calcining
  - f. Hafnium oxide calcining
  - g. Pure chlorination
  - h. Silicon tetrachloride refining, storage and shipping
14. The permittee shall conduct a feasibility study for reducing carbon monoxide emissions from both the sand and pure chlorination processes. The results of this study shall be submitted to the Department no later than April 1, 1978.
  15. The permittee shall conduct a feasibility study for reducing methylisobutyl ketone (MIBK) emissions from the ammonia scrubber, hafnium calciner scrubber and separations building vent. The results of this study shall be submitted to the Department no later than April 1, 1978.
  16. The handling of zirconium tetrachloride and silicon tetrachloride including, but not necessarily limited to the transfer of material from the sand chlorination process to the feed make-up process, shall be done in ways which will prevent visible or fugitive emissions to the atmosphere.
  17. The permittee shall not conduct any open burning at the plant site or facility except for the disposal of hazardous pyrophoric zirconium metal fines by atmospheric oxidation which is permitted until July 1, 1978. After July 1, 1978, all metal fines shall be disposed of using controlled and environmentally acceptable procedures approved by the Department.
  18. The permittee shall maintain a pre-planned abatement strategy, filed with and approved in writing by the Department to be implemented in response to Air Pollution Alerts, Warnings, and Emergencies as they are declared and terminated by the Department.
  19. In the event that the permittee is temporarily unable to comply with any of the provisions of this permit due to upsets or breakdowns of equipment, the permittee shall notify the Department by telephone within one hour, or as soon as is reasonably possible, of the upset and of the steps taken or to be taken to correct the problem. Upset operation shall not continue longer than forty-eight (48) hours without approval confirmed in writing by the Department. Upset operation shall not continue during Air Pollution Alerts, Warnings, or Emergencies or at any time when the emissions present imminent and substantial danger to health.

PROPOSED

If the Department determines that an upset condition is chronic and is correctable by installing new or modified process or control procedures or equipment, a program and schedule to effectively eliminate the deficiencies causing the upset conditions shall be submitted. Such reoccurring upset conditions causing emissions in excess of applicable permit limits will be subject to civil penalty or other appropriate action.

Compliance Schedule

20. By no later than September 1, 1977 the permittee shall complete modifications to the separations process so as to reduce the formation of malodorous "cat box" compound in this area to the greatest extent possible. These modifications shall include the capability to monitor and record the relative concentration of the "cat box" compound at a specified site in the separations process.
21. By no later than January 1, 1978 the permittee shall submit any additional control strategies for reducing the fugitive odor (cat box) required to comply with Condition 3, including detailed plans and specifications and the schedule for implementation (increments of progress) to the Department for review and approval.
22. The permittee shall provide spill sump treatment and MIBK recovery in order to reduce emissions of organic vapors and associated odors and maintain compliance with conditions 3 and 4 in accordance with the following schedule:
  - a. By no later than March 15, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department of Environmental Quality for review and approval.
  - b. By no later than April 1, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than May 1, 1977 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than September 1, 1977 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than October 1, 1977 the permittee shall demonstrate that the spill sump and MIBK recovery are capable of operating in compliance with conditions 3 and 4.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.

PROPOSED

23. The permittee shall install a hafnium oxide precipitation and calcining system including air pollution controls so as to reduce sulfur dioxide and odor emissions from this process and attain and maintain continuous compliance with conditions 2 and 3. This project shall be accomplished in accordance with the following schedule:
- a. By no later than August 1, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than November 1, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than March 1, 1978 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than May 1, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than June 1, 1978 the permittee shall demonstrate that the hafnium oxide precipitation and calcining system is capable of operating in compliance with conditions 2 and 3.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
24. The permittee shall install a new columbium oxide drier including air pollution controls in accordance with the following schedule:
- a. By no later than August 1, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than November 1, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than February 1, 1978 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than June 1, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.

PROPOSED

- e. By no later than August 1, 1978 the permittee shall demonstrate that the new columbium oxide drier is capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
25. The permittee shall provide additional controls for the silicon tetrachloride refining and storage vents and scrubber emissions so as to attain and maintain continuous compliance with Condition 2 and prevent fugitive emissions due to spills, process upsets and equipment breakdowns. This project shall be accomplished in accordance with the following schedule:
- a. By no later than September 1, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than December 1, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than February 1, 1978 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than June 1, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than August 1, 1978 the permittee shall demonstrate that the silicon tetrachloride refining and storage vents and scrubber are capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
26. The permittee shall provide additional controls for the zirconium oxide calciner so as to reduce particulate and sulfur dioxide emissions and attain and maintain continuous compliance with Condition 2. This project shall be accomplished in accordance with the following schedule:
- a. By no later than August 1, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than October 15, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.

**PROPOSED**

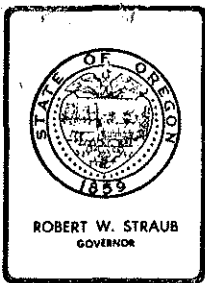
- c. By no later than May 1, 1978 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than July 1, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than September 1, 1978 the permittee shall demonstrate that the zirconium oxide calciner is capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
27. The permittee shall provide additional controls for reducing the chlorine and chloride emissions and plume opacity from sand chlorination so as to attain and maintain continuous compliance with Condition 2. This project shall be accomplished in accordance with the following schedule:
- a. By no later than November 15, 1978 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than February 15, 1979 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than August 1, 1979 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than November 1, 1979 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than January 1, 1980 the permittee shall demonstrate that the exhaust stack is capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
28. The permittee shall provide additional controls for reducing the plume opacity from pure chlorination so as to attain and maintain continuous compliance with Condition 2. This project shall be accomplished in accordance with the following schedule:
- a. By no later than November 15, 1978 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.

**PROPOSED**

- b. By no later than February 15, 1979 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than August 1, 1979 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than November 1, 1979 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than January 1, 1980 the permittee shall demonstrate that the plume opacity from pure chlorination is capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
29. The permittee shall provide additional controls for reducing the plume opacity from magnesium recovery so as to attain and maintain continuous compliance with Condition 2. This project shall be accomplished in accordance with the following schedule:
- a. By no later than October 15, 1978 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than January 15, 1979 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than July 1, 1979 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than October 1, 1979 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than December 1, 1979 the permittee shall demonstrate that the magnesium recovery operation is capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.

**PROPOSED**General Conditions and Disclaimers

- G1. The permittee shall allow Department of Environmental Quality representatives access to the plant site and pertinent records at all reasonable times for the purposes of making inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emission discharge records and otherwise conducting all necessary functions related to this permit.
- G2. The permittee is prohibited from conducting open burning except as may be allowed by OAR Chapter 340, Sections 23-025 through 23-050.
- G3. The permittee shall:
- a. Notify the Department in writing using a Departmental "Notice of Construction" form, and
  - b. Obtain written approval
- before:
- a. Constructing or installing any new source of air contaminant emissions, including air pollution control equipment, or
  - b. Modifying or altering an existing source that may significantly affect the emission of air contaminants.
- G4. The permittee shall notify the Department at least 24 hours in advance of any planned shutdown of air pollution control equipment for scheduled maintenance that may cause a violation of applicable standards.
- G5. The permittee shall notify the Department by telephone or in person within one (1) hour of any malfunction of air pollution control equipment or other upset condition that may cause a violation of the Air Quality Standards. Such notice shall include the nature and quantity of the increased emissions that have occurred and the expected duration of the breakdown.
- G6. The permittee shall at all times conduct dust suppression measures to meet the requirements set forth in "Fugitive Emissions" and "Nuisance Conditions" in OAR, Chapter 340, Sections 21-050 through 21-060.
- G7. Application for a modification of this permit must be submitted not less than 60 days prior to the source modification. A Filing Fee and an Application Processing Fee must be submitted with an application for the permit modification.
- G8. Application for renewal of this permit must be submitted not less than 60 days prior to the permit expiration date. A Filing Fee and an Annual Compliance Determination Fee must be submitted with the application for the permit renewal.
- G9. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.
- G10. This permit is subject to revocation for cause as provided by law.



## *Environmental Quality Commission*

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

To: Environmental Quality Commission

From: Hearing Officer

Subject: March 17, 1977, Public Hearing on  
Proposed Air Contaminant Discharge Permit  
for Wah Chang

### Introduction

The hearing commenced at 2:30 p.m. and again at 7:30 p.m. on March 17, 1977. The afternoon session was held in Albany public library and the evening session was held in the North Albany Jr. High School. Approximately 300 persons attended the hearing and some sixty (60) persons offered testimony. Some 1,030 Albany residents signed a petition supporting the application (See Attachment D).

In the following summary, the testimony has been broken down into those categories which received the most emphasis. As will be noted, the majority of the testimony was to apprise the agency of general concerns such as the permit applicants generally beneficial stance in the community and past efforts to abate environmental problems.

Since so many persons testified, we have attempted merely to paraphrase their comments. No materials not in quotes should be deemed the exact words of any witness. The precise language desired by the applicant is of central importance and has, along with discussion, been appended as Attachment A.

General criticisms were offered by Citizens for a Clean Environment (C2E), a Corvallis-based environmental group. These comments are included as Attachment B. The permit applicant has vigorously refuted C2E's as will be seen by Attachment C. All of these attachments are included because they are concise and raising of important issues.

It is to be noted, however, that much of the testimony was submitted in written form and provides a public record going beyond this report in certain particulars. The curious researcher might well avail himself of this testimony and the tapes of the meeting. For example, C2E contributed to the decisional process before and after the initial hearing. A catalogue of these contributions through April 13 is enclosed for those who wish to review the entire file on this matter. (See Attachment E).



Contains  
Recycled



The agency is committed to consideration of all substantial matters raised by the record. However, other matters are being considered also. In addition to their statement at the hearing, C2E has compiled lengthy documentation of technical assumptions and conclusions made about the applicant's plant and process. These appraisals are not dealt with at length here. They are, however, being given thorough study by the agency.


The permit application, while before the Director, is a matter of such significance that the Commission will be made aware of it through this report and the staff's final proposal and reasoning. In this manner the Commission may provide the Director with policy guidance.

ahc

Attachments:

- Attachment A - Applicant's Proposed Language
- Attachment B - Citizens for a Clean Environment comments
- Attachment C - Wah Chang Refutation of C2E's Comments
- Attachment D - Petition
- Attachment E - Catalogue of C2E Correspondence

Respectfully submitted,



Peter W. McSwain  
Hearing Officer

# WITNESS LIST

Aschoff, Willis A.  
Teledyne Wah Chang

Barrett, E.L.

Barrett, Jim

Bergevin, Vern D.  
United Steelworkers of America

Bird, Kenneth W.  
Teledyne Wah Chang

Blickensderfer, Robert

Blickensderfer, Sara

Bouble, Richard W.  
Oregon State University

Brown, Hayden

Brown, Robert R.

Burt, Darrell G.

Byers, Bud  
Member, Oregon State  
Representatives (Dist.#37)

Casey, Rex  
Casey Enterprises

Coffer, Jerry W.  
Citizens for a Clean  
Environment

Crawford, Phil

DeFerrari, R.J.

dePoix, V.P.  
Teledyne Wah Chang

Evans, Marvin L.

Gamble, Baxter

Griffin, Philip J.

Gross, Teresa

Hawkins, Glen R.

Hiatt, C.L.

Hiatt, Earl J.

Hick, Alan  
Northrup King & Co.

Hickam, Howard R.

Hines, Rollin E.  
Oregon AFL-CIO

Hunter, Terry L.  
Wah Chang

Hurlburt, Henry A. Jr.

Jary, Sidney

Kingsbury, Robert  
Citizens for a Clean  
Environment (C2E)

Kyriss, Richard  
Linn-Benton-Lincoln  
Labor Council

Lassiter, J.A.  
Lane Regional Air  
Pollution Authority

Libby, Leonard M.  
Oregon State University

Liles, Jack V.  
Linn-Benton Community College

Loney, Ron E.  
Executive Director  
Albany Boys Club

Lowery, Ronald

McGuire, Jack

Needham, Ray  
Linn-Benton Community College

Nelson, Thomas E.  
Teledyne Wah Chang

Noteboom, Kenneth W.  
1st National Bank of Oregon

Peer, Vern L.

Peterson, J.T.  
Albany Chamber of Commerce

Powell, John  
Member of Oregon Senate (Dist. #19)

Pruitt, LeRoy

Purdum, Ronald L.

Rhodes, Charles

Royer, Clara

Siddall  
American Institute of Mining  
Metallurgical

Smith, H.G.  
Ransom & Smith, Realtors

Sonn, Pat

Sonn, Robert

Turnidge, Don

Turnidge, Ruth

Weis, Frank  
U.S. National Bank in Albany

Williams, M.L.

Wood, Clayton  
Mayor of Millersburg

Wooley, Helga

Yih, Mae  
Member, Oregon State House of  
Representatives (Dist. #36)

## SUMMARY OF TESTIMONY

### Economic and Other Community Benefits

The preservation of a sound economic base for the company and stable employment for the employees deserves major consideration. The company's competitive stance with regard to similar existing or potential industries must be preserved. The growth needed to serve customers must be permitted. The permit should allow the environment to be protected, the industry to grow, and the economy to flourish. (Byers)

The resolve of the Albany Area Chamber of Commerce Board of Directors is that the Environmental Quality Commission issue Wah Chang an Air Contaminant Discharge Permit which contains provisions within which the company can both grow and continue to improve the environment. This resolve is based in part on the company's 45 million dollar annual salary to 1700 employees and its 730 thousand dollar annual local and state taxes. (Peterson on behalf of the Albany Area Chamber of Commerce. Peer)

The permit should issue. Loss of the plant would leave at least 1700 unemployed and cost the area economy at least 45 million dollars annually in lost wages. Kyriss, on behalf of Linn-Benton-Lincoln Labor Council, also McGuire. Unemployment is a major cause of societal stress, including mental and physical illness, family breakups and all levels of crime. (Kyriss on behalf of Linn-Benton-Lincoln Labor Council)

The mill produces materials vital to national economy and defense, employs a substantial number of people, benefits the local economy, and should not be shut down. (Wood on behalf of the City of Millersburg)

The possible prevention of expansion is worrisome to a labor union because it is only through economic expansion that a labor union is able to obtain more economic benefits and extend such throughout the community. Every 24 hours the company pays \$100,000 in wages. Limiting expansion simply means that some other company somewhere else will take up this new business. (Bergevin on behalf of Local of United Steelworkers of America)

The company is very important to the economy of those residing in House of Representatives District #36 which includes Albany and parts of Benton County. (Yih)

Albany's area payroll is approximately 315 million dollars. Of this Wah Chang and those dependent on it contribute about one quarter, 80 million.

A lot of the opposition to the plant comes from outside the Albany area. Residents of Corvallis might contemplate what would happen if OSU were threatened with closure. Loss of Wah Chang would be a disaster. With Wah Chang Albany flourishes and may soon have a downtown mall. (Williams)

Of all those who contribute to community activities, Wah Chang is a forerunner. (Rhodes)

The favorable impact of Wah Chang on Albany's economy and its production of vital defense metals warrants extension of whatever time is necessary to make improvements. (Hunter)

If Wah Chang were lost the entire community would suffer. Any grocer in town is aware of pay day at Wah Chang. (Worley)

If not allowed to expand to meet its needs and those of its customers, Wah Chang will probably start looking for another location, with disastrous economic results to Albany people. (Hurlburt, Weis, Peer)

Wah Chang has been important to Linn-Benton Community College in cooperating, establishing vocational training programs in metallurgy and related fields, and serving as a major employer of many of the College's students. (Liles, Needham, Peer)

Wah Chang is very important to the community. (Evans, Noteboom, Peer)

Wah Chang provides tremendous support to the Chamber of Commerce, the Boy's Club, the YMCA, and other phases of community life. (Noteboom, Peer)

The plant's payroll is vital to the community and the community is very sensitive to adverse comments about the plant or other Albany industry. (Casey, Peer)

The company's 1600 employees are paid better than average to the benefit of hundreds of families and fellow townsmen. The company is also the major producer of the free world's precious metals. There are a multitude of benefits to the community which should be weighed in regulating the company. (Smith, Hurlburt, Weis, Peer)

The company should not be restricted in production flexibility while trying their best to meet standards stricter than those required by rule. Restriction of zirconium production would not be in the best interests of Albany, Oregon, or the country. (Hick, Hurlburt, Weis, Peer)

The Department should accept the Carter Administration challenge to "make sure what we do is really economically sound and cost effective." This should be done by prioritizing options in the order of their cost/benefit ratio. Where values cannot be assigned, errors in judgment should be on the lenient side so as not to threaten the well being of important economic contributors like Wah Chang. (Siddall)

The permit should allow Wah Chang to grow and continue to pay the salaries of Department employees. (Hawkins)

Wah Chang has been a responsible citizen. (Purdum)

The Department should not undertake to control Wah Chang's production, just their air contaminant emissions. The company should not be penalized for learning how to increase production while "holding the line" on emissions. (Hick)

It is beyond the charge of the Department to limit production. If the emissions for a base level of 50,000 pounds of total oxide produced per day are maintained, there should be no concern over increased production. (dePoix, Hurlburt, Weis, Peer)

Many families derive their living from the plant and it should not be curtailed in its operation or moved without very just and necessary reasons. (Griffin)

Economic considerations should be weighed along with environmental ones. Production and expansion should be predicated on the ability to stay within environmental standards. However, the permit should allow and encourage the plant to operate, expand, and invest resources to improve the emissions. (DeFerrari)

It is important that Wah Chang be allowed to expand and meet the demands of the world market. The company contributes to the economy and economic stability of the Albany community and also is necessary to the free world. Wah Chang employees contribute greatly to worthwhile endeavors such as the Albany Boy's Club, the YMCA, youth groups, churches, etc. Also, employees willingly serve on boards and commissions of local government. They are good neighbors. (Barrett)

Wah Chang and its employees contribute \$10,000 annually to the operational budget of the Albany Boy's Club. (Barrett, Loney, Peer)

Citizens suffer unpleasantness and health hazards in return for Wah Chang's economic contribution. This violates their rights. Their property is devalued. No other community has asked to take Wah Chang to get the economic benefits involved. It should be located in an isolated area. (Jary)

If it's true that the odor should be tolerated as the "smell of money" it's still not true health hazards should be tolerated. (Gross)

General Regard for Air Quality

The company has demonstrated itself a responsible neighbor in terms of its environmental program. (Peterson on behalf of the Albany Area Chamber of Commerce)

The company has made every effort to contain the odors and gases that leave the property. Great improvement has been made. (Bergevin on behalf of Local United Steel Workers of America, Peer)

Wah Chang's ratio of money and effort spent for environmental control to total plant money and effort is one of the highest of any industry in the country, demonstrating a high regard for the environment. (Aschoff) By the Department's own appraisal, many of the conditions in the proposed permit are stricter than they would be if Wah Chang had not, of its own volition, performed better than required by the previous MWAPA permit. (dePoix, Bird)

The atmospheric pollution is no greater than when the plant was started, despite a great increase in production over the years. As is demonstrated by their past performance the company is anxious to meet all reasonable requirements. (Hickam)

Wah Chang has made great strides in the reduction of odor, especially in the last two years. (J. Barrett, Weis) If others had as good an attitude, Albany would be a finer community. (J. Barrett)

Wah Chang has greatly improved since 1966 when Mr. Loney first moved to Albany. They are trying to improve more. (Loney, Peer)

The company's research and development department is developing an extensive program to overcome their waste problems. (McGuire)

Wah Chang has dramatically reduced odor. They sometimes get blamed for odors from other plants. They have improved working conditions inside and outside of the plant. (Smith, Peer)

There has been great improvement by Wah Chang in my six years of life in Albany. (Evans) - in my five years, (Weis) - since 1969 (Noteboom)

The company made a tremendous effort to break through and identify the odorous compound. It shouldn't be penalized for this through unduly strict provisions. (Hurlburt, Weis, Peer)

The current management's attitudes, efforts, and commitments are outstanding. The quality of employees and the commitment of funds assure continued progress. (Noteboom, Peer)

The Wah Chang people do not take lightly their responsibility to curb air contaminants. This conclusion is drawn from experiences working as a contractor inside the plant over many years. Like most industries Wah Chang had to develop its own standards and methods for control. The company has spent millions on them. To continue such progress the plant needs not only community cooperation but cooperation from all bureaucratic bodies.

With the highest concentration of metallurgy personnel in the country, Wah Chang is extremely capable of solving problems associated with its processes. (Casey, Peer)

Wah Chang is aware and concerned about environmental problems. They are doing as much as possible to control pollutants as knowledge and technology becomes available. The problem is difficult because the nature of some pollutants is not actually known and it is not known how to remove them. (Hunter)

The plant has, over the past few years, made a serious effort to improve. (Rhodes, Needham)

This year alone the company is spending 2.8 million dollars to control the catbox odor. (Williams)

For all the talk about bad odors at the plant, Wah Chang still has 600 job applicants for each opening. (Aschoff)

For too long, company spokesmen have blamed other plants and Albany's sewage treatment plant for the obnoxious pollution. The pollution is part of a general trend of increasing pollution in the Willamette Valley. There is first and second hand testimony that the plant's air pollution abatement program is weak in its application; that control equipment is frequently faulty, not operating properly, plugged, broken, or bypassed and that personnel on the night shifts have a poor and lax attitude toward running the equipment. (Blickensderfer)

The company has been very recalcitrant about giving out information to allow the public to assist in evaluating its air quality problems (Crawford, Coffer)

Cat Box Odors and Other Problems Experienced Off Site

Living east of the highway about 100 yards from the plant for six years has resulted in the abatement of early, minor problems and the experience of no adverse effects to buildings, equipment, livestock or vegetation owned. A brother who has lived in many places over the world chose to live near the plant a year ago and has no problems with it. (E. J. Hiatt)

While the odor is noticeable and has sometimes been offensive, Wah Chang has greatly improved and will continue to improve. (Griffin) The Department should weigh the fact that much of the testimony against the company comes from non-residents who are affected neither physically nor economically by Albany's industry. (Griffin, Barrett)

The weather conditions in late 1976 and early 1977 were calmer than usual with unusually heavy fog and little rain. The conditions were not as good as normal for dissipation of the odor. This made it appear that Wah Chang has made less progress than is actually true. Living two miles from the plant we rarely get the odor. (Smith)

This witness lives very close to the plant, has experienced prompt response to complaints. The plant should be permitted to remain and solve its problems. Many of its closest resident neighbors are not opposed to it. (Gamble, Peer)

This witness has worked in the plant for many years and lives 5/8 of a mile from it. It never bothers him though there is nothing wrong with his (olfactory) senses. (Peer)

Living within two miles of the plant has not resulted in botheration by its odor. The odor from sewage is worse. (Purdum)

Thirty or so years of coexistence in the Albany Community leads to the conclusion that continued coexistence will be no problem. This is concluded by one living 2 1/2 miles from the plant Southwest part of town. The cat box odor is only experienced once in a while when there is a strong east wind. (Barrett, E.G.)

The odor has improved in the past few years, particularly the last two years. (Weis, Peer)

Three aluminum and steel warehouses owned by this witness right across from the stack have been there for years and remain undamaged. (Peer)

Living in the area where the odor is supposed to be most prevalent has been demonstrated that there's been a marked improvement in recent years. There are at times worse odors than those coming from Wah Chang. (Wooley)



Despite the allegations about a condition of horrible smell, Albany has had no trouble recruiting medical professionals into the area. Frequent airplane trips over the valley have shown that odor is present from agricultural and other operations, not only Wah Chang. (Purdum)

Living north of the plant in the Deever Conner area, in the way of prevailing winds from the plant, has become worse in the last six years. Before then it was hardly noticed. In the last two years the odor has been present constantly. It is especially bad at night. People who work for the plant have said that what little controls are in place are turned off at night. Sometimes the fumes cause a throat irritation, headaches, nose irritation, and loss of sleep. There is no doubt this is due to Wah Chang and not the other plants. (Trunidge, Ruth)

At six miles north by northwest of the plant the odor has been so severe it has forced the separation of spouses because one partner can't tolerate it. The fog from the plant can be seen from the air to be a hazard to the Albany airport. The smell probably is a problem for a radius of ten to fifteen miles. (Turnidge)

The smell is extremely annoying along the highway and must be monstrous to those who have to live with it. Also, the fact that toxicity of some of the components is not known proves frightening. (Brown)

Recently rental of an apartment near Wah Chang has resulted in sleepless nights and immediate search to relocate. (Royer)

The odor is intolerable even in a residence to the north, almost at tangent. It confines persons indoors, permeates homes and rugs, retards appetites, causes gagging and cannot be gotten used to. The odor belies Oregon's reputation as a clean air state. (Sonn, Pat)

Living on a greenhouse property since a year before Wah Chang came to town has resulted in twenty years of sickening stench. The smell of the plant a half mile away is worse at night when the air is still. It impairs sleep, permeates the home, pits the greenhouse glass with acid emissions, and devalues property. (Jary)

This witness manufactures boats right next to the plant at 1200 North Pacific Highway in Albany. He has had aluminum parts damaged by the chemicals in the air, some of them before they even get out of the box. The air is extremely bad. Witness's business's aluminum siding on one of his older buildings is so corroded one can stick his finger through it. (Pruitt)

Even living 5 miles away out by Linn Benton Community College, the smell has been intolerable for four of the last six months. While the wind was favorable over the last two months, the other months of a six month residence have been annoying every day. There is no doubt it is the same odor smelled when driving by the plant. (Sonn, Robert)

The odor impairs sleep, permeates our home on Diane Avenue a half mile from the plant, has gotten worse since the early sixties, has forced us to leave our home on occasion and, finally, forced my asthmatic wife to move away permanently. (Burt)

At times the odors are intolerably obnoxious. Once it was necessary to drive almost to Corvallis on Route 20 to escape the odors. (Blickensderfer)

Living near the plant for the last eight or nine years has indicated a good improvement over the last three or four years. However, it is still difficult to tolerate the odor when jogging in the mornings. The smell can't be gotten used to. (Rhodes)

The plant emissions corrode the paint on the employees cars and must be bad for the lungs. (Gross)

An asthmatic condition is often triggered by emissions of SO<sub>2</sub> which reach our mobile home just south of the plant. The odor is very bad at night when the windows are open. (Brown, Hayden)

Fairness and Adequacy of Permit Conditions

Wah Chang should not be the only industry to be required to meet a zero scentometer reading. (Bird, Yih, Peer)

The proposed permit is tough and both the industry and Department are to be commended for it. In the main it will bring needed improvement in the Albany area's air quality. However, the scentometer reading imposed should be strict but not zero and the company should not be denied a move that would increase efficiency without increasing air emissions. Items #3 and #11 should be revised with these concerns in mind. (Powell)

The amount of contaminant from the mill should be reduced in stages which take into account the time needed for technological development and future expansion of production. At some point in time controls should keep the air uncontaminated in so far as health is concerned, regardless of increases in production. (Wood on behalf of the City of Millersburg)

The permit should require only those things which can be accomplished through the application of practicable control techniques and can be measured by known analytical methodologies. Controls should be appropriate to the demonstrated need for preservation of air quality while taking into account the need for growth. (Byers, Peer)

The company has assured that it will use its resources and expertise to solve environmental problems as well as possible. Therefore the Department should give assurances that it will be fair in dealing with the company.

The Department has singled out this one industry for special requirements never imposed on any other industry in the State - the scentometer requirements and the tonnage per year limits. (Yih)

Any limits should be imposed on all industry alike. (Yih, Purdum)

Most of the permit is fair. There are conditions which are arbitrary and unattainable within the prescribed time limits. Conditions should not interfere with job opportunities which can be gained without hurting the environment. The Oregon AFL-CIO represents nearly one hundred thousand Oregon workers and favors protection and preservation of environmental technological development, industrial development, and jobs through a national resources policy which protects the environment without inhibiting industrial growth.

In 1975 a resolution said in part "...the Oregon AFL-CIO provide whatever assistance it can to business and industry adversely affected by EQC and DEQ decisions."

The District 5 Executive Board urges the formulation of reasonable conditions to be implemented on a realistic time schedule. (Hines)

The Department should only require Wah Chang to do the things that are technically possible. (Bergevin on behalf of Local United Steel Workers of America)

It is totally unreasonable to expect Wah Chang or any other industry to have a zero base odor. (Barrett) The permit should be reasonable, workable, and allow for expansion. (Barrett, J. Noteboom)

The conditions in the proposed permit are unreasonable because they are more stringent than those imposed on less noticed sources such as sewage treatment plants, food and meat packers, vehicles, dairy farms, and home or office heating systems. (Hickam)

The Department is unfair in concentrating on Wah Chang while ignoring odors from sewage, automobile exhaust fumes on Pacific Boulevard, odor from manure used as fertilizer and other problems. (Hawkins)

The permit would be unrealistic if it attempted to eliminate all odors and inappropriate if it attempted to reduce odors merely for those who are momentarily inconvenienced while driving by on Interstate 5. To impose production limits seems to remove financial abilities of the company to make improvements and seems a simplistic approach to a complex problem. (Purdum)

Any expansion should not be allowed to increase pollution but restrictions should not be too difficult for Wah Chang to live with until better technology is available. (Smith)

The plant's efforts to solve pollution problems are not enhanced by the Department's time limits, threats of shut down, or production limitation. (Casey, Peer)

If there is doubt, it should be resolved in favor of leniency to be sure Wah Chang is able to meet requirements. (Evans, Peer)

It is inappropriate to set a limit on odors with no objective way of measuring them. (Casey, Peer)

The DEQ does not know any more than does Wah Chang how to solve the problems and should keep such in mind when sitting in judgment on Wah Chang. The deadlines allowed to solve the problems should be realistic. To increase stack heights as suggested by C2E would endanger aircraft. When better ways are known, the Company will use them. (Hunter)

The permit conditions are very difficult to understand, apparently restrictive, and imposing of heavy responsibilities in terms of record keeping alone. It is not readily apparent the Department has the staff and capability to fairly draft and enforce a permit governing such a highly technical operation. (Rhodes)

The Department should work toward a reasonable permit that addresses both the environment and Wah Chang's necessity to the community. (Wooley)

The permit conditions relative to production limits and cat box odors are an attempt to single out Wah Chang because, as an industry, it is on top. If the Department gets away with it other industry and activity will be threatened. It is unfair to the workers to place a restriction on something only outside the plant boundaries. The Department will some day have the notion that it should tell a farmer his cows can't have more milk until the barnyard is cleaned up. (Kyriss)

The agricultural industry has to curtail its burning regardless of cost. Industry should not be allowed to pollute simply over money. (Turnidge)

The scentometer is the best state-of-the-art for measuring and it is unrealistic to try to reduce the odor without measuring to find what it is and then applying a measurement as to how far it must be reduced. (Lowry)

The Department is perhaps pushing too hard to get the permit resolved and should take the time to thoroughly evaluate the information submitted by C2E. (Coffer)

The Department should thoroughly check out the allegations of C2E to see if health hazards need to be better addressed in the permit. (Gross)

The Department's proposal to reduce the cat box odor is laudable. Western Zirconium has committed to achieving a similar standard and so should Wah Chang. (Sonn, Robert)

The discharge provisions, once established, should be enforced with strict fines or plant closures. (Blickensderfer)

With public understanding of the negative impact on human health of the discharges from this plant, DEQ will be moved to rewrite the permit to require Wah Chang to take necessary steps to lessen the health hazards created by their emissions.

As proposed, the permit contains no mention of any of the pollutants which are the major health hazards. The permit doesn't acknowledge emissions of Methyl Iso Butyl Ketone and disregards stack heights in setting standards for ammonia, chlorine gas and hydrochloric acid. Because of the low stack heights at which they are emitted, the pollutants hydrochloric acid, chlorine gas and ammonia are not subject to adequate limitations by the proposal. (C2E)

There definitely should be stricter controls on the Company. The Department has the obligation to do something about the odor. Western Zirconium in the Dallesport area will be required to have to guarantee no objectionable odor off the plant site and Wah Chang should be required to do the same. (Sonn, Pat)

The permit should be altered only to improve air quality and the Department should assign enough personnel to the problem to insure the permit is enforced both day and night. (Burt)

Catbox Odor Analyzed

The specific wording of the permit should be:

By no later than January 1, 1978, the "catbox" odor (3-mercapto - 4-methyl - 2-pentanone) emanating from the zirconium/hafnium process shall be reduced to the lowest practicable level attainable utilizing practices and procedures.

The plant should not be required to guarantee the zero scentometer reading at its boundaries. The scentometer is a subjective tool whose operator can become desensitized. Wah Chang is prepared to use the highest and best practicable control required by regulation. Also, the public may erroneously associate a zero reading with zero catbox odor or (worse yet) no odor of any origin. This might appear as a company commitment to eliminate odor entirely. Given the extreme difficulty in discovering process refinements to control the odor, a scentometer reading of one as a norm, allowing excursions to two, should be applied if a reading must be applied at all. The compliance schedule should read as follows:

By no later than January 1, 1978, the permittee shall submit additional control strategy for reducing the fugitive odor "catbox" so as to minimize the nuisance conditions beyond the plant site boundaries. This control strategy shall include detailed plans and specifications and the schedule for implementation (increments of progress) to the Department for review and approval. (dePoix, Hurlburt)

The odor is due to the presence of a mercaptan (3-mercapto - 4-methyl - 2-pentanone) whose identification was difficult and whose control will be more difficult. Detectable to the nose when one part is present in every ten billion parts of air, the compound can be smelled before it can be discovered by instrumentation. There is no way of totally eliminating the odor. The company is sincere in trying to meet reasonable regulatory demands. There is no evidence that the minute quantities present are harmful or toxic. Traces of a closely related compound have been found in many foods. Similar odors emanate from sewage plants, pulp mills, wood processing, and food plants. These sources are not required to eliminate odor entirely. Aesthetics and economics must strike a compromise regarding this pervasive, powerful-smelling compound. (Libby)

The odor is not harmful to health. (Loney)

The proposed zero scentometer reading of the catbox odor beyond the plant site boundaries by January 1, 1978 is unrealistic and cannot be met. (Kyriss on behalf of Linn-Benton-Lincoln Labor Council)

The scentometer reading of zero means that the odor is reduced two to one by pure air. It is a subjective tool. A normal reading of one should be required with excursions to two allowed because the manufacturer of the scentometer states that a reading above one will probably cause complaints while those above two, if they persist, can be described as a serious nuisance. (Bird, Peer)

Tests around the plant conducted so far indicate that some kind of scentometer reading limitation is needed. (Lassiter)

The proposal to reduce catbox odor to a reading of zero is unworkable. (Bergevin on behalf of Local United Steel Workers of America, Peer)

The odor limitation is unworkable because there is no manner of objective measurement. The problem should be given time in which the company's experts (not clamoring environmental groups) will solve it. (Casey, Peer)

The question of what odor is objectionable and to whom is a question that is subjective and difficult to answer. (Hick)

Requiring "highest and best practical treatment" will not force the company to do enough to rid us of the odor. (Jary)

Item 17 which provides a compliance schedule to reduce the catbox odor "to the greatest extent possible" is too weak. A distance should be specified beyond which no "catbox" odor should be allowed. (Blickensderfer)

Sulfuric Acid

Investigation has demonstrated beyond a doubt that huge quantities of sulfuric acid are being emitted from the zirconium calciner stack. Levels as high as 385 ug/m<sup>3</sup> will be imposed on the population, levels over thirty times the threshold limit considered harmful.

C2E's contention that "huge quantities of H<sub>2</sub>SO<sub>4</sub> are being emitted from the calciner stack is based on inappropriate assumptions using a wrong number as a sample base, an incorrect value for the height of the stack, and a simplistic diffusion model. Even though these errors yield a figure higher than actual ground level concentrations, the concentration figure at which C2E arrived for ground level is only one-third of the Threshold Level Value considered safe for 40-hour-week occupational exposure. (Aschoff, Boubel, Hunter)

The C<sub>2</sub>E conclusion about sulfuric acid is based on questionable assumptions and is belied by the fact that only small amounts have been measured. Erroneous input data yielding high values compounded the error of assuming that the maximum centerline plume concentration which would exist only under one set of meteorological conditions at one point would be visited upon the "population." (Boubel)



Discharge of Ketone into the Air

The blue haze and associated odor problems are due to the purposeful discharge of the odor along with MIBK into the air in order to meet the water discharge standards for MIBK imposed by the DEQ. While the odoriferous compound is not expected to produce a major health problem, MIBK is quite toxic to the nervous system at high concentrations. It is impossible to learn the stack height and calculate ground level concentrations because Wah Chang won't even acknowledge stripping these pollutants into the air. (C<sub>2</sub>E)

The limit of nasal detection is far below the threshold limit values and if dangerous levels were present they would be smelled. The process simply does not deliberately discharge expensive methyl isobutyl ketone into the atmosphere. (Aschoff)

Carbon Monoxide

Investigations show that large quantities of carbon monoxide are being exhausted from the chlorinator units, quantities representing ground level concentrations of twice that allowed by the Environmental Protection Agency. (C2E)

C2E's contention that CO is being emitted in large quantities from the chlorinator units is based on wrong assumptions about process, stack height, and plume dispersion. (Aschoff)

C2E's contention that excessive carbon monoxide is emanating from the chlorinator units is erroneous. Auto-related CO far exceeds CO from Wah Chang. (Hunter)

VINCENT P. de POIX, President

RECEIVED  
MAR 28 1977

DEPT. OF ENVIRONMENTAL QUALITY

TELEDYNE WAH CHANG ALBANY

1600 OLD PACIFIC HIGHWAY

P. O. BOX 460

ALBANY, OREGON 97321

(503) 926-4211

March 25, 1977

Mr. Peter McSwain  
Hearings Officer  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
1234 S. W. Morrison Street  
Portland, OR 97205

FOR HEARING RECORD

Air Contaminant Discharge Permit 22-0547  
Teledyne Wah Chang Albany

Teledyne Wah Chang Albany is herein addressing major areas of concern in the proposed Air Contaminant Discharge Permit. Also attached is the February 23, 1977, correspondence - V. P. de Poix / W. H. Young.

Performance Standards and Emission Limits

3. The specific wording should be:

By no later than January 1, 1978, the "cat box" odor (3-Mercapto-4-Methyl-2-Pentanone) emanating from the zirconium/hafnium process shall be reduced to the lowest practicable level attainable utilizing good practices and procedures.

Discussion:

In addition to those details delineated in the aforementioned February 23, 1977, correspondence, placing a scentometer level of zero on the "cat box" odor may establish a precedent from which we cannot recover. In time, the public may forget the scentometer and that a zero reading does not mean an absence of odor. This was evident at the hearing. The public may also forget that "cat box" is the odor addressed in this section. How can one recover from this situation, i.e. zero odor beyond the plant site boundaries? Odors have the ability to mix with

Mr. Peter McSwain  
Hearings Officer  
March 25, 1977  
Page 2

Air Contaminant Discharge Permit 22-0547

---

one another, thereby making differentiation almost impossible. Tying an odor source to a single industrial effluent may cause problems in the future. Refer to March 21, 1977, correspondence attached - L. M. Libbey / K. W. Bird.

4. The specific wording should be:

The permittee shall at all times control ancillary sources of air contaminants such as, but not limited to, building openings, roads, driveways, open areas, and material handling processes so as to maintain the highest practicable level of air quality and the lowest practicable discharge of air contaminants.

Discussion:

Refer to February 23, 1977, correspondence - V. P. de Poix / W. H. Young.

Special Conditions

10. The specific wording should be:

The permittee shall control the level of production such that the limits of this permit are immediately and continuously met.

Discussion:

Teledyne Wah Chang Albany must reiterate its position that it is beyond the charge of the Department of Environmental Quality to limit production and/or productive capacity. Necessary reasonable expansion must be allowed; coupled, of course, with reasonable increases in emissions. Acceptable programs and time schedules will be formulated for the ultimate control and reduction of effluents so that practicable limits are met. Equitable treatment of Contaminant Discharge Permit holders is of prime concern; it affects not only the economic stability of Oregon, but the entire nation as well. Teledyne Wah Chang Albany must protest most strongly that we cannot accept the condition as written in the proposed permit.

Mr. Peter McSwain  
Hearings Officer  
March 25, 1977  
Page 3

Air Contaminant Discharge Permit 22-0547

---

11. Delete in its entirety.

Discussion:

Limiting the production or productive capacity of any portion of the zirconium or hafnium process is counter-productive. Many portions of the process are not contributors to, nor do they affect, the mid-Willamette Valley air shed. Yet the proposed permit addresses all portions of the zirconium or hafnium process. Reference is also made to the discussion contained under Special Condition 10.

Compliance Schedule


18. The specific wording should be:

By no later than January 1, 1978, the permittee shall submit additional control strategy for reducing the fugitive odor "cat box" so as to minimize the nuisance conditions beyond the plant site boundaries. This control strategy shall include detailed plans and specifications and the schedule for implementation (increments of progress) to the Department for review and approval.

Discussion:

The extension of this compliance schedule condition is based upon the fact that two individual control strategy methods are currently being implemented in an attempt to reduce the fugitive odor. These are delineated in the compliance schedule of the subject permit--Item 19 - Spill Sump Treatment and MIBK Recovery. The second control strategy is Item 20 - Hafnium Oxide Precipitation and Calcining. While the hafnium calciner system is not required until January 15, 1978, sufficient engineering should have been accomplished to indicate additional control strategy.

Respectfully submitted,



V. P. de Poix

President

Teledyne Wah Chang Albany

VINCENT P. de POIX, President

TELEDYNE WAH CHANG ALBANY

1500 OLD PACIFIC HIGHWAY

P. O. BOX 460

ALBANY, OREGON 97321

(503) 926-4211

February 23, 1977

Mr. William H. Young, Director  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
1234 S. W. Morrison Street  
Portland, OR 97205

Dear Mr. Young:

We have reviewed the proposed Air Contaminant Discharge Permit No. 22-0547, and we have the following comments:

Performance Standards and Emission Limits

3. The specific wording should be:

By no later than January 1, 1978, the "cat box" odor (3-mercapto-4-methyl-2-pentanone) emanating from the zirconium/hafnium process shall be reduced to the lowest practicable level attainable utilizing recognized good practices and procedures.

Discussion: Teledyne Wah Chang Albany has diligently pursued a solution to the "cat box" odor problem. Identifying the specific compound was difficult in itself, but quantifying the parameters associated with its formation was an even greater task. Mercaptans, such as the compound we are confronted with, have extremely low odor thresholds; consequently, scrubbing of the process off-gas will only reduce the problem. Process parameters must be identified and then controlled in order to minimize the formation of the malodorous compound. All of these tasks we are willing to perform; yet we cannot, in good conscience, guarantee that the odor will be reduced to a scentometer reading of zero at the plant site boundaries. The reliability of a scentometer has been investigated in relation to determining the existence of "cat box" (3-mercapto-4-methyl-2-pentanone). It is at best a subjective evaluation determining only an order of magnitude concentration of an odorant in the air. Perusal of the instruction folder supplied with scentometers reflects problems associated with reproducibility and operator desensitization. If a "cat box" odor level must be dictated by a scentometer reading, it is suggested that a reading of 1 (D/T=7) be established as a norm, with excursions to a reading of 2 (D/T=31) allowable for short durations. These levels more realistically reflect the experience the scentometer manufacturer has procured through field testing.

Mr. William H. Young, Director  
Department of Environmental Quality  
February 23, 1977  
Page 2

---

In summary, Teledyne Wah Chang Albany is prepared to utilize, in the words of OAR 20-001, ". . .the highest and best practicable treatment and control . . ." required to reduce the "cat box" odor.

4. The specific wording should be:

The permittee shall at all times control ancillary sources of air contaminants such as, but not limited to, building openings, roads, driveways, open areas, and material handling processes so as to maintain the highest practicable level of air quality and the lowest practicable discharge of air contaminants.

Discussion: Teledyne Wah Chang Albany feels that the substitution of "practicable" for "possible" more nearly approaches the Oregon Administrative Rules intent as outlined in OAR 20-001.

Special Conditions

10. The specific wording should be:

The permittee shall limit or control the level of production as necessary such that the limits of this permit are immediately and continuously met. (Base level production for the purpose of this permit shall be 50,000 pounds per day of total oxide produced averaged over a calendar month as processed through the Separations plant).

Discussion: Teledyne Wah Chang Albany feels that it is beyond the charge of the Department of Environmental Quality to limit production and emissions as well. It is, therefore, our feeling that emissions at the base level of 50,000 pounds of oxide per day are acceptable, and that if the performance standards and emission limits are met, production should not be regulated.

11. Delete in its entirety.

Discussion: Teledyne Wah Chang Albany cannot comply with this special condition. This paragraph implies that efficiency of operation is not a criterion for plant operation. It precludes the utilization of increased yields in any portion of the plant for subsequent operations. Operational incentive can be destroyed and the energy expended toward reduction of solid and/or aqueous discharges minimized.

Compliance Schedule

18. The specific wording should be:

By no later than January 1, 1978, the permittee shall

Mr. William H. Young, Director  
Department of Environmental Quality  
February 23, 1977  
Page 3

---

submit additional control strategy for reducing the fugitive odor ("Cat Box") so as to minimize the nuisance conditions beyond the plant site boundaries. This control strategy shall include detailed plans and specifications and the schedule for implementation (increments of progress) to the Department for review and approval.

Discussion: See discussion under Performance Standards and Emission Limits, No. 3. Reference is also made to attached correspondence from Leonard M. Libbey, Ph.D.

Teledyne Wah Chang Albany, by its own initiative, has reduced emissions beyond those imposed by the Mid-Willamette Air Pollution Authority, and has thereby indicated an intent to continually improve its environmental control programs. As was pointed out in a recent press article, Mr. Skirvin of the Department of Environmental Quality indicated that many of the proposed limits were lower than normal state regulations primarily because Wah Chang had demonstrated the ability to achieve these lower emission rates. We fully intend to continue to improve the environmental quality of the zirconium/hafnium process, and have allocated monies and increased technical staffing to perform this task.

The proposed compliance schedule appears to be rather tight and restrictive, but we feel that we can perform as required. Incorporation of the aforementioned changes to the subject permit, however, would establish a more workable document which is directed at the highest and best practicable treatment and control of air contaminant emissions.

If you have any questions or wish to discuss this matter in detail, I would be most happy to come to Portland, accompanied by Mr. K. W. Bird, our Director of Environmental Control, to meet with you at your convenience.

Very truly yours,

V. P. de Poix

VPdeP/pm

Attach.

cc: Mr. F. Skirvin



Department of  
Food Science  
and Technology

Oregon  
State  
University

Corvallis, Oregon 97331 (503) 754-3131

February 22, 1977

Mr. K. W. Bird, Director  
Environmental Control  
Teledyne Wah Chang  
Albany, OR

Dear Mr. Bird:

For the past sixteen years I have been engaged in flavor chemistry, and more particularly, in the analysis of food flavor volatiles (including off-odors) by gas chromatography/mass spectrometry (GC/MS). I have also been very active in toxicology for the past five years, principally in the trace organic analysis for the carcinogenic N-nitrosamines and aflatoxins in foods.

I have no financial interest in, nor receive consulting fees from, Teledyne Wah Chang; my comments are hopefully unbiased, they are certainly offered freely and openly.

This letter is in regard to the compound 3-mercapto-4-methyl-2-pentanone ("catty odor") which has conclusively been identified by Dr. Lawrence J. Jacoby as being the principal odorous component in the "catty odor" discharged into the air by Teledyne Wah Chang.

(1) Although the odor threshold for 3-mercapto-4-methyl-2-pentanone is at present unknown, my judgment is that it will be approximately 1:10<sup>10</sup>, as a very competent Dutch investigator, Dr. H.T. Badings, has determined the threshold of 4-mercapto-4-methyl-2-pentanone to be 1:10<sup>10</sup> in refined liquid paraffin. <sup>(1)</sup> This means that the human odor threshold might be 1 part of the "catty odor" compound in ten billion parts of air! This makes the "catty" compound a very potent odorant indeed.

(2) Measuring and identifying of such powerful odorants as the "catty" compound is a difficult task at best. State-of-the-art instrumentation is doubtfully adequate; the human nose is superior (2,6). For objective collection and analysis, concentration is mandatory. Probably passage of the suspect polluted air through traps packed with a porous polymer, such as Porapak Q,

would be helpful in concentrating the pollutants prior to analysis. For identification GC and GC/MS is suggested. Routine monitoring of air discharges of materials such as the "catty odor" compound may have to rely on subjective rather than instrumental approaches. This approach is sometimes called a "nasal appraisal."

(3) In my professional opinion there is no way of totally eliminating the "catty odor" emission from Teledyne Wah Chang--- short of plant shut-down, or an enormously expensive redesign of the processes using MIBK. At least a rough measure of the levels of "catty odor" pollutant are needed; this information would be helpful in seeing how much of a reduction in emission is necessary to approach the odor threshold of humans.

Talks with Dr. L.J. Jacoby and others, have convinced me that the chemistry of the "catty" emission has been significantly advanced, and scientific and technological expertise is now being used to decrease the emission. I have been impressed in talking with management and technical personnel at Teledyne Wah Chang that they appreciate the problem and are sincere in trying to meet reasonable demands from the regulatory agencies such as DEQ.

(4) It is difficult to say what levels of the "catty odor" one might expect to be the best practicably attainable utilizing recognized good practice. It would probably be feasible to eliminate half of the "catty" emission, but cutting the emission by 95% might be economically unreasonable. A reasoned approach is called for, and hopefully the emission standards would not be unreasonable to start with and furthermore not be like an ever-tightening "hangmen's noose" as current emission standards are met; this is not to say that continued improvement is not desirable or possible. The hope is that economically reasonable and attainable standards will be set initially and in the future.

(5) There is no evidence that 3-mercapto-4-methyl-2-pentanone (the "catty compound") is hazardous or toxic at the minute levels found. Traces of the closely related 4-mercapto-4-methyl-2-pentanone have been found in foods such as meat<sup>(3)</sup>, vegetables<sup>(4)</sup>, and cheese (1,5). None of the cited researchers has suggested a toxicity; an aversion to eat "catty" food yes, but almost certainly no hazard to human health exists at the ppb levels expected to be found in food or air.

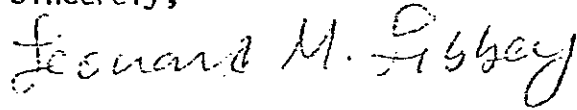
It might be well to state at this point, that odor is an integral part of flavor, and odor, in my professional opinion, plays the dominant role. The distinction between an odor and off-odor is sometimes very thin. Certain compounds found in food aroma are also present as air pollutants (for example dimethyl sulfide, methyl mercaptan, etc.). Upon very high dilution many compounds seem to change their character and smell almost pleasant; dimethyl sulfide is a good example --- at high dilution it smells like canned corn.

Mr. Bird  
February 22, 1977  
Page 3

(6) It should be recognized that other sources of emission similar to the "catty" odor emanate from sewage plants, pulp mills, wood processing plants and even food plants. It is doubtful if it is realistic to require such plants to maintain a "zero" emission tolerance unless the pollutant was carcinogenic or of extreme toxicity (such as the dioxins).

The trouble with the "catty" odor is that it is a very powerful, pervasive smell. In my view aesthetics and economics should make a compromise, so that industry can survive by being given reasonable (not zero) tolerances.

Sincerely,



Leonard M. Libbey, Ph.D.  
Associate Professor

LML:kvc

Attachment.

### References Cited

1. Badings, H.T. Causes of Ribes Flavor in cheese. J. Dairy Science. 50:1347. 1967.
2. McCartney, W. Olfaction and Odours. p. 190. Springer-Verlag. Berlin, Heidelberg, New York. 1968.
3. Patterson, R.L.S. Catty odours in Food: Confirmation of the identity of 4-mercapto-4methylpentan-2-one by GC-MS. Chem. and Indust. p. 48. Jan. 11, 1969.
4. Alward, F., G. Coleman and D.R. Haisman. Catty odours in Food: The reaction between mesityl oxide and sulphur compounds. Chem. and Indust. p. 1563. Sept. 16, 1967.
5. McGugan, W.A. and D.B. Emmons. Unusual Flavor defect in cheese similar to the odor of feline urine (Felis libyca domestica). J. Dairy Sci. 50:1495. 1967.
6. Pearce, T.J.P., J.M. Peacock, F. Aylward, and D.R. Haisman. Catty odours in Food: Reactions between hydrogen sulfide and unsaturated ketones. Chem. and Indust. p. 1562. Sept. 16, 1967.

Department of  
Food Science  
and Technology

Oregon  
State  
University

Corvallis, Oregon 97331 (503) 754-3131

March 21, 1977

Mr. K. W. Bird  
Environmental Control  
Teledyne Wah Chang  
Albany, OR

Dear Mr. Bird:

This letter is written to document a couple of points relative to the Wah Chang "catty" emission. The Xerox copies are from a book to be used Spring Term in our department.

(1) Although the book is written by eminent toxicologists and pharmacologists, there is no suggestion that 4-mercapto-4-methylpentanon-2 is toxic in the minute traces it is found in air, water, and food. My professional opinion is that 3-mercapto-4-methylpentanon-2 (Wah Chang "catty" emission) would behave similar to the 4-mercapto isomer and toxicological hazards would be minimal.

(2) It is important to note that "catty" compounds often occur in industrial effluents; Wah Chang should not be singled out as the only source of these compounds.

I read with great interest the reports in the papers on the DEQ hearings; my comment to C2E is "are you working on the solution or are you part of the problem?"

Let's hope that the facts and reason will prevail!

Sincerely,

*Leonard M. Libbey*

Leonard M. Libbey, Ph.D.  
Associate Professor

Enc. (1)  
LML/jrc

# Introduction to General Toxicology

E. J. ARIËNS    A. M. SIMONIS

University of Nijmegen  
Pharmacological Institute  
Nijmegen, The Netherlands

J. OFFERMEIER

University of Potchefstroom  
Department of Pharmacology  
Potchefstroom, South Africa



ACADEMIC PRESS New York San Francisco London 1976  
A Subsidiary of Harcourt Brace Jovanovich, Publishers

action takes place under certain weather conditions, viz., abundant sunlight and virtual absence of turbulence in the atmosphere. Apart from the oxidizing photochemical smog in which ozone, nitrous vapors, and hydrocarbons occur, a reducing smog in which  $\text{SO}_2$  is an important component, is also well known. Weather conditions play a less important role in the formation of reducing smog; in this instance, sunlight is not a prerequisite.

A special problem here is the so-called catty odor, which is extremely penetrating. This is the odor of a mercaptan (organic SH compound), 4-mercapto-4-methyl-pentanone-2. This particular mercaptan, which has an obnoxious odor in extremely low concentrations, is not a waste product of the chemical industry, but is formed by interaction of  $\text{H}_2\text{S}$  with mesityl oxide (Fig. 67). Mesityl oxide is a widely distributed pollutant produced in very low concentrations by various industries (dyes, plastics, printing inks, lacquers, etc.) where it is used as an organic solvent. Mesityl oxide is not obnoxious as such, but the problem occurs when it is dumped into canals or rivers in which  $\text{H}_2\text{S}$  develops. This can only occur where large quantities of organic material are present and the oxygen concentrations in these waters are so low that rotting processes (anaerobic degradation) with the formation of  $\text{H}_2\text{S}$  take place.

Another example is the conversion of inorganic mercury compounds to organic mercury compounds, especially methyl- and dimethylmercury, by microorganisms in the environment. Since these organic mercury compounds are lipophilic, they accumulate in fish and seals. The mercury that is present in these animals is mostly in the form of methylmercury compounds. With this type of environmental pollution, as with DDT, accumulation takes place along the food chains whereby the species at the end of these chains, in this case the seals, are endangered. Apart from the organic mercury com-

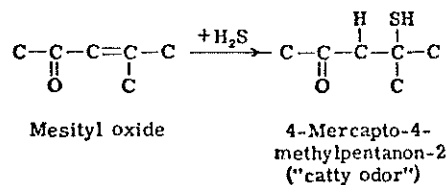


Fig. 67. The formation of a mercaptan (having an obnoxious smell) from  $\text{H}_2\text{S}$  and mesityl oxide. Mesityl oxide and related substances often occur in industrial effluents and  $\text{H}_2\text{S}$  is formed by putrefaction in polluted water.

To: The Department of Environmental Quality  
1234 SW Morrison Street  
Portland, Oregon 97205

From: Citizens for a Clean Environment  
P.O. Box 255  
Corvallis, Oregon 97330

RE: Teledyne Wah Chang Albany Air Discharge Permit

Citizens for a Clean Environment (C<sub>2</sub>E) is a citizens group in Corvallis which has in the past investigated the environmental impacts of certain industrial operations in the Albany-Corvallis area. Our efforts have for the most part benefited both the environment and the industries involved.

For the last six months C<sub>2</sub>E has been evaluating the air and water discharges from the Wah Chang plant. The primary participants in this effort have been Mr. Jerry Coffey, a registered professional chemical engineer with 6 years experience in air quality engineering, Mr. Gil Zemansky with 6 years experience in the water quality field and Mr. Phillip Crawford, a member of the C<sub>2</sub>E board. Our final report to the citizens of this area is scheduled to be released in approximately one month. However, it is very important at this time that we make our preliminary findings regarding the air discharges from Wah Chang known to the public.

We believe that with public understanding of the negative impact on human health of the discharges from this plant, DEQ will be moved to re-write the current proposed permit. We would hope that such a re-write would include a mandate to Wah Chang to take such steps necessary to lessen the health hazards created by their discharges.

First, our investigations have demonstrated beyond any doubt that huge quantities of sulfuric acid are being emitted from the zirconium calciner stack. This sulfuric acid discharge has been measured and reported to DEQ. A dispersion model was used to determine the concentrations of sulfuric acid reaching the people at ground-level. Levels as high as 385 ug/m<sup>3</sup> will be imposed on the population. The threshold limit value as determined by the Environmental Protection Agency (EPA) epidemiological studies is 10 ug/m<sup>3</sup>. This means that Wah Chang is discharging over thirty times the levels that are considered harmful.

Second, our investigations of the process show that large quantities of carbon monoxide are being exhausted from the Wah Chang chlorinator units. These quantities represent maximum ground-level concentrations of twice that allowed by EPA.

Third, the problem which has had the most obvious impact on the citizens of the Albany-Corvallis area is the blue haze and the associated odor problem. Our investigations of the process lead us to believe that Wah Chang is purposely discharging this odor into the air,



coupled with high quantities of an organic solvent (MIBK) in order to meet the water emission standards on MIBK imposed by DEQ. Although we laud these efforts to meet water standards, we cannot condone blatant disregard for air quality in the process. Our findings on this matter were deduced from an understanding of the Wah Chang process and the principles of stripper operation. The small quantities of the (oderiferous) compound is not expected to produce a major health problem. However, the MIBK is quite toxic to the nervous system at high concentrations. The exact concentration of MIBK reaching the ground is impossible to determine without knowing the height of the discharge point. The information regarding stack height is not known, as Wah Chang will not even acknowledge stripping these pollutants into the air.

Finally, there is a hazard to the residents living near the plant caused by discharges of hydrochloric acid, chlorine gas and ammonia. Normally, the limits DEQ has placed on these pollutants would be considered low enough to prevent any major health impact. However, because these pollutants are released into the atmosphere so close to ground-level, they represent a possible major health problem for plant employees and for people living adjacent to the plant site. Problems would occur primarily under high wind conditions when drafts created by building interferences will cause these low discharge plumes to be dispersed directly toward the ground, thus affecting residents.

We have related the above findings to DEQ and to our knowledge they have not thoroughly investigated any of them. This is evident by examination of the proposed discharge air permit.

The permit contains no mention of any of the pollutants which are the major health hazards. It does not acknowledge the emissions of sulfuric acid, carbon monoxide or MIBK, nor does it admit to the potential negative effects of such toxic gases on the population. The permit also does not consider the stack heights in setting emission standards for ammonia, chlorine gas and hydrochloric acid.

We are not here to demand a shut-down of Wah Chang. Rather, we want DEQ to acknowledge the environmental problems caused by this operation and to commit to work cooperatively with Wah Chang toward an expeditious solution of the problems we have outlined.

C<sub>2</sub>E is a group of citizens committed to a cleaner environment. We urge your action on this matter.

C2E'S SUGGESTED AMENDMENTS TO  
THE PROPOSED  
TELEDYNE WAH CHANG ALBANY AIR CONTAMINANT DISCHARGE PERMIT

SUGGESTION # 1

Condition 2(d)(1) should be amended to indicate separate concentration limits for chlorine ( $\text{Cl}_2$ ) and chloride ion ( $\text{Cl}^-$ ) due to toxicity differences in the two pollutants, and should read as follows:

Condition 2(d)(1): "A maximum concentration of chloride ion ( $\text{Cl}^-$ ) equal to 100 ppm and a maximum concentration of chlorine ( $\text{Cl}_2$ ) equal to 20 ppm;"

SUGGESTION # 2

Condition 2(d) should be amended to include discharge limits on sulfuric acid ( $\text{H}_2\text{SO}_4$ ), carbon monoxide (CO) and methyl isobutyl ketone (MIBK), which discharges have not been limited by the proposed Permit. These limitations are required to protect the public health. Sub-sections should be added to condition 2(d) as follows:

Condition 2(d)(4): "Until September 1, 1978 a maximum concentration of sulfuric acid ( $\text{H}_2\text{SO}_4$ ) equal to 400 ppm and a maximum discharge rate of sulfuric acid ( $\text{H}_2\text{SO}_4$ ) of 700 lb/day." After September 1, 1978, a maximum concentration of sulfuric acid ( $\text{H}_2\text{SO}_4$ ) equal to 20 ppm or a maximum discharge rate of sulfuric acid ( $\text{H}_2\text{SO}_4$ ) of 30 lb/day."

Condition 2(d)(5): "Until September 1, 1978 a maximum discharge rate of carbon monoxide (CO) of 40,000 lb/day. After September 1, 1978 a maximum discharge rate of carbon monoxide (CO) of 10,000 lb/day."

Condition 2(d)(6): "Until September 1, 1978 a maximum discharge rate of methyl isobutyl ketone (MIBK) of 7,000 lb/day. After September 1, 1978 a maximum discharge rate of methyl isobutyl ketone (MIBK) of 100 lb/day."

SUGGESTION # 3

Condition 6 shall be amended to read as follows:

Condition 6: "The permittee shall perform at least three prescheduled source tests per year on all emission control systems in the zirconium/hafnium production process. The pollutant components to be monitored in each of these stacks will be specified by the Department. All tests shall be conducted in accordance with the testing procedures on file at the Department or in conformance with applicable standard methods approved in advance and in writing by the Department."

SUGGESTION # 4

Under the heading "Compliance Schedule" which begins at condition 17 of the Permit, the following compliance schedules will be added to insure compliance with the amended limits on sulfuric acid ( $H_2SO_4$ ) carbon monoxide (CO) and methyl isobutyl ketone (MIBK) imposed in condition 2.

Condition 27: "The permittee shall provide additional controls for the zirconium oxide calciner so as to reduce sulfuric acid ( $H_2SO_4$ ) emissions and attain and maintain continuous compliance with condition 2. This project shall be accomplished in accordance with the following schedule:

- a. By no later than August 1, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
- b. By no later than October 15, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
- c. By no later than May 1, 1978 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
- d. By no later than July 1, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
- e. By no later than September 1, 1978 the permittee shall demonstrate that the zirconium oxide calciner is capable of operating in compliance with condition 2.
- f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished."

Condition 28: "The permittee shall provide additional controls for the sand and pure zirconium oxide chlorinators so as to reduce carbon monoxide(CO) emissions and attain and maintain continuous compliance with Condition 2. This project shall be accomplished in accordance with the following schedule:

- a. By no later than August 1, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
- b. By no later than October 15, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.

- c. by no later than May 1, 1978 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
- d. By no later than July 1, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
- e. By no later than September 1, 1978 the permittee shall demonstrate that the sand and pure zirconium oxide chlorinators are capable of operating in compliance with condition 2.
- f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished."

Condition 29: "The permittee shall eliminate the practice of stripping methyl isobutyl ketone (MIBK) into the atmosphere and shall provide alternate means of disposal of this substance. These means shall not include an increase in methyl isobutyl ketone (MIBK) discharged into the Willamette river. This methyl isobutyl ketone (MIBK) handling system will be developed with the capability to attain and maintain continuous compliance with condition 2. This project shall be accomplished in accordance with the following schedule:

- a. By no later than August 1, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
- b. By no later than October 15, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
- c. By no later than May 1, 1978 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
- d. By no later than July 1, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
- e. By no later than September 1, 1978 the permittee shall demonstrate that the methyl isobutyl ketone (MIBK) control system is capable of operating in compliance with condition 2.
- f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.

SUGGESTION # 5

Under the heading "Compliance Schedule" which begins at condition 17 of the Permit, the following compliance schedule will be added to avoid the building downdraft effects which interfere with the proper dispersion of pollutants from short stacks.

Condition 30: "The permittee shall provide taller stacks for the following emission points:

<u>Stack Name</u>	<u>Attached Equipment</u>
Separations Odor	Hafnium Calciner
Zr Reduction, East	Zirconium Reduction Furnace (East)
Zr Reduction, West	Zirconium Reduction Furnace (West)
Mg Recovery	Magnesium Recovery Furnace
Feed Make-Up	Separations Feed Make-Up Tank
Fertilizer Plant	Fertilizer Plant Evaporation Tank

These stacks will be tall enough so as to be at least 2 1/2 times the height of the tallest adjacent building. This project shall be accomplished in accordance with the following schedule:

- a. By no later than August 1, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
- b. By no later than October 15, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
- c. By no later than May 1, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
- d. By no later than July 1, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
- e. By no later than September 1, 1978 the permittee shall demonstrate that the newly installed tall stacks are operating effectively.
- f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.

**TELEDYNE  
WAH CHANG ALBANY**

P.O. BOX 460

ALBANY, OREGON 97321

(503) 926-4211 TWX (510) 595-0973

March 18, 1977

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

**R E C E I V E D**

MAR 22 1977

**OFFICE OF THE DIRECTOR**

Mr. William H. Young  
Department of Environmental Control  
1234 Morrison St.  
Portland, OR 97205

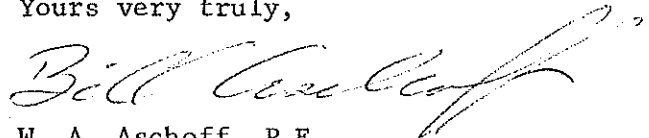
Dear Mr. Young:

In defense of my employer, Teledyne Wah Chang Albany, I have asked that the enclosed letter to Peter McSwain, DEQ, be entered into the record of testimony pertaining to our pending air discharge permit.

I feel very sorry that the need to do this should arise, but when our elected representatives, our regulatory agencies, and the news media are inundated with untrue information aimed at discrediting me and harming my employer, I must speak out.

Please call me if you wish to discuss the matter further.

Yours very truly,



W. A. Aschoff, P.E.  
Manager, Environmental Control

WAA:pms

Enclosure

March 17, 1977

Mr. Peter McSwain  
Hearings Officer  
Department of Environmental Quality  
1234 S. W. Morrison Street  
Portland, OR 97205

RE: TWCA Air Discharge Permit

Dear Mr. McSwain:

Please enter into the record of this hearing the following comments concerning Mr. Jerry Coffey's erroneous conclusions concerning atmospheric discharges from Teledyne Wah Chang Albany.

His first obvious falsehood in the memo purportedly from C<sub>2</sub>E to DEQ regarding our permit, is his statement that he has demonstrated beyond any doubt that huge quantities of sulfuric acid are being emitted from the calciner stack. He has not demonstrated any such discharge, since he took one number from a sample in which all sulfur was reported as sulfate (at the specific demand of the Mid Willamette Valley Air Pollution Authority), and from this calculated a completely unrealistic number for the quantity of H<sub>2</sub>SO<sub>4</sub> in the stack. Studies instigated by TWCA in 1973 proved both theoretically and in tests that the predominant species was SO<sub>2</sub>, not SO<sub>3</sub>. Prior sampling procedures were approved by the agency then having jurisdiction. Thermodynamics and kinetics prove validity of our tests. Using this wrong number as a base, and an incorrect value for the height of the stack, he then proceeded to calculate the concentration at ground level using a simplified ideal diffusion equation which has been demonstrated repeatedly to yield results approximately two orders of magnitude higher than actually can be determined by careful tests performed by competent investigators. Furthermore, even if he were right on all points, his calculated maximum ground level concentration would be approximately one-third of the level considered safe for continuous 40-hour per week exposure; i.e. TLV from OSHA. In short, Mr. Coffey is uttering untruths when he claims to have "demonstrated beyond any doubt", and when he claims he has measured this sulfuric acid discharge.

He also disregards the truth in stating that his investigations of the process show that large quantities of carbon monoxide are being

exhausted from the Wah Chang chlorinator units. He has not studied our process which is proprietary. He is basing his assumptions on one paper discussing titanium chlorination, again the wrong stack height, and the same faulty plume dispersion mathematical model he used to guess at sulfuric acid concentrations.

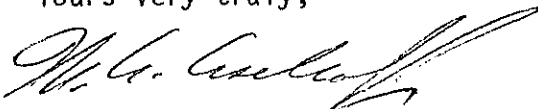
His next glaring error is the statement that we are "purposely" discharging ketone into the air, thereby causing blue haze and odor. This is completely untrue. He has had the system explained to him in detail, but fails to comprehend what actually occurs. At \$1.00 per gallon for methyl isobutyl ketone, we certainly are not going to purposely discharge this material into the air. Furthermore, the limit of nasal detection is far below the TLV, so that "dangerous levels" of MIBK in the ambient air simply do not occur, especially when the material is not concentrated enough to be smelled.

We also disagree with the statement that we show "blatant disregard for air quality". Our ratio of expenditure of money and engineering effort for environmental control in relation to total plant expenditure is one of the highest of any industry in the country, which we feel demonstrates the falsity of this statement by C2E.

Finally, the lie that we don't show adequate concern for chlorine, chloride and ammonia is refuted by our having utilized continuous ground level ambient monitors for these pollutants for about three years. During this time we have never come even close to dangerous levels. Over the years these levels have been consistently in the range of less than 1/100th the levels generally accepted as safe for continuous exposure; i.e. TLV's as determined by the American Conference of Governmental Industrial Hygienists.

In summary, conclusions by C2E were reached by faulty or complete lack of a data base, extrapolated using dubious mathematics, a complete lack of understanding of the processes involved, and an utter disregard for truth and ethics.

Yours very truly,



W. A. Aschoff, Manager  
Environmental Control

WAA:dkm





March 16, 1977

Department of Environmental Quality  
State of Oregon

For Presentation at Public Hearing  
Albany, Oregon - March 17, 1977

Re: Teledyne Wah Chang - Albany, Air Discharge Permit

As a member of the Citizens for a Clean Environment, I feel it necessary to point out several errors in a statement which I received by mail and which I understand is going to be presented at the Public Hearing, March 17, 1977. I do not feel that this position paper or statement represents the views of many C<sub>2</sub>E members, and, in fact, may not even represent a majority viewpoint. As one of the charter members of C<sub>2</sub>E, and a past member of the Board of Directors, I feel it necessary to point out several points of disagreement.

Referring to the fourth paragraph:

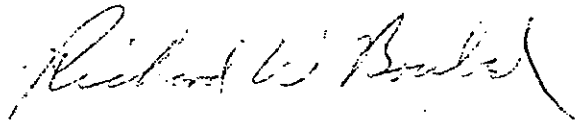
1. There is doubt that huge(hugh) quantities of sulfuric acid are being emitted. Only small amounts appear to have been measured. The larger quantities are postulated from the results of questionable assumptions.
2. I do not believe that the sulfuric acid discharge has been measured and reported to DEQ. I have examined Wah Chang stack test data and can find no measurements made which indicate either qualitatively or quantitatively the sulfuric acid discharge.
3. The dispersion model used to calculate ground level concentrations used erroneous input data which yielded high values. It also assumed that all the sulfur was emitted as acid which was a false assumption.
4. The level of 385 ug/m<sup>3</sup> would not be imposed on the population even if all data and assumptions were correct. This is the maximum centerline plume concentration found from the model and would only exist at one set of meteorological conditions at one point.

Department of Environmental Quality  
March 16, 1977  
Page 2

5. The Environmental Protection Agency (EPA) does not determine "Threshold Limit Values." These are set by OSHA.
6. Even with the false assumptions, I would not consider the  $385 \text{ ug/m}^3$  "over thirty times the levels that are considered harmful." The actual Threshold Limit Value (TLV) for sulfuric acid is 1.0 milligrams per cubic meter which is  $1000 \text{ ug/m}^3$ . This is the level that workers can be exposed to 40 hours per week without adverse effect. This number should not be used for setting an air pollution standard, but it does point out that many workers in the U.S.A. are repeatedly exposed to quantities in excess of  $385 \text{ ug/m}^3$ .

I would comment on many other points in this written statement, but they follow similar lines of reasoning and I would be repeating myself. I will reserve further comment until I have read the final report.

Sincerely,



Richard W. Boubel, Ph.D.  
Professor

rd

cc: Citizens for a Clean Environment

RECEIVED

MAY 28 1977

MAR 21 1977

DEPT. OF ENVIRONMENTAL QUALITY

PETITION OF INTERESTED CITIZENS

WE, THE UNDERSIGNED, RESIDENTS OF THE CITY OF ALBANY, LINN COUNTY, OREGON, AFTER BEING ADVISED THAT TELEDYNE WAH CHANG ALBANY HAS APPLIED TO THE DEPARTMENT OF ENVIRONMENTAL QUALITY OF THE STATE OF OREGON FOR AN AIR CONTAMINATE DISCHARGE PERMIT, BY OUR SIGNATURES FULLY SUPPORT AND ENDORSE THE EFFORTS OF TELEDYNE WAH CHANG ALBANY AND WOULD DEMONSTRATE BY OUR SUPPORT OUR APPRECIATION AND CONTINUED FAITH IN TELEDYNE WAH CHANG ALBANY IN THEIR COOPERATION WITH THE DEPARTMENT OF ENVIRONMENTAL QUALITY AND OTHER AGENCIES IN MEETING THE ENVIRONMENTAL STANDARDS BENEFICIAL BOTH TO THE ECONOMY AND TO THE HEALTH OF THE CITIZENS OF THIS CITY AND THE STATE.

Name

Address

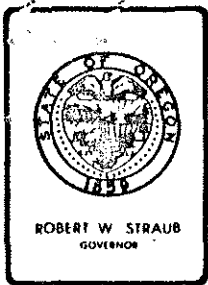
## ATTACHMENT E

## HEARING REPORT: WAH CHANG AIR PERMIT

Date	Type	Sender	Receiver
2/19/77	Letter w/attach.	Jerry Coffe, C2E	T. Nelson, Wah Chang
3/8/77	Letter w/attach.	Jerry Coffe, C2E	Fritz Skirvin, DEQ
3/8/77	Letter w/attach.	Jerry Coffe, C2E	Rep. Nancy Fadeley
3/11/77	Letter w/attach.	Jerry Coffe, C2E	Rep. Nancy Fadeley
3/13/77	Letter w/attach.	Jerry Coffe, C2E	Fritz Skirvin, DEQ
3/23/77	Letter w/attach.	Jerry Coffe, C2E	Rep. Nancy Fadeley
3/23/77	Letter	Jerry Coffe, C2E	Fritz Skirvin, DEQ
4/2/77	Letter	Phillip Crawford, C2E	Rep. Nanch Fadeley
4/13/77	Letter	Jerry Coffe, C2E	Fritz Skirvin, DEQ
3/7/77	Letter	W. H. Young, DEQ	V. P. dePoix, Wah Chang
2/23/77	Letter	V.P.DePoix, Wah Chang	W. H. Young, DEQ
2/22/77	Letter	L.M.Libbey, OSU	K. Bird, Wah Chang
3/9/77	Letter	E.Weathersbee, DEQ	Pat Sonn (Citizen)
3/2/77	Letter	Pat Sonn (Citizen)	DEQ
3/14/77	Letter	Robert Schmidt "	DEQ
3/17/77	Letter	Howard Hickam "	DEQ
	Testimony	Rollin E. Hines	DEQ Hearing Officer
3/17/77	Letter	Philip Griffin "	DEQ Hearing Officer
3/17/77	Letter	R.J.DeFerrari "	DEQ Hearings Officer
3/17/77	Testimony	Jim Barrett, CofC	DEQ Hearings Officer
	News clipping	Democrat-Herald	
8/2/76	Letter	L. Kramer, DEQ	Jim Barrett, Chamber/Commerce
7/26/76	Letter	Jim Barrett C/C	L. Kramer, DEQ

## Attachment E

Date	Type	Sender	Receiver
3/17/77	Testimony	Ronald E. Long	DEQ Hearing Officer
3/17/77	Letter	R. Lowery	DEQ Hearing Officer
	Resolution	Linn, Benton, Lincoln Labor Council	DEQ Hearing Officer
	Resolution	J.T. Peterson, Pres. Albany C/C	DEQ Hearing Officer
	Statement	Rep. B. Byers	DEQ Hearing Officer
3/10/77	Letter	G. Hawkins	Mr. Wm. Young, DEQ
3/16/77	Letter	R. Boubel, OSU	DEQ
3/17/77	Memorandum	M.B. Siddall	Fritz Skirvin, DEQ
3/15/77	Letter	Jack McGuire	Bill Young, DEQ
3/17/77	Letter	H.B. Smith	Wm. Young, DEQ
3/15/77	Letter	Alan Hick PNW Manager, Northrup, King & Co.	Hearing Officer
5/17/77	Letter	Darrell Burt	Fritz Skirvin, DEQ
3/17/77	Letter	H.B. Smith	Wm. Young, DEQ
3/17/77	Testimony	Sen. John Powell	DEQ Hearing
3/17/77	Letter	Clayton Wood, Mayor Millersburg	Teledyne Wah Chang
3/17/77	Testimony	Bob/Sara Blickensderfer	DEQ Hearing
	Memorandum	Citizens for Clean Env.	DEQ
3/17/77	Letter	Merle Manning	DEQ Hearing



## Department of Environmental Quality

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 Telephone (503) 229-6414

February 14, 1977

### NOTICE OF PUBLIC HEARING FOR ISSUANCE OF AIR CONTAMINANT DISCHARGE PERMIT FOR TELEDYNE WAH CHANG ALBANY

NOTICE IS HEREBY GIVEN that a Public Hearing will be held for the purpose of considering the issuance of an Air Contaminant Discharge Permit to the following applicant and to amend, as necessary, the Clean Air Implementation Plan for Oregon (Air Contaminant Discharge Permits containing compliance schedules will result in modification of the Implementation Plan for Oregon):

Teledyne Wah Chang Albany  
1600 Old Pacific Highway, Albany, Oregon  
Primary Smelting of Zirconium & Hafnium  
Renewal of Permit #22-C547

The Public Hearing will be held at the time and place listed below:

Albany City Library  
1390 S. Waverly Drive  
Albany, Oregon

Commencing at 2:30 p.m. on Thursday, March 17, 1977 and again at 7:30 p.m. on Thursday, March 17, 1977.

The Department proposes to issue a renewal Air Contaminant Discharge Permit for Teledyne Wah Chang Albany. The Company currently operates under a permit issued by the Mid-Willamette Valley Air Pollution Authority. The proposed permit establishes permit conditions for operation, monitoring, and reporting; establishes limits on particulate and gaseous emissions and on escapement of "cat box" odors; establishes step-wise control programs for significant sources contributing to odors or visibility reduction; and establishes step-wise control programs for sources or processes not currently in compliance with rules of the Commission.

Copies of the proposed permit are available upon request from the Department of Environmental Quality, 1234 S. W. Morrison, Portland, Oregon 97205, or are available for review at the Midwest Regional Office, 16 Oakway Mall, Eugene, Oregon 97401.

Any interested person desiring to submit written testimony concerning the permit, the permit conditions or policy related to these matters may do so by mailing them no later than March 14, 1977 to the above Portland address, or may be heard orally at the public hearing on the date and at the time mentioned above.

Questions regarding this matter may be directed to Mr. Frederic Skirvin (229-6414) at the above Portland address. Please inform those who may have an interest in this matter.

# PROPOSED AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality  
1234 S.W. Morrison Street  
Portland, Oregon 97205  
Telephone: (503) 229-5696

Issued in accordance with the provisions of  
ORS 468.310

<p>ISSUED TO: TELEDYNE WAH CHANG ALBANY 1600 Old Pacific Highway P. O. Box 460 Albany, Oregon 97321</p> <p>PLANT SITE:  1600 Old Pacific Highway Albany, Oregon</p> <p>ISSUED BY DEPARTMENT OF ENVIRONMENTAL QUALITY</p> <p>_____ WILLIAM H. YOUNG                      Date Director</p>	<p>REFERENCE INFORMATION</p> <p>Application No. 0583</p> <p>Date Received September 8, 1975</p> <p>Other Air Contaminant Sources at this Site:</p> <table><thead><tr><th></th><th>Source</th><th>SIC</th><th>Permit No.</th></tr></thead><tbody><tr><td>(1)</td><td>_____</td><td></td><td></td></tr><tr><td>(2)</td><td>_____</td><td></td><td></td></tr></tbody></table>		Source	SIC	Permit No.	(1)	_____			(2)	_____		
	Source	SIC	Permit No.										
(1)	_____												
(2)	_____												

**SOURCE(S) PERMITTED TO DISCHARGE AIR CONTAMINANTS:**

Name of Air Contaminant Source	Standard Industry Code as Listed
PRIMARY SMELTING AND REFINING OF ZIRCONIUM, HAFNIUM AND COLUMBIUM	3339

Permitted Activities

Until such time as this permit expires or is modified or revoked, the permittee is herewith allowed to discharge exhaust gases containing air contaminants including emissions from those processes and activities directly related or associated thereto in accordance with the requirements, limitations, and conditions of this permit from the air contaminant source(s) listed above.

The specific listing of requirements, limitations and conditions contained herein does not relieve the permittee from complying with all other rules and standards of the Department.

**PROPOSED**

Performance Standards and Emission Limits

1. The permittee shall at all times maintain and operate all air contaminant generating processes and all contaminant control equipment at full efficiency and effectiveness, such that the emissions of air contaminants are kept at the lowest practicable levels.
2. The permittee shall comply with the following emission limitations:
  - a. Particulate emissions from any single air contaminant source unless noted otherwise shall not exceed any of the following:
    - 1) 0.1 grains per standard cubic foot; and
    - 2) An opacity equal to or greater than twenty percent (20%) for a period aggregating more than three (3) minutes in any one (1) hour.
  - b. Particulate emissions from the zirconium oxide calciner shall not exceed the following:
    - 1) Until September 1, 1978, 0.2 grains per standard cubic foot; and
    - 2) After September 1, 1978, 0.1 grains per standard cubic foot;
  - c. Particulate emissions from all zirconium/hafnium production processes shall not exceed a total of 25.0 pounds per hour or 110 tons per year.
  - d. Gaseous emissions from any single air contaminant source unless noted otherwise shall not exceed any of the following:
    - 1) A maximum total concentration of chlorine ( $Cl_2$ ) and chloride ion ( $Cl^-$ ) equal to 100 ppm;
    - 2) Until September 1, 1978, excluding the zirconium oxide calciner, a maximum concentration of sulfur dioxide ( $SO_2$ ) equal to 1000 ppm and  
After September 1, 1978, including the zirconium oxide calciner, a maximum concentration of sulfur dioxide ( $SO_2$ ) equal to 400 ppm; and
    - 3) A maximum total concentration of ammonia ( $NH_3$ ) and ammonium ion ( $NH_4^-$ ) equal to 50 ppm.



---

**PROPOSED**

- e. Gaseous emissions from all zirconium/hafnium production processes shall not exceed any of the following:
- 1) 30 tons per year of total chlorine ( $Cl_2$ ) and chloride ion ( $Cl^-$ );
  - 2) Until September 1, 1978, 600 tons per year of  $SO_2$ ;
  - 3) After September 1, 1978, 90 tons per year of  $SO_2$ ; and
  - 4) 2 tons per year of total ammonia and ammonium ion.
3. By no later than January 1, 1978 the "cat box" odor shall be controlled so as not to exceed a zero scentometer reading or cause nuisance conditions beyond the plant site boundaries.
4. The permittee shall at all times control ancillary sources of air contaminants such as, but not limited to, building openings, roads, driveways, open areas and material handling processes so as to maintain the highest possible level of air quality and the lowest possible discharge of air contaminants.

#### Monitoring and Reporting

5. The permittee shall effectively inspect and monitor the operation and maintenance of the plant and associated air contaminant control facilities. A record of all such data shall be maintained for a period of one year and be available at the plant site at all times for inspection by the authorized representatives of the Department.
6. The permittee shall perform at least three prescheduled source tests per year on all emission control systems in the zirconium/hafnium production process. All tests shall be conducted in accordance with the testing procedures on file at the Department or in conformance with applicable standard methods approved in advance and in writing by the Department.
7. The permittee shall install, calibrate, maintain and operate in a manner approved by the Department, emission monitoring systems for continually monitoring and recording emissions of chlorine and chloride from the sand chlorination off gas system, the pure chlorination emission control system, silicon tetrachloride refining and storage vent emission control system, and emissions of sulfur dioxide from the zirconium oxide calciner emission control system.
8. The permittee shall install, maintain and operate in a manner approved in writing by the Department, a system for monitoring ambient concentrations of ammonia and ammonium ion, chlorine, and chloride.
9. The permittee shall prepare and submit a quarterly report to the Department including, but not necessarily be limited to the following parameters:
  - a. The quarterly production of the separations plant in terms of total oxide and the total quarterly production of zirconium sponge.

**PROPOSED**

- b. The results of all ambient air measurements made.
- c. The results of all emission monitoring and testing data.
- d. The quarterly usage of natural gas.

Special Conditions

10. The permittee shall limit or control the level of production at or below base level production as necessary such that the limits of this permit are immediately and continuously met. (Base level production for the purpose of this permit shall be 50,000 pounds per day of total oxide produced averaged over a calendar month as processed through the separations plant.)
11. The permittee shall not increase production or production capacity of any portion of the zirconium or hafnium processes until the ability to comply with the limits of conditions 2, 3 and 4, or until acceptable programs and time schedules for meeting these conditions have been submitted to and approved in writing by the Department.
12. The permittee shall maintain at the plant site for review by the Department written operating procedures, preventative maintenance schedules and procedures, and environmentally acceptable methods to be employed during process upsets or equipment failures for the following areas:
  - a. Sand chlorination
  - b. Feed make-up
  - c. Separations
  - d. Precipitation and filtration
  - e. Zirconium oxide calcining
  - f. Hafnium oxide calcining
  - g. Pure chlorination
  - h. Silicon tetrachloride refining, storage and shipping
13. The handling of zirconium tetrachloride and silicon tetrachloride including, but not necessarily limited to the transfer of material from the sand chlorination process to the feed make-up process, shall be done in ways which will prevent visible or fugitive emissions to the atmosphere.
14. The permittee shall not conduct any open burning at the plant site or facility except for the disposal of hazardous pyrophoric zirconium metal fines by atmospheric oxidation which is permitted until July 1, 1978. After July 1, 1978, all metal fines shall be disposed of using controlled and environmentally acceptable procedures approved by the Department.

PROPOSED

15. The permittee shall maintain a pre-planned abatement strategy, filed with and approved by the Department to be implemented in response to Air Pollution Alerts, Warnings, and Emergencies as they are declared and terminated by the Department.
16. In the event that the permittee is temporarily unable to comply with any of the provisions of this permit due to upsets or breakdowns of equipment, the permittee shall notify the Department by telephone within one hour, or as soon as is reasonably possible, of the upset and of the steps taken to correct the problem. Upset operation shall not continue longer than forty-eight (48) hours without approval nor shall upset operation continue during Air Pollution Alerts, Warnings, or Emergencies or at any time when the emissions present imminent and substantial danger to health.

If the Department determines that an upset condition is chronic and is correctable by installing new or modified process or control procedures or equipment, a program and schedule to effectively eliminate the deficiencies causing the upset conditions shall be submitted. Such reoccurring upset conditions causing emissions in excess of applicable permit limits will be subject to civil penalty or other appropriate action.

#### Compliance Schedule

17. By no later than June 1, 1977 the permittee shall complete modifications to the separations process so as to reduce the formation of malodorous "cat box" compound in this area to the greatest extent possible. These modifications shall include the capability to monitor and record the relative concentration of the "cat box" compound at a specified site in the separations process.
18. By no later than June 1, 1977 the permittee shall submit a final control strategy for reducing the fugitive odor (cat box) so as to comply with Condition 3, including detailed plans and specifications and the schedule for implementation (increments of progress) to the Department for review and approval.
19. The permittee shall provide spill sump treatment and MIBK recovery in order to reduce emissions of organic vapors and associated odors and maintain compliance with conditions 3 and 4 in accordance with the following schedule:
  - a. By no later than March 15, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department of Environmental Quality for review and approval.
  - b. By no later than April 1, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than May 1, 1977 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.

**PROPOSED**

- d. By no later than June 15, 1977 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
- e. By no later than June 30, 1977 the permittee shall demonstrate that the spill sump and MIBK recovery are capable of operating in compliance with conditions 3 and 4.
- f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
20. The permittee shall install a hafnium oxide precipitation and calcining system including air pollution controls so as to reduce sulfur dioxide and odor emissions from this process and attain and maintain continuous compliance with conditions 2 and 3. This project shall be accomplished in accordance with the following schedule:
- a. By no later than May 1, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
- b. By no later than August 1, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
- c. By no later than November 1, 1977 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
- d. By no later than December 15, 1977 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
- e. By no later than January 15, 1978 the permittee shall demonstrate that the hafnium oxide precipitation and calcining system is capable of operating in compliance with conditions 2 and 3.
- f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
21. The permittee shall install a new columbium oxide drier including air pollution controls in accordance with the following schedule:
- a. By no later than May 15, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
- b. By no later than August 15, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.

**PROPOSED**

- c. By no later than November 15, 1977 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than March 15, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than May 15, 1978 the permittee shall demonstrate that the new columbium oxide drier is capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
22. The permittee shall provide additional controls for the silicon tetrachloride refining and storage vents and scrubber emissions so as to attain and maintain continuous compliance with Condition 2 and prevent fugitive emissions due to spills, process upsets and equipment breakdowns. This project shall be accomplished in accordance with the following schedule:
- a. By no later than June 30, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than September 30, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than November 30, 1977 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than May 1, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than July 15, 1978 the permittee shall demonstrate that the silicon tetrachloride refining and storage vents and scrubber are capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
23. The permittee shall provide additional controls for the zirconium oxide calciner so as to reduce particulate and sulfur dioxide emissions and attain and maintain continuous compliance with Condition 2. This project shall be accomplished in accordance with the following schedule:

**PROPOSED**

- a. By no later than August 1, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than October 15, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than May 1, 1978 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than July 1, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than September 1, 1978 the permittee shall demonstrate that the zirconium oxide calciner is capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
24. The permittee shall provide additional controls for reducing the chlorine and chloride emissions and plume opacity from sand chlorination so as to attain and maintain continuous compliance with Condition 2. This project shall be accomplished in accordance with the following schedule:
- a. By no later than November 15, 1978 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than February 15, 1979 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than August 1, 1979 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than November 1, 1979 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than January 1, 1980 the permittee shall demonstrate that the exhaust stack is capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.

**PROPOSED**

25. The permittee shall provide additional controls for reducing the plume opacity from pure chlorination so as to attain and maintain continuous compliance with Condition 2. This project shall be accomplished in accordance with the following schedule:
- a. By no later than November 15, 1978 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than February 15, 1979 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than August 1, 1979 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than November 1, 1979 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than January 1, 1980 the permittee shall demonstrate that the plume opacity from pure chlorination is capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
26. The permittee shall provide additional controls for reducing the plume opacity from magnesium recovery so as to attain and maintain continuous compliance with Condition 2. This project shall be accomplished in accordance with the following schedule:
- a. By no later than October 15, 1978 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than January 15, 1979 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than July 1, 1979 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than October 1, 1979 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.

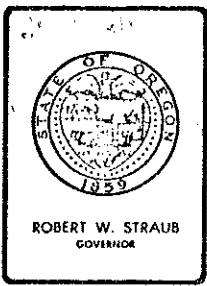
**PROPOSED**

- 
- e. By no later than December 1, 1979 the permittee shall demonstrate that the magnesium recovery operation is capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.



General Conditions and Disclaimers

- G1. The permittee shall allow Department of Environmental Quality representatives access to the plant site and pertinent records at all reasonable times for the purposes of making inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emission discharge records and otherwise conducting all necessary functions related to this permit.
- G2. The permittee is prohibited from conducting open burning except as may be allowed by OAR Chapter 340, Sections 23-025 through 23-050.
- G3. The permittee shall:
  - a. Notify the Department in writing using a Departmental "Notice of Construction" form, and
  - b. Obtain written approvalbefore:
  - a. Constructing or installing any new source of air contaminant emissions, including air pollution control equipment, or
  - b. Modifying or altering an existing source that may significantly affect the emission of air contaminants.
- G4. The permittee shall notify the Department at least 24 hours in advance of any planned shutdown of air pollution control equipment for scheduled maintenance that may cause a violation of applicable standards.
- G5. The permittee shall notify the Department by telephone or in person within one (1) hour of any malfunction of air pollution control equipment or other upset condition that may cause a violation of the Air Quality Standards. Such notice shall include the nature and quantity of the increased emissions that have occurred and the expected duration of the breakdown.
- G6. The permittee shall at all times conduct dust suppression measures to meet the requirements set forth in "Fugitive Emissions" and "Nuisance Conditions" in OAR, Chapter 340, Sections 21-050 through 21-060.
- G7. Application for a modification of this permit must be submitted not less than 60 days prior to the source modification. A Filing Fee and an Application Processing Fee must be submitted with an application for the permit modification.
- G8. Application for renewal of this permit must be submitted not less than 60 days prior to the permit expiration date. A Filing Fee and an Annual Compliance Determination Fee must be submitted with the application for the permit renewal.
- G9. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.
- G10. This permit is subject to revocation for cause as provided by law.



# Department of Environmental Quality

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 Telephone (503) 229- 6414

## STAFF STATEMENT FOR PUBLIC HEARING

March 17, 1977

**SUBJECT:** Informational Hearing Regarding Issuance of An Air Contaminant Discharge Permit to Teledyne Wah Chang Albany

### I. INTRODUCTION

This public hearing is being held for the purpose of receiving testimony relative to an Air Contaminant Discharge Permit renewal the Department of Environmental Quality proposes to issue to Teledyne Wah Chang Albany. The Company currently operates under a permit issued by the Mid Willamette Air Pollution Authority. The proposed permit establishes conditions for operating, monitoring, and reporting; establishes limits on particulate and gaseous emissions and on escapement of "cat box" odors; establishes step-wise control programs for significant sources contributing to odors or visibility reduction; and establishes step-wise control programs for sources or processes not currently in compliance with rules of the Commission.

### II. PROPOSED PERMIT

The proposed permit is divided into five sections: 1) performance standards and emission limits; 2) monitoring and reporting; 3) special conditions; 4) compliance schedules; 5) general conditions.

#### Performance Standards and Emission Limits

##### Condition 1 -

Requires operation and maintenance of processes and control equipment to keep air contaminant emissions to lowest practicable level.

##### Condition 2 a, b and c -

Requires immediate compliance with opacity and particulate emission limits for all sources except the zirconium oxide calciner which has a specific compliance schedule in Condition 20 and compliance is required by September 1, 1978.



Contains  
Recycled  
Materials

Condition 2 d and e -

Establishes limits for gaseous emission, Cl<sub>2</sub>, SO<sub>2</sub>, NH<sub>3</sub> from any individual source.

Condition 3 -

Establishes allowable level at plant boundary for "cat box" odor.

Condition 4 -

Requires control of ancillary sources so as to maintain highest air quality.

Monitoring and Reporting

Condition 5 -

Requires effective inspection and keeping of records of plant operation and control facilities.

Condition 6 -

Requires 3 prescheduled source tests on all zirconium/hafnium process emission control facilities.

Condition 7 -

Requires continual monitoring of chlorine and chloride emissions from sand and pure chlorination off gas systems, silicon tetrachloride refining and storage vent system, and SO<sub>2</sub> emissions from the zirconium oxide calciner.

Condition 8 -

Requires ambient air monitoring for ammonia, ammonium ion, chlorine and chloride ion.

Condition 9 -

Requires quarterly report to Department on production, ambient air monitoring, source tests conducted and use of natural gas. (Note: Omit "be" in line 2.)

Special Condition

Condition 10 -

Requires permittee to immediately comply with permit conditions by operating within current base level of production (500,000 lbs/day of total oxide as a monthly average through separations plant).

Condition 11 -

Prohibits permittee from any production or production capacity increases until the ability to comply with emission limits (Conditions 2, 3 and 4) has been demonstrated or until acceptable programs and schedules for doing so are approved by Department.  
Note: Add "has been demonstrated" after "4" in line 3.

Condition 12 -

Requires permittee to maintain written procedures for operation, preventative maintenance and for process upsets or equipment failures.

Condition 13 -

Requires prevention of fugitive emissions from chloride handling and transfer procedures and processes.

Condition 14 -

Prohibits open burning at plant site except for disposal of hazardous zirconium metal fines. All open burning is to be phased out by July 1, 1978.

Condition 15 -

Permittee must be prepared to respond to air pollution episodes.

Condition 16 -

DEQ must be notified of malfunctions which cause non-compliance with permit conditions.

DEQ can require improvements for chronic and correctable malfunctions. DEQ can also impose civil penalties for such malfunctions.

Compliance Schedules

Condition 17 -

Requires completion by June 1, 1977 of process modifications to reduce formation of the malodorous "cat box" compound.

Condition 18 -

Requires submission by June 1, 1977 of control program and schedule for reducing fugitive (area type) malodorous emissions.

Condition 19 -

Requires completion by June 30, 1977 of spill sump treatment and MIBK recovery (reduces emissions of organic vapors and associated odors).

Condition 20 -

Requires completion by January 15, 1978 of a hafnium oxide precipitation and calcining system including new air pollution controls (reduces odor and SO<sub>2</sub> emissions).

Condition 21 -

Requires completion by May 15, 1978 of a columbium oxide dryer system including air pollution controls (allows use of current Cb<sub>2</sub>O<sub>5</sub> dryer as HfO<sub>2</sub> calciner).

Condition 22 -

Requires completion by July 15, 1978 of additional controls to reduce stack and fugitive emissions from silicon tetrachloride refining and storage.

Condition 23 -

Requires completion by September 1, 1978 of additional controls on zirconium oxide calciner to reduce emissions of sulfur oxides.

Condition 24 -

Requires completion by January 1, 1980 of additional controls on sand chlorination (will reduce chlorides and opacity).

Condition 25 -

Requires completion by January 1, 1980 of additional controls on pure chlorination (will reduce opacity).

Condition 26 -

Requires completion by December 1, 1979 of additional controls for magnesium recovery (will reduce plume opacity).

General Conditions and Disclaimers

Conditions G1 through G10 -

These conditions which are common to all Air Contaminant Discharge Permits are based on Department regulations.

### III. INFORMATION RECEIVED TO DATE

The Department has received written information and oral inquiries relative to processes, permit conditions, and the emissions of air contaminants such as sulfuric acid and carbon monoxide. All correspondence has been entered in the record for this hearing.

The Department proposes to evaluate this testimony along with testimony received at this public hearing and present a report to the Environmental Quality Commission prior to issuing the permit renewal.

The evaluation relative to sulfuric acid emission will consider the following:

1) Source Sampling and Analysis Methods:

The source test method has been reviewed and a source test for  $H_2SO_4$  was conducted by the Department on March 15, 1977. In addition, Teledyne Wah Chang is conducting additional source tests. Further action in this area can only be projected after an evaluation is completed of the source test information.

2) Modeling:

A review of the modeling method and assumptions made is underway. The Department intends to do a more refined modeling effort, a necessary input to which is meteorological data. The Department has obtained approximately one year of meteorological data for the Millersburg area and is currently taking steps to have the data reduced to a usable computer (modeling) format. This is expected to be completed by June 1.

3) Literature Review:

The Department will review the literature cited in testimony received to date regarding possible health and vegetation effects. This effort should be completed by late April.

4) Consultants:

If warranted, the Department will seek assistance from consultants recognized to have appropriate expertise.

5) Other Evaluations Underway:

The Department, in conjunction with the Environmental Protection Agency, is participating in a Millersburg

Area Air Quality Evaluation. A contractor, employed by EPA will conduct an in-depth analysis of all available compliance schedules, aerometric data, and other pertinent information to determine the nature and extent of the air pollution problem. The analysis will include statistical, quality assurance and engineering evaluations of the data. The contractor is to derive conclusions and recommendations.

It is expected that the first phase of the consultant's work will be completed by September 1, 1977.

That concludes the Department's Statement in this matter, Mr. Hearings Officer.

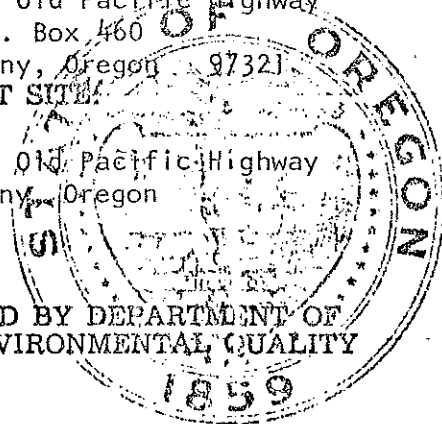
FAS  
3/17/77

PROPOSED

Permit Number: 22-0547  
Expiration Date: 4/1/81  
Page 1 of 11

**AIR CONTAMINANT DISCHARGE PERMIT**

Department of Environmental Quality  
1234 S.W. Morrison Street  
Portland, Oregon 97205  
Telephone: (503) 229-5696  
Issued in accordance with the provisions of  
ORS 468.310

<p>ISSUED TO: TELEDYNE WAH CHANG ALBANY 1600 Old Pacific Highway P. O. Box 460 Albany, Oregon 97321</p> <p>PLANT SITE: 1600 Old Pacific Highway Albany, Oregon</p> <p>ISSUED BY DEPARTMENT OF ENVIRONMENTAL QUALITY</p>  <p>_____ William H. Young                      Date Director</p>	<p>REFERENCE INFORMATION</p> <p>Application No. 0583</p> <p>Date Received September 8, 1975</p> <p>Other Air Contaminant Sources at this Site:</p> <table border="1"> <thead> <tr> <th></th> <th>Source</th> <th>SIC</th> <th>Permit No.</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>_____</td> <td></td> <td></td> </tr> <tr> <td>(2)</td> <td>_____</td> <td></td> <td></td> </tr> </tbody> </table>		Source	SIC	Permit No.	(1)	_____			(2)	_____		
	Source	SIC	Permit No.										
(1)	_____												
(2)	_____												

**SOURCE(S) PERMITTED TO DISCHARGE AIR CONTAMINANTS:**

Name of Air Contaminant Source	Standard Industry Code as Listed
PRIMARY SMELTING AND REFINING OF ZIRCONIUM, HAFNIUM AND COLUMBIUM	3339

Permitted Activities

Until such time as this permit expires or is modified or revoked, the permittee is herewith allowed to discharge exhaust gases containing air contaminants including emissions from those processes and activities directly related or associated thereto in accordance with the requirements, limitations and conditions of this permit from the air contaminant source(s) listed above.

The specific listing of requirements, limitations and conditions contained herein does not relieve the permittee from complying with all other rules and standards of the Department.



PROPOSED

Performance Standards and Emission Limits

1. The permittee shall at all times maintain and operate all air contaminant generating processes and all contaminant control equipment at full efficiency and effectiveness, such that the emissions of air contaminants are kept at the lowest practicable levels.
2. The permittee shall comply with the following emission limitations:
  - a. Particulate emissions from any single air contaminant source unless noted otherwise shall not exceed any of the following:
    - 1) 0.1 grains per standard cubic foot ( $0.23 \text{ gm/m}^3$ ); and
    - 2) An opacity equal to or greater than twenty percent (20%) for a period aggregating more than three (3) minutes in any one (1) hour.
  - b. Particulate emissions from the zirconium oxide calciner shall not exceed the following:
    - 1) Until September 1, 1978, 0.2 grains per standard cubic foot ( $0.46 \text{ gm/m}^3$ ); and
    - 2) After September 1, 1978, 0.1 grains per standard cubic foot ( $0.23 \text{ gm/m}^3$ ).
  - c. Particulate emissions from all zirconium/hafnium production processes shall not exceed a total of 25.0 pounds per hour (11.4 kg/hr) or 110 tons per year (100 mt/yr).
  - d. Gaseous emissions from any single air contaminant source shall not exceed any of the following:
    - 1) A maximum total concentration of chlorine ( $\text{Cl}_2$ ) and chloride ion ( $\text{Cl}^-$ ) equal to 100 ppm;
    - 2) Until September 1, 1978, excluding the zirconium oxide calciner, a maximum concentration of sulfur dioxide ( $\text{SO}_2$ ) equal to 1000 ppm and  
After September 1, 1978, including the zirconium oxide calciner, a maximum concentration of sulfur dioxide ( $\text{SO}_2$ ) equal to 400 ppm; and
    - 3) A maximum total concentration of ammonia ( $\text{NH}_3$ ) and ammonium ion ( $\text{NH}_4^+$ ) equal to 50 ppm.

PROPOSED

- e. Gaseous emissions from all zirconium/hafnium production processes shall not exceed any of the following:
- 1) Thirty (30) tons per year (27 mt/yr) of total chlorine ( $Cl_2$ ) and chloride ion ( $Cl^-$ );
  - 2) Until September 1, 1978, 600 tons per year (550 mt/yr) of  $SO_2$ ;
  - 3) After September 1, 1978, 90 tons per year (82 mt/yr) of  $SO_2$ ; and
  - 4) Two (2) tons per year (1.8 mt/yr) of total ammonia and ammonium ion.
3. By no later than June 1, 1978, the permittee shall control the "cat-box" odor (3-mercapto-4-methyl-2-pentanone) emissions so as:
- a. Not to cause a public nuisance;
  - b. No two measurements made beyond the plant site boundaries within a period of one (1) hour, separated by fifteen (15) minutes, are equal to or greater than a scentometer No. 0 or equivalent dilutions in areas used for residential, recreational, educational, institutional, hotel, retail sales or other similar purposes; and
  - c. No single measurement made in all land use areas other than those cited in (b) above shall equal or be greater than a scentometer No. 2 or equivalent dilutions.
4. The permittee shall at all times control ancillary sources of air contaminants such as, but not limited to, building openings, roads, driveways, open areas and material handling processes so as to maintain the highest possible level of air quality and the lowest possible discharge of air contaminants.

#### Monitoring and Reporting

5. The permittee shall effectively inspect and monitor the operation and maintenance of the plant and associated air contaminant control facilities. A record of all such data shall be maintained for a period of one year and be available at the plant site at all times for inspection by the authorized representatives of the Department.
6. The permittee shall perform at least three prescheduled source tests per year on all emission control systems in the zirconium/hafnium production process. The emission components to be measured in each of these stacks shall be specified by the Department. All tests shall be conducted in accordance with the testing procedures on file at the Department or in conformance with applicable standard methods approved in advance and in writing by the Department.

PROPOSED

7. By no later than June 1, 1978, the permittee shall install, calibrate, maintain and operate in a manner approved by the Department, emission monitoring systems for continually monitoring and recording emissions of chlorine and chloride from the sand chlorination off gas system, the pure chlorination emission control system, silicon tetrachloride refining and storage vent emission control system, of sulfur dioxide from the zirconium oxide calciner emission control system, and carbon monoxide from the sand chlorination off gas and pure chlorination emission control systems.
8. The permittee shall continue to maintain and operate in manners approved in writing by the Department, systems for monitoring ambient concentrations of ammonia and ammonium ion, chlorine, and chloride.
9. The permittee shall prepare and submit a monthly report to the Department including, but not necessarily be limited to the following parameters:
  - a. The monthly production of the separations plant in terms of total oxide and the total monthly production of zirconium sponge.
  - b. The results of all ambient air measurements made.
  - c. The results of all emission monitoring and testing data.
  - d. The monthly usage of natural gas.

Special Conditions

10. The permittee shall limit or control the level of production at or below base level production as necessary such that the limits of this permit are immediately and continuously met. (Base level production for the purpose of this permit shall be 50,000 pounds per day of total oxide produced averaged over a calendar month as processed through the separations plant.)
11. The permittee shall not increase current production levels in any of those portions of the zirconium or hafnium processes which cause or contribute to atmospheric emissions without specific written approval of the Department.
12. The permittee shall not increase production capacity of any of those portions of the zirconium or hafnium processes which cause or contribute to atmospheric emissions until the ability to comply with the limits of conditions 2, 3 and 4 has been demonstrated, or until acceptable programs and time schedules for meeting these conditions have been submitted to and approved in writing by the Department.
13. The permittee shall maintain at the plant site for review by the Department written operating procedures, preventative maintenance schedules and procedures, and environmentally acceptable methods to be employed during process upsets or equipment failures for the following areas:
  - a. Sand chlorination
  - b. Feed make-up

PROPOSED

- c. Separations
  - d. Precipitation and filtration
  - e. Zirconium oxide calcining
  - f. Hafnium oxide calcining
  - g. Pure chlorination
  - h. Silicon tetrachloride refining, storage and shipping
14. The permittee shall conduct a feasibility study for reducing carbon monoxide emissions from both the sand and pure chlorination processes. The results of this study shall be submitted to the Department no later than April 1, 1978.
  15. The permittee shall conduct a feasibility study for reducing methylisobutyl ketone (MIBK) emissions from the ammonia scrubber, hafnium calciner scrubber and separations building vent. The results of this study shall be submitted to the Department no later than April 1, 1978.
  16. The handling of zirconium tetrachloride and silicon tetrachloride including, but not necessarily limited to the transfer of material from the sand chlorination process to the feed make-up process, shall be done in ways which will prevent visible or fugitive emissions to the atmosphere.
  17. The permittee shall not conduct any open burning at the plant site or facility except for the disposal of hazardous pyrophoric zirconium metal fines by atmospheric oxidation which is permitted until July 1, 1978. After July 1, 1978, all metal fines shall be disposed of using controlled and environmentally acceptable procedures approved by the Department.
  18. The permittee shall maintain a pre-planned abatement strategy, filed with and approved in writing by the Department to be implemented in response to Air Pollution Alerts, Warnings, and Emergencies as they are declared and terminated by the Department.
  19. In the event that the permittee is temporarily unable to comply with any of the provisions of this permit due to upsets or breakdowns of equipment, the permittee shall notify the Department by telephone within one hour, or as soon as is reasonably possible, of the upset and of the steps taken or to be taken to correct the problem. Upset operation shall not continue longer than forty-eight (48) hours without approval confirmed in writing by the Department. Upset operation shall not continue during Air Pollution Alerts, Warnings, or Emergencies or at any time when the emissions present imminent and substantial danger to health.

PROPOSED

If the Department determines that an upset condition is chronic and is correctable by installing new or modified process or control procedures or equipment, a program and schedule to effectively eliminate the deficiencies causing the upset conditions shall be submitted. Such reoccurring upset conditions causing emissions in excess of applicable permit limits will be subject to civil penalty or other appropriate action.

Compliance Schedule

20. By no later than September 1, 1977 the permittee shall complete modifications to the separations process so as to reduce the formation of malodorous "cat box" compound in this area to the greatest extent possible. These modifications shall include the capability to monitor and record the relative concentration of the "cat box" compound at a specified site in the separations process.
21. By no later than January 1, 1978 the permittee shall submit any additional control strategies for reducing the fugitive odor (cat box) required to comply with Condition 3, including detailed plans and specifications and the schedule for implementation (increments of progress) to the Department for review and approval.
22. The permittee shall provide spill sump treatment and MIBK recovery in order to reduce emissions of organic vapors and associated odors and maintain compliance with conditions 3 and 4 in accordance with the following schedule:
  - a. By no later than March 15, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department of Environmental Quality for review and approval.
  - b. By no later than April 1, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than May 1, 1977 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than September 1, 1977 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than October 1, 1977 the permittee shall demonstrate that the spill sump and MIBK recovery are capable of operating in compliance with conditions 3 and 4.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.

PROPOSED

23. The permittee shall install a hafnium oxide precipitation and calcining system including air pollution controls so as to reduce sulfur dioxide and odor emissions from this process and attain and maintain continuous compliance with conditions 2 and 3. This project shall be accomplished in accordance with the following schedule:
- a. By no later than August 1, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than November 1, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than March 1, 1978 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than May 1, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than June 1, 1978 the permittee shall demonstrate that the hafnium oxide precipitation and calcining system is capable of operating in compliance with conditions 2 and 3.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
24. The permittee shall install a new columbium oxide drier including air pollution controls in accordance with the following schedule:
- a. By no later than August 1, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than November 1, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than February 1, 1978 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than June 1, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.

PROPOSED

- e. By no later than August 1, 1978 the permittee shall demonstrate that the new columbium oxide drier is capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
25. The permittee shall provide additional controls for the silicon tetrachloride refining and storage vents and scrubber emissions so as to attain and maintain continuous compliance with Condition 2 and prevent fugitive emissions due to spills, process upsets and equipment breakdowns. This project shall be accomplished in accordance with the following schedule:
- a. By no later than September 1, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than December 1, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than February 1, 1978 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than June 1, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than August 1, 1978 the permittee shall demonstrate that the silicon tetrachloride refining and storage vents and scrubber are capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
26. The permittee shall provide additional controls for the zirconium oxide calciner so as to reduce particulate and sulfur dioxide emissions and attain and maintain continuous compliance with Condition 2. This project shall be accomplished in accordance with the following schedule:
- a. By no later than August 1, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than October 15, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.

PROPOSED

- c. By no later than May 1, 1978 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than July 1, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than September 1, 1978 the permittee shall demonstrate that the zirconium oxide calciner is capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
27. The permittee shall provide additional controls for reducing the chlorine and chloride emissions and plume opacity from sand chlorination so as to attain and maintain continuous compliance with Condition 2. This project shall be accomplished in accordance with the following schedule:
- a. By no later than November 15, 1978 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than February 15, 1979 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than August 1, 1979 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than November 1, 1979 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than January 1, 1980 the permittee shall demonstrate that the exhaust stack is capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
28. The permittee shall provide additional controls for reducing the plume opacity from pure chlorination so as to attain and maintain continuous compliance with Condition 2. This project shall be accomplished in accordance with the following schedule:
- a. By no later than November 15, 1978 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.



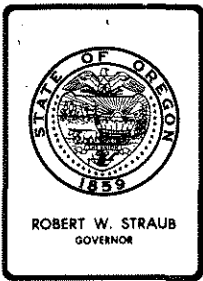
PROPOSED

- b. By no later than February 15, 1979 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than August 1, 1979 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than November 1, 1979 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than January 1, 1980 the permittee shall demonstrate that the plume opacity from pure chlorination is capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
29. The permittee shall provide additional controls for reducing the plume opacity from magnesium recovery so as to attain and maintain continuous compliance with Condition 2. This project shall be accomplished in accordance with the following schedule:
- a. By no later than October 15, 1978 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than January 15, 1979 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than July 1, 1979 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than October 1, 1979 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than December 1, 1979 the permittee shall demonstrate that the magnesium recovery operation is capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.

PROPOSED

General Conditions and Disclaimers

- G1. The permittee shall allow Department of Environmental Quality representatives access to the plant site and pertinent records at all reasonable times for the purposes of making inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emission discharge records and otherwise conducting all necessary functions related to this permit.
- G2. The permittee is prohibited from conducting open burning except as may be allowed by OAR Chapter 340, Sections 23-025 through 23-050.
- G3. The permittee shall:
  - a. Notify the Department in writing using a Departmental "Notice of Construction" form, and
  - b. Obtain written approvalbefore:
  - a. Constructing or installing any new source of air contaminant emissions, including air pollution control equipment, or
  - b. Modifying or altering an existing source that may significantly affect the emission of air contaminants.
- G4. The permittee shall notify the Department at least 24 hours in advance of any planned shutdown of air pollution control equipment for scheduled maintenance that may cause a violation of applicable standards.
- G5. The permittee shall notify the Department by telephone or in person within one (1) hour of any malfunction of air pollution control equipment or other upset condition that may cause a violation of the Air Quality Standards. Such notice shall include the nature and quantity of the increased emissions that have occurred and the expected duration of the breakdown.
- G6. The permittee shall at all times conduct dust suppression measures to meet the requirements set forth in "Fugitive Emissions" and "Nuisance Conditions" in OAR, Chapter 340, Sections 21-050 through 21-060.
- G7. Application for a modification of this permit must be submitted not less than 60 days prior to the source modification. A Filing Fee and an Application Processing Fee must be submitted with an application for the permit modification.
- G8. Application for renewal of this permit must be submitted not less than 60 days prior to the permit expiration date. A Filing Fee and an Annual Compliance Determination Fee must be submitted with the application for the permit renewal.
- G9. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.
- G10. This permit is subject to revocation for cause as provided by law.



## *Environmental Quality Commission*

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

To: Environmental Quality Commission

From: Hearing Officer

Subject: March 17, 1977, Public Hearing on  
Proposed Air Contaminant Discharge Permit  
for Wah Chang

### Introduction

The hearing commenced at 2:30 p.m. and again at 7:30 p.m. on March 17, 1977. The afternoon session was held in Albany public library and the evening session was held in the North Albany Jr. High School. Approximately 300 persons attended the hearing and some sixty (60) persons offered testimony. Some 1,030 Albany residents signed a petition supporting the application (See Attachment D).

In the following summary, the testimony has been broken down into those categories which received the most emphasis. As will be noted, the majority of the testimony was to apprise the agency of general concerns such as the permit applicants generally beneficial stance in the community and past efforts to abate environmental problems.

Since so many persons testified, we have attempted merely to paraphrase their comments. No materials not in quotes should be deemed the exact words of any witness. The precise language desired by the applicant is of central importance and has, along with discussion, been appended as Attachment A.

General criticisms were offered by Citizens for a Clean Environment (C2E), a Corvallis-based environmental group. These comments are included as Attachment B. The permit applicant has vigorously refuted C2E's as will be seen by Attachment C. All of these attachments are included because they are concise and raising of important issues.

It is to be noted, however, that much of the testimony was submitted in written form and provides a public record going beyond this report in certain particulars. The curious researcher might well avail himself of this testimony and the tapes of the meeting. For example, C2E contributed to the decisional process before and after the initial hearing. A catalogue of these contributions through April 13 is enclosed for those who wish to review the entire file on this matter. (See Attachment E).



Contains  
Recycled

The agency is committed to consideration of all substantial matters raised by the record. However, other matters are being considered also. In addition to their statement at the hearing, C2E has compiled lengthy documentation of technical assumptions and conclusions made about the applicant's plant and process. These appraisals are not dealt with at length here. They are, however, being given thorough study by the agency.

The permit application, while before the Director, is a matter of such significance that the Commission will be made aware of it through this report and the staff's final proposal and reasoning. In this manner the Commission may provide the Director with policy guidance.

ahe

Attachments:

- Attachment A - Applicant's Proposed Language
- Attachment B - Citizens for a Clean Environment comments
- Attachment C - Wah Chang Refutation of C2E's Comments
- Attachment D - Petition
- Attachment E - Catalogue of C2E Correspondence

Respectfully submitted,



Peter W. McSwain  
Hearing Officer

## WITNESS LIST

Aschoff, Willis A.  
Teledyne Wah Chang

Barrett, E.L.

Barrett, Jim

Bergevin, Vern D.  
United Steelworkers of America

Bird, Kenneth W.  
Teledyne Wah Chang

Blickensderfer, Robert

Blickensderfer, Sara

Bouble, Richard W.  
Oregon State University

Brown, Hayden

Brown, Robert R.

Burt, Darrell G.

Byers, Bud  
Member, Oregon State  
Representatives (Dist.#37)

Casey, Rex  
Casey Enterprises

Coffer, Jerry W.  
Citizens for a Clean  
Environment

Crawford, Phil

DeFerrari, R.J.

dePoix, V.P.  
Teledyne Wah Chang

Evans, Marvin L.

Gamble, Baxter

Griffin, Philip J.

Gross, Teresa

Hawkins, Glen R.

Hiatt, C.L.

Hiatt, Earl J.

Hick, Alan  
Northrup King & Co.

Hickam, Howard R.

Hines, Rollin E.  
Oregon AFL-CIO

Hunter, Terry L.  
Wah Chang

Hurlburt, Henry A. Jr.

Jary, Sidney

Kingsbury, Robert  
Citizens for a Clean  
Environment (C2E)

Kyriss, Richard  
Linn-Benton-Lincoln  
Labor Council

Lassiter, J.A.  
Lane Regional Air  
Pollution Authority

Libby, Leonard M.  
Oregon State University

Liles, Jack V.  
Linn-Benton Community College

Loney, Ron E.  
Executive Director  
Albany Boys Club

Lowery, Ronald

McGuire, Jack

Needham, Ray  
Linn-Benton Community College

Nelson, Thomas E.  
Teledyne Wah Chang

Noteboom, Kenneth W.  
1st National Bank of Oregon

Peer, Vern L.

Peterson, J.T.  
Albany Chamber of Commerce

Powell, John  
Member of Oregon Senate (Dist. #19)

Pruitt, LeRoy

Purdum, Ronald L.

Rhodes, Charles

Royer, Clara

Siddall  
American Institute of Mining  
Metallurgical

Smith, H.G.  
Ransom & Smith, Realtors

Sonn, Pat

Sonn, Robert

Turnidge, Don

Turnidge, Ruth

Weis, Frank  
U.S. National Bank in Albany

Williams, M.L.

Wood, Clayton  
Mayor of Millersburg

Wooley, Helga

Yih, Mae  
Member, Oregon State House of  
Representatives (Dist. #36)

## SUMMARY OF TESTIMONY

### Economic and Other Community Benefits

The preservation of a sound economic base for the company and stable employment for the employees deserves major consideration. The company's competitive stance with regard to similar existing or potential industries must be preserved. The growth needed to serve customers must be permitted. The permit should allow the environment to be protected, the industry to grow, and the economy to flourish. (Byers)

The resolve of the Albany Area Chamber of Commerce Board of Directors is that the Environmental Quality Commission issue Wah Chang an Air Contaminant Discharge Permit which contains provisions within which the company can both grow and continue to improve the environment. This resolve is based in part on the company's 45 million dollar annual salary to 1700 employees and its 730 thousand dollar annual local and state taxes. (Peterson on behalf of the Albany Area Chamber of Commerce. Peer)

The permit should issue. Loss of the plant would leave at least 1700 unemployed and cost the area economy at least 45 million dollars annually in lost wages. Kyriss, on behalf of Linn-Benton-Lincoln Labor Council, also McGuire. Unemployment is a major cause of societal stress, including mental and physical illness, family breakups, and all levels of crime. (Kyriss on behalf of Linn-Benton-Lincoln Labor Council)

The mill produces materials vital to natural economy and defense, employs a substantial number of people, benefits the local economy, and should not be shut down. (Wood on behalf of the City of Millersburg)

The possible prevention of expansion is worrisome to a labor union because it is only through economic expansion that a labor union is able to obtain more economic benefits and extend such throughout the community. Every 24 hours the company pays \$100,000 in wages. Limiting expansion simply means that some other company somewhere else will take up this new business. (Bergevin on behalf of Local of United Steelworkers of America)

The company is very important to the economy of those residing in House of Representatives District #36 which includes Albany and parts of Benton County. (Yih)

Albany's area payroll is approximately 315 million dollars. Of this Wah Chang and those dependent on it contribute about one quarter, 80 million.

A lot of the opposition to the plant comes from outside the Albany area. Residents of Corvallis might contemplate what would happen if OSU were threatened with closure. Loss of Wah Chang would be a disaster. With Wah Chang Albany flourishes and may soon have a downtown mall. (Williams)

Of all those who contribute to community activities, Wah Chang is a forerunner. (Rhodes)

The favorable impact of Wah Chang on Albany's economy and its production of vital defense metals warrants extension of whatever time is necessary to make improvements. (Hunter)

If Wah Chang were lost the entire community would suffer. Any grocer in town is aware of pay day at Wah Chang. (Worley)

If not allowed to expand to meet its needs and those of its customers, Wah Chang will probably start looking for another location, with disastrous economic results to Albany people. (Hurlburt, Weis, Peer)

Wah Chang has been important to Linn-Benton Community College in cooperating, establishing vocational training programs in metallurgy and related fields, and serving as a major employer of many of the College's students. (Liles, Needham, Peer)

Wah Chang is very important to the community. (Evans, Noteboom, Peer)

Wah Chang provides tremendous support to the Chamber of Commerce, the Boy's Club, the YMCA, and other phases of community life. (Noteboom, Peer)

The plant's payroll is vital to the community and the community is very sensitive to adverse comments about the plant or other Albany industry. (Casey, Peer)

The company's 1600 employees are paid better than average to the benefit of hundreds of families and fellow townsmen. The company is also the major producer of the free world's precious metals. There are a multitude of benefits to the community which should be weighed in regulating the company. (Smith, Hurlburt, Weis, Peer)

The company should not be restricted in production flexibility while trying their best to meet standards stricter than those required by rule. Restriction of zirconium production would not be in the best interests of Albany, Oregon, or the country. (Hick, Hurlburt, Weis, Peer)

The Department should accept the Carter Administration challenge to "make sure what we do is really economically sound and cost effective." This should be done by prioritizing options in the order of their cost/benefit ratio. Where values cannot be assigned, errors in judgment should be on the lenient side so as not to threaten the well being of important economic contributors like Wah Chang. (Siddall)

The permit should allow Wah Chang to grow and continue to pay the salaries of Department employees. (Hawkins)

Wah Chang has been a responsible citizen. (Purdum)

The Department should not undertake to control Wah Chang's production, just their air contaminant emissions. The company should not be penalized for learning how to increase production while "holding the line" on emissions. (Hick)

It is beyond the charge of the Department to limit production. If the emissions for a base level of 50,000 pounds of total oxide produced per day are maintained, there should be no concern over increased production. (dePoix, Hurlburt, Weis, Peer)

Many families derive their living from the plant and it should not be curtailed in its operation or moved without very just and necessary reasons. (Griffin)

Economic considerations should be weighed along with environmental ones. Production and expansion should be predicated on the ability to stay within environmental standards. However, the permit should allow and encourage the plant to operate, expand, and invest resources to improve the emissions. (DeFerrari)

It is important that Wah Chang be allowed to expand and meet the demands of the world market. The company contributes to the economy and economic stability of the Albany community and also is necessary to the free world. Wah Chang employees contribute greatly to worthwhile endeavors such as the Albany Boy's Club, the YMCA, youth groups, churches, etc. Also, employees willingly serve on boards and commissions of local government. They are good neighbors. (Barrett)

Wah Chang and its employees contribute \$10,000 annually to the operational budget of the Albany Boy's Club. (Barrett, Loney, Peer)

Citizens suffer unpleasantness and health hazards in return for Wah Chang's economic contribution. This violates their rights. Their property is devalued. No other community has asked to take Wah Chang to get the economic benefits involved. It should be located in an isolated area. (Jary)

If it's true that the odor should be tolerated as the "smell of money" it's still not true health hazards should be tolerated. (Gross)



General Regard for Air Quality

The company has demonstrated itself a responsible neighbor in terms of its environmental program. (Peterson on behalf of the Albany Area Chamber of Commerce)

The company has made every effort to contain the odors and gases that leave the property. Great improvement has been made. (Bergevin on behalf of Local United Steel Workers of America, Peer)

Wah Chang's ratio of money and effort spent for environmental control to total plant money and effort is one of the highest of any industry in the country, demonstrating a high regard for the environment. (Aschoff) By the Department's own appraisal, many of the conditions in the proposed permit are stricter than they would be if Wah Chang had not, of its own volition, performed better than required by the previous MWAPA permit. (dePoix, Bird)

The atmospheric pollution is no greater than when the plant was started, despite a great increase in production over the years. As is demonstrated by their past performance the company is anxious to meet all reasonable requirements. (Hickam)

Wah Chang has made great strides in the reduction of odor, especially in the last two years. (J. Barrett, Weis) If others had as good an attitude, Albany would be a finer community. (J. Barrett)

Wah Chang has greatly improved since 1966 when Mr. Loney first moved to Albany. They are trying to improve more. (Loney, Peer)

The company's research and development department is developing an extensive program to overcome their waste problems. (McGuire)

Wah Chang has dramatically reduced odor. They sometimes get blamed for odors from other plants. They have improved working conditions inside and outside of the plant. (Smith, Peer)

There has been great improvement by Wah Chang in my six years of life in Albany. (Evans) - in my five years, (Weis) - since 1969 (Noteboom)

The company made a tremendous effort to break through and identify the odorous compound. It shouldn't be penalized for this through unduly strict provisions. (Hurlburt, Weis, Peer)

The current management's attitudes, efforts, and commitments are outstanding. The quality of employees and the commitment of funds assure continued progress. (Noteboom, Peer)

The Wah Chang people do not take lightly their responsibility to curb air contaminants. This conclusion is drawn from experiences working as a contractor inside the plant over many years. Like most industries Wah Chang had to develop its own standards and methods for control. The company has spent millions on them. To continue such progress the plant needs not only community cooperation but cooperation from all bureaucratic bodies.

With the highest concentration of metallurgy personnel in the country, Wah Chang is extremely capable of solving problems associated with its processes. (Casey, Peer)

Wah Chang is aware and concerned about environmental problems. They are doing as much as possible to control pollutants as knowledge and technology becomes available. The problem is difficult because the nature of some pollutants is not actually known and it is not known how to remove them. (Hunter)

The plant has, over the past few years, made a serious effort to improve. (Rhodes, Needham)

This year alone the company is spending 2.8 million dollars to control the catbox odor. (Williams)

For all the talk about bad odors at the plant, Wah Chang still has 600 job applicants for each opening. (Aschoff)

For too long, company spokesmen have blamed other plants and Albany's sewage treatment plant for the obnoxious pollution. The pollution is part of a general trend of increasing pollution in the Willamette Valley. There is first and second hand testimony that the plant's air pollution abatement program is weak in its application; that control equipment is frequently faulty, not operating properly, plugged, broken, or bypassed and that personnel on the night shifts have a poor and lax attitude toward running the equipment. (Blickensderfer)

The company has been very recalcitrant about giving out information to allow the public to assist in evaluating its air quality problems (Crawford, Coffer)

Cat Box Odors and Other Problems Experienced Off Site

Living east of the highway about 100 yards from the plant for six years has resulted in the abatement of early, minor problems and the experience of no adverse effects to buildings, equipment, livestock or vegetation owned. A brother who has lived in many places over the world chose to live near the plant a year ago and has no problems with it. (E. J. Hiatt)

While the odor is noticeable and has sometimes been offensive, Wah Chang has greatly improved and will continue to improve. (Griffin) The Department should weigh the fact that much of the testimony against the company comes from non-residents who are affected neither physically nor economically by Albany's industry. (Griffin, Barrett)

The weather conditions in late 1976 and early 1977 were calmer than usual with unusually heavy fog and little rain. The conditions were not as good as normal for dissipation of the odor. This made it appear that Wah Chang has made less progress than is actually true. Living two miles from the plant we rarely get the odor. (Smith)

This witness lives very close to the plant, has experienced prompt response to complaints. The plant should be permitted to remain and solve its problems. Many of its closest resident neighbors are not opposed to it. (Gamble, Peer)

This witness has worked in the plant for many years and lives 5/8 of a mile from it. It never bothers him though there is nothing wrong with his (olfactory) senses. (Peer)

Living within two miles of the plant has not resulted in botheration by its odor. The odor from sewage is worse. (Purdum)

Thirty or so years of coexistence in the Albany Community leads to the conclusion that continued coexistence will be no problem. This is concluded by one living 2 1/2 miles from the plant Southwest part of town. The cat box odor is only experienced once in a while when there is a strong east wind. (Barrett, E.G.)

The odor has improved in the past few years, particularly the last two years. (Weis, Peer)

Three aluminum and steel warehouses owned by this witness right across from the stack have been there for years and remain undamaged. (Peer)

Living in the area where the odor is supposed to be most prevalent has been demonstrated that there's been a marked improvement in recent years. There are at times worse odors than those coming from Wah Chang. (Wooley)

Despite the allegations about a condition of horrible smell, Albany has had no trouble recruiting medical professionals into the area. Frequent airplane trips over the valley have shown that odor is present from agricultural and other operations, not only Wah Chang. (Purdum)

Living north of the plant in the Deever Conner area, in the way of prevailing winds from the plant, has become worse in the last six years. Before then it was hardly noticed. In the last two years the odor has been present constantly. It is especially bad at night. People who work for the plant have said that what little controls are in place are turned off at night. Sometimes the fumes cause a throat irritation, headaches, nose irritation, and loss of sleep. There is no doubt this is due to Wah Chang and not the other plants. (Trunidge, Ruth)

At six miles north by northwest of the plant the odor has been so severe it has forced the separation of spouses because one partner can't tolerate it. The fog from the plant can be seen from the air to be a hazard to the Albany airport. The smell probably is a problem for a radius of ten to fifteen miles. (Turnidge)

The smell is extremely annoying along the highway and must be monstrous to those who have to live with it. Also, the fact that toxicity of some of the components is not known proves frightening. (Brown)

Recently rental of an apartment near Wah Chang has resulted in sleepless nights and immediate search to relocate. (Royer)

The odor is intolerable even in a residence to the north, almost at tangent. It confines persons indoors, permeates homes and rugs, retards appetites, causes gagging and cannot be gotten used to. The odor belies Oregon's reputation as a clean air state. (Sonn, Pat)

Living on a greenhouse property since a year before Wah Chang came to town has resulted in twenty years of sickening stench. The smell of the plant a half mile away is worse at night when the air is still. It impairs sleep, permeates the home, pits the greenhouse glass with acid emissions, and devalues property. (Jary)

This witness manufactures boats right next to the plant at 1200 North Pacific Highway in Albany. He has had aluminum parts damaged by the chemicals in the air, some of them before they even get out of the box. The air is extremely bad. Witness's business's aluminum siding on one of his older buildings is so corroded one can stick his finger through it. (Pruitt)

Even living 5 miles away out by Linn Benton Community College, the smell has been intolerable for four of the last six months. While the wind was favorable over the last two months, the other months of a six month residence have been annoying every day. There is no doubt it is the same odor smelled when driving by the plant. (Sonn, Robert)

The odor impairs sleep, permeates our home on Diane Avenue a half mile from the plant, has gotten worse since the early sixties, has forced us to leave our home on occasion and, finally, forced my asthmatic wife to move away permanently. (Burt)

At times the odors are intolerably obnoxious. Once it was necessary to drive almost to Corvallis on Route 20 to escape the odors. (Blickensderfer)

Living near the plant for the last eight or nine years has indicated a good improvement over the last three or four years. However, it is still difficult to tolerate the odor when jogging in the mornings. The smell can't be gotten used to. (Rhodes)

The plant emissions corrode the paint on the employees cars and must be bad for the lungs. (Gross)

An asthmatic condition is often triggered by emissions of SO<sub>2</sub> which reach our mobile home just south of the plant. The odor is very bad at night when the windows are open. (Brown, Hayden)

Fairness and Adequacy of Permit Conditions

Wah Chang should not be the only industry to be required to meet a zero scentometer reading. (Bird, Yih, Peer)

The proposed permit is tough and both the industry and Department are to be commended for it. In the main it will bring needed improvement in the Albany area's air quality. However, the scentometer reading imposed should be strict but not zero and the company should not be denied a move that would increase efficiency without increasing air emissions. Items #3 and #11 should be revised with these concerns in mind. (Powell)

The amount of contaminant from the mill should be reduced in stages which take into account the time needed for technological development and future expansion of production. At some point in time controls should keep the air uncontaminated in so far as health is concerned, regardless of increases in production. (Wood on behalf of the City of Millersburg)

The permit should require only those things which can be accomplished through the application of practicable control techniques and can be measured by known analytical methodologies. Controls should be appropriate to the demonstrated need for preservation of air quality while taking into account the need for growth. (Byers, Peer)

The company has assured that it will use its resources and expertise to solve environmental problems as well as possible. Therefore the Department should give assurances that it will be fair in dealing with the company.

The Department has singled out this one industry for special requirements never imposed on any other industry in the State - the scentometer requirements and the tonnage per year limits. (Yih)

Any limits should be imposed on all industry alike. (Yih, Purdum)

Most of the permit is fair. There are conditions which are arbitrary and unattainable within the prescribed time limits. Conditions should not interfere with job opportunities which can be gained without hurting the environment. The Oregon AFL-CIO represents nearly one hundred thousand Oregon workers and favors protection and preservation of environmental technological development, industrial development, and jobs through a national resources policy which protects the environment without inhibiting industrial growth.

In 1975 a resolution said in part "...the Oregon AFL-CIO provide whatever assistance it can to business and industry adversely affected by EQC and DEQ decisions."

The District 5 Executive Board urges the formulation of reasonable conditions to be implemented on a realistic time schedule. (Hines)

The Department should only require Wah Chang to do the things that are technically possible. (Bergevin on behalf of Local United Steel Workers of America)

It is totally unreasonable to expect Wah Chang or any other industry to have a zero base odor. (Barrett) The permit should be reasonable, workable, and allow for expansion. (Barrett, J. Noteboom)

The conditions in the proposed permit are unreasonable because they are more stringent than those imposed on less noticed sources such as sewage treatment plants, food and meat packers, vehicles, dairy farms, and home or office heating systems. (Hickam)

The Department is unfair in concentrating on Wah Chang while ignoring odors from sewage, automobile exhaust funes on Pacific Boulevard, odor from manure used as fertilizer and other problems. (Hawkins)

The permit would be unrealistic if it attempted to eliminate all odors and inappropriate if it attempted to reduce odors merely for those who are momentarily inconvenienced while driving by on Interstate 5. To impose production limits seems to remove financial abilities of the company to make improvements and seems a simplistic approach to a complex problem. (Purdum)

Any expansion should not be allowed to increase pollution but restrictions should not be too difficult for Wah Chang to live with until better technology is available. (Smith)

The plant's efforts to solve pollution problems are not enhanced by the Department's time limits, threats of shut down, or production limitation. (Casey, Peer)

If there is doubt, it should be resolved in favor of leniency to be sure Wah Chang is able to meet requirements. (Evans, Peer)

It is inappropriate to set a limit on odors with no objective way of measuring them. (Casey, Peer)

The DEQ does not know any more than does Wah Chang how to solve the problems and should keep such in mind when sitting in judgment on Wah Chang. The deadlines allowed to solve the problems should be realistic. To increase stack heights as suggested by C2E would endanger aircraft. When better ways are known, the Company will use them. (Hunter)

The permit conditions are very difficult to understand, apparently restrictive, and imposing of heavy responsibilities in terms of record keeping alone. It is not readily apparent the Department has the staff and capability to fairly draft and enforce a permit governing such a highly technical operation. (Rhodes)

The Department should work toward a reasonable permit that addresses both the environment and Wah Chang's necessity to the community. (Wooley)

The permit conditions relative to production limits and cat box odors are an attempt to single out Wah Chang because, as an industry, it is on top. If the Department gets away with it other industry and activity will be threatened. It is unfair to the workers to place a restriction on something only outside the plant boundaries. The Department will some day have the notion that it should tell a farmer his cows can't have more milk until the barnyard is cleaned up. (Kyriss)

The agricultural industry has to curtail its burning regardless of cost. Industry should not be allowed to pollute simply over money. (Turnidge)

The scentometer is the best state-of-the-art for measuring and it is unrealistic to try to reduce the odor without measuring to find what it is and then applying a measurement as to how far it must be reduced. (Lowry)

The Department is perhaps pushing too hard to get the permit resolved and should take the time to thoroughly evaluate the information submitted by C2E. (Coffer)

The Department should thoroughly check out the allegations of C2E to see if health hazards need to be better addressed in the permit. (Gross)

The Department's proposal to reduce the cat box odor is laudable. Western Zirconium has committed to achieving a similar standard and so should Wah Chang. (Sonn, Robert)

The discharge provisions, once established, should be enforced with strict fines or plant closures. (Blickensderfer)

With public understanding of the negative impact on human health of the discharges from this plant, DEQ will be moved to rewrite the permit to require Wah Chang to take necessary steps to lessen the health hazards created by their emissions.

As proposed, the permit contains no mention of any of the pollutants which are the major health hazards. The permit doesn't acknowledge emissions of Methyl Iso Butyl Ketone and disregards stack heights in setting standards for ammonia, chlorine gas and hydrochloric acid. Because of the low stack heights at which they are emitted, the pollutants hydrochloric acid, chlorine gas and ammonia are not subject to adequate limitations by the proposal. (C2E)

There definitely should be stricter controls on the Company. The Department has the obligation to do something about the odor. Western Zirconium in the Dallesport area will be required to have to guarantee no objectionable odor off the plant site and Wah Chang should be required to do the same. (Sonn, Pat)

The permit should be altered only to improve air quality and the Department should assign enough personnel to the problem to insure the permit is enforced both day and night. (Burt)



Catbox Odor Analyzed

The specific wording of the permit should be:

By no later than January 1, 1978, the "catbox" odor (3-mercapto - 4-methyl - 2-pentanone) emanating from the zirconium/hafnium process shall be reduced to the lowest practicable level attainable utilizing practices and procedures.

The plant should not be required to guarantee the zero scentometer reading at its boundaries. The scentometer is a subjective tool whose operator can become desensitized. Wah Chang is prepared to use the highest and best practicable control required by regulation. Also, the public may erroneously associate a zero reading with zero catbox odor or (worse yet) no odor of any origin. This might appear as a company commitment to eliminate odor entirely. Given the extreme difficulty in discovering process refinements to control the odor, a scentometer reading of one as a norm, allowing excursions to two, should be applied if a reading must be applied at all. The compliance schedule should read as follows:

By no later than January 1, 1978, the permittee shall submit additional control strategy for reducing the fugitive odor "catbox" so as to minimize the nuisance conditions beyond the plant site boundaries. This control strategy shall include detailed plans and specifications and the schedule for implementation (increments of progress) to the Department for review and approval. (dePoix, Hurlburt)

The odor is due to the presence of a mercaptan (3-mercapto - 4-methyl - 2-pentanone) whose identification was difficult and whose control will be more difficult. Detectable to the nose when one part is present in every ten billion parts of air, the compound can be smelled before it can be discovered by instrumentation. There is no way of totally eliminating the odor. The company is sincere in trying to meet reasonable regulatory demands. There is no evidence that the minute quantities present are harmful or toxic. Traces of a closely related compound have been found in many foods. Similar odors emanate from sewage plants, pulp mills, wood processing, and food plants. These sources are not required to eliminate odor entirely. Aesthetics and economics must strike a compromise regarding this pervasive, powerful-smelling compound. (Libby)

The odor is not harmful to health. (Loney)

The proposed zero scentometer reading of the catbox odor beyond the plant site boundaries by January 1, 1978 is unrealistic and cannot be met. (Kyriess on behalf of Linn-Benton-Lincoln Labor Council)

The scentometer reading of zero means that the odor is reduced two to one by pure air. It is a subjective tool. A normal reading of one should be required with excursions to two allowed because the manufacturer of the scentometer states that a reading above one will probably cause complaints while those above two, if they persist, can be described as a serious nuisance. (Bird, Peer)

Tests around the plant conducted so far indicate that some kind of scentometer reading limitation is needed. (Lassiter)

The proposal to reduce catbox odor to a reading of zero is unworkable. (Bergevin on behalf of Local United Steel Workers of America, Peer)

The odor limitation is unworkable because there is no manner of objective measurement. The problem should be given time in which the company's experts (not clamoring environmental groups) will solve it. (Casey, Peer)

The question of what odor is objectionable and to whom is a question that is subjective and difficult to answer. (Hick)

Requiring "highest and best practical treatment" will not force the company to do enough to rid us of the odor. (Jary)

Item 17 which provides a compliance schedule to reduce the catbox odor "to the greatest extent possible" is too weak. A distance should be specified beyond which no "catbox" odor should be allowed. (Blickensderfer)

Sulfuric Acid

Investigation has demonstrated beyond a doubt that huge quantities of sulfuric acid are being emitted from the zirconium calciner stack. Levels as high as 385 ug/m<sup>3</sup> will be imposed on the population, levels over thirty times the threshold limit considered harmful.

C2E's contention that "huge quantities" of H<sub>2</sub>SO<sub>4</sub> are being emitted from the calciner stack is based on inappropriate assumptions using a wrong number as a sample base, an incorrect value for the height of the stack, and a simplistic diffusion model. Even though these errors yield a figure higher than actual ground level concentrations, the concentration figure at which C<sub>2</sub>E arrived for ground level is only one-third of the Threshold Level Value considered safe for 40-hour-week occupational exposure. (Aschoff, Boubel, Hunter)

The C<sub>2</sub>E conclusion about sulfuric acid is based on questionable assumptions and is belied by the fact that only small amounts have been measured. Erroneous input data yielding high values compounded the error of assuming that the maximum centerline plume concentration which would exist only under one set of meteorological conditions at one point would be visited upon the "population." (Boubel)

Discharge of Ketone into the Air

The blue haze and associated odor problems are due to the purposeful discharge of the odor along with MIBK into the air in order to meet the water discharge standards for MIBK imposed by the DEQ. While the odoriferous compound is not expected to produce a major health problem, MIBK is quite toxic to the nervous system at high concentrations. It is impossible to learn the stack height and calculate ground level concentrations because Wah Chang won't even acknowledge stripping these pollutants into the air. (C<sub>2</sub>E)

The limit of nasal detection is far below the threshold limit values and if dangerous levels were present they would be smelled. The process simply does not deliberately discharge expensive methyl isobutyl ketone into the atmosphere. (Aschoff)

Carbon Monoxide

Investigations show that large quantities of carbon monoxide are being exhausted from the chlorinator units, quantities representing ground level concentrations of twice that allowed by the Environmental Protection Agency. (C2E)

C2E's contention that CO is being emitted in large quantities from the chlorinator units is based on wrong assumptions about process, stack height, and plume dispersion. (Aschoff)

C2E's contention that excessive carbon monoxide is emanating from the chlorinator units is erroneous. Auto-related CO far exceeds CO from Wah Chang. (Hunter)

VINCENT P. de POIX, President

RECEIVED  
MAR 28 1977  
DEPT. OF ENVIRONMENTAL QUALITY

TELEDYNE WAH CHANG ALBANY  
1600 OLD PACIFIC HIGHWAY  
P. O. BOX 460  
ALBANY, OREGON 97321  
(503) 926-4211

March 25, 1977

Mr. Peter McSwain  
Hearings Officer  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
1234 S. W. Morrison Street  
Portland, OR 97205

FOR HEARING RECORD

Air Contaminant Discharge Permit 22-0547  
Teledyne Wah Chang Albany

Teledyne Wah Chang Albany is herein addressing major areas of concern in the proposed Air Contaminant Discharge Permit. Also attached is the February 23, 1977, correspondence - V. P. de Poix / W. H. Young.

Performance Standards and Emission Limits

3. The specific wording should be:

By no later than January 1, 1978, the "cat box" odor (3-Mercapto-4-Methyl-2-Pentanone) emanating from the zirconium/hafnium process shall be reduced to the lowest practicable level attainable utilizing good practices and procedures.

Discussion:

In addition to those details delineated in the aforementioned February 23, 1977, correspondence, placing a scentometer level of zero on the "cat box" odor may establish a precedent from which we cannot recover. In time, the public may forget the scentometer and that a zero reading does not mean an absence of odor. This was evident at the hearing. The public may also forget that "cat box" is the odor addressed in this section. How can one recover from this situation, i.e. zero odor beyond the plant site boundaries? Odors have the ability to mix with

Mr. Peter McSwain  
Hearings Officer  
March 25, 1977  
Page 2

Air Contaminant Discharge Permit 22-0547

---

one another, thereby making differentiation almost impossible. Tying an odor source to a single industrial effluent may cause problems in the future. Refer to March 21, 1977, correspondence attached - L. M. Libbey / K. W. Bird.

4. The specific wording should be:

The permittee shall at all times control ancillary sources of air contaminants such as, but not limited to, building openings, roads, driveways, open areas, and material handling processes so as to maintain the highest practicable level of air quality and the lowest practicable discharge of air contaminants.

Discussion:

Refer to February 23, 1977, correspondence - V. P. de Poix / W. H. Young.

Special Conditions

10. The specific wording should be:

The permittee shall control the level of production such that the limits of this permit are immediately and continuously met.

Discussion:

Teledyne Wah Chang Albany must reiterate its position that it is beyond the charge of the Department of Environmental Quality to limit production and/or productive capacity. Necessary reasonable expansion must be allowed; coupled, of course, with reasonable increases in emissions. Acceptable programs and time schedules will be formulated for the ultimate control and reduction of effluents so that practicable limits are met. Equitable treatment of Contaminant Discharge Permit holders is of prime concern; it affects not only the economic stability of Oregon, but the entire nation as well. Teledyne Wah Chang Albany must protest most strongly that we cannot accept the condition as written in the proposed permit.

Mr. Peter McSwain  
Hearings Officer  
March 25, 1977  
Page 3

Air Contaminant Discharge Permit 22-0547

---

11. Delete in its entirety.

Discussion:

Limiting the production or productive capacity of any portion of the zirconium or hafnium process is counter-productive. Many portions of the process are not contributors to, nor do they affect, the mid-Willamette Valley air shed. Yet the proposed permit addresses all portions of the zirconium or hafnium process. Reference is also made to the discussion contained under Special Condition 10.

Compliance Schedule

18. The specific wording should be:

By no later than January 1, 1978, the permittee shall submit additional control strategy for reducing the fugitive odor "cat box" so as to minimize the nuisance conditions beyond the plant site boundaries. This control strategy shall include detailed plans and specifications and the schedule for implementation (increments of progress) to the Department for review and approval.

Discussion:

The extension of this compliance schedule condition is based upon the fact that two individual control strategy methods are currently being implemented in an attempt to reduce the fugitive odor. These are delineated in the compliance schedule of the subject permit--Item 19 - Spill Sump Treatment and MIBK Recovery. The second control strategy is Item 20 - Hafnium Oxide Precipitation and Calcining. While the hafnium calciner system is not required until January 15, 1978, sufficient engineering should have been accomplished to indicate additional control strategy.

Respectfully submitted,



V. P. de Poix

President

Teledyne Wah Chang Albany



VINCENT P. de POIX, President

TELEDYNE WAH CHANG ALBANY

1600 OLD PACIFIC HIGHWAY

P.O. BOX 460

ALBANY, OREGON 97321

(503) 926-4211

February 23, 1977

Mr. William H. Young, Director  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
1234 S. W. Morrison Street  
Portland, OR 97205

Dear Mr. Young:

We have reviewed the proposed Air Contaminant Discharge Permit No. 22-0547, and we have the following comments:

Performance Standards and Emission Limits

3. The specific wording should be:

By no later than January 1, 1978, the "cat box" odor (3-mercapto-4-methyl-2-pentanone) emanating from the zirconium/hafnium process shall be reduced to the lowest practicable level attainable utilizing recognized good practices and procedures.

Discussion: Teledyne Wah Chang Albany has diligently pursued a solution to the "cat box" odor problem. Identifying the specific compound was difficult in itself, but quantifying the parameters associated with its formation was an even greater task. Mercaptans, such as the compound we are confronted with, have extremely low odor thresholds; consequently, scrubbing of the process off-gas will only reduce the problem. Process parameters must be identified and then controlled in order to minimize the formation of the malodorous compound. All of these tasks we are willing to perform; yet we cannot, in good conscience, guarantee that the odor will be reduced to a scentometer reading of zero at the plant site boundaries. The reliability of a scentometer has been investigated in relation to determining the existence of "cat box" (3-mercapto-4-methyl-2-pentanone). It is at best a subjective evaluation determining only an order of magnitude concentration of an odorant in the air. Perusal of the instruction folder supplied with scentometers reflects problems associated with reproducibility and operator desensitization. If a "cat box" odor level must be dictated by a scentometer reading, it is suggested that a reading of 1 (D/T=7) be established as a norm, with excursions to a reading of 2 (D/T=31) allowable for short durations. These levels more realistically reflect the experience the scentometer manufacturer has procured through field testing.

In summary, Teledyne Wah Chang Albany is prepared to utilize, in the words of OAR 20-001, ". . .the highest and best practicable treatment and control . . ." required to reduce the "cat box" odor.

4. The specific wording should be:

The permittee shall at all times control ancillary sources of air contaminants such as, but not limited to, building openings, roads, driveways, open areas, and material handling processes so as to maintain the highest practicable level of air quality and the lowest practicable discharge of air contaminants.

Discussion: Teledyne Wah Chang Albany feels that the substitution of "practicable" for "possible" more nearly approaches the Oregon Administrative Rules intent as outlined in OAR 20-001.

Special Conditions

10. The specific wording should be:

The permittee shall limit or control the level of production as necessary such that the limits of this permit are immediately and continuously met. (Base level production for the purpose of this permit shall be 50,000 pounds per day of total oxide produced averaged over a calendar month as processed through the Separations plant).

Discussion: Teledyne Wah Chang Albany feels that it is beyond the charge of the Department of Environmental Quality to limit production and emissions as well. It is, therefore, our feeling that emissions at the base level of 50,000 pounds of oxide per day are acceptable, and that if the performance standards and emission limits are met, production should not be regulated.

11. Delete in its entirety.

Discussion: Teledyne Wah Chang Albany cannot comply with this special condition. This paragraph implies that efficiency of operation is not a criterion for plant operation. It precludes the utilization of increased yields in any portion of the plant for subsequent operations. Operational incentive can be destroyed and the energy expended toward reduction of solid and/or aqueous discharges minimized.

Compliance Schedule

18. The specific wording should be:

By no later than January 1, 1978, the permittee shall

Mr. William H. Young, Director  
Department of Environmental Quality  
February 23, 1977  
Page 3

---

submit additional control strategy for reducing the fugitive odor ("Cat Box") so as to minimize the nuisance conditions beyond the plant site boundaries. This control strategy shall include detailed plans and specifications and the schedule for implementation (increments of progress) to the Department for review and approval.

Discussion: See discussion under Performance Standards and Emission Limits, No. 3. Reference is also made to attached correspondence from Leonard M. Libbey, Ph.D.

Teledyne Wah Chang Albany, by its own initiative, has reduced emissions beyond those imposed by the Mid-Willamette Air Pollution Authority, and has thereby indicated an intent to continually improve its environmental control programs. As was pointed out in a recent press article, Mr. Skirvin of the Department of Environmental Quality indicated that many of the proposed limits were lower than normal state regulations primarily because Wah Chang had demonstrated the ability to achieve these lower emission rates. We fully intend to continue to improve the environmental quality of the zirconium/hafnium process, and have allocated monies and increased technical staffing to perform this task.

The proposed compliance schedule appears to be rather tight and restrictive, but we feel that we can perform as required. Incorporation of the aforementioned changes to the subject permit, however, would establish a more workable document which is directed at the highest and best practicable treatment and control of air contaminant emissions.

If you have any questions or wish to discuss this matter in detail, I would be most happy to come to Portland, accompanied by Mr. K. W. Bird, our Director of Environmental Control, to meet with you at your convenience.

Very truly yours,

V. P. de Poix

VPdeP/pm

Attach.

cc: Mr. F. Skirvin

Department of  
Food Science  
and Technology

Oregon  
State  
University

Corvallis, Oregon 97331 (503) 754-3131

February 22, 1977

Mr. K. W. Bird, Director  
Environmental Control  
Teledyne Wah Chang  
Albany, OR

Dear Mr. Bird:

For the past sixteen years I have been engaged in flavor chemistry, and more particularly, in the analysis of food flavor volatiles (including off-odors) by gas chromatography/mass spectrometry (GC/MS). I have also been very active in toxicology for the past five years, principally in the trace organic analysis for the carcinogenic N-nitrosamines and aflatoxins in foods.

I have no financial interest in, nor receive consulting fees from, Teledyne Wah Chang; my comments are hopefully unbiased, they are certainly offered freely and openly.

This letter is in regard to the compound 3-mercapto-4-methyl-2-pentanone ("catty odor") which has conclusively been identified by Dr. Lawrence J. Jacoby as being the principal odorous component in the "catty odor" discharged into the air by Teledyne Wah Chang.

(1) Although the odor threshold for 3-mercapto-4-methyl-2-pentanone is at present unknown, my judgment is that it will be approximately 1:10<sup>10</sup>, as a very competent Dutch investigator, Dr. H.T. Badings, has determined the threshold of 4-mercapto-4-methyl-2-pentanone to be 1:10<sup>10</sup> in refined liquid paraffin. (1) This means that the human odor threshold might be 1 part of the "catty odor" compound in ten billion parts of air! This makes the "catty" compound a very potent odorant indeed.

(2) Measuring and identifying of such powerful odorants as the "catty" compound is a difficult task at best. State-of-the-art instrumentation is doubtfully adequate; the human nose is superior (2,6). For objective collection and analysis, concentration is mandatory. Probably passage of the suspect polluted air through traps packed with a porous polymer, such as Porapak Q,

would be helpful in concentrating the pollutants prior to analysis. For identification GC and GC/MS is suggested. Routine monitoring of air discharges of materials such as the "catty odor" compound may have to rely on subjective rather than instrumental approaches. This approach is sometimes called a "nasal appraisal."

(3) In my professional opinion there is no way of totally eliminating the "catty odor" emission from Teledyne Wah Chang---- short of plant shut-down, or an enormously expensive redesign of the processes using MIBK. At least a rough measure of the levels of "catty odor" pollutant are needed; this information would be helpful in seeing how much of a reduction in emission is necessary to approach the odor threshold of humans.

Talks with Dr. L.J. Jacoby and others, have convinced me that the chemistry of the "catty" emission has been significantly advanced, and scientific and technological expertise is now being used to decrease the emission. I have been impressed in talking with management and technical personnel at Teledyne Wah Chang that they appreciate the problem and are sincere in trying to meet reasonable demands from the regulatory agencies such as DEQ.

(4) It is difficult to say what levels of the "catty odor" one might expect to be the best practicably attainable utilizing recognized good practice. It would probably be feasible to eliminate half of the "catty" emission, but cutting the emission by 95% might be economically unreasonable. A reasoned approach is called for, and hopefully the emission standards would not be unreasonable to start with and furthermore not be like an ever-tightening "hangmen's noose" as current emission standards are met; this is not to say that continued improvement is not desirable or possible. The hope is that economically reasonable and attainable standards will be set initially and in the future.

(5) There is no evidence that 3-mercapto-4-methyl-2-pentanone (the "catty compound") is hazardous or toxic at the minute levels found. Traces of the closely related 4-mercapto-4-methyl-2-pentanone have been found in foods such as meat<sup>(3)</sup>, vegetables<sup>(4)</sup>, and cheese (1,5). None of the cited researchers has suggested a toxicity; an aversion to eat "catty" food yes, but almost certainly no hazard to human health exists at the ppb levels expected to be found in food or air.

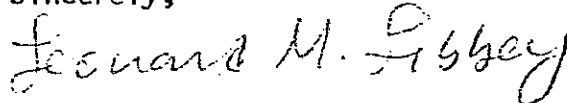
It might be well to state at this point, that odor is an integral part of flavor, and odor, in my professional opinion, plays the dominant role. The distinction between an odor and off-odor is sometimes very thin. Certain compounds found in food aroma are also present as air pollutants (for example dimethyl sulfide, methyl mercaptan, etc.). Upon very high dilution many compounds seem to change their character and smell almost pleasant; dimethyl sulfide is a good example --- at high dilution it smells like canned corn.

Mr. Bird  
February 22, 1977  
Page 3

(6) It should be recognized that other sources of emission similar to the "catty" odor emanate from sewage plants, pulp mills, wood processing plants and even food plants. It is doubtful if it is realistic to require such plants to maintain a "zero" emission tolerance unless the pollutant was carcinogenic or of extreme toxicity (such as the dioxins).

The trouble with the "catty" odor is that it is a very powerful, pervasive smell. In my view aesthetics and economics should make a compromise, so that industry can survive by being given reasonable (not zero) tolerances.

Sincerely,



Leonard M. Libbey, Ph.D.  
Associate Professor

LML:kvc

Attachment.

## References Cited

1. Badings, H.T. Causes of Ribes Flavor in cheese. *J. Dairy Science*. 50:1347. 1967.
2. McCartney, W. Olfaction and Odours. p. 190. Springer-Verlag. Berlin, Heidelberg, New York. 1968.
3. Patterson, R.L.S. Catty odours in Food: Confirmation of the identity of 4-mercapto-4methylpentan-2-one by GC-MS. *Chem. and Indust.* p. 48. Jan. 11, 1969.
4. Alward, F., G. Coleman and D.R. Haisman. Catty odours in Food: The reaction between mesityl oxide and sulphur compounds. *Chem. and Indust.* p. 1563. Sept. 16, 1967.
5. McGugan, W.A. and D.B. Emmons. Unusual Flavor defect in cheese similar to the odor of feline urine (*Felis libyca domestica*). *J. Dairy Sci.* 50:1495. 1967.
6. Pearce, T.J.P., J.M. Peacock, F. Aylward, and D.R. Haisman. Catty odours in Food: Reactions between hydrogen sulfide and unsaturated ketones. *Chem. and Indust.* p. 1562. Sept. 16, 1967.

Department of  
Food Science  
and Technology



Corvallis, Oregon 97331 (503) 754-3131

March 21, 1977

Mr. K. W. Bird  
Environmental Control  
Teledyne Wah Chang  
Albany, OR

Dear Mr. Bird:

This letter is written to document a couple of points relative to the Wah Chang "catty" emission. The Xerox copies are from a book to be used Spring Term in our department.

(1) Although the book is written by eminent toxicologists and pharmacologists, there is no suggestion that 4-mercapto-4-methylpentanon-2 is toxic in the minute traces it is found in air, water, and food. My professional opinion is that 3-mercapto-4-methylpentanon-2 (Wah Chang "catty" emission) would behave similar to the 4-mercapto isomer and toxicological hazards would be minimal.

(2) It is important to note that "catty" compounds often occur in industrial effluents; Wah Chang should not be singled out as the only source of these compounds.

I read with great interest the reports in the papers on the DEQ hearings; my comment to C2E is "are you working on the solution or are you part of the problem?"

Let's hope that the facts and reason will prevail!

Sincerely,

A handwritten signature in cursive script that reads "Leonard M. Libbey".

Leonard M. Libbey, Ph.D.  
Associate Professor

Enc. (1)  
LML/jrc



# Introduction to General Toxicology

**E. J. ARIËNS    A. M. SIMONIS**

University of Nijmegen  
Pharmacological Institute  
Nijmegen, The Netherlands

**J. OFFERMEIER**

University of Potchefstroom  
Department of Pharmacology  
Potchefstroom, South Africa



ACADEMIC PRESS New York San Francisco London 1976  
A Subsidiary of Harcourt Brace Jovanovich, Publishers

action takes place under certain weather conditions, viz., abundant sunlight and virtual absence of turbulence in the atmosphere. Apart from the oxidizing photochemical smog in which ozone, nitrous vapors, and hydrocarbons occur, a reducing smog in which  $\text{SO}_2$  is an important component, is also well known. Weather conditions play a less important role in the formation of reducing smog; in this instance, sunlight is not a prerequisite.

A special problem here is the so-called catty odor, which is extremely penetrating. This is the odor of a mercaptan (organic SH compound), 4-mercapto-4-methyl-pentanone-2. This particular mercaptan, which has an obnoxious odor in extremely low concentrations, is not a waste product of the chemical industry, but is formed by interaction of  $\text{H}_2\text{S}$  with mesityl oxide (Fig. 67). Mesityl oxide is a widely distributed pollutant produced in very low concentrations by various industries (dyes, plastics, printing inks, lacquers, etc.) where it is used as an organic solvent. Mesityl oxide is not obnoxious as such, but the problem occurs when it is dumped into canals or rivers in which  $\text{H}_2\text{S}$  develops. This can only occur where large quantities of organic material are present and the oxygen concentrations in these waters are so low that rotting processes (anaerobic degradation) with the formation of  $\text{H}_2\text{S}$  take place.

Another example is the conversion of inorganic mercury compounds to organic mercury compounds, especially methyl- and dimethylmercury, by microorganisms in the environment. Since these organic mercury compounds are lipophilic, they accumulate in fish and seals. The mercury that is present in these animals is mostly in the form of methylmercury compounds. With this type of environmental pollution, as with DDT, accumulation takes place along the food chains whereby the species at the end of these chains, in this case the seals, are endangered. Apart from the organic mercury com-

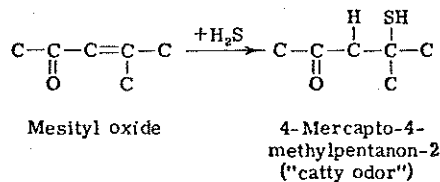


Fig. 67. The formation of a mercaptan (having an obnoxious smell) from  $\text{H}_2\text{S}$  and mesityl oxide. Mesityl oxide and related substances often occur in industrial effluents and  $\text{H}_2\text{S}$  is formed by putrefaction in polluted water.

To: The Department of Environmental Quality  
1234 SW Morrison Street  
Portland, Oregon 97205

From: Citizens for a Clean Environment  
P.O. Box 255  
Corvallis, Oregon 97330

RE: Teledyne Wah Chang Albany Air Discharge Permit

Citizens for a Clean Environment (C<sub>2</sub>E) is a citizens group in Corvallis which has in the past investigated the environmental impacts of certain industrial operations in the Albany-Corvallis area. Our efforts have for the most part benefited both the environment and the industries involved.

For the last six months C<sub>2</sub>E has been evaluating the air and water discharges from the Wah Chang plant. The primary participants in this effort have been Mr. Jerry Coffey, a registered professional chemical engineer with 6 years experience in air quality engineering, Mr. Gil Zemansky with 6 years experience in the water quality field and Mr. Phillip Crawford, a member of the C<sub>2</sub>E board. Our final report to the citizens of this area is scheduled to be released in approximately one month. However, it is very important at this time that we make our preliminary findings regarding the air discharges from Wah Chang known to the public.

We believe that with public understanding of the negative impact on human health of the discharges from this plant, DEQ will be moved to re-write the current proposed permit. We would hope that such a re-write would include a mandate to Wah Chang to take such steps necessary to lessen the health hazards created by their discharges.

First, our investigations have demonstrated beyond any doubt that huge quantities of sulfuric acid are being emitted from the zirconium calciner stack. This sulfuric acid discharge has been measured and reported to DEQ. A dispersion model was used to determine the concentrations of sulfuric acid reaching the people at ground-level. Levels as high as 385 ug/m<sup>3</sup> will be imposed on the population. The threshold limit value as determined by the Environmental Protection Agency (EPA) epidemiological studies is 10 ug/m<sup>3</sup>. This means that Wah Chang is discharging over thirty times the levels that are considered harmful.

Second, our investigations of the process show that large quantities of carbon monoxide are being exhausted from the Wah Chang chlorinator units. These quantities represent maximum ground-level concentrations of twice that allowed by EPA.

Third, the problem which has had the most obvious impact on the citizens of the Albany-Corvallis area is the blue haze and the associated odor problem. Our investigations of the process lead us to believe that Wah Chang is purposely discharging this odor into the air,

coupled with high quantities of an organic solvent(MIBK) in order to meet the water emission standards on MIBK imposed by DEQ. Although we laud these efforts to meet water standards, we cannot condone blatant disregard for air quality in the process. Our findings on this matter were deduced from an understanding of the Wah Chang process and the principles of stripper operation. The small quantities of the (oderiferous) compound is not expected to produce a major health problem. However, the MIBK is quite toxic to the nervous system at high concentrations. The exact concentration of MIBK reaching the ground is impossible to determine without knowing the height of the discharge point. The information regarding stack height is not known, as Wah Chang will not even acknowledge stripping these pollutants into the air.

Finally, there is a hazard to the residents living near the plant caused by discharges of hydrochloric acid, chlorine gas and ammonia. Normally, the limits DEQ has placed on these pollutants would be considered low enough to prevent any major health impact. However, because these pollutants are released into the atmosphere so close to ground-level, they represent a possible major health problem for plant employees and for people living adjacent to the plant site. Problems would occur primarily under high wind conditions when drafts created by building interferences will cause these low discharge plumes to be dispersed directly toward the ground, thus affecting residents.

We have related the above findings to DEQ and to our knowledge they have not thoroughly investigated any of them. This is evident by examination of the proposed discharge air permit.

The permit contains no mention of any of the pollutants which are the major health hazards. It does not acknowledge the emissions of sulfuric acid, carbon monoxide or MIBK, nor does it admit to the potential negative effects of such toxic gases on the population. The permit also does not consider the stack heights in setting emission standards for ammonia, chlorine gas and hydrochloric acid.

We are not here to demand a shut-down of Wah Chang. Rather, we want DEQ to acknowledge the environmental problems caused by this operation and to commit to work cooperatively with Wah Chang toward an expeditious solution of the problems we have outlined.

C<sub>2</sub>E is a group of citizens committed to a cleaner environment. We urge your action on this matter.

C2E'S SUGGESTED AMENDMENTS TO  
THE PROPOSED  
TELEDYNE WAH CHANG ALBANY AIR CONTAMINANT DISCHARGE PERMIT

SUGGESTION # 1

Condition 2(d)(1) should be amended to indicate separate concentration limits for chlorine ( $\text{Cl}_2$ ) and chloride ion ( $\text{Cl}^-$ ) due to toxicity differences in the two pollutants, and should read as follows:

Condition 2(d)(1): "A maximum concentration of chloride ion ( $\text{Cl}^-$ ) equal to 100 ppm and a maximum concentration of chlorine ( $\text{Cl}_2$ ) equal to 20 ppm;"

SUGGESTION # 2

Condition 2(d) should be amended to include discharge limits on sulfuric acid ( $\text{H}_2\text{SO}_4$ ), carbon monoxide (CO) and methyl isobutyl ketone (MIBK), which discharges have not been limited by the proposed Permit. These limitations are required to protect the public health. Sub-sections should be added to condition 2(d) as follows:

Condition 2(d)(4): "Until September 1, 1978 a maximum concentration of sulfuric acid ( $\text{H}_2\text{SO}_4$ ) equal to 400 ppm and a maximum discharge rate of sulfuric acid ( $\text{H}_2\text{SO}_4$ ) of 700 lb/day." After September 1, 1978, a maximum concentration of sulfuric acid ( $\text{H}_2\text{SO}_4$ ) equal to 20 ppm or a maximum discharge rate of sulfuric acid ( $\text{H}_2\text{SO}_4$ ) of 30 lb/day."

Condition 2(d)(5): "Until September 1, 1978 a maximum discharge rate of carbon monoxide (CO) of 40,000 lb/day. After September 1, 1978 a maximum discharge rate of carbon monoxide (CO) of 10,000 lb/day."

Condition 2(d)(6): "Until September 1, 1978 a maximum discharge rate of methyl isobutyl ketone (MIBK) of 7,000 lb/day. After September 1, 1978 a maximum discharge rate of methyl isobutyl ketone (MIBK) of 100 lb/day."

SUGGESTION # 3

Condition 6 shall be amended to read as follows:

Condition 6: "The permittee shall perform at least three prescheduled source tests per year on all emission control systems in the zirconium/hafnium production process. The pollutant components to be monitored in each of these stacks will be specified by the Department. All tests shall be conducted in accordance with the testing procedures on file at the Department or in conformance with applicable standard methods approved in advance and in writing by the Department."

SUGGESTION # 4

Under the heading "Compliance Schedule" which begins at condition 17 of the Permit, the following compliance schedules will be added to insure compliance with the amended limits on sulfuric acid ( $H_2SO_4$ ) carbon monoxide (CO) and methyl isobutyl ketone (MIBK) imposed in condition 2.

Condition 27: "The permittee shall provide additional controls for the zirconium oxide calciner so as to reduce sulfuric acid ( $H_2SO_4$ ) emissions and attain and maintain continuous compliance with condition 2. This project shall be accomplished in accordance with the following schedule:

- a. By no later than August 1, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
- b. By no later than October 15, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
- c. By no later than May 1, 1978 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
- d. By no later than July 1, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
- e. By no later than September 1, 1978 the permittee shall demonstrate that the zirconium oxide calciner is capable of operating in compliance with condition 2.
- f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished."

Condition 28: "The permittee shall provide additional controls for the sand and pure zirconium oxide chlorinators so as to reduce carbon monoxide (CO) emissions and attain and maintain continuous compliance with Condition 2. This project shall be accomplished in accordance with the following schedule:

- a. By no later than August 1, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
- b. By no later than October 15, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.

- c. by no later than May 1, 1978 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
- d. By no later than July 1, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
- e. By no later than September 1, 1978 the permittee shall demonstrate that the sand and pure zirconium oxide chlorinators are capable of operating in compliance with condition 2.
- f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished."

Condition 29: "The permittee shall eliminate the practice of stripping methyl isobutyl ketone (MIBK) into the atmosphere and shall provide alternate means of disposal of this substance. These means shall not include an increase in methyl isobutyl ketone (MIBK) discharged into the Willamette river. This methyl isobutyl ketone (MIBK) handling system will be developed with the capability to attain and maintain continuous compliance with condition 2. This project shall be accomplished in accordance with the following schedule:

- a. By no later than August 1, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
- b. By no later than October 15, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
- c. By no later than May 1, 1978 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
- d. By no later than July 1, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
- e. By no later than September 1, 1978 the permittee shall demonstrate that the methyl isobutyl ketone (MIBK) control system is capable of operating in compliance with condition 2.
- f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.

SUGGESTION # 5

Under the heading "Compliance Schedule" which begins at condition 17 of the Permit, the following compliance schedule will be added to avoid the building downdraft effects which interfere with the proper dispersion of pollutants from short stacks.

Condition 30: "The permittee shall provide taller stacks for the following emission points:

<u>Stack Name</u>	<u>Attached Equipment</u>
Separations Odor	Hafnium Calciner
Zr Reduction, East	Zirconium Reduction Furnace (East)
Zr Reduction, West	Zirconium Reduction Furnace (West)
Mg Recovery	Magnesium Recovery Furnace
Feed Make-Up	Separations Feed Make-Up Tank
Fertilizer Plant	Fertilizer Plant Evaporation Tank

These stacks will be tall enough so as to be at least 2 1/2 times the height of the tallest adjacent building. This project shall be accomplished in accordance with the following schedule:

- a. By no later than August 1, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
- b. By no later than October 15, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
- c. By no later than May 1, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
- d. By no later than July 1, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
- e. By no later than September 1, 1978 the permittee shall demonstrate that the newly installed tall stacks are operating effectively.
- f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.



TELEDYNE  
WAH CHANG ALBANY

P.O. BOX 460

ALBANY, OREGON 97321

(503) 926-4211 TWX (510) 595-0973

March 18, 1977

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

**R E C E I V E D**

MAR 22 1977

**OFFICE OF THE DIRECTOR**

Mr. William H. Young  
Department of Environmental Control  
1234 Morrison St.  
Portland, OR 97205

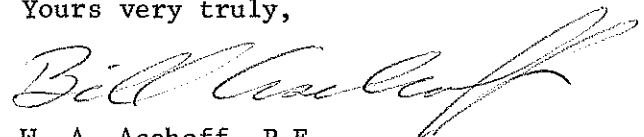
Dear Mr. Young:

In defense of my employer, Teledyne Wah Chang Albany, I have asked that the enclosed letter to Peter McSwain, DEQ, be entered into the record of testimony pertaining to our pending air discharge permit.

I feel very sorry that the need to do this should arise, but when our elected representatives, our regulatory agencies, and the news media are inundated with untrue information aimed at discrediting me and harming my employer, I must speak out.

Please call me if you wish to discuss the matter further.

Yours very truly,



W. A. Aschoff, P.E.  
Manager, Environmental Control

WAA:pms

Enclosure

March 17, 1977

Mr. Peter McSwain  
Hearings Officer  
Department of Environmental Quality  
1234 S. W. Morrison Street  
Portland, OR 97205

RE: TWCA Air Discharge Permit

Dear Mr. McSwain:

Please enter into the record of this hearing the following comments concerning Mr. Jerry Coffey's erroneous conclusions concerning atmospheric discharges from Teledyne Wah Chang Albany.

His first obvious falsehood in the memo purportedly from C<sub>2</sub>E to DEQ regarding our permit, is his statement that he has demonstrated beyond any doubt that huge quantities of sulfuric acid are being emitted from the calciner stack. He has not demonstrated any such discharge, since he took one number from a sample in which all sulfur was reported as sulfate (at the specific demand of the Mid Willamette Valley Air Pollution Authority), and from this calculated a completely unrealistic number for the quantity of H<sub>2</sub>SO<sub>4</sub> in the stack. Studies instigated by TWCA in 1973 proved both theoretically and in tests that the predominant species was SO<sub>2</sub>, not SO<sub>3</sub>. Prior sampling procedures were approved by the agency then having jurisdiction. Thermodynamics and kinetics prove validity of our tests. Using this wrong number as a base, and an incorrect value for the height of the stack, he then proceeded to calculate the concentration at ground level using a simplified ideal diffusion equation which has been demonstrated repeatedly to yield results approximately two orders of magnitude higher than actually can be determined by careful tests performed by competent investigators. Furthermore, even if he were right on all points, his calculated maximum ground level concentration would be approximately one-third of the level considered safe for continuous 40-hour per week exposure; i.e. TLV from OSHA. In short, Mr. Coffey is uttering untruths when he claims to have "demonstrated beyond any doubt", and when he claims he has measured this sulfuric acid discharge.

He also disregards the truth in stating that his investigations of the process show that large quantities of carbon monoxide are being

exhausted from the Wah Chang chlorinator units. He has not studied our process which is proprietary. He is basing his assumptions on one paper discussing titanium chlorination, again the wrong stack height, and the same faulty plume dispersion mathematical model he used to guess at sulfuric acid concentrations.

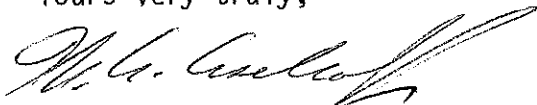
His next glaring error is the statement that we are "purposely" discharging ketone into the air, thereby causing blue haze and odor. This is completely untrue. He has had the system explained to him in detail, but fails to comprehend what actually occurs. At \$1.00 per gallon for methyl isobutyl ketone, we certainly are not going to purposely discharge this material into the air. Furthermore, the limit of nasal detection is far below the TLV, so that "dangerous levels" of MIBK in the ambient air simply do not occur, especially when the material is not concentrated enough to be smelled.

We also disagree with the statement that we show "blatant disregard for air quality". Our ratio of expenditure of money and engineering effort for environmental control in relation to total plant expenditure is one of the highest of any industry in the country, which we feel demonstrates the falsity of this statement by C<sub>2</sub>E.

Finally, the lie that we don't show adequate concern for chlorine, chloride and ammonia is refuted by our having utilized continuous ground level ambient monitors for these pollutants for about three years. During this time we have never come even close to dangerous levels. Over the years these levels have been consistently in the range of less than 1/100th the levels generally accepted as safe for continuous exposure; i.e. TLV's as determined by the American Conference of Governmental Industrial Hygienists.

In summary, conclusions by C<sub>2</sub>E were reached by faulty or complete lack of a data base, extrapolated using dubious mathematics, a complete lack of understanding of the processes involved, and an utter disregard for truth and ethics.

Yours very truly,



W. A. Aschoff, Manager  
Environmental Control

WAA:dkm



March 16, 1977

Department of Environmental Quality  
State of Oregon

For Presentation at Public Hearing  
Albany, Oregon - March 17, 1977

Re: Teledyne Wah Chang - Albany, Air Discharge Permit

As a member of the Citizens for a Clean Environment, I feel it necessary to point out several errors in a statement which I received by mail and which I understand is going to be presented at the Public Hearing, March 17, 1977. I do not feel that this position paper or statement represents the views of many C<sub>2</sub>E members, and, in fact, may not even represent a majority viewpoint. As one of the charter members of C<sub>2</sub>E, and a past member of the Board of Directors, I feel it necessary to point out several points of disagreement.

Referring to the fourth paragraph:

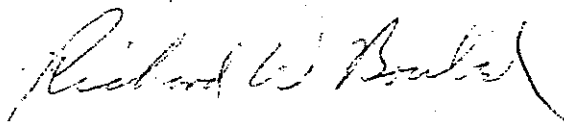
1. There is doubt that huge(hugh) quantities of sulfuric acid are being emitted. Only small amounts appear to have been measured. The larger quantities are postulated from the results of questionable assumptions.
2. I do not believe that the sulfuric acid discharge has been measured and reported to DEQ. I have examined Wah Chang stack test data and can find no measurements made which indicate either qualitatively or quantitatively the sulfuric acid discharge.
3. The dispersion model used to calculate ground level concentrations used erroneous input data which yielded high values. It also assumed that all the sulfur was emitted as acid which was a false assumption.
4. The level of 385 ug/m<sup>3</sup> would not be imposed on the population even if all data and assumptions were correct. This is the maximum centerline plume concentration found from the model and would only exist at one set of meteorological conditions at one point.

Department of Environmental Quality  
March 16, 1977  
Page 2

5. The Environmental Protection Agency (EPA) does not determine "Threshold Limit Values." These are set by OSHA.
6. Even with the false assumptions, I would not consider the  $385 \text{ ug/m}^3$  "over thirty times the levels that are considered harmful." The actual Threshold Limit Value (TLV) for sulfuric acid is 1.0 milligrams per cubic meter which is  $1000 \text{ ug/m}^3$ . This is the level that workers can be exposed to 40 hours per week without adverse effect. This number should not be used for setting an air pollution standard, but it does point out that many workers in the U.S.A. are repeatedly exposed to quantities in excess of  $385 \text{ ug/m}^3$ .

I would comment on many other points in this written statement, but they follow similar lines of reasoning and I would be repeating myself. I will reserve further comment until I have read the final report.

Sincerely,



Richard W. Boubel, Ph.D.  
Professor

rd

cc: Citizens for a Clean Environment

MAR 21 1977

RECEIVED

MAR 28 1977

DEPT. OF ENVIRONMENTAL QUALITY

PETITION OF INTERESTED CITIZENS

WE, THE UNDERSIGNED, RESIDENTS OF THE CITY OF ALBANY, LINN COUNTY, OREGON, AFTER BEING ADVISED THAT TELEDYNE WAH CHANG ALBANY HAS APPLIED TO THE DEPARTMENT OF ENVIRONMENTAL QUALITY OF THE STATE OF OREGON FOR AN AIR CONTAMINATE DISCHARGE PERMIT, BY OUR SIGNATURES FULLY SUPPORT AND ENDORSE THE EFFORTS OF TELEDYNE WAH CHANG ALBANY AND WOULD DEMONSTRATE BY OUR SUPPORT OUR APPRECIATION AND CONTINUED FAITH IN TELEDYNE WAH CHANG ALBANY IN THEIR COOPERATION WITH THE DEPARTMENT OF ENVIRONMENTAL QUALITY AND OTHER AGENCIES IN MEETING THE ENVIRONMENTAL STANDARDS BENEFICIAL BOTH TO THE ECONOMY AND TO THE HEALTH OF THE CITIZENS OF THIS CITY AND THE STATE.

Name

Address

## ATTACHMENT E

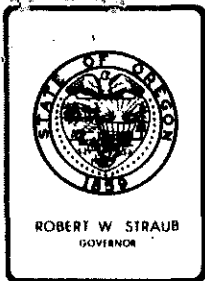
## HEARING REPORT: WAH CHANG AIR PERMIT

<u>Date</u>	<u>Type</u>	<u>Sender</u>	<u>Receiver</u>
2/19/77	Letter w/attach.	Jerry Coffe, C <sub>2</sub> E	T. Nelson, Wah Chang
3/8/77	Letter w/attach.	Jerry Coffe, C <sub>2</sub> E	Fritz Skirvin, DEQ
3/8/77	Letter w/attach.	Jerry Coffe, C <sub>2</sub> E	Rep. Nancy Fadeley
3/11/77	Letter w/attach.	Jerry Coffe, C <sub>2</sub> E	Rep. Nancy Fadeley
3/13/77	Letter w/attach.	Jerry Coffe, C <sub>2</sub> E	Fritz Skirvin, DEQ
3/23/77	Letter w/attach.	Jerry Coffe, C <sub>2</sub> E	Rep. Nancy Fadeley
3/23/77	Letter	Jerry Coffe, C <sub>2</sub> E	Fritz Skirvin, DEQ
4/2/77	Letter	Phillip Crawford, C <sub>2</sub> E	Rep. Nanch Fadeley
4/13/77	Letter	Jerry Coffe, C <sub>2</sub> E	Fritz Skirvin, DEQ
3/7/77	Letter	W. H. Young, DEQ	V. P. dePoix, Wah Chang
2/23/77	Letter	V.P.DePoix, Wah Chang	W. H. Young, DEQ
2/22/77	Letter	L.M.Libbey, OSU	K. Bird, Wah Chang
3/9/77	Letter	E.Weathersbee, DEQ	Pat Sonn (Citizen)
3/2/77	Letter	Pat Sonn (Citizen)	DEQ
3/14/77	Letter	Robert Schmidt "	DEQ
3/17/77	Letter	Howard Hickam "	DEQ
	Testimony	Rollin E. Hines	DEQ Hearing Officer
3/17/77	Letter	Philip Griffin "	DEQ Hearing Officer
3/17/77	Letter	R.J.DeFerrari "	DEQ Hearings Officer
3/17/77	Testimony	Jim Barrett, CofC	DEQ Hearings Officer
	News clipping	Democrat-Herald	
8/2/76	Letter	L. Kramer, DEQ	Jim Barrett, Chamber/Commerce
7/26/76	Letter	Jim Barrett C/C	L. Kramer, DEQ

## Attachment E

Date	Type	Sender	Receiver
3/17/77	Testimony	Ronald E. Long	DEQ Hearing Officer
3/17/77	Letter	R. Lowery	DEQ Hearing Officer
	Resolution	Linn, Benton, Lincoln Labor Council	DEQ Hearing Officer
	Resolution	J.T.Peterson, Pres. Albany C/C	DEQ Hearing Officer
	Statement	Rep. B. Byers	DEQ Hearing Officer
3/10/77	Letter	G.Hawkins	Mr. Wm. Young, DEQ
3/16/77	Letter	R. Boubel, OSU	DEQ
3/17/77	Memorandum	M.B.Siddall	Fritz Skirvin, DEQ
3/15/77	Letter	Jack McGuire	Bill Young, DEQ
3/17/77	Letter	H.B.Smith	Wm. Young, DEQ
3/15/77	Letter	Alan Hick PNW Manager, Northrup, King & Co.	Hearing Officer
5/17/77	Letter	Darrell Burt	Fritz Skirvin, DEQ
3/17/77	Letter	H.B.Smith	Wm. Young, DEQ
3/17/77	Testimony	Sen. John Powell	DEQ Hearing
3/17/77	Letter	Clayton Wood, Mayor Millersburg	Teledyne Wah Chang
3/17/77	Testimony	Bob/Sara Blickensderfer	DEQ Hearing
	Memorandum	Citizens for Clean Env.	DEQ
3/17/77	Letter	Merle Manning	DEQ Hearing





## Department of Environmental Quality

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 Telephone (503) 229- 6414

February 14, 1977

### NOTICE OF PUBLIC HEARING FOR ISSUANCE OF AIR CONTAMINANT DISCHARGE PERMIT FOR TELEDYNE WAH CHANG ALBANY

NOTICE IS HEREBY GIVEN that a Public Hearing will be held for the purpose of considering the issuance of an Air Contaminant Discharge Permit to the following applicant and to amend, as necessary, the Clean Air Implementation Plan for Oregon (Air Contaminant Discharge Permits containing compliance schedules will result in modification of the Implementation Plan for Oregon):

Teledyne Wah Chang Albany  
1600 Old Pacific Highway, Albany, Oregon  
Primary Smelting of Zirconium & Hafnium  
Renewal of Permit #22-0547

The Public Hearing will be held at the time and place listed below:

Albany City Library  
1390 S. Waverly Drive  
Albany, Oregon

Commencing at 2:30 p.m. on Thursday, March 17, 1977 and again at 7:30 p.m. on Thursday, March 17, 1977.

The Department proposes to issue a renewal Air Contaminant Discharge Permit for Teledyne Wah Chang Albany. The Company currently operates under a permit issued by the Mid-Willamette Valley Air Pollution Authority. The proposed permit establishes permit conditions for operation, monitoring, and reporting; establishes limits on particulate and gaseous emissions and on escapement of "cat box" odors; establishes step-wise control programs for significant sources contributing to odors or visibility reduction; and establishes step-wise control programs for sources or processes not currently in compliance with rules of the Commission.

Copies of the proposed permit are available upon request from the Department of Environmental Quality, 1234 S. W. Morrison, Portland, Oregon 97205, or are available for review at the Midwest Regional Office, 16 Oakway Mall, Eugene, Oregon 97401.

Any interested person desiring to submit written testimony concerning the permit, the permit conditions or policy related to these matters may do so by mailing them no later than March 14, 1977 to the above Portland address, or may be heard orally at the public hearing on the date and at the time mentioned above.

Questions regarding this matter may be directed to Mr. Frederic Skirvin (229-6414) at the above Portland address. Please inform those who may have an interest in this matter.

# PROPOSED AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality  
1234 S.W. Morrison Street  
Portland, Oregon 97205  
Telephone: (503) 229-5696

Issued in accordance with the provisions of  
ORS 468.310

<p>ISSUED TO: TELEDYNE WAH CHANG ALBANY 1600 Old Pacific Highway P. O. Box 460 Albany, Oregon 97321 PLANT SITE:  1600 Old Pacific Highway Albany, Oregon</p> <p>ISSUED BY DEPARTMENT OF ENVIRONMENTAL QUALITY</p> <p>_____ WILLIAM H. YOUNG                      Date Director</p>	<p>REFERENCE INFORMATION</p> <p>Application No. 0583</p> <p>Date Received September 8, 1975</p> <p>Other Air Contaminant Sources at this Site:</p> <table><thead><tr><th>Source</th><th>SIC</th><th>Permit No.</th></tr></thead><tbody><tr><td>(1) _____</td><td></td><td></td></tr><tr><td>(2) _____</td><td></td><td></td></tr></tbody></table>	Source	SIC	Permit No.	(1) _____			(2) _____		
Source	SIC	Permit No.								
(1) _____										
(2) _____										

### SOURCE(S) PERMITTED TO DISCHARGE AIR CONTAMINANTS:

Name of Air Contaminant Source	Standard Industry Code as Listed
PRIMARY SMELTING AND REFINING OF ZIRCONIUM, HAFNIUM AND COLUMBIUM	3339

### Permitted Activities

Until such time as this permit expires or is modified or revoked, the permittee is herewith allowed to discharge exhaust gases containing air contaminants including emissions from those processes and activities directly related or associated thereto in accordance with the requirements, limitations, and conditions of this permit from the air contaminant source(s) listed above.

The specific listing of requirements, limitations and conditions contained herein does not relieve the permittee from complying with all other rules and standards of the Department.

**PROPOSED**

Performance Standards and Emission Limits

1. The permittee shall at all times maintain and operate all air contaminant generating processes and all contaminant control equipment at full efficiency and effectiveness, such that the emissions of air contaminants are kept at the lowest practicable levels.
2. The permittee shall comply with the following emission limitations:
  - a. Particulate emissions from any single air contaminant source unless noted otherwise shall not exceed any of the following:
    - 1) 0.1 grains per standard cubic foot; and
    - 2) An opacity equal to or greater than twenty percent (20%) for a period aggregating more than three (3) minutes in any one (1) hour.
  - b. Particulate emissions from the zirconium oxide calciner shall not exceed the following:
    - 1) Until September 1, 1978, 0.2 grains per standard cubic foot; and
    - 2) After September 1, 1978, 0.1 grains per standard cubic foot;
  - c. Particulate emissions from all zirconium/hafnium production processes shall not exceed a total of 25.0 pounds per hour or 110 tons per year.
  - d. Gaseous emissions from any single air contaminant source unless noted otherwise shall not exceed any of the following:
    - 1) A maximum total concentration of chlorine ( $Cl_2$ ) and chloride ion ( $Cl^-$ ) equal to 100 ppm;
    - 2) Until September 1, 1978, excluding the zirconium oxide calciner, a maximum concentration of sulfur dioxide ( $SO_2$ ) equal to 1000 ppm and  
After September 1, 1978, including the zirconium oxide calciner, a maximum concentration of sulfur dioxide ( $SO_2$ ) equal to 400 ppm; and
    - 3) A maximum total concentration of ammonia ( $NH_3$ ) and ammonium ion ( $NH_4^-$ ) equal to 50 ppm.

**PROPOSED**

- e. Gaseous emissions from all zirconium/hafnium production processes shall not exceed any of the following:
- 1) 30 tons per year of total chlorine ( $Cl_2$ ) and chloride ion ( $Cl^-$ );
  - 2) Until September 1, 1978, 600 tons per year of  $SO_2$ ;
  - 3) After September 1, 1978, 90 tons per year of  $SO_2$ ; and
  - 4) 2 tons per year of total ammonia and ammonium ion.
3. By no later than January 1, 1978 the "cat box" odor shall be controlled so as not to exceed a zero scentometer reading or cause nuisance conditions beyond the plant site boundaries.
4. The permittee shall at all times control ancillary sources of air contaminants such as, but not limited to, building openings, roads, driveways, open areas and material handling processes so as to maintain the highest possible level of air quality and the lowest possible discharge of air contaminants.

Monitoring and Reporting

5. The permittee shall effectively inspect and monitor the operation and maintenance of the plant and associated air contaminant control facilities. A record of all such data shall be maintained for a period of one year and be available at the plant site at all times for inspection by the authorized representatives of the Department.
6. The permittee shall perform at least three prescheduled source tests per year on all emission control systems in the zirconium/hafnium production process. All tests shall be conducted in accordance with the testing procedures on file at the Department or in conformance with applicable standard methods approved in advance and in writing by the Department.
7. The permittee shall install, calibrate, maintain and operate in a manner approved by the Department, emission monitoring systems for continually monitoring and recording emissions of chlorine and chloride from the sand chlorination off gas system, the pure chlorination emission control system, silicon tetrachloride refining and storage vent emission control system, and emissions of sulfur dioxide from the zirconium oxide calciner emission control system.
8. The permittee shall install, maintain and operate in a manner approved in writing by the Department, a system for monitoring ambient concentrations of ammonia and ammonium ion, chlorine, and chloride.
9. The permittee shall prepare and submit a quarterly report to the Department including, but not necessarily be limited to the following parameters:
- a. The quarterly production of the separations plant in terms of total oxide and the total quarterly production of zirconium sponge.

**PROPOSED**

- b. The results of all ambient air measurements made.
- c. The results of all emission monitoring and testing data.
- d. The quarterly usage of natural gas.

Special Conditions

- 10. The permittee shall limit or control the level of production at or below base level production as necessary such that the limits of this permit are immediately and continuously met. (Base level production for the purpose of this permit shall be 50,000 pounds per day of total oxide produced averaged over a calendar month as processed through the separations plant.)
- 11. The permittee shall not increase production or production capacity of any portion of the zirconium or hafnium processes until the ability to comply with the limits of conditions 2, 3 and 4, or until acceptable programs and time schedules for meeting these conditions have been submitted to and approved in writing by the Department.
- 12. The permittee shall maintain at the plant site for review by the Department written operating procedures, preventative maintenance schedules and procedures, and environmentally acceptable methods to be employed during process upsets or equipment failures for the following areas:
  - a. Sand chlorination
  - b. Feed make-up
  - c. Separations
  - d. Precipitation and filtration
  - e. Zirconium oxide calcining
  - f. Hafnium oxide calcining
  - g. Pure chlorination
  - h. Silicon tetrachloride refining, storage and shipping
- 13. The handling of zirconium tetrachloride and silicon tetrachloride including, but not necessarily limited to the transfer of material from the sand chlorination process to the feed make-up process, shall be done in ways which will prevent visible or fugitive emissions to the atmosphere.
- 14. The permittee shall not conduct any open burning at the plant site or facility except for the disposal of hazardous pyrophoric zirconium metal fines by atmospheric oxidation which is permitted until July 1, 1978. After July 1, 1978, all metal fines shall be disposed of using controlled and environmentally acceptable procedures approved by the Department.

**PROPOSED**

15. The permittee shall maintain a pre-planned abatement strategy, filed with and approved by the Department to be implemented in response to Air Pollution Alerts, Warnings, and Emergencies as they are declared and terminated by the Department.
16. In the event that the permittee is temporarily unable to comply with any of the provisions of this permit due to upsets or breakdowns of equipment, the permittee shall notify the Department by telephone within one hour, or as soon as is reasonably possible, of the upset and of the steps taken to correct the problem. Upset operation shall not continue longer than forty-eight (48) hours without approval nor shall upset operation continue during Air Pollution Alerts, Warnings, or Emergencies or at any time when the emissions present imminent and substantial danger to health.

If the Department determines that an upset condition is chronic and is correctable by installing new or modified process or control procedures or equipment, a program and schedule to effectively eliminate the deficiencies causing the upset conditions shall be submitted. Such reoccurring upset conditions causing emissions in excess of applicable permit limits will be subject to civil penalty or other appropriate action.

#### Compliance Schedule

17. By no later than June 1, 1977 the permittee shall complete modifications to the separations process so as to reduce the formation of malodorous "cat box" compound in this area to the greatest extent possible. These modifications shall include the capability to monitor and record the relative concentration of the "cat box" compound at a specified site in the separations process.
18. By no later than June 1, 1977 the permittee shall submit a final control strategy for reducing the fugitive odor (cat box) so as to comply with Condition 3, including detailed plans and specifications and the schedule for implementation (increments of progress) to the Department for review and approval.
19. The permittee shall provide spill sump treatment and MIBK recovery in order to reduce emissions of organic vapors and associated odors and maintain compliance with conditions 3 and 4 in accordance with the following schedule:
  - a. By no later than March 15, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department of Environmental Quality for review and approval.
  - b. By no later than April 1, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than May 1, 1977 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.

PROPOSED

- d. By no later than June 15, 1977 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than June 30, 1977 the permittee shall demonstrate that the spill sump and MIBK recovery are capable of operating in compliance with conditions 3 and 4.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
20. The permittee shall install a hafnium oxide precipitation and calcining system including air pollution controls so as to reduce sulfur dioxide and odor emissions from this process and attain and maintain continuous compliance with conditions 2 and 3. This project shall be accomplished in accordance with the following schedule:
- a. By no later than May 1, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than August 1, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than November 1, 1977 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than December 15, 1977 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than January 15, 1978 the permittee shall demonstrate that the hafnium oxide precipitation and calcining system is capable of operating in compliance with conditions 2 and 3.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
21. The permittee shall install a new columbium oxide drier including air pollution controls in accordance with the following schedule:
- a. By no later than May 15, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than August 15, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.

**PROPOSED**

- c. By no later than November 15, 1977 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than March 15, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than May 15, 1978 the permittee shall demonstrate that the new columbium oxide drier is capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
22. The permittee shall provide additional controls for the silicon tetrachloride refining and storage vents and scrubber emissions so as to attain and maintain continuous compliance with Condition 2 and prevent fugitive emissions due to spills, process upsets and equipment breakdowns. This project shall be accomplished in accordance with the following schedule:
- a. By no later than June 30, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than September 30, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than November 30, 1977 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than May 1, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than July 15, 1978 the permittee shall demonstrate that the silicon tetrachloride refining and storage vents and scrubber are capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
23. The permittee shall provide additional controls for the zirconium oxide calciner so as to reduce particulate and sulfur dioxide emissions and attain and maintain continuous compliance with Condition 2. This project shall be accomplished in accordance with the following schedule:



**PROPOSED**

- a. By no later than August 1, 1977 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than October 15, 1977 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than May 1, 1978 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than July 1, 1978 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than September 1, 1978 the permittee shall demonstrate that the zirconium oxide calciner is capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
24. The permittee shall provide additional controls for reducing the chlorine and chloride emissions and plume opacity from sand chlorination so as to attain and maintain continuous compliance with Condition 2. This project shall be accomplished in accordance with the following schedule:
- a. By no later than November 15, 1978 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than February 15, 1979 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than August 1, 1979 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than November 1, 1979 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than January 1, 1980 the permittee shall demonstrate that the exhaust stack is capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.

**PROPOSED**

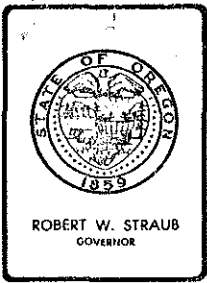
25. The permittee shall provide additional controls for reducing the plume opacity from pure chlorination so as to attain and maintain continuous compliance with Condition 2. This project shall be accomplished in accordance with the following schedule:
- a. By no later than November 15, 1978 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than February 15, 1979 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than August 1, 1979 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than November 1, 1979 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.
  - e. By no later than January 1, 1980 the permittee shall demonstrate that the plume opacity from pure chlorination is capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.
26. The permittee shall provide additional controls for reducing the plume opacity from magnesium recovery so as to attain and maintain continuous compliance with Condition 2. This project shall be accomplished in accordance with the following schedule:
- a. By no later than October 15, 1978 the permittee shall submit a final control strategy, including detailed plans and specifications, to the Department for review and approval.
  - b. By no later than January 15, 1979 the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work.
  - c. By no later than July 1, 1979 the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work.
  - d. By no later than October 1, 1979 the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work.

**PROPOSED**

- 
- e. By no later than December 1, 1979 the permittee shall demonstrate that the magnesium recovery operation is capable of operating in compliance with Condition 2.
  - f. Within seven (7) days after each item, b through e above, is completed the permittee shall inform the Department in writing that the respective item has been accomplished.

General Conditions and Disclaimers

- G1. The permittee shall allow Department of Environmental Quality representatives access to the plant site and pertinent records at all reasonable times for the purposes of making inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emission discharge records and otherwise conducting all necessary functions related to this permit.
- G2. The permittee is prohibited from conducting open burning except as may be allowed by OAR Chapter 340, Sections 23-025 through 23-050.
- G3. The permittee shall:
- a. Notify the Department in writing using a Departmental "Notice of Construction" form, and
  - b. Obtain written approval
- before:
- a. Constructing or installing any new source of air contaminant emissions, including air pollution control equipment, or
  - b. Modifying or altering an existing source that may significantly affect the emission of air contaminants.
- G4. The permittee shall notify the Department at least 24 hours in advance of any planned shutdown of air pollution control equipment for scheduled maintenance that may cause a violation of applicable standards.
- G5. The permittee shall notify the Department by telephone or in person within one (1) hour of any malfunction of air pollution control equipment or other upset condition that may cause a violation of the Air Quality Standards. Such notice shall include the nature and quantity of the increased emissions that have occurred and the expected duration of the breakdown.
- G6. The permittee shall at all times conduct dust suppression measures to meet the requirements set forth in "Fugitive Emissions" and "Nuisance Conditions" in OAR, Chapter 340, Sections 21-050 through 21-060.
- G7. Application for a modification of this permit must be submitted not less than 60 days prior to the source modification. A Filing Fee and an Application Processing Fee must be submitted with an application for the permit modification.
- G8. Application for renewal of this permit must be submitted not less than 60 days prior to the permit expiration date. A Filing Fee and an Annual Compliance Determination Fee must be submitted with the application for the permit renewal.
- G9. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.
- G10. This permit is subject to revocation for cause as provided by law.



## Department of Environmental Quality

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 Telephone (503) 229- 6414

### STAFF STATEMENT FOR PUBLIC HEARING

March 17, 1977

SUBJECT: Informational Hearing Regarding Issuance of An Air  
Contaminant Discharge Permit to Teledyne Wah Chang Albany

#### I. INTRODUCTION

This public hearing is being held for the purpose of receiving testimony relative to an Air Contaminant Discharge Permit renewal the Department of Environmental Quality proposes to issue to Teledyne Wah Chang Albany. The Company currently operates under a permit issued by the Mid Willamette Air Pollution Authority. The proposed permit establishes conditions for operating, monitoring, and reporting; establishes limits on particulate and gaseous emissions and on escapement of "cat box" odors; establishes step-wise control programs for significant sources contributing to odors or visibility reduction; and establishes step-wise control programs for sources or processes not currently in compliance with rules of the Commission.

#### II. PROPOSED PERMIT

The proposed permit is divided into five sections:  
1) performance standards and emission limits; 2) monitoring and reporting; 3) special conditions; 4) compliance schedules; 5) general conditions.

##### Performance Standards and Emission Limits

###### Condition 1 -

Requires operation and maintenance of processes and control equipment to keep air contaminant emissions to lowest practicable level.

###### Condition 2 a, b and c -

Requires immediate compliance with opacity and particulate emission limits for all sources except the zirconium oxide calciner which has a specific compliance schedule in Condition 20 and compliance is required by September 1, 1978.



Contains  
Recycled  
Materials

Condition 2 d and e -

Establishes limits for gaseous emission, Cl<sub>2</sub>, SO<sub>2</sub>, NH<sub>3</sub> from any individual source.

Condition 3 -

Establishes allowable level at plant boundary for "cat box" odor.

Condition 4 -

Requires control of ancillary sources so as to maintain highest air quality.

Monitoring and Reporting

Condition 5 -

Requires effective inspection and keeping of records of plant operation and control facilities.

Condition 6 -

Requires 3 prescheduled source tests on all zirconium/hafnium process emission control facilities.

Condition 7 -

Requires continual monitoring of chlorine and chloride emissions from sand and pure chlorination off gas systems, silicon tetrachloride refining and storage vent system, and SO<sub>2</sub> emissions from the zirconium oxide calciner.

Condition 8 -

Requires ambient air monitoring for ammonia, ammonium ion, chlorine and chloride ion.

Condition 9 -

Requires quarterly report to Department on production, ambient air monitoring, source tests conducted and use of natural gas. (Note: Omit "be" in line 2.)

Special Condition

Condition 10 -

Requires permittee to immediately comply with permit conditions by operating within current base level of production (500,000 lbs/day of total oxide as a monthly average through separations plant).

Condition 11 -

Prohibits permittee from any production or production capacity increases until the ability to comply with emission limits (Conditions 2, 3 and 4) has been demonstrated or until acceptable programs and schedules for doing so are approved by Department.  
Note: Add "has been demonstrated" after "4" in line 3.

Condition 12 -

Requires permittee to maintain written procedures for operation, preventative maintenance and for process upsets or equipment failures.

Condition 13 -

Requires prevention of fugitive emissions from chloride handling and transfer procedures and processes.

Condition 14 -

Prohibits open burning at plant site except for disposal of hazardous zirconium metal fines. All open burning is to be phased out by July 1, 1978.

Condition 15 -

Permittee must be prepared to respond to air pollution episodes.

Condition 16 -

DEQ must be notified of malfunctions which cause non-compliance with permit conditions.

DEQ can require improvements for chronic and correctable malfunctions. DEQ can also impose civil penalties for such malfunctions.

Compliance Schedules

Condition 17 -

Requires completion by June 1, 1977 of process modifications to reduce formation of the malodorous "cat box" compound.

Condition 18 -

Requires submission by June 1, 1977 of control program and schedule for reducing fugitive (area type) malodorous emissions.

Condition 19 -

Requires completion by June 30, 1977 of spill sump treatment and MIBK recovery (reduces emissions of organic vapors and associated odors).

Condition 20 -

Requires completion by January 15, 1978 of a hafnium oxide precipitation and calcining system including new air pollution controls (reduces odor and SO<sub>2</sub> emissions).

Condition 21 -

Requires completion by May 15, 1978 of a columbium oxide dryer system including air pollution controls (allows use of current Cb<sub>2</sub>O<sub>5</sub> dryer as HfO<sub>2</sub> calciner).

Condition 22 -

Requires completion by July 15, 1978 of additional controls to reduce stack and fugitive emissions from silicon tetrachloride refining and storage.

Condition 23 -

Requires completion by September 1, 1978 of additional controls on zirconium oxide calciner to reduce emissions of sulfur oxides.

Condition 24 -

Requires completion by January 1, 1980 of additional controls on sand chlorination (will reduce chlorides and opacity).

Condition 25 -

Requires completion by January 1, 1980 of additional controls on pure chlorination (will reduce opacity).

Condition 26 -

Requires completion by December 1, 1979 of additional controls for magnesium recovery (will reduce plume opacity).

General Conditions and Disclaimers

Conditions G1 through G10 -

These conditions which are common to all Air Contaminant Discharge Permits are based on Department regulations.



### III. INFORMATION RECEIVED TO DATE

The Department has received written information and oral inquiries relative to processes, permit conditions, and the emissions of air contaminants such as sulfuric acid and carbon monoxide. All correspondence has been entered in the record for this hearing.

The Department proposes to evaluate this testimony along with testimony received at this public hearing and present a report to the Environmental Quality Commission prior to issuing the permit renewal.

The evaluation relative to sulfuric acid emission will consider the following:

1) Source Sampling and Analysis Methods:

The source test method has been reviewed and a source test for  $H_2SO_4$  was conducted by the Department on March 15, 1977. In addition, Teledyne Wah Chang is conducting additional source tests. Further action in this area can only be projected after an evaluation is completed of the source test information.

2) Modeling:

A review of the modeling method and assumptions made is underway. The Department intends to do a more refined modeling effort, a necessary input to which is meteorological data. The Department has obtained approximately one year of meteorological data for the Millersburg area and is currently taking steps to have the data reduced to a usable computer (modeling) format. This is expected to be completed by June 1.

3) Literature Review:

The Department will review the literature cited in testimony received to date regarding possible health and vegetation effects. This effort should be completed by late April.

4) Consultants:

If warranted, the Department will seek assistance from consultants recognized to have appropriate expertise.

5) Other Evaluations Underway:

The Department, in conjunction with the Environmental Protection Agency, is participating in a Millersburg

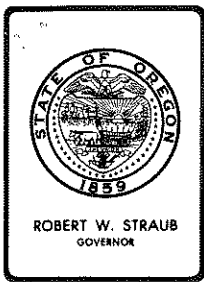
6.

Area Air Quality Evaluation. A contractor, employed by EPA will conduct an in-depth analysis of all available compliance schedules, aerometric data, and other pertinent information to determine the nature and extent of the air pollution problem. The analysis will include statistical, quality assurance and engineering evaluations of the data. The contractor is to derive conclusions and recommendations.

It is expected that the first phase of the consultant's work will be completed by September 1, 1977.

That concludes the Department's Statement in this matter, Mr. Hearings Officer.

FAS  
3/17/77



## Environmental Quality Commission

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission  
From: Director  
Subject: Agenda Item No. H, September 23, 1977, EQC Meeting

Requests By Coastal Cities and Counties for Extensions of Variances  
From Rules Prohibiting Open Burning Dumps, OAR 340-61-040(2)(c).

### Background

At the September 26, 1975, EQC meeting staff presented variance requests from five coastal counties (Agenda Item No. G, attached) to allow for continued open burning at 11 solid waste disposal sites. At the time of the request it was the opinion of staff that two years would be sufficient time to correct immediate site deficiencies and at least initiate a sound solid waste program in all coastal counties.

Varying degrees of upgrading and/or progress has been made by each county. However, it appears that none of the counties can meet the October 1, 1977, variance expiration date with an implemented environmentally acceptable solid waste program.

Requests for variance extension have been received from the following:

Clatsop County. Clatsop County Board of Commissioners on behalf of private operators at Seaside and Cannon Beach Disposal Sites and the county at the Elsie Disposal Site have requested an 18 month variance commencing October 1, 1977. (Because of limited area at the Elsie Site, burning is necessary for volume reduction.)

All sites have been upgraded and are operated as near compliance with regulations as possible. Clatsop County has spent the major portion of the two year variance period working with Tillamook County toward implementation of a composting system (private industry). Service districts were formed in each county (Clatsop County by an election with approximately a five-to-one margin) and intergovernmental agreements were consummated. Due to various economic reasons private industry was unable to bid on the project and both counties are left without a disposal system. The county has reactivated a landfill search committee and adopted a time schedule for selection of a site.



Contains  
Recycled

Tillamook County. Tillamook County through the Public Works Department has requested a 19 month extension (to May 1, 1979) for Manzanita, Pacific City, and Tillamook Disposal Sites.

Tillamook County has participated in the composting project described above and has made improvements at the Tillamook Site. The advisory committee is now addressing options available to the county. The county has set a December 1, 1977, date for final decision.

Lincoln County. By resolution Lincoln County Commissioners in behalf of private operators have requested a nine (9) month extension to the variance for North Lincoln and Waldport.

Lincoln County voters approved a \$650,000 bond issue for solid waste disposal. However Lincoln County private operators have made agreements with private operators in Benton County for the transfer of Lincoln County solid waste to Coffin Butte Sanitary Landfill (Corvallis). Final intergovernmental agreements and conditional use changes on the site are pending thus the extension request.

Curry County. Curry County Commissioners have requested a one (1) year extension for the county operated Brookings and Nesika Beach (Gold Beach) Disposal sites.

During the two year period Curry County has upgraded the Port Orford Disposal Site. The county anticipated an energy recovery plant in the Coos Bay area after completion of the Coos-Curry Solid Waste Plan and Phase I of the Port of Umpqua plan. As the project has not evolved, Curry County has by resolution withdrawn from the Coos-Curry Solid Waste Planning Council and has contracted with Oregon Sanitary Service Institute for a secondary study. Curry County has pledged immediate action toward implementation upon completion of this study (January 1978).

Cities of Myrtle Point and Powers (Coos County). Requests have been received from the Cities of Myrtle Point and Powers to extend the variance for a period of two years. Both cities have agreed to develop source separation projects to reduce the volume of solid waste entering the disposal sites.

Coos County has closed the Fairview Disposal Site and has upgraded operation at Joe Ney (Coos Bay) and Bandon Disposal Sites. The Bandon site is available for use by cities and private industry if they can get there. The county to date has chosen to not proceed with apparently feasible energy recovery projects and has not developed an alternative county-wide solid waste management plan.

### Evaluation

The variance requests involve variance from the Department's Solid Waste Management regulations OAR 340 61-040(2)(c) which prohibits open burning or open dumps of putrescible solid wastes. Under air quality Administrative Rules adopted October 1976, all open burning considerations are now made under the Solid Waste Disposal Permit.

Clatsop and Tillamook Counties, supported by the Department have spent most of the two year period negotiating with and preparing for transfer to the private industry composting plant. It has been quite recent that the project stalled out and they are actively resuming the search for alternatives.

Lincoln County voters passed the \$650,000 Bond Election to finance construction of an in-county processing facility. Capital and operational costs would have exceeded \$11 per ton. Private collectors in negotiation with private operators in Benton County have found that they can transfer for approximately \$7 per ton. A conditional use change is needed on the Coffin Butte (Corvallis) Sanitary Landfill before they can receive Lincoln County solid waste. The public hearing for this change is scheduled for November. The Department has supported this project as it will in all probability, speed the realization of a planned resource recovery plant in the Corvallis area.

Curry County relied on Coos County to take the lead in further study and implementation of our energy recovery system to serve the coast from Reedsport south. Since it appeared to them that the facility would not be constructed they have, with Department support, contracted for a study to provide at least interim acceptable facilities for Brookings and Gold Beach.

The Cities of Myrtle Point and Powers (in Coos County) have pledged to attempt recycling activities to minimize open burning. However, there is no recognized county-wide plan for implementing an acceptable long-term solution which an extension of their variances will lead toward.

It is the staff's opinion that with the exception of Coos County, the programs presented in support of variance requests on September 26, 1975, have been diligently pursued. The Coos County situation could be considered further and in more detail at the EQC meeting scheduled for October 1977 in Coos Bay.

#### Summation

1. Because of technical and political difficulties previously adopted time schedules for phase out of coastal open burning solid waste disposal sites have not been met.
2. Clatsop and Tillamook Counties have reactivated their solid waste committees to seek an alternate solution to the composting project. Even if the composting project is successful, construction time is such that a variance is needed.
3. Lincoln County is finalizing negotiations to transfer all solid waste to Benton County.
4. Curry County has contracted for a second phase study to be completed by early 1978 and is committed to follow through with implementation.
5. Coos County has upgraded the two remaining county operated disposal sites, providing free disposal at each. However, no recognized county-wide plan is in effect which will assist the Cities of Myrtle Point and Powers to a final closure of their open burning sites.

6. It is the opinion of the staff that approval of the variances as requested is necessary to facilitate transition to an acceptable solid waste program.
7. To approve the variance requests the EQC must make a finding that the facilities meet the requirements of the statutes in that strict compliance would result in closing of the facilities and no alternative facility or alternative method is yet available.

Director's Recommendation

It is the Director's recommendation that:

1. Variances be granted to expire as dated below for each specific county:  
  
Clatsop County (Seaside, Cannon Beach, Elsie), March 1, 1979  
Tillamook County (Manzanita, Pacific City, Tillamook), May 1, 1979  
Lincoln County (North Lincoln, Waldport), July 1, 1978  
Curry County (Brookings, Nesika Beach), October 1, 1978
2. Variances be granted for Myrtle Point and Powers (Coos County) to expire December 1, 1977, and that Coos County solid waste program be considered as a separate item during the October 1977 EQC meeting (to be held in Coos Bay).
3. Disposal sites to be closed prior to expiration date of variance if a practical alternative method of disposal is available.
4. The EQC find that the variance requests meet the intent of ORS 459.225(3)(c) in that strict compliance would result in closing of the disposal sites and no alternative facility or alternative method of solid waste management is available.

*Bill*

WILLIAM H. YOUNG

RLBrown/kz

229-5913

9/8/77

Attachment (1)

Agenda Item No. G, September 26, 1975, EQC Meeting



## ENVIRONMENTAL QUALITY COMMISSION

1234 S.W. MORRISON STREET • PORTLAND, ORE. 97205 • Telephone (503) 229-5696

ROBERT W. STRAUB  
GOVERNOR

JOE B. RICHARDS  
Chairman, Eugene

GRACE S. PHINNEY  
Corvallis

JACKLYN L. HALLOCK  
Portland

MORRIS K. CROTHERS  
Salem

RONALD M. SOMERS  
The Dalles

### MEMORANDUM

To: Environmental Quality Commission  
From: Director  
Subject: Agenda Item No. G. 1) September 26, 1975 Meeting

Request for Variance to Continue Open Burning of  
Garbage at Disposal Sites in Clatsop-Tillamook-  
Lincoln-Coos and Curry Counties.

### BACKGROUND

The Department's Solid Waste Management regulations, effective June 1972, prohibit the open burning of putrescible wastes (garbage) at disposal sites. The Department's Air Quality Control regulations, as included in Oregon's EPA approved Clean Air Plan, prohibit open burning of all solid wastes at disposal sites located within Special Air Quality Control Areas (within 3 miles of cities of 4000 population).

At the time the Solid Waste Management regulations were adopted, a statewide program was conceived by the Department to develop comprehensive Solid Waste Management Plans for each county or multicounty area of the state. The goal was and is regional system solutions to solid waste management, leading to resource recovery and minimizing landfills. To facilitate this planning process, existing disposal sites which could not be reasonably upgraded to meet the solid waste regulations were issued temporary permits to operate until the regional plan could determine the alternatives and phase the sites out. Those sites included under the Clean Air Plan were to be brought into compliance (usually closure) by July 1, 1975.

Plans have been completed for all coastal Oregon Counties with the exception of Coos & Curry Counties. Coos and Curry Counties have, however, presented interim plans which are part of the subject of this agenda item. The planning process has revealed that the coastal counties have particularly vexing solid waste disposal problems.



Contains  
Recycled  
Materials

Heavy clay soils, steep topography, and very high annual precipitation make landfill operation difficult at best. The low resident population is concentrated in a narrow coastal strip involving great distances. Large seasonal fluctuations in recreation oriented population aggravate the situation. For most coastal communities, open burning has been the customary although not very satisfactory, method of disposal.

The adopted regional plans give direction to eliminating the dumps, but implementation is proving to involve an extended period of time. This gives rise to the variance requests before the Commission to continue open burning at a number of existing sites for an interim period of time. The Department indicated a willingness to support variance requests, if presented with clear goals to be accomplished during the variance period and on the basis of reasonable upgrading of those open dumps which could be improved immediately to some degree.

#### VARIANCE REQUESTS

##### Clatsop County

Clatsop County commissioners on behalf of private operators at Seaside and Cannon Beach disposal sites have requested a two year variance to allow continued open burning. No upgrading has been offered in the interim. The Seaside site is located within a special Air Quality Control area. These are privately operated dumps and the staff will continue to work with the operators to implement any and all practicable improvements.

Clatsop County participated with Tillamook County in a joint planning effort. The disposal site selected by the consultant to the project has been found not acceptable, due to new FAA regulations and other land use complications. The county Solid Waste Committee has been active in seeking a new site location and Department staff is scheduled to survey a number of newly proposed sites. Clatsop County is also considering entering into a joint venture with Tillamook County for a composting operation and has committed its attention to a 90 day study of this project with Tillamook County.

##### Tillamook County

Tillamook County Commissioners have requested a variance to continue open burning for two years at three of the four county operated sites (Manzanita, Tillamook and Pacific City). One disposal site has been closed and is under rehabilitation. Considerable upgrading has taken place on the three remaining sites including grading and clean up of dumping areas, intensive rodent control and consolidation of dumping areas. Regulation of hours open and a caretaker will be initiated at Manzanita and Pacific City and are already provided at Tillamook.



The disposal site selected for Tillamook County did not meet land use criteria and was disapproved by the planning commission. The county, lead by a strong solid waste committee, has started a vigorous program to find an acceptable alternative. The county has been negotiating with a private firm which is interested in establishing a composting plant on the north Oregon coast as mentioned under Clatsop County above. They are also seeking an acceptable land disposal site should other negotiations fail.

### Lincoln County

Lincoln County Commissioners on behalf of private operators have requested a variance to continue open burning at North Lincoln, Toledo and Waldport for 2 years. Caretakers are provided for controlled burning. The Toledo operator hauls periodically to a non-burning site at Agate Beach. The North Lincoln site is in a special Air Quality Control area.

Lincoln County's adopted solid waste plan includes transfer of all waste to a central site, processing and resource recovery. A county service district has been formed and a bond election will be scheduled to finance such a program. The Department was given a \$600,000 grant and loan spending limitation to help finance the project. Construction time necessitates the variance request. It is possible that the Toledo site can be closed permanently if arrangements can be made to dispose of the waste at Agate Beach.

### Coos County

Coos County commissioners have requested a three year variance to open burn under county control at Coquille Disposal site and on behalf of the cities of Powers and Myrtle Point to allow continued open burning. Coquille site is in a Special Air Quality Control Area. The county proposes to upgrade operation by providing:

1. Full time attendants at county sites.
2. Periodic cover in accordance with DEQ permit.
3. Clean up and eventual closing of several small sites (Remote, Powers, Myrtle Point and Fairview).
4. Establishment of a gate fee for disposal to finance improvements.

Coos County has adopted an interim plan while long-range planning is completed. The original planning effort by a consultant has terminated by mutual agreement of the parties and a full time staff position of solid waste manager established with the remaining grant funds (in conjunction with Curry County). Long range planning for this area includes a resource recovery system as recommended by a study completed for the Port of Umpqua with DEQ funds.

## Curry County

Curry County through the Environmental Sanitation office has requested variances for two disposal sites: Brookings for 1 year and Nesika Beach (Gold Beach) for 2 years. During the planning effort Curry County has closed two open burning dumps (Langlois and Airport) in the northern county and converted a third (Agness) into a transfer site. An interim plan has been adopted by the county and a long range plan is proposed for adoption in October 1975. Additional time is needed for transition to the long range plan.

## DISCUSSION

The variance requests involve variance from the Department's Solid Waste Management regulation OAR Chapter 340, 61-040 (2)(c) which prohibits open burning or open dumps of putrescible solid wastes. The Seaside, North Lincoln and Coquille sites also involve variance from the Department's Air Quality Control regulation OAR Chapter 340, 23-010 (2) which prohibits open burning at Solid Waste disposal sites located in Special Control Areas. If the variances for the latter three are approved, EPA may require DEQ to apply for an amendment to the State's Clean Air Plan.

Nearly all dumps for which variances are requested have severe physical limitations relative to area and cover material available and most are located on steep hillsides. Most have intermittent or larger streams in the immediate area. Open burning reduces the volume and limits the potential leachate which would be generated if garbage was simply piled up. Ambient air standards are being met in all areas proposed for variance. All sites but Manzanita are located inland, uphill and downwind from the communities which they serve.

All five counties have pledged to move forward in good faith to implement alternatives to the old dump sites. It is understood that those alternatives are to be implemented as soon as possible before the end of the variance period. Progress reports could be required to document project status. A variance period ending October 1, 1977 would provide two budget periods and two construction seasons to work within.

It should be noted that the Coquille dump has been closed, but not covered for approximately a year and Coos County's request involves reopening to open burn. The Fairview landfill, located on BLM land has been used in the interim, but operation has been poor and the area under lease by the county is full. BLM has requested closure of the Fairview site, throwing the waste load back into Coquille, the only known alternative. Residents near the Coquille site are opposed to its reopening, but the county and City of Coquille are requesting this action anyway. It is possible that BLM would consider an expansion of the Fairview site, if Coos County would pledge good operation, but the county claims it does not have sufficient funds. It is the opinion of the staff that proposed initiation of gate fees could partially offset costs of conducting a proper landfill operation at the site.

## CONCLUSIONS

1. Due to physical, climatic and financial limitations Oregon's Coastal Counties, Clatsop, Tillamook, Lincoln, Coos and Curry remain dependent upon numerous open burning dumps to dispose of their solid wastes.
2. Regional Solid Waste Management planning efforts reveal that the only viable alternative to burning garbage at the present sites is closure of these sites and implementation of a complete new program. Simply stopping burning and allowing wastes to pile up is not an acceptable alternative.
3. Each of the counties has established or has resolved to establish a program leading towards the orderly phase out of open burning dumps. However due to various circumstances, they are not prepared to immediately bring existing open burning dumps sites into compliance with DEQ regulations.
4. The five counties have therefore applied for variances of 1 to 3 years to continue use of the open burning dumps while alternative disposal and/or resource recovery methods are finalized and implemented.
5. Except in the case of Coquille, the variance requests have general support of the cities and populace and are not controversial. Ambient Air Quality standards are being met along Oregon's coast and although the sites may be undesirable, none of them are causing critical nuisance problems in their immediate areas. The Toledo site does not appear to be absolutely necessary.
6. It is the opinion of the staff that approval of variances as requested for all sites except Coquille and Toledo for a two year period ending October 1, 1977, will facilitate the orderly closure of the dumps and the transition to acceptable disposal sites and/or resource recovery facilities.

## RECOMMENDATIONS

It is the Director's recommendation that:

1. Variances be denied to continue or commence open burning at the following sites:
  - Toledo (Lincoln County) for the reason that an alternative disposal site is reasonably available.

Coquille (Coos County) because of uncertain acceptability to adjacent land owners and continued operation at the existing Fairview site may be reasonably available and should be pursued.

- 2. Variances to expires October 1, 1977, be granted from the Department's Solid Waste and Air Quality regulations to allow continued open burning at the following disposal sites:

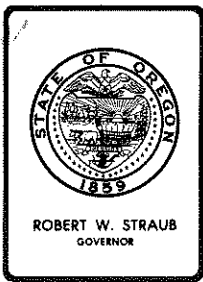
Clatsop County	Seaside Cannon Beach
Tillamook County	Manzanita Tillamook Pacific City
Lincoln County	North Lincoln Waldport
Coos County	Myrtle Point Powers
Curry County	Brookings Nesika Beach

- 3. The Department immediately proceed with drafting and issuance of regular Solid Waste Disposal Permits for the disposal sites under variance with compliance schedules requiring maximum reasonable physical and operational upgrading in the interim and closure of each site on or before October 1, 1977.
- 4. Each county submit semi-annual status reports documenting the progress toward phasing out the dump sites given variances, said reports to become due March 1, 1976, October 1, 1976, and March 1, 1977.

EAS - RLB:sa  
9-17-75



LOREN KRAMER  
Director



## Environmental Quality Commission

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission  
From: Director  
Subject: Agenda Item No. 1, September 23, 1977, EQC Meeting

NPDES July 1, 1977 Compliance Date - Request for  
Approval of Stipulated Consent Orders for NPDES  
Permittees not meeting July 1, 1977 Compliance  
Date

### Background

The Department is taking enforcement action against NPDES Permittees that are in violation of the July 1, 1977 deadline for achieving secondary treatment or implementing best practicable control technology currently available. The enforcement action is by stipulated consent orders and agreements that impose a new reasonably achievable and enforceable construction schedule. In some cases, a daily civil penalty is a stipulation of the consent order.

#### Consent Orders Ready for Commission Action:

City of Seaside

#### Consent Orders or Agreements Approved & Issued to Date:

City of Coquille (water treatment plant)  
City of Forest Grove (water treatment plant)  
Georgia-Pacific, Toledo (\$50 daily civil penalty)  
City of Hammond  
City of Happy Valley  
Lakeside Water District  
City of Maupin  
Teledyne Wah Chang Albany (\$50 daily civil penalty)

#### Consent Orders Under Negotiation:

City of Boardman  
City of Cannon Beach  
City of Donald  
City of Grants Pass (water treatment plant)  
City of Rockaway  
Ross Island Sand & Gravel  
South Suburban Sanitary District



Contains  
Recycled

Consent Orders Under Preparation:

City of Amity  
City of Ashland (water treatment plant)  
City of Astoria  
City of Canyonville  
City of Cottage Grove  
City of Dundee  
City of Eagle Point  
City of Eugene  
City of Glendale  
Eugene Airport  
City of Jefferson  
City of La Grande  
City of Lowell  
Martin Marietta  
City of Prairie City  
Sunset Bay State Park  
City of Sutherlin  
City of St. Paul  
City of Westport  
City of Wheeler  
City of Winston  
City of Woodburn

Summation

1. The sewage treatment facilities for the City of Seaside are overloaded and the City of Seaside is not able to consistently achieve secondary treatment of its effluent.
2. The City and the Department have reached agreement on a time schedule based upon construction grant funding to upgrade the facilities to treat sewage to a level greater than secondary treatment.

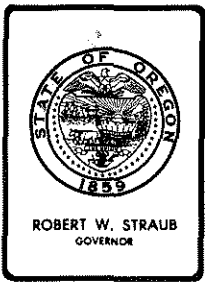
Director's Recommendation

I recommend that the Commission approve Stipulation and Final Order No. WQ-SNCR-77-159 between the Department and the City of Seaside.

*Bill*

WILLIAM H. YOUNG

Fred M. Bolton:gcd  
229-5372  
September 14, 1977  
Attachment: City of Seaside  
Stipulation and Final Order  
WQ-SNCR-77-159  
Clatsop County



## *Environmental Quality Commission*

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. J, September 23, 1977, EQC Meeting

Fy'78 Sewage Works Construction Grant Project Priority List

### Background

A draft FY'78 priority list was developed in June 1977 in accordance with EQC approved criteria. The required public hearing concerning that list was subsequently held in Portland on July 29, 1977. Notice was sent out 30 days before the hearing by first class mail to all interested parties, including:

1. Potential applicants appearing on the list
2. A-95 Clearinghouse
3. All Councils of Government
4. All Oregon Counties
5. Engineering Firms
6. All Oregon TV Stations
7. Four major newspapers
8. Two national wire services
9. Other interested individuals, groups and agencies.

The hearing officer's report appears in Attachment No. 1.

Due to significant public interest in the priority list this year, the hearing record was held open until August 22.



Contains  
Recycled

Modifications to FY'78 Priority List

Changes in project priority ranking and scheduling are proposed in response to hearing testimony and recent staff actions. Major priority point changes resulted in revised project ranking. There are several instances where relatively minor priority point modifications did not significantly affect project ranking. Undoubtedly, not everyone will agree with the proposed modifications and the finally proposed FY'78 list.

A summary of modifications:

1. Three projects were dropped from the list by request and eight others were removed due to actual or expected EPA grant award during the review cycle.
2. Two new projects were added to the list.
3. Thirty-one projects were ranked higher because of Step 2 grant certification during the review cycle, a change in regulatory emphasis, or based on revised assessment of "need" points.
4. Three projects were ranked lower based on reduction of "need" points.
5. Schedules were adjusted where necessary.

A detailed summary of modifications to the draft priority list is shown in Attachment No. 2.

Discussion

As of August 22, 1977, Oregon has not received notice that FY 1978 grant funds will be forthcoming on October 1, 1977. However, an appropriations bill has been passed by the Senate and sent on to the House of Representatives. We anticipate that the House will agree to the funding provisions of the Senate bill.

If the proposed Senate bill or some close resemblance thereof is approved before Congressional Adjournment, then Oregon could receive a grant allotment of at least \$67.2 million (\$29.4 million for FY 77 plus \$37.8 million for FY 78). If the allocation formula is modified per the Senate bill, Oregon would receive \$57.6 million for FY 78 as well as the additional FY 77 monies which would fund projects ranked 1 through 54.

All of the \$39.8 million in FY'76 carryover funds have been obligated in FY'77. We expect to have the \$8.328 appropriation (which was received in June) obligated through State certification by September 30, 1977. Therefore, we must have FY'78 funding for any projects scheduled on or after October 1. If \$67.2 million is allotted, then projects ranked 1 through 41 can be funded.



Summation

1. The priority list was prepared per approved criteria.
2. Adequate public notice was given prior to the hearing.
3. A public hearing was held and the record was left open until August 22 (Attachment 1).
4. Testimony received was evaluated and changes are proposed (Attachment 2).
5. A revised priority list has been prepared (Attachment 3).
6. Copies of the revised list have been sent to potential applicants and other interested persons.

Director's Recommendation

It is recommended that the EQC:

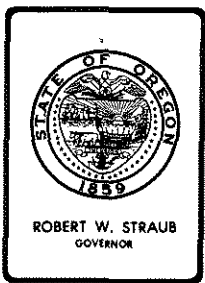
1. Approve the modified FY 1978 priority list, Attachment No. 3.
2. Have the FY'78 priority list become operational when federal appropriations are authorized.

*Bill*

WILLIAM H. YOUNG  
Director

THB:em/ak

Enclosures: Attachments 1, 2 & 3



## *Environmental Quality Commission*

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission

From: C. P. Hilbrick, Jr., Hearing Officer

Subject: Report of July 29, 1977, Public Hearing on the Proposed  
FY 78 Sewerage Works Construction Grants Priority List.

Pursuant to the requirements of Public Law 92-500, CFR 35.915(f) and 35.556, a public hearing was held on July 29, 1977 for the purpose of obtaining testimony from all interested parties concerning the Sewerage Works Construction Grant Priority List for Fiscal Year 1978. At 10:05 A.M. in Room 508 of The Terminal Sales Building, Portland, Oregon, Hearing Officer Clarence P. Hilbrick called the hearing to order.

Mr. Thomas H. Blankenship of the Water Quality Division Construction Grants Program made a short presentation. He explained the modifications to the "Criteria for Priority Ranking of Sewerage Works Construction Need for FY'78" and emphasized that this hearing was set up to receive testimony on project ranking not priority criteria. Mr. Blankenship also discussed the proposed FY'78 priority list.

At the completion of the staff presentation, the Hearings Officer called upon the registered witnesses.

The first witness was Mr. James B. Dickason, City Manager, City of Stanfield. Mr. Dickason presented data for increasing the priority ranking of the City of Stanfield.

The next witness was Mr. Joe Hershberger attorney for the following:

- 1) City of Stanfield
- 2) City of Irrigon

Mr. Hershberger presented information which would allow the City of Stanfield to proceed to construction within 4 months. He felt increasing the priority would save costs to Stanfield whose citizens have already voted to authorize bonds for this project.

Mr. Hershberger's presentation on behalf of the City of Irrigon included an explanation on the shallow wells and septic tank approval problems within the City. He requested a review of the ranking of the Irrigon project.



Contains  
Recycled

The third witness was Mr. J. Val Toronto, consulting engineer for the City of Lexington. He stated that the City concurs with the priority ranking of its project.

The next witness was Mr. Terry Waldele, Columbia Region Association of Governments. Mr. Waldele summarized a written statement which highlighted CRAG's controversy with the criteria used by DEQ to develop the priority list and the priorities of the Areawide 208 planning groups. He also stated that DEQ would be developing revised criteria through use of an advisory committee prior to FY'79.

The fifth witness was Mr. Paul Ehinger of Robert E. Meyer Engineers, Inc. representing the following:

- 1) City of Vernonia
- 2) Southwest Lincoln County Sanitary District
- 3) Carmel-Foulweather Sanitary District

Mr. Ehinger summarized written statements from each of his clients. The City of Vernonia questioned the priority point assignment and requested a review of the points assigned and an additional 330 points. The Carmel-Foulweather Sanitary District also questions point assignment and requested review. The Southwest Lincoln County Sanitary District also questioned the amount of points assigned to this project and requested a review of the point assignment. Mr. Ehinger's testimony on S.W. Lincoln Co. S.D. relied on data shown in a recently prepared DEQ report.

The next witness was Mr. Burton M. Lowe, City Manager, City of Seaside. Mr. Lowe questioned the project points assigned to Seaside's project. He presented data for increasing the need point assignment and requested a review of the point assignment.

The seventh witness was Mr. Richard O. Miller, Manager, Bear Creek Valley Sanitary Authority. Mr. Miller summarized his written statement in which he requested a review of the priority points assigned to three projects:

- 1) BCVSA - White City
- 2) BCVSA - Central Point/Westside
- 3) BCVSA - Whetstone

Also he requested the following two projects be deleted from the priority list:

- 1) BCVSA - West Medford
- 2) BCVSA - Wagner Creek

He also expressed concern about the possible delays in Federal funding of projects and Oregon's lack of action in trying to obtain Grant funds. Mr. Blankenship responded to Mr. Miller, explaining the actions

taken by both the DEQ and the Governor's office to encourage passage of the Grant Funding Bills in Congress.

The next witness was Mr. D. Lorin Jacobs, Planning Director, City of Shady Cove. Mr. Jacobs summarized two written statements, one from the Mayor of Shady Cove and the other his own statement. The statements related to information favoring further evaluation of the project and a request for a review of the point assignment. Mr. Torleiv Flatebo, the City of Shady Cove's Consulting Engineer, supported Mr. Jacobs statement.

Mr. Bill Berg representing the City of Gearhart read a short letter from the Mayor into the record. The letter stated that City requested information from DEQ and had not received an answer. The Hearing Officer advised Mr. Berg a letter response to the City was signed by the DEQ Director on July 28, 1977. Mr. Berg also questioned the project's point assignment. He thought the points assigned were too high.

Mary D. Leeper of Gearhart, Oregon, followed Mr. Berg. Ms. Leeper summarized a written statement in which she expressed concern about the placement of the Gearhart Project. She felt Gearhart was ranked too high based on her interpretation of data compiled by DEQ.

The next witness was Mr. Robert Thomas, Attorney at law, representing the Crescent Sanitary District. Mr. Thomas's presentation included a letter from the District's Engineer showing what he felt was contamination of the Little Deschutes River. Mr. Thomas further stated he would submit additional information. He then requested review of the priority point assignment.

Mr. Steve L. Loveland, City Manager, City of Milton-Freewater was the next witness. Mr. Loveland summarized a written statement which questioned the priority points assigned based on the following:

- 1) Age of Treatment Plant
- 2) Treatment Plant overloading
- 3) Use of Walla Walla Basin Oregon  
Population (i.e. he wanted criteria changed)

The City Manager requested a review of the priority points assigned to the Milton-Freewater Project.

The next witness was Robert Schumacher, Chairman, Board of County Commissioners of Clackamas County. Commissioner Schumacher presented two resolutions of the Clackamas County Board of Commissioners supporting both the Tri-City project and the Mount Hood Corridor Regional Facilities.

Dean Nichols, Mayor, City of Oregon City, Alan K. Brickley, Mayor, City of West Linn, Richard Groener, State Senator District 14, Bill Lesh, Tri-City Chamber of Commerce and Ted Achilles, State Representative

District 27, West Linn all presented oral testimony containing data supporting the request for review of the priority ranking of the Tri-City Project. All witnesses requested increased priority rating for the Tri-City Project.

Following the presentations on the Tri-City Project, Mr. John McIntyre, Director of Public Works for Clackamas County was the next witness. Mr. McIntyre in his presentation gave a background of the Mt. Hood Corridor Regional Project. He also presented testimony he felt supported his request for the review of the projects ranking. Also, Mr. McIntyre felt that the Department may have lost its commitment to the Mt. Hood Project and the environment in general based on the priority criteria. He also commented on the Tri-City project. Mr. Blankenship commented on the nature of the grant program; that it is for the solution of existing problems, not potential problems.

Mr. Steven Switzer, Mr. H. Richard Seller and Mr. Dean Anderson both representing H.A.P.P.Y. (Hood Land Association for Planning, Progress and You), Ms. Patricia R. Griffin, Hoodland Womens Club, Mayanne Hill, Government Camp S.D., Mr. Edward B. Burke, Wemme, Mr. Gerald Redding, Brightwood, Mr. Steve Post, Wemme, Mr. Dave Abraham, Utilities Director for Clackamas County. All the witnesses presented testimony in support of the review of the priority points assigned to the Mt. Hood Corridor Regional Sewage Treatment Project.

Following the Clackamas County presentations the next witness was Mr. Duane Lee, Consulting Engineer, for the City of Troutdale. Mr. Lee expressed the City of Troutdale's concern about the City's growth and need to expand the sewage treatment plan. Mr. Lee indicated the City would submit further written comments.

The next witness was Mr. Patrick D. Curran, Consulting Engineer, representing the following:

- 1) City of Coos Bay
- 2) City of Mill City
- 3) City of Sisters

Mr. Curran summarized a written statement in which he questioned the point assignment to the above cities. He though Coos Bay point assignment should be raised to 883 by increasing the Regulatory Emphasis Points. Also, the Mill City project points should be raised to 886.27 based on a change in Project Need Point assignment. In the case of the City of Sisters he pointed out possible point assignment changes in the areas of Project Need points and Regulatory Emphasis points. Mr. Curran requested Priority Point assignment review on the above projects based on the data presented.

The final witness was Mr. Clyde Stricklin, Planning Consultant, City of Vernonia. Mr. Stricklin supported and re-enforced the testimony of Mr. Paul Ehinger of Robert E. Meyer Eng's, Inc. requesting review of the Vernonia Project.

At the close of the public hearing the Hearing Officer left the record open for an additional 14 days to allow for submission of statements and documentation.

CPH:dj  
8/26/77

A handwritten signature in cursive script, appearing to read "Clarence H. Hinkle". The signature is written in dark ink and is positioned to the right of the typed text.

Summary of Written Comments Received:

- 1 - July 6, 1977 - Memo from DEQ Southwest Regional Office detailing Permit Violations in the Coos Bay Sewerage System and Requesting priority assignment review.
- 2 - July 9, 1977 letter from Mr. Joe Brugato expressing concern over the position of the Newberg-Northwest Interceptor and urging reconsideration of placement.
- 3 - July 12, 1977 letter from the City of Bend requesting modification of project dates.
- 4 - July 14, 1977 letter from Pat Wright, Lexington City Councilman, expressing concern over delays caused by the low priority assigned to the Lexington Project. And he requested a review of the priority points assigned to the project.
- 5 - July 15, 1977 copy of letter from the Shady Cove Citizens Committee for Orderly Development to the City Council. The Committee questioned the project rating and requesting review based on the projects placement on the Rogue Valley 208 priority assigned to the Shady Cove Project.
- 6 - July 15, 1977 letter from School District No. 9 supporting the construction of sewers in Shady Cove.
- 7 - July 15, 1977 from the Portland Regional Office of DEQ stating an estimated 10,000 gpd of raw sewage is being by-passed to the Willamette River in Oregon City. The Region states violations of water quality standards are occurring daily.
- 8 - July 15, 1977 Memo from the Eastern Regional Office requesting reprioritization for the Irrigon Project. The reason being preliminary soils analysis and water reports which show no problems.
- 9 - July 20, 1977 Memo from Portland Regional Office of DEQ describing observations of a 10 gpm by-pass of raw sewage at Oregon City into the Willamette River.
- 10 - July 19, 1977 letter from the Metropolitan Wastewater Management Commission requesting the Eugene-Metro Step II Project cost be raised to \$2,800,000.
- 11 - July 19, 1977 letter from the City of Jacksonville City Administrator requesting the Project need points be increased to 800 and Regulatory Emphasis points be increased to 100. He also discussed the E.I.S in the letter.

- 12 - July 20, 1977 letter from Mr. & Mrs. L.A. Tharmton supporting the Jacksonville Project.
- 13 - July 20, 1977 letter from Mr. Ronald McIntyre City Councilman in Jacksonville requesting financing of the Jacksonville Project this summer.
- 14 - July 20, 1977 letter from E. O. Graham City Councilman in Jacksonville request as above.
- 15 - July 20, 1977 letter from Richard Camp Mayor of Haines requesting 700 project need point on the basis of the impossibility to meet septic tank standards.
- 16 - July 22, 1977 letter from Mr. Bob Bellamy protesting the project assigned to the Shady Cove project. He felt the reason for the low priority is politics.
- 17 - July 22, 1977 letter from Mr. & Mrs. D. W. Beavers urging passage of a Grant for Shady Cove.
- 18 - July 22, 1977 letter from Mr. Edward Black City of Springfield concerning the project cost and schedule for the Springfield sewer rehabilitation.
- 19 - July 28, 1977 letter from Mr. & Mrs. E. M. Broome explaining septic problems their trailer park in Shady Cove and requesting increased priority for the Shady Cove project.
- 20 - July 24, 1977 letter from Mr. & Mrs. D. Akin of Shady Cove as above.
- 21 - July 25, 1977 letter from Clara Wendt Mayor of Jacksonville request- ing review of the Jacksonville project priority assignment.
- 22 - July 25, 1977 letter from Mr. Darrell Davis supporting the Jacksonville Project and requesting the project be moved to the top of the priority list.
- 23 - July 25, 1977 Memo from Salem Regional Office detailing a stream survey on Mill Creek in the Turner area.
- 24 - July 27, 1977 Memo from Salem Regional Office detailing a stream survey on the Luckiamute River in the Fall City area.
- 25 - July 27, 1977 letter from the City of Medford outlining a time schedule for the expansion of the Medford Sewage Treatment Plant.
- 26 - July 28, 1977 letter from Mr. & Mrs. R. G. Glass expressing feelings that the Southwest Lincoln Co. S.D. should receive a higher priority.



- 27 - July 28, 1977 letter from Mr. Gerald G. Emerson expressing concerns about conditions in the Southwest Lincoln Co. S.D.
- 28 - July 28, 1977 letter from the Home Builders Association of Metropolitan Portland expressing concern about the priority assigned to the Tri-City Project. Also, the Association requested a higher priority for the project.
- 29 - July 15, 1977 Memo from Portland Regional Office detailing stream impacts of the discharge of high chlorine residuals effluents in the Mt. Hood Area (Welches) from existing STP's.
- 30 - July 28, 1977 letter from Adrienne Shields stating ". . . totally annoyed with the pompous and arrogant stand your department has taken on important proposals." Also, requesting we reconsider our "preposterous stand" on the priority of the Mt. Hood Corridor Project.
- 31 - July 28, 1977 letter from Mr. Joe K. Chambers stating the Department is misnamed and has politicians on its staff because of the action taken on the priority assigned to the Mt. Hood Corridor Project. He also requested a review and honest priority for the project.
- 32 - July 28, 1977 letter from T. Flatebo Consulting Engineer. Mr. Flatebo supported the Jacksonville Project and requested 800 Need Points and 100 Regulatory Emphasis Points for the Jacksonville Project.
- 33 - July 28, 1977 letter from the Columbial County Board of Commissioners supporting the need for the Project in Vernonia and urging reconsideration of the project priority.
- 34 - July 28, 1977 letter from Clatsop County Administrative Officer Mr. Eugene Bui requesting a higher priority for the Clatsop Plains Study Step 1 Grant. He would like a priority ranking so the project could be funded in October, 1977.
- 35 - July 29, 1977 letter from the City Manager of the City of Seaside Mr. Burton Lowe requesting review of the Project Priority Assignment.
- 36 - August 1, 1977 letter from William C. Parrish City Engineer of the City of Oregon City requesting 800 Need Points for the Tri-City Project based on the fact the NPDES Permit for Oregon City allows violation of Water Quality Standards.
- 37 - August 1, 1977 letter from Mid Willamette Valley COG presenting the case for raising the priority ranking for the Salem and Turner Project. They asked for review and increasing the priority ranking for both projects.

- 38 - August 1, 1977 Memo from Salem-North Coast Regional Office of DEQ commenting on 27 different projects within the region.
- 39 - August 1, 1977 letter from Rogue Valley COG commenting on possible modifications of the priority criteria.
- 40 - August 3, 1977 letter from City of Falls City presenting the City's case for increasing the project need points to 800. The City requests a review of project points and accept the higher point assignment.
- 41 - August 4, 1977 letter from the City of Heppner requesting a project be placed on the priority list.
- 42 - August 4, 1977 letter from the City of Gladstone requesting a review of the priority ranking of Tri-City Regional Treatment Plant.
- 43 - August 5, 1977 Memo documenting a phone call from USA requesting the deletion of the Brookwood Trunk from the priority list.
- 44 - August 10, 1977 letter from Clackamas County presenting additional testimony on behalf of the Tri-City Project.
- 45 - August 10, 1977 letter from Clackamas County presenting additional testimony on behalf of the Mount Hood Corridor Project.
- 46 - August 11, 1977 letter from Multnomah County presenting testimony on behalf of the Inverness Unit 8 Project.
- 47 - August 11, 1977 from the City of Tualatin along with a petition requesting additional priority for the USA Lower Tualatin Interceptor.
- 48 - August 11, 1977 note from Elaine Correia requesting a review of the priority of the Southwest Lincoln County S.D. Project.
- 49 - August 10, 1977 letter from Peg Kasper supporting the existing priority assignment for the Mount Hood Corridor Project.
- 50 - August 8, 1977 letter from Russell S. Peer objecting to the priority assigned to the S.W. Lincoln Co. S.D. on the basis the project is to serve development.
- 51 - August 5, 1977 letter from USA requesting that the Cedar Mill Trunk be included on the priority list.
- 52 - August 16, 1977 Memo presenting the facts of raw sewage dry weather by-passing in the City of Cottage Grove.
- 53 - August 9, 1977 letter from Mrs. R. A. Glass supporting the S.W. Lincoln Co. S.D.

- 54 - August 8, 1977 letter from Mr. and Mrs. C. R. Bruadage same as #53.
- 55 - August 9, 1977 letter from Harl Kelley same as #53.
- 56 - August 10, 1977 letter from Leon B. Oliver same as #53.
- 57 - August 12, 1977 letter from Mr. Ray Cox same as #53.
- 59 - August 10, 1977 letter from Mr. Elmer Ostling same as #53.
- 60 - August 9, 1977 letter from Mrs. James Fairchild same as #53.
- 61 - August 8, 1977 letter from Mr. George V. Gilmore same as #53.
- 62 - August 9, 1977 letter from Mr. & Mrs. Paul Burckardt same as #53.
- 63 - August 8, 1977 letter from Mrs. Jean Duckett same as #53.
- 64 - August 9, 1977 letter from Vern Allen same as #53.
- 65 - August 8, 1977 letter from Mrs. R.H. Sorensen same as #53.
- 66 - August 9, 1977 letter from Mr. & Mrs. Lars Romoren same as #53.
- 67 - August 9, 1977 letter from G.C. Haestein same as #53.
- 68 - August 12, 1977 letter from Mrs. J.B. Baker same as #49.
- 69 - August 12, 1977 letter from Mabel Griffin same as #49.
- 70 - August 12, 1977 letter from Co. J. B. Baker USA (Ret.) same as #49.
- 71 - August 18, 1977 letter from the City of Oregon City documenting the summer raw sewage by-passes at the Oregon City Sewage Treatment Plant.
- 72 - August 22, 1977 letter from BCVSA providing documentation of water quality standards violations in the Central Point-Westside area.
- 73 - August 22, 1977 Memo from DEQ-Salem Office providing additional information on several projects in the Salem Regional area.

MODIFICATIONS TO DRAFT FY'78 PRIORITY LISTPART I: DELETIONS

<u>Project</u>	<u>Rank on Draft List</u>	<u>Rank on New List</u>	<u>Comment</u>
1. Canyon City	5	-	Project was dropped from list since Step 3 grant was awarded.
2. Glendale	7	-	Project was dropped from list since Step 3 grant was awarded.
3. Sutherlin	8	-	Project was put at top of list and not ranked since Step 3 grant should be awarded from FY77 funds before 10-1-77.
4. Yamhill	10	-	Project was dropped from list since Step 3 grant was awarded.
5. Molalla	12	-	Project was put at top of list and not ranked since Step 3 grant should be awarded from FY77 funds before 10-1-77.
6. Pacific City SD	19	-	Same as 3 and 5.
7. Roads End SD	20	-	Same as 3, 5 and 6.
8. Portland SE Relieving	36	-	Same as 1, 2 and 4.
9. BCVSA-West Medford	155	-	Deleted from list in response to testimony from BCVSA
10. BCVSA-Wagner Creek	156	-	Same as 9.
11. USA-Brookwood Trunk	160	-	Deleted from list in response to testimony from USA of Washington Co.

PART II: IMPROVEMENT IN PROJECT RANK

<u>Project</u>	<u>Rank on Draft List</u>	<u>Rank on New List</u>	<u>Comment</u>
1. Roseburg Metro	52	17	Change in rank based on Step 2 grant certification before adoption of new priority list. Done in accordance with Paragraph V(D)(1) of Criteria for Priority Ranking.
2. Hillsboro Irrigation	58	20	Same as 1.
3. Tri-City County	61	52	Change in rank based on assessment that frequent, documented by-passes during summer months contribute to water quality standard violations in receiving stream.
4. Dundee	63	26	Same as 1.
5. Salem	64	53	Same as 3.
6. Cottage Grove	73	54	Same as 3, plus the City's treatment plant cannot meet secondary treatment requirements-justifying a change in regulatory emphasis.
7. Klamath Falls Regional	77	76	Based on South Suburban Sanitary District's non-compliance with secondary treatment requirements-regulatory emphasis changed.
8. Stanfield	79	77	Based on the City's usual non-compliance with secondary treatment requirements-regulatory emphasis changed.
9. Monmouth	89	23	Same as 1.
10. Independence	90	24	Same as 1.
11. Willamina	95	39	Same as 1.

12. Geryais	96	38	Same as 1.
13. Hammond	97	36	Same as 1.
14. Eagle Point	101	88	Based on the City's non-compliance with secondary treatment requirements- regulatory emphasis changed.
15. Prairie City	102	89	Same as 14.
16. Coos Bay-1/1 Correction	105	56	Same as 3, plus regulatory emphasis changed since permit requirements are not being met.
17. Cannon Beach	108	93	Same as 14.
18. Newport	111	105	Same as 14.
19. Ione	115	62	Documentation of a raw sewage discharge from a collection system into Willow Creek-change based on contribution to water quality standards violations and non-compliance with treatment regulations.
20. BCVSA-Westside	119	58	Based on conclusive evidence that water quality standards violations are caused by numerous failing subsurface sewage disposal systems.
21. Clackamas Co.- Rhodo Welches	129	63	Based on DEQ survey that water quality standards violations are caused by existing small STP's and that failing subsurface sewage disposal systems contribute to standards violations.
22. St. Paul	130	64	Based on assessment that subsurface sewage disposal systems (connected to a drainage system) are causing water quality standards violations in a small receiving stream.

23. Shady Cove	132	45	Same as 1.
24. SW Lincoln Co. SD	137	65	Based on recently compiled data showing water quality standards violations in drainageways and streams within the district, caused by failing subsurface sewage disposal systems.
25. Grande Ronde	144	127	Based on change in regulatory emphasis due to action by regional office.
26. Cove Orchard	145	125	Same as 25, plus Step Status changed from 1 to 2.
27. Newberg-NW Int.	146	129	Change in regulatory emphasis since facility plan was approved.
28. BCVSA-Whetstone	147	131	Same as 25.
29. Sisters	150	134	Same as 27.
30. Vernonia	162	145	Change in regulatory emphasis since STP cannot meet operational requirements specified in permit.
31. Lexington	186	144	Data compiled in facilities plan documents contamination of groundwater from subsurface sewage disposal systems.

PART III: ADDITIONS TO PRIORITY LIST

<u>Project</u>	<u>Rank on New List</u>	<u>Comment</u>
1. Heppner	109	Based on failure to consistently comply with permit requirements.
2. USA-Cedar Mill Trunk	102	Based on proposed phase-out of existing STP.

PART IV: LOWER PROJECT RANK

<u>Project</u>	<u>Rank on Draft List</u>	<u>Rank on New List</u>	<u>Comment</u>
1. Turner	56	126	Based on new evidence that does not conclusively show water quality standards violations.
2. Irrigon	127	149	Data gathered in facilities plan indicates a potential <u>future</u> pollution problem.
3. Dunes City	138	157	Reassessment of available information showed no documentation of contamination of ground or surface water.

PART V: OTHER CHANGES

1. Regulatory point emphasis on Donald and Wauna-Westport projects was changed to reflect non-compliance with waste treatment regulations; however, no increase in project rank since other projects had more significant point changes.
2. Jacksonville and BCVSA-White City had a change in project type points since both involve phasing out existing STP's; however, no improvement in project rank since other projects had more significant point changes.
3. Step 2 and 3 grant dollars for Eugene-Sewer Rehab. and Springfield-Sewer Rehab. were deleted from priority list. This grant dollar demand is reflected as a needed grant increase to Eugene Metro. Step 2 and Step 3 projects. The Eugene Metropolitan Wastewater Management Commission will be responsible for all cost-effective (i.e. grant eligible) sewer rehabilitation in both cities.
4. Grant dollar demand for several projects was shifted from FY78 to FY79 based on staff assessment of potential schedule delays. These projects include:

	<u>Step</u>
Coryallis Wet-Weather	3
Portland Sludge-Phase 2	2
Madras	3
Turner	3
Sheridan	3
Florence	3
Elgin	3
Junction City	3



STATE OF OREGON  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
FY'78 PRIORITY POINTS LIST  
AUGUST 26, 1977

ATTACHMENT NO. 3

<u>PROJECT</u>	<u>NEED POINTS</u>	<u>REGULATION EMPHASIS</u>	<u>STREAM SEGMENT POINTS</u>	<u>PROJECT TYPE PTS.</u>	<u>STEP STATUS</u>	<u>TOTAL POINTS</u>	<u>PRIORITY NO.</u>
SUTHERLIN							
ROADS END SD							
MOLALLA							
PACIFIC CITY SD							
CORVALLIS - INCREASE	*						1
FOSTER-MIDWAY	*						2
WINSTON-GREEN	*						3
JOHN DAY PHASE 2 - INCREASE	*						4
USA LOWER TUALATIN - INCR STHWY DK	*						5
CAVE JUNCTION	*						6
TILLAMOOK CITY	*						7
JEFFERSON	*						8
LINCOLN CITY - PHASE I	*						9
BROWNSVILLE	*						10
LAKE OSWEGO - TERRACE RD	*						11
LAKE OSWEGO - EVERGREEN RD	*						12
LAKE SIDE	*						13
PRINEVILLE - LAUGHLIN	*						14
NORTH ROSEBURG SD	*						15
BEND	*						16
ROSEBURG METRO	*						17
CLATSOPVILLE	*						18
MT. VERNON	*						19
HILLSBORO - IRRIGATION	*						20
EUGENE AIRPORT	*						21
HARRISBURG	*						22
MONMOUTH	*						23
INDEPENDENCE	*						24
EUGENE METRO	*						25
DUNDEE	*						26
USA - UPPER TUALATIN	*						27
USA - BRANSON CREEK	*						28
USA - ROCK CREEK TRUNK	*						29
MAIDEN	*						30
GOLD HILL	*						31
REDFORT	*						32
PORTLAND - SLUDGE	*						33
LAGRANDE - ISLAND CITY	*						34
CORVALLIS - CRESCENT VLY	*						35
HAMMOND	*						36
AINSVILLE	*						37
GERVAIS	*						38
WILLAMINA	*						39
AMITY	*						40
WOODBURN	*						41
ROCKAWAY	*						42
LINCOLN CITY - PHASE II	*						43
VERMISTON	*						44
SHADY COVE	*						45
TERREBONNE	999					999.00	46
MADRAS	999					999.00	47
PORTLAND - 45TH DR INT	999					999.00	48
L OSWEGO - GLENMORRIS	999					999.00	49

PROJECT	NEED POINTS	REGULATION EMPHASIS	STREAM SEGMENT POINTS	PROJECT TYPE PTS.	STEP STATUS	TOTAL POINTS	PRIORITY NO.
SILVERTON	999					999.00	50
MEDEORD - FOOTHILLS - LONE PINE	999					999.00	
TRI-CITY - COUNTY	800	90	93.45	10	2	995.45	52
SALEM	800	90	93.45	10	1	994.45	53
COTTAGE GROVE	800	100	73.00	10	2	985.00	54
PORTLAND - FLY ROCK INT	800	80	93.45	8	3	984.45	55
COOS BAY - I/I CORRECTION	800	90	82.00	10	1	983.00	56
ROSEBURG SEWER REHAB	800	90	77.33	10	2	979.33	57
BOVSA - CENTRAL POINT WESTSIDE	800	80	83.50	8	2	973.50	58
DONALD	800	100	48.00	10	2	960.00	59
WALINA - WESTPORT	800	100	40.00	10	2	952.00	60
ASTORIA - WILLIAMSPORT	800	100	40.00	8	2	950.00	61
TONGUE	800	100	34.00	10	2	946.00	62
CLACKAMAS CO - RHODOWELCHES	800	90	38.67	10	2	940.67	63
ST PAUL	800	80	48.00	10	2	940.00	64
SW LINCOLN CO SD	800	80	32.00	10	2	924.00	65
USA - GASTON	700	90	95.73	10	2	897.73	66
USA - DURHAM SLUDGE	700	90	95.73	10	1	896.73	67
CLACKAMAS CO SD - KELLOGG SLUDGE	700	90	93.45	10	2	895.45	68
NEWBERG	700	90	93.45	10	2	895.45	69
EUGENE - SEWER REHAB	700	90	91.18	10	1	892.18	70
SPRINGFIELD SEWER REHAB*	700	90	91.18	10	1	892.18	71
SHERIDAN	700	90	88.91	10	2	890.91	72
CARLTON	700	90	86.64	10	2	888.64	73
DAYTON	700	90	84.36	10	2	886.36	74
JACKSONVILLE	700	90	83.50	10	2	885.50	75
KLAMATH FALLS REG.	700	100	68.00	10	2	880.00	76
STANFELD	700	100	67.33	10	2	879.33	
ELODENCE	700	90	77.00	10	2	879.00	78
PRINEVILLE - STD	700	90	73.50	10	1	874.50	79
OKRIDGE	700	90	70.73	10	2	872.73	80
LOWELL	700	90	70.73	10	2	872.73	81
ESTACADA	700	90	68.45	10	1	869.45	82
DALLAS	700	90	63.91	10	2	865.91	83
ELGIN	700	90	61.33	10	2	863.33	84
BOVSA - WHITE CITY	700	90	58.50	10	2	860.50	85
PHILOMATH	700	90	59.36	10	1	860.36	86
SEASIDE	700	100	48.33	10	2	860.33	87
EAGLE POINT	700	100	46.00	10	2	858.00	88
PRAIRIE CITY	700	100	45.00	10	2	857.00	89
MONROE	700	90	54.82	10	2	856.82	90
UMATILLA	700	90	50.67	10	2	852.67	91
SCIO	700	90	50.27	10	2	852.27	92
CANNON BEACH	700	100	40.00	10	2	852.00	93
BAKER	700	90	49.00	10	2	851.00	94
CORVALLIS AIRPORT	700	90	48.00	10	2	850.00	95
JUNCTION CITY	700	90	48.00	10	2	850.00	96
MT ANGEL	700	90	48.00	10	2	850.00	97
CRESWELL	700	90	48.00	10	2	850.00	98
USA - BANKS	700	90	48.00	10	2	850.00	99
HUBBARD	700	90	48.00	10	1	849.00	100
HALSEY	700	90	48.00	10	1	849.00	101
USA-CEDAR MILL TRUNK	700	90	48.00	8	2	848.00	102

<u>PROJECT</u>	<u>NEED POINTS</u>	<u>REGULATION EMPHASIS</u>	<u>STREAM SEGMENT POINTS</u>	<u>PROJECT TYPE PTS.</u>	<u>STEP STATUS</u>	<u>TOTAL POINTS</u>	<u>PRIORITY NO.</u>
ENTERPRISE	700	90	44.67	10	2	846.67	103
CLATSOP LAND	700	90	44.00	10	2	846.00	104
NEWPORT	700	100	32.00	10	1	843.00	105
ST HELENE	700	90	40.00	10	2	842.00	106
RAINTIER	700	90	40.00	10	2	842.00	107
TWIN ROCKS SD - STD	700	90	40.00	10	2	842.00	108
HEPNER	700	90	34.00	10	1	835.00	109
ATHENA	700	90	34.00	10	1	835.00	110
DUEHR	700	90	30.00	10	2	832.00	111
JOSEPH	700	90	28.00	10	2	830.00	112
ONTARIO	700	90	26.00	10	2	828.00	113
NORTH POWDER	700	90	24.00	10	2	826.00	114
MILTON - FREEWATER	700	90	18.00	10	1	819.00	115
NORTH ALBANY SD	600	90	91.18	8	2	791.18	116
HIGHWAY 101 SD	600	80	81.67	8	2	771.67	117
MILL CITY	600	80	75.27	10	1	766.27	118
GEARHART	600	100	48.33	10	1	759.33	119
HAPPY VALLEY	600	100	48.00	8	2	758.00	120
CLATSOP PLAINS	600	100	40.00	10	1	751.00	121
ST STEVENS STATE PARK	600	100	40.00	8	1	749.00	122
MAPLETON	600	80	52.00	10	2	744.00	123
HAINES	600	80	49.00	10	2	741.00	124
COVE ORCHARD	600	80	48.00	10	2	740.00	125
TURNER	600	80	48.00	10	1	739.00	126
GRANDE RONDE	600	80	48.00	10	1	739.00	127
MULTNOMAH COUNTY - INVERNESS #8	600	80	48.00	8	2	738.00	128
NEWBERG - NW INT.	600	80	48.00	8	2	738.00	129
MILTON - COL. VALLEY	600	80	46.00	10	1	737.00	130
ROVSA - WESTSTONE	600	80	46.00	8	1	735.00	131
COLUMBIA CITY	600	80	40.00	8	2	730.00	132
WESTSIDE SD	600	80	38.00	10	2	730.00	133
SISTERS	600	80	36.00	10	2	728.00	134
CARMEL - FOURWEATHER SD	600	80	32.00	10	2	724.00	135
FALLS CITY	600	50	61.64	10	1	722.64	136
THE DALLES - FOLEY LAKES	600	80	30.00	8	2	720.00	137
HOOD RIVER - WESTSIDE	600	80	30.00	8	2	720.00	138
NORTH PLAINS	600	50	48.00	10	1	709.00	139
BROOKS	600	50	48.00	10	1	709.00	140
ROSEBURG - RIFLE RANGE RD	600	50	44.00	8	1	703.00	141
RODOC POINT	600	50	38.00	10	1	699.00	142
CRESCENT	600	50	36.00	10	1	697.00	143
LEXINGTON	600	50	34.00	10	2	696.00	144
VERMONTA	400	90	70.56	10	1	571.56	145
HILLSBORO - R&D - WESTSIDE	400	50	95.73	10	1	556.73	146
OAK LODGE SD	400	50	93.45	10	1	554.45	147
PORTLAND - LINNITON INT	400	50	93.45	8	1	552.45	148
IRRIGON	400	80	50.67	10	2	542.67	149
COBURG	400	80	48.00	10	1	539.00	150
USA - REEDSVILLE TRUNK	400	80	48.00	8	2	538.00	151
USA - SUNSET TRUNK	400	80	48.00	8	2	538.00	152
DETROIT	400	50	75.27	10	1	536.27	153
RIGGS JUNCTION	400	80	36.00	8	1	525.00	154
TRILLER	400	50	61.33	10	2	523.33	155

<u>PROJECT</u>	<u>NEED POINTS</u>	<u>REGULATION EMPHASIS</u>	<u>STREAM SEGMENT POINTS</u>	<u>PROJECT TYPE PTS.</u>	<u>STEP STATUS</u>	<u>TOTAL PQ.INTS.</u>	<u>PRIORITY NO.</u>
POWERS	400	50	62.00	10	1	523.00	156
BUNES CITY	400	80	32.00	10	1	523.00	157
MEDFORD	400	50	58.50	10	1	519.50	158
FLMIRA	400	50	54.82	8	1	513.82	159
ADLINGTON	400	50	50.67	10	2	512.67	160
MULTNOMAH COUNTY - INVERNESS STP	400	50	48.00	10	1	509.00	161
SCOTTS HILL	400	50	48.00	10	1	509.00	162
SANDY	400	50	48.00	8	1	507.00	163
ALBANY - NE INT.	400	50	48.00	8	1	507.00	164
CORVALLIS MOBILE PARK	400	50	48.00	8	1	507.00	165
TANGENT	400	50	48.00	8	1	507.00	166
LOSTINE	400	50	44.67	10	1	505.67	167
WALLOWA LAKE SA	400	50	44.67	10	1	505.67	168
DRAIN	400	50	44.00	10	1	505.00	169
DONCALIA	400	50	44.00	10	1	505.00	170
ROSEBURG - LOOKINGGLASS	400	50	44.00	8	1	503.00	171
RANDON - JOHNSON	400	50	42.00	8	2	502.00	172
WARRENTON	400	50	40.00	10	1	501.00	173
NEKOWIN SA	400	50	40.00	10	1	501.00	174
TROUTDALE	400	50	38.67	10	2	500.67	175
GRESHAM STP	400	50	38.67	10	1	499.67	176
LAPINE	400	50	36.00	10	1	497.00	177
RAY TO RAY SD	400	50	32.00	8	2	492.00	178
DEWELL SD	400	50	30.00	10	1	491.00	179
CASCADE LOCKS	400	50	30.00	8	1	489.00	180
GRESHAM - LINNEMAN	400	50	22.00	8	2	482.00	181
SANDY	400	50	22.00	8	1	481.00	182

STATE OF OREGON  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
FY'78 SEWERAGE WORKS CONSTRUCTION GRANT PRIORITY LIST  
AUGUST 26, 1977

PROJECT NO.	PROJECT	NPDES NO.	ENGR. CODE	PROJECT DESCR.	STEP	ESTIMATED PROJECT COST (\$,000)	TARGET CERT.	(MO/FY) ACTUAL CERT.	COMMENT	PRIORITY NO.
436	SUTHERLIN	002084	33	STP IMP	3	2185	0677	0777	FY 77 FUNDS	
444	YOLALLA	002238	84	STP IMP	3	1411	1176	0677	FY 77 FUNDS	
528	ROADS END SD	NA	33	INT	3	663	1176	0277	FY 77 FUNDS	
417	PACIFIC CITY SD	NA	26	STP,INT	3	1244	0177	0577	FY 77 FUNDS	
355	CORVALLIS-AMENDED	002636	06	STP IMP	2	411	0877		INCR	1
432-02-1	FOSTER-MIDWAY	NA	14	SYSTEM	3	1688	0178		INCR	2
410	WINSTON-GREEN	002879	56	STP,INT	3	3600	0877		PHASED	3
410	WINSTON-GREEN	002879	56	STP,INT	3	1500	0278		INCR	3
438	JOHN DAY	002722	01	STP,INT	3	382	0877		PHASE1	4
438	JOHN DAY	002722	01	STP,INT	3	900	0278		PHASE2	4
401-02-1	USA-SOUTHWOOD PK		56	INT	3	720	0478		INCR	5
423	CAVE JUNCTION	002833	30	STP IMP	3	200	1077			6
505	TILLAMOOK CITY	002066	16	STP IMP	3	1050	0178			7
510	JEFFERSON	002045	84	STP,INT	3	230	0378			8
450	LINCOLN CITY-PHASE 1A		56	INT	3	655	0877			9
428	BROWNSVILLE	002008	36	STP IMP	3	313	0678			10
525	LAKE OSWEGO-TERRACE	NA	88	INT	3	110	0777			11
463	LAKE OSWEGO EVERGRN	NA	91	INT	3	180	0977			12
520	LAKEVIEW	002999	33	STP,INT	3	1162	1077			13
545	ORINEVILLE-LAUGHLIN	NA	43	INT	3	250	0378			14
581	NORTH ROSEBURG SD	002359	14	INT & PS	3	450	1077			15
486-01	REND PHASE 1B	NA	03	SYSTEM	2	750	1077		INCR	16
486-02	REND PHASE 1A	NA	55	SYSTEM	3	11000	0478			16
487-02	ROSEBURG METRO	002258	14	STP,INT	2	533	0777	0777		17
487-03	ROSEBURG METRO	002258	14	STP,INT	3	9380	0978			17
488	CANYONVILLE	002072	33	STP IMP	3	675	0478			18
430	MT VERNON	NA	01	STP INT	2	24	0677	0677		19

PROJECT NO.	PROJECT	NPDES NO.	ENGR. CODE	PROJECT DESCR.	STEP	ESTIMATED PROJECT COST (1,000)	TARGET CERT.	(MO/FY) ACTUAL CERT.	(MO/FY)	COMMENT	PRIORITY NO.
430	MT VERNON	NA	01	STP,INT	3	533	0578				20
489	HILLSBORO IRRIGATION	002334	38	STP IMP	2	43	0777	0677			20
489	HILLSBORO IRRIGATION	002334	38	STP IMP	3	510	0378				20
497	EUGENE AIRPORT	002648	14	STP IMP	3	82	1077				21
490	HARRISBURG	002075	52	STP	2	38	1076	0477			22
490	HARRISBURG	002075	52	STP	3	612	0178				22
625	MONMOUTH	002061		STP IMP	2	39	08	0877			23
625	MONMOUTH	002061	09	STP	3	666	0478				23
640	INDEPENDENCE	002061	09	STP	2	64	0877	0877			24
640	INDEPENDENCE	102044	09	STP	3	623	0478				24
624	EUGENE-METRO	NA	14	STP,INT	2	1945	0677	0677			25
624	EUGENE METRO	NA	14	REHAB	2	400	0578		INCR		25
626	DUNDEE	002238	84	STP IMP	2	12	0777	0777			26
626	DUNDEE	002238	84	STP IMP	3	294	0378				26
492	USA-UPPER TUALATIN	NA	16	INT	3	2217	1177				27
603	USA-BRANSON CK	NA	16	INT	3	460	1077				28
611	USA-ROCK CK TRUNK	NA	16	INT	3	2000	1277				29
374	MAUPIN	002260	67	STP IMP	3	432	1077				30
413	GOLD HILL	002259	33	STP IMP	3	861	0378				31
556	REEDSPORT	002082	33	INT	2	153	1176	0477			32
556	REEDSPORT	002082	33	STP IMP	3	2850	0778				32
557	PORTLAND SLUDGE	002690	FA	STP IMP	2	174	0976	0677	PHASE 1		33
557	PORTLAND SLUDGE	002690	FA	STP IMP	3	4290	0678		PHASE 1		33
475	LA GRANDE-ISLAND CTY	002046	12	STP,INT	3	2738	0378				34
501	CORVALLIS-CRESCENT	VNA	FA	INT	3	841	1077				35
502	HAMMOND	002274	43	INT	2	74	0777	0877			36
502	HAMMOND	002274	43	INT	3	730	0178				6

PROJECT NO.	PROJECT	NPDES NO.	ENGR. CODE	PROJECT DESCR.	STEP	ESTIMATED PROJECT COST (1,000)	TARGET CERT.	(MO/FY) ACTUAL CERT.	(MO/FY)	COMMENT	PRIORITY NO.
425	MINNEVILLE	002272	36	STP, IMP	3	422	0278				37
476	GERVAIS	002739	09	STP, INT	2	30	0877	0877			38
476	GERVAIS	002739	09	STP, INT	3	414	0578				38
507	WILLAMINA	102271	47	STP, IMP	2	12	0777	0777			39
507	WILLAMINA	102271	47	STP, IMP	3	176	0378				39
508	AMITY	002621	20	STP, IMP	3	111	0178				40
509	WOODBURN	002000	16	STP, INT	2	278	1176	0677			41
509	WOODBURN	002000	16	STP, INT	3	5212	0478				41
273	ROCKAWAY	002330	33	STP, IMP	2	198	1176	0277			42
273	ROCKAWAY	002330	33	STP, IMP	3	1800	0578				42
559	LINCOLN CITY PHASE	2002047	56	STP, INT	2	160	0977		INCR		43
559	LINCOLN CITY PHASE	2002047	56	STP, INT	3	3750	0478				43
517	HERMISTON	002076	56	STP, INT	2	160	1077		INCR		44
517	HERMISTON	002076	56	STP, INT	3	5768	0378				44
455	SHADY COVE	NA	30	STP, INT	2	62	0877	0877			45
455	SHADY COVE	NA	30	STP, INT	3	625	0778				45
464	TERRERONNE	NA		SYSTEM	1	24	1177				46
464	TERRERONNE	NA		SYSTEM	2	72	0778				46
579	MADRAS	NA	14	INT, COLL	2	135	1177				47
579	MADRAS	NA	14	INT, COLL	3	1100	0878				47
622	PORTLAND-45TH DR	NA	FA	INT, COLL	3	326	1277				48
585	LAKE OSWEGO-GLENMOR	NA	FA	COLL SYS	2	70	1077				49
585	LAKE OSWEGO GLENMOR	NA	FA	COLL SYS	3	600	0678				49
467	SILVERTON	002065	36	STP, COLL	2	75	0278				50
627	MEDFORD-FOOTHILLS	NA		INT, COLL	1	10	1077				51
627	MEDFORD-FOOTHILLS	NA		INT, COLL	2	35	0678				51
4	TRI CITY SD	NA	56	STP, INT	2	747	0378				52
646	SALEM	002640		STP, IMP	1	350	1277				53

PROJECT NO.	PROJECT	NPDES NO.	ENGR. CODE	PROJECT DESCR.	STEP	ESTIMATED PROJECT COST (1,000)	TARGET CERT.	(MO/FY) ACTUAL CERT.	(MO/FY)	COMMENT	PRIORITY NO.
512	COTTAGE GROVE	002055	47	STP IMP	2	255	1077				
605	PORTLAND-FLK ROCK	NA	FA	INT, COLL	3	183	1177				55
628	COOS BAY #1	002357		STP IMP	1	50	1177				56
628	COOS BAY #1	002357		STP IMP	2	198	0978				56
616	ROSEBURG SEWER REHAB	002258	FA	STP, IMP	2	601	0977				57
616	ROSEBURG SEWER REHAB	002258	14	STP, IMP	3	2000	0278				57
527	BCVSA-CENTRAL PT	NA	14	INT	2	90	1077				58
527	BCVSA-CENTRAL PT	NA	14	INT	3	772	0678				58
445	DONALD	NA	09	STP, INT	2	46	0578				59
437	WAINA-WESTPORT	NA	16	STP, INT	2	61	1177				60
437	WAINA-WESTPORT	NA	16	STP, INT	3	509	0778				60
619	ASTORIA-WILLIAMSPT	NA	FA	INT	2	88	0278				61
619	ASTORIA-WILLIAMSPT	NA	FA	INT	3	715	0978				61
583	TONE	NA	63	STP, INT	2	48	1077				62
583	TONE	NA	63	STP, INT	3	482	0678				62
526	CLACKAMAS CO-RHODO	NA	56	STP IMP	2	126	0378				63
523	ST PAUL	NA	20	STP, INT	2	30	0278				64
523	ST PAUL	NA	20	STP, INT	3	329	0978				64
537	SW LINCOLN CO SD	NA	43	STP, INT	2	254	1177				65
537	SW LINCOLN CO SD	NA	43	STP, INT	3	2200	0978				65
575	USA-GASTON	002015	56	STP IMP	2	72	1077				66
575	USA-GASTON	002015	56	STP IMP	3	608	0778				66
634	USA-DURHAM SLUDGE	002760		STP IMP	1	52	0778				67
604	CLACK CO-KELLOGG SL	002622	16	STP IMP	2	43	0678				68
494	NEWBERG	002025		STP	2	148	1177				69
494	NEWBERG	002025		STP	3	1851	0878				69



PROJECT NO.	PROJECT	NPDES NO.	ENGR. CODE	PROJECT DESCR.	STEP	ESTIMATED PROJECT COST (1,000)	TARGET CERT.	(MO/FY) ACTUAL CERT.	(MO/FY)	COMMENT	PRIORITY NO.
45	EUGENE	002620	14	REHAB.	1	250	0278			INCR	70
570	SPRINGFIELD	002632	14	REHAB	1	200	0378			INCR	71
506	SHERIDAN	002064	47	STP IMP	2	52	0378				72
506	SHERIDAN	002064	47	STP IMP	3	248	0878				72
615	CARLTON	002054	84	STP IMP	2	60	1277				73
430	DAYTON	002363	84	STP IMP	2	37	1277				74
498	JACKSONVILLE	002079	30	INT	2	81	1277				75
498	JACKSONVILLE	002079	30	INT	3	495	0878				75
516	KLAMATH FALLS REGION	002630	33	STP	2	546	0278				76
565	STANFIELD	002697	67	STP,IMP	2	38	1177				77
565	STANFIELD	002697	67	STP,IMP	3	392	0678				77
533	FLORENCE	002074	47	STP IMP	2	69	0577				78
533	FLORENCE	002074	47	STP IMP	3	600	0178				78
6	PRINEVILLE	002361	43	STP IMP	2	255	1077				79
645	PRINEVILLE	002361	43	STP IMP	3	1448	0878				79
514	OAKRIDGE	002231	47	STP IMP	2	72	0278				80
573	LOWELL	002004	47	STP IMP	2	92	0278				81
504	ESTACADA	002057	16	STP IMP	1	20	0678				82
502	DALLAS	002073	14	STP IMP	2	42	0578				83
472	ELGIN	002243	01	STP IMP	2	41	1177				84
472	ELGIN	002243	01	STP IMP	3	396	0778				84
558	RCVSA-WHITE CITY	002246	14	INT	2	25	1277				85
558	RCVSA-WHITE CITY	002246	14	INT	3	558	0578				85
620	PHILOMATH	002050	14	STP IMP	1	16	1177				86
620	PHILOMATH	002050	14	STP IMP	2	44	0778				86
503	SEASIDE SSES	002040	56	STP IMP	1	133	1077			INCR	87
503	SEASIDE	002040	56	STP IMP	2	330	0878				87

PROJECT NO.	PROJECT	NPDES NO.	ENGR. CODE	PROJECT DESCR.	STEP	ESTIMATED PROJECT COST (1,000)	TARGET CERT.	(MO/FY) ACTUAL CERT. (MO/FY)	COMMENT	PRIORITY NO.
429	EAGLE POINT	002229	87	STP IMP	2	45	1077			88
429	EAGLE POINT	002229	87	STP IMP	3	650	0778			88
400	PRAIRIE CITY	102003	80	STP,INT	2	65	1077			89
400	PRAIRIE CITY	102003	80	STP,INT	3	532	0678			89
560	MONROE	002920	47	STP IMP	2	26	0378			90
560	MONROE	002920	47	STP IMP	3	184	0878			90
571	UMATILLA	002230	63	STP IMP	2	50	0278			91
571	UMATILLA	002230	63	STP IMP	3	385	0978			91
515	SCIO	002930	36	STP IMP	2	16	0178			92
515	SCIO	002930	36	STP IMP	3	117	0778			92
511	CANNON BEACH	002022	16	STP IMP	2	81	0278			93
431	BAKER	002069	12	STP IMP	2	176	0178			94
431	BAKER	002069	12	STP IMP	3	1976	0878			94
458	CORVALLIS AIRPORT	002250	43	STP	2	57	0578			95
496	JUNCTION CITY	002656	09	STP IMP	2	32	0978			96
588	MT ANGEL	002876	84	STP IMP	2	38	0378			97
513	CRESWELL	002754	40	STP IMP	2	84	0278			98
576	USA-BANKS	002012	02	STP IMP	2	65	1177			99
576	USA-BANKS	002012	02	STP IMP	3	495	0878			99
643	HERRARD	102059		STP,INT	1	40	1177			100
643	HERRARD	102059		STP,INT	2	76	0778			100
505	HALSEY	002239		STP IMP	1	13	1277			101
505	HALSEY	002239		STP IMP	2	33	0978			101
649	USA - CEDAR MILLS			INT	2	52	0178		STP FLIM.	102
649	USA - CEDAR MILLS			INT	3	00600	0778		STP FLIM.	102
554	ENTERPRISE	002056	01	STP IMP	2	34	1277			103
554	ENTERPRISE	002056	01	STP IMP	3	370	0978			103

PROJECT NO.	PROJECT	NPDES NO.	ENGR. CODE	PROJECT DESCR.	STEP	ESTIMATED PROJECT COST (1,000)	TARGET CERT.	(MO/FY) ACTUAL CERT. (MO/FY)	COMMENT	PRIORITY NO.
617	OAKLAND	002049	47	STP IMP	2	49	0378			104
618	NEWPORT	002257		STP IMP	1	17	0578			105
529	ST HELENS	002083	86	STP, INT	2	165	0278			106
586	RAINIER	002038	86	STP IMP	2	47	0278			107
586	RAINIER	002038	86	STP IMP	3	652	0978			107
647	TWIN ROCKS SD	002349	50	STP IMP	2	60	1277			108
647	TWIN ROCKS SD	002349		STP IMP	3	275	0878			108
648	HEPPNER	102077	01	STP IMP	1	14	1277			109
648	HEPPNER	102077	01	STP IMP	2	52	0978			109
635	ATHENA	102281	01	STP IMP	1	16	1177			110
635	ATHENA	102281	01	STP IMP	2	31	0978			110
473	DUEIR	002905	63	STP IMP	2	14	0578			111
519	JOSEPH	002060	01	STP IVP	2	12	0178			112
519	JOSEPH	002060	01	STP IMP	3	86	0878			112
518	ONTARIO	002062	12	STP IMP	2	48	1277			113
518	ONTARIO	002062	12	STP IMP	3	423	0678			113
564	NORTH POWDER	002240	47	STP IMP	2	10	1077			114
564	NORTH POWDER	002240	47	STP IMP	3	68	0778			114
589	MILTON-FREEWATER	002278	16	STP IMP	1	35	1077			115
521	N ALBANY SD	NA	09	INT	2	129	0478			116
522	HWY 101 SD	NA		INT	2	23	1177			117
522	HWY 101 SD	NA		INT	3	200	0678			117
447	MILL CITY	NA	33	STP, INT	1	22	1077			118
447	MILL CITY	NA	33	STP, INT	2	91	0578			118
641	GEARHART	NA		STP	1	12	0878			119
567	HAPPY VALLEY	NA	27	INT	2	38	1277			120
567	HAPPY VALLEY	NA	27	INT	3	330	0978			120

NO.	PROJECT	NPDES NO.	ENGR. CODE	PROJECT DESCR.	STEP	ESTIMATED PROJECT COST (\$,000)	TARGET CERT.	(MO/FY) ACTUAL CERT.	(MO/FY)	COMMENT	PRIORITY NO.
638	CLATSOP PLAINS	NA		STP,INT	1	94	1077				1
636	ET STEVENS STATE PK	NA		INT	1	3	0378				122
587	HAINES		01	STP,INT	2	27	1077				124
587	HAINES		01	STP,INT	3	263	0578				124
639	COVE ORCHARD	NA		STP,INT	2	31	0678				125
443	TURNER	NA	09	STP,INT	1	16	1277				126
443	TURNER	NA	09	STP,INT	2	72	0678				126
642	GRANDE RONDE	NA		STP,INT	1	16	0978				127
426	MILCO-INVERNESS #8	NA		INT	2	200	1277				128
426	MILCO-INVERNESS #8	NA		INT	3	3100	0978				128
534	NEWBERG-NORTHWEST	NA	43	INT	2	20	1177				129
534	NEWBERG-NORTHWEST	NA	43	INT	3	121	0578				129
607	BOVSA-WHETSTONE	NA		INT	1	13	0178				131
607	BOVSA-WHETSTONE	NA		INT	2	77	0978				131
356	COLUMBIA CITY	002071		INT	2	23	0278				132
574	WESTSIDE SD-K FALLS		32	STP,INT	2	80	1277				133
574	WESTSIDE SD-K FALLS		32	STP,INT	3	850	0778				133
541	SISTERS		33	STP,INT	2	57	1177				134
541	SISTERS		33	STP,INT	3	562	0878				134
542	CARMEL-FOULWEATHER	NA	43	STP,INT	2	113	1077				135
542	CARMEL-FOULWEATHER	NA	43	STP,INT	3	1238	0778				135
449	FALLS CITY			STP,INT	1	12	0178				136
449	FALLS CITY			STP,INT	2	52	0878				136
572	THE DALLES-FOLEY	NA	63	INT	2	22	0278				137
572	THE DALLES-FOLEY	NA	63	INT	3	110	0978				137
577	HOOD RIVER WESTSIDE	NA	63	INT	2	15	0378				138
577	HOOD RIVER WESTSIDE	NA	63	INT	3	122	0978				138

PROJECT NO.	PROJECT	NPDES NO.	ENGR. CODE	PROJECT DESCR.	STEP	ESTIMATED PROJECT COST (1,000)	TARGET CERT.	(MO/FY) ACTUAL CERT.	(MO/FY)	COMMENT	PRIORITY NO.
525	NORTH PLAINS	NA		INT	1	15	1177				139
522	NORTH PLAINS	NA		INT	2	45	0878				139
627	BROOKS	NA		STP, INT	1	16	0478				140
469	MODOC POINT			STP, INT	1	12	1177				142
469	MODOC POINT			STP, INT	2	38	0778				142
546	CRESCENT		11	STP, INT	1	12	1077				143
546	CRESCENT		11	STP, INT	2	42	0578				143
580	LEYINGTON	NA	63	STP, INT	2	44	0278				144
580	LEYINGTON	NA	63	STP, INT	3	380	0878				144
631	VERNONIA	102256	43	STP, IMP	1	16	0278				145
631	VERNONIA	102256	43	STP, IMP	2	22	0978				145
598	OAK LODGE SD	002614	56	STP, IMP	1	132	0978				147
598	OAK LODGE SD	002614		STP, IMP	2	132	0978				147
62	PORTLAND-LINNTON	NA		INT	1	17	0178				148
621	PORTLAND-LINNTON	NA		INT	2	49	0878				148
582	IRRIGON	NA	67	STP, INT	2	30	0273				149
470	COBURG		14	STP, INT	1	22	0378				150
470	COBURG		14	STP, INT	2	91	0978				150
613	USA-REEDSVILLE TR	NA		INT	2	95	0178				151
613	USA-REEDSVILLE TR	NA		INT	3	495	0778				151
610	USA-SUNSET TRUNK	NA		INT	2	44	1177				152
610	USA-SUNSET TRUNK	NA		INT	3	352	0578				152
477	DETROIT			STP, INT	1	16	0478				153
477	DETROIT			STP, INT	2	58	0978				153
562	IMBLER	NA	67	STP, INT	2	31	1277				155
562	IMBLER	NA	67	STP, INT	3	362	0578				155
5	POWERS	002693	33	STP, IMP	1	4	0178				156

PROJECT NO.	PROJECT	NPDES NO.	ENGR. CODE	PROJECT DESCR.	STEP	ESTIMATED PROJECT COST (1,000)	TARGET CERT.	(MO/FY) ACTUAL CERT. (MO/FY)	COMMENT	PRIORITY NO.
552	POWERS	002693	33	STP IMP	2	13	0778			156
521	DUNES CITY	NA		STP,INT	1	14	0578			157
522	MEDEORA	002626		STP FXP	1	82	0278			158
503	FLMIRA	NA		INT	1	8	0178			159
503	FLMIRA	NA		INT	2	19	0778			159
614	ARLINGTON	002019	67	STP FXP	2	25	0478			160
622	MILCO-INVERNESS	002627		STP FXP	1	35	0378			161
468	SCOTTS MILLS			STP,INT	1	16	0378			162
468	SCOTTS MILLS			STP,INT	2	58	0978			162
535	CANBY	NA	60	INT	1	11	0478			163
460	ALBANY-NORTHEAST	NA		INT	1	20	0278			164
459	CORVALLIS MORTLE PK	NA		INT	1	15	0378			165
620	LOSTINE	NA		STP,INT	1	10	0178			167
601	WALLOWA LAKE SA	NA		STP,INT	1	10	0278			168
629	DRAIN	102964		STP IMP	1	10	1277			169
629	DRAIN	102964		STP IMP	2	32	0978			169
597	VONCALLA	002245	07	STP IMP	1	12	1177			170
597	VONCALLA	002245	07	STP IMP	2	50	0778			170
563	ROSEBURG-LOOKINGGL	NA		INT	1	12	1077			171
563	ROSEBURG-LOOKINGGL	NA		INT	2	27	0578			171
553	RANDON-JOHNSON	NA	33	INT	2	21	1077			172
553	RANDON-JOHNSON	NA	33	INT	3	180	0578			172
596	WARRENTON	002087		STP IMP	1	22	0978			173
602	NEFKOWIN	NA		STP,INT	1	18	1277			174
602	NEFKOWIN	NA		STP,INT	2	92	0878			174
578	TROUTDALE	002052	38	INT,FXP	2	280	0178			175
623	GRESHAM	002613	56	STP IMP	1	53	1077			76

NO.	PROJECT	NPDES NO.	ENGR. CODE	PROJECT DESCR.	STEP	ESTIMATED PROJECT COST (1,000)	TARGET CERT.	(MO/FY)	ACTUAL CERT.	(MO/FY)	COMMENT	PRIORITY NO.
623	GRESHAM	002613	56	STP, IMP	2	80	0878					176
526	LADINE	NA		STP, INT	1	12	1277					177
526	LADINE	NA		STP, INT	2	55	0878					177
644	ODELL CD	NA		STP, IMP	1	10	0978					179
521	CASCADE LOCKS	NA		INT	1	9	0378					180
465	GRESHAM-LINNEMAN	NA	56	INT	2	157	0178					181
551	SANDY	NA	05	INT	1	8	0378					182
551	SANDY	NA	05	INT	2	23	0978					182

STATE OF OREGON  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
EXTENDED PRIORITY LIST FY'79 AND BEYOND  
AUGUST 26, 1977

PROJECT NO.	PROJECT	NPDES NO.	ENGR. CODE	PROJECT DESCR.	STEP	ESTIMATED PROJECT COST (1,000)	TARGET CERT.	(MO/FY) ACTUAL CERT.	(MO/FY)	COMMENT	PRIOR NO.
355	CORVALLIS-AMENDED	002636	06	STP IMP	3	6000	1078			INCR	1
486-02	BEND PHASE 1R	NA	56	SYSTEM	3	18000	0479			INCR	16
624	EUGENE-METRO	NA	14	STP, INT	3	36000	1178			TO BE PHASE	25
557	PORTLAND-SLUDGE	002690	FA	STP IMP	2	236	1078			PHASE 2	33
557	PORTLAND-SLUDGE	002690	FA	STP IMP	3	5400	0779			PHASE 2	33
444	TERRERONNE	NA		SYSTEM	3	880	0379				46
467	SILVERTON	002065	36	STP, COLL	3	650	1078				50
627	MEDFORD-FOOTHILLS	NA		INT, COLL	3	270	0279				51
403	TRI CITY SD	NA	56	STP, INT	3	9865	0479				52
646	SALEM	002640		STP IMP	2	513	1278				53
646	SALEM	002640		STP IMP	3	2908	0879				53
512	COTTAGE GROVE	002055	47	STP IMP	3	1845	1078				54
628	COOS BAY #1	002357		STP IMP	3	1403	0379				56
616	ROSEBURG SEWER REHAB	002258	14	STP, IMP	3	4000	1079			PHASED	57
445	DONALD	NA	09	STP, INT	3	384	0179				59
526	CLACKAMAS CO-RHODO	NA	56	STP IMP	3	1336	0179				63
634	USA-DURHAM SLUDGE	002760		STP IMP	2	288	0679				67
634	USA-DURHAM SLUDGE	002760		STP IMP	3	2112	0380				67
604	CLACK CO-KELLOGG SL	002622	16	STP IMP	3	635	0379				68
615	CARLTON	002054	84	STP IMP	3	465	1078				73
430	DAYTON	002363	84	STP IMP	3	356	1178				74
516	KLAMATH FALLS REGION	002630	33	STP	3	6050	0279				76
514	OKRIDGE	002231	47	STP IMP	3	585	1178				80
573	LOWELL	002004	47	STP IMP	3	963	1278				81
504	ESTACADA	002057	16	STP IMP	2	80	0479				82
504	ESTACADA	002057	16	STP IMP	3	715	0380				82
502	DALLAS	002073	14	STP IMP	3	312	0479				83

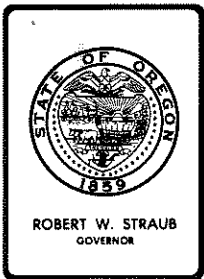


PROJECT NO.	PROJECT	NPDES NO.	ENGR. CODE	PROJECT DESCR.	STEP	ESTIMATED PROJECT COST (1,000)	TARGET CERT.	(MO/FY)	ACTUAL CERT.	(MO/FY)	COMMENT	PRIORITY NO.
60	PHILOMATH	002050	14	STP IMP	3	384	0379					86
503	SEASIDE	002040	56	STP IMP	3	2440	0279					87
511	CANNON BEACH	002022	16	STP IMP	3	913	1078					93
459	CORVALLIS AIRPORT	002250	43	STP	3	398	0279					95
496	JUNCTION CITY	002656	09	STP IMP	3	272	0579					96
588	MT ANGEL	002876	84	STP IMP	3	330	1278					97
513	CRESWELL	002754	40	STP IMP	3	495	0179					98
643	HUBBARD	102059		STP,INT	3	583	0479					100
595	HALSEY	002239		STP IMP	3	355	0679					101
617	OAKLAND	002049	47	STP IMP	3	330	1078					104
618	NEWPORT	002257		STP IMP	2	80	0479					105
618	NEWPORT	002257		STP IMP	3	630	0180					105
529	STHELENS	002083	86	STP,INT	3	1223	1278					106
60	HEPPNER	102077	01	STP IMP	3	600	0579					109
625	ATHENA	102281	01	STP IMP	3	362	0579					110
473	DUEHR	002905	63	STP IMP	3	113	0279					111
589	MILTON-FREEWATER	002278	16	STP IMP	2	258	1078					115
589	MILTON-FREEWATER	002278	16	STP IMP	3	2800	0979					115
521	N ALBANY SD	NA	09	INT	3	1233	0179					116
447	MILL CITY	NA	33	STP,INT	3	709	0279					118
641	GEARHART	NA		STP	2	80	0679					119
641	GEARHART	NA		STP	3	632	0480					119
636	ET STEVENS STATE PK	NA		INT	2	28	1278					122
636	ET STEVENS STATE PK	NA		INT	3	225	0779					122
442	MAPLETON	NA	72	STP,INT	2	69	1178					123
442	MAPLETON	NA	72	STP,INT	3	550	0879					123
60	COVE ORCHARD	NA		STP,INT	3	362	0479					125

NO.	PROJECT	NPDES NO.	ENGR. CODE	PROJECT DESCR.	STEP	ESTIMATED PROJECT COST (1,000)	TARGET CERT.	(MO/FY)	ACTUAL CERT.	(MO/FY)	COMMENT	PRIORITY NO.
443	TURNER	NA	09	STP, INT	3	568	0179					127
642	GRANDE RONDE	NA		STP, INT	2	31	0779					127
642	GRANDE RONDE	NA		STP, INT	3	362	0280					130
456	MERLIN-COLONIAL VAL	NA	40	STP, INT	1	24	1078					130
456	MERLIN-COLONIAL VAL	NA	40	STP, INT	2	91	0579					130
456	MERLIN-COLONIAL VAL	NA	40	STP, INT	3	709	0180					130
607	RCVSA-WHETSTONE	NA		INT	3	550	0479					131
356	COLUMBIA CITY	002071		INT	3	220	1278					132
449	FALLS CITY			STP, INT	3	454	0579					136
522	NORTH PLAINS	NA		INT	3	380	0479					139
637	BROOKS	NA		STP, INT	2	31	0279					140
637	BROOKS	NA		STP, INT	3	362	1279					140
560	ROSEBURG-RIFLE RNG	NA		INT	1	9	1178					141
560	ROSEBURG-RIFLE RNG	NA		INT	2	25	0779					141
560	ROSEBURG-RIFLE RNG	NA		INT	3	110	0480					141
469	MODOC POINT			STP, INT	3	364	0179					142
546	CRESCENT		11	STP, INT	3	400	0279					143
531	VERNONIA	102256	43	STP IMP	3	294	0479					145
549	HILLSBORO-WESTSIDE	002334		STP AUTO	1	16	1078					146
549	HILLSBORO-WESTSIDE	002334		STP AUTO	2	45	0479					146
549	HILLSBORO-WESTSIDE	002334		STP AUTO	3	332	0180					146
598	OAK LODGE SD	002614		STP IMP	3	1050	0579					147
621	PORTLAND-LINNTON	NA		INT	3	330	0379					148
582	IPRIGON	NA	67	STP, INT	3	362	1278					149
470	CORBURG		14	STP, INT	3	710	0479					150
477	DETROIT			STP, INT	3	451	0279					151
529	BIGGS JCT	NA		INT	1	12	1178					154

PROJECT NO.	PROJECT	NPDES NO.	ENGR. CODE	PROJECT DESCR.	STEP	ESTIMATED PROJECT COST (\$1,000)	TARGET CERT.	(MO/FY)	ACTUAL CERT.	(MO/FY)	COMMENT	PRIORITY NO.
520	RIGGS ICT	NA		INT	2	32	0579					154
520	RIGGS ICT	NA		INT	3	265	1280					154
552	POWERS	002693	33	STP IMP	3	106	0179					156
531	DUNES CITY	NA		STP,INT	2	55	0379					157
531	DUNES CITY	NA		STP,INT	3	500	1079					157
509	MEDEORA	002626		STP FXP	2	440	0679					158
509	MEDEORA	002626		STP FXP	3	4900	0580					158
503	ELMIRA	NA		INT	3	80	0279					159
614	ARLINGTON	002019	67	STP FXP	3	272	0379					160
632	MILCO-INVERNESS	002627		STP FXP	2	198	1278					161
632	MILCO-INVERNESS	002627		STP FXP	3	1403	0879					161
468	SCOTTS MILLS			STP,INT	3	451	0679					162
535	CANBY	NA	60	INT	2	25	0379					163
5	CANBY	NA	60	INT	3	156	0879					163
460	ALBANY-NORTHEAST	NA		INT	2	115	1078					164
460	ALBANY-NORTHEAST	NA		INT	3	1000	0679					164
459	CORVALLIS MOBILE PK	NA		INT	2	35	1178					165
459	CORVALLIS MOBILE PK	NA		INT	3	525	0679					165
471	TANGENT	NA		INT	1	14	0379					166
471	TANGENT	NA		INT	2	55	0879					166
471	TANGENT	NA		INT	3	415	0280					166
630	LOSTINE	NA		STP,INT	2	32	1078					167
630	LOSTINE	NA		STP,INT	3	382	0679					167
601	WALLOWA LAKE SA	NA		STP,INT	2	28	1078					168
601	WALLOWA LAKE SA	NA		STP,INT	3	212	0479					168
629	DRAIN	102964		STP IMP	3	382	0479					169
5	YONCALLA	002245	07	STP IMP	3	400	0379					170

NO.	PROJECT	NPDES NO.	ENGR. CODE	PROJECT DESCR.	STEP	ESTIMATED PROJECT COST (1,000)	TARGET CERT.	(MO/FY) ACTUAL CERT. (MO/FY)	COMMENT	PRIORITY NO.
543	ROSEBURG-LOOKINGGL	NA		INT	3	203	1278			171
596	WARRENTON	002087		STP IMP	2	66	0779			172
596	WARRENTON	002087		STP IMP	3	528	0380			173
602	NEKOWAN	NA		STP, INT	3	1154	0579			174
578	TROUTDALE	002052	38	INT, EXP	3	2345	1078			175
623	GRESHAM	002613	56	STP IMP	3	632	0579			176
526	LAPINE	NA		STP, INT	3	415	0579			177
543	RAY TO RAY SD	NA	43	STP, INT	2	207	1279			178
543	RAY TO RAY SD		43	STP, INT	3	1980	0880			178
644	ODELL SD	NA		STP IMP	2	29	0879			179
644	ODELL SD	NA		STP IMP	3	243	0680			179
591	CASCADE LOCKS	NA		INT	2	17	1178			180
591	CASCADE LOCKS	NA		INT	3	110	0579			180
445	GRESHAM-LINBIEMAN	NA	56	INT	3	1061	1178			181
551	SANDY	NA	05	INT	3	177	0379			181



## *Environmental Quality Commission*

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item K, September 23, 1977, EQC Meeting

Sulfur Content of Fuels - Adoption of Policy

### Background

At the July 29, 1977 Environmental Quality Commission (EQC) meeting, the Department recommended that the Sulfur Content of Fuels Rule (OAR 340-22) be amended as follows:

1. Add a policy statement to encourage the supply and use of the cleanest fuel oils available in the Portland Air Quality Maintenance Area (AQMA).
2. Delete requirements for use of residual fuel oil containing a maximum 0.5% sulfur content in Multnomah, Clackamas, Washington, and Columbia Counties after January 1, 1979 [delete OAR 340-22-010(3) and (4)].

A detailed staff report which discussed the relevant issues was presented at the July 29, 1977 hearing (Agenda Item F). At that meeting, the EQC acted to delete OAR 340-22-010(3) and (4), thus keeping the sulfur content of residual oil for the four-county area at the same 1.75% limit which applies throughout the rest of the State.

The EQC declined to adopt the policy statement proposed at the July 29th EQC meeting, and requested that the Department draft a stronger policy statement. The EQC requested that the policy statement be modified so as to 1) state more specifically why the EQC is encouraging the use of lower sulfur fuel oils in the Portland AQMA, and 2) specify a timetable for the development of new control strategies that could include new low sulfur fuel rules. The EQC expressed a desire to let oil users and suppliers know that combustion of high sulfur residual oil is still considered to be a significant pollution problem, and that future air quality attainment and maintenance strategies are likely to focus on residual oil.



Contains  
Recycled

### Evaluation

In response to the Commission's request, the Department has prepared such a policy statement (Attachment A). Section (1) of this policy statement delineates why the Department believes a more stringent sulfur content regulation will be needed for the Portland AQMA in the future. Section (2) specifies the schedule for the planning process for the Portland AQMA, indicating when such more stringent sulfur content regulations might be adopted. Section (3) encourages users and suppliers in the Portland AQMA to seek the cleanest fuel oils practicably available, and Section (4) directs the Department to monitor the progress of oil suppliers in securing the cleanest fuel oil supplies available.

This policy statement would clarify the Commission's position regarding future low sulfur content regulations for the Portland AQMA, and would encourage users and suppliers to seek the cleanest fuel oils practicably available. Following its adoption, it would be circulated by the Department to a wide variety of users and suppliers, and other interested parties.

### Summation

1. Presently available evidence indicates that residual fuel oil combustion has a significant adverse air quality impact in the Portland AQMA and that this impact would be correspondingly increased or decreased by an increase or decrease in the sulfur content of the fuel oil used in the area.
2. The Commission desires to establish a policy statement which will encourage the supply of low sulfur fuel oil to the area within the shortest time practicable and which will make suppliers and users aware of the established time schedule for development of new standards attainment/maintenance strategies that could include new more stringent sulfur content of residual fuel rules.
3. Adoption and distribution by the Department of such policy statement would ensure maximum awareness by affected parties.

### Director's Recommendation

It is the Director's recommendation that a policy statement be adopted (see Attachment A) regarding the Environmental Quality Commission's position on more stringent sulfur content of fuel oil regulations for the Portland AQMA.

Since the proposed policy statement is not an administrative rule, no specific statutory authority is necessary for the EQC to adopt the policy statement.



WILLIAM H. YOUNG

William T. Greene;sw  
(503) 229-6087  
9-6-77

Attachment: A - Proposed Policy Statement Concerning the  
Sulfur Content of Residual Oil

ATTACHMENT A

STATEMENT OF POLICY OF THE ENVIRONMENTAL QUALITY COMMISSION  
CONCERNING SULFUR CONTENT OF RESIDUAL FUEL OIL

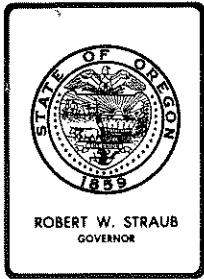
The following statement of general policy is set forth to guide both users and suppliers of residual fuel oil in the Portland Air Quality Maintenance Area (AQMA) regarding the Environmental Quality Commission's (EQC) position on more stringent sulfur content regulations for the Portland AQMA.

- (1) A future need for low sulfur residual oil in the Portland AQMA is highly probable considering:
  - a) Present evidence which indicates that residual oil combustion has a significant adverse air quality impact in the Portland AQMA.
  - b) Potential increases in the use of high sulfur residual oil in the Portland AQMA because of the projected West Coast oversupply of high sulfur oil.
  - c) The need to develop a new particulate attainment/maintenance strategy for the Portland AQMA.
  - d) The likely adoption of sulfate ambient air quality standards by the U. S. Environmental Protection Agency during the early 1980's.
  - e) The need for future emission trade-offs in the Portland AQMA to allow for continued industrial growth.
  
- (2) So that interested parties may know when such more stringent sulfur content regulations may be adopted, the following schedule is presented for the process of revising the State Implementation Plan for the Portland AQMA.
  - a) A Draft Plan for new particulate and sulfur dioxide control strategies for the Portland AQMA to be established by January 1979.
  - b) Public hearings on the Draft Plan to begin by April 1979.
  - c) Revisions to the State Implementation Plan for the Portland AQMA to be adopted by July 1979.
  
- (3) In consideration of the adverse air quality impact of residual oil combustion, it is the policy of the Environmental Quality Commission to encourage the supply and use of the cleanest fuel oils practicably

available in the Portland AQMA, and to encourage oil suppliers to develop new supplies of cleaner fuel oils to this area in the shortest time practicable and in consideration of the timetable set forth in (2) above.

- (4) The Department is directed to monitor and report to the Commission on a semiannual basis, beginning in January 1978, the progress of oil suppliers in securing the cleanest oil supplies available.





## *Environmental Quality Commission*

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission  
From: Director  
Subject: Agenda Item L, September 23, 1977, EQC Meeting

Staff Report - Consideration of Adoption of Revisions to  
OAR Chapter 340, Section 35-025 Pertaining to Noise Control  
Regulations for the Sale of New Snowmobiles

### Background

Oregon Revised Statutes, Chapter 467, directs the Environmental Quality Commission to establish maximum permissible noise emission levels for various noise source categories. In 1974, the Commission set such levels for newly manufactured snowmobiles.

This regulation, which was set forth in OAR 340-35-025, required manufacturers of snowmobiles to certify that, as a precondition to sale in Oregon, their vehicles not exceed a specified noise level. The levels established in that regulation were 82 dBA for 1975 models, 78 dBA for 1976 through 1978 models, and 75 dBA for 1979 and subsequent models. At the time of adoption in 1974, these levels were accepted by the snowmobile industry as being achievable. Also during this time, at least six other states adopted standards dropping as low as 73 dBA by 1978, 2 dBA more stringent than Oregon's final standard.

Recently, however, a petition for rule amendment has been received from the Oregon State Snowmobile Association (OSSA). This petition, received on March 23, 1977, asks that the 75 dBA standard scheduled to take effect in 1979 for that and subsequent model year snowmobiles be deleted, and that the present 78 dBA standard be continued on a permanent basis.

The petition offered the following justifications for this request:

1. The present 78 dBA standard is sufficiently quiet to prevent environmental noise problems from exceeding negligible levels.
2. For technical and economic reasons, not all snowmobiles can be produced to meet an emission standard below 78 dBA. Thus, many models would not be available in Oregon, and dealers would suffer economic hardship caused by a resulting loss of sales.



Contains  
Recycled

2.

3. Older snowmobiles, which are primarily responsible for the problems of excessive noise, will eventually deteriorate and decrease in population, thus leaving only quieter 78 dBA models in operation.

After Commission approval, public hearings to consider the OSSA petition were held in Portland on June 16 and Bend on June 17. The Portland hearing allowed easy access for snowmobile industry representatives, while the Bend hearing was scheduled in order to allow additional testimony from snowmobile user groups and other members of the public.

### Evaluation of Testimony

#### 1. Industry Testimony

Testimony was received from six of the eight manufacturers that sell snowmobiles in Oregon. Also testifying was a representative from the International Snowmobile Industry Association (ISIA), which represents seven of the eight manufacturers.

All but one of the manufacturers testified that they either would not be able to meet, or would not attempt to meet, a 75 dBA standard. The remaining manufacturer stated that if the 75 dBA standard was implemented, they "would then have to decide whether to abandon the Oregon market or try to make a model(s) which conformed . . .".

One manufacturer noted that a 5 dBA reduction in engine noise would be necessary to meet the 75 dBA standard. They also stated that despite the high research costs involved in developing quieter engines, they are "working on solving this problem for future generations of snowmobiles." However, they concluded that "for the present, the state-of-the-art does not allow (them) to meet the 75 dBA noise regulation . . . and produce a snowmobile that will sell."

The ISIA representative noted that Oregon commands only one-half of one percent (.5%) of the national snowmobile market. In 1976, this amounted to sales of about 1,000 new snowmobiles. He estimated the overall snowmobile population in Oregon to be about 6,000 vehicles. Of the 6,000, approximately 2,000 were sold as meeting the 78 dBA standard, while the others range between 102 dBA for older models and 82 dBA for 1975 models.

The lifetime of a "typical" snowmobile was estimated by industry to be about seven or eight years. Although snowmobiles were probably not designed to last this long, users are keeping them longer before replacement due to increased initial cost.

One manufacturer noted that its most popular model had increased in cost from \$1250 for the 1972 model to \$1900 for the 1977 model. In general, new snowmobiles can be purchased for prices of just under \$1000 to approximately \$3000.

The industry association (ISIA) submitted a copy of a doctoral thesis which studied the characteristics of noise emissions, noise propagation and the resulting environmental impact of noise caused by snowmobile operations. The author noted in his conclusion that a reduction in snowmobile noise levels to 75 dBA, as measured by the SAE J192(a) test procedure (the same procedure Oregon's standard is based upon), should be seriously considered.

He also discussed some aspects of the "numbers game" that are involved in legislating a numerical dBA standard that results in the actual average sound level of all vehicles complying with it being near the desired 75 dBA goal. He noted that, because of the 2 dBA tolerance traditionally allowed above the legislated level by most agencies, including DEQ, the average sound level of all vehicles taken together would be slightly higher than the legislated level. For example, the ISIA representative submitted data which indicated that because manufacturers certify some of their vehicles using the 2 dBA tolerance, the actual volume weighted average sound level for vehicles available in Oregon in 1977 was 78.1 dBA, slightly higher than the legislated level of 78 dBA. Therefore, the author concluded, because of the 2 dBA tolerance, Oregon's legislated level of 75 dBA would actually result in an average level for all complying vehicles slightly higher than 75 dBA.

The author then examined the relationship of "legislated level" to actual average level, with the 2 dBA tolerance eliminated. He referred to this approach--elimination of any tolerance--as "strict enforcement." He predicted that if the 2 dBA tolerance were not available, the average levels of all vehicles taken together would fall somewhere below the legislated level. Therefore, he

concluded that a strictly enforced legislative standard of 78 dBA--i.e., no tolerance allowed--would result in actual levels not only below 78 dBA, but similar to those that would be achieved with a traditional legislated standard of 75 dBA--i.e., with the 2 dBA tolerance available.

The ISIA representative presenting this thesis in his testimony apparently misinterpreted the meaning of the term "strict enforcement" as used by the author. Staff believes that the representative thought the term referred to actual enforcement actions that agencies could take, such as implementing certification programs and the like. He therefore reached the erroneous conclusion that the thesis writer was supporting retention of the same 78 dBA standard that is now in effect in Oregon--i.e., with the 2 dBA tolerance--with more active enforcement measures taken by DEQ. In fact, however, the author was merely comparing two different "legislated" dBA standards and showing that by manipulating the allowable tolerances, they both could result in an overall average sound level of 75 dBA.

## 2. Snowmobile Users' and Dealers' Testimony

Approximately six Oregon snowmobile dealers and many more snowmobile users presented testimony supporting the petition.

As noted, the petitioner stated that the present 78 dBA snowmobile is quiet enough to reduce environmental noise problems to negligible levels. The primary justification advanced for this statement was the lack of complaints related to noise from snowmobile users or other users of the wintertime outdoors.

In Oregon, most snowmobile activity takes place on National Forest land, small portions of BLM land, and other areas of state owned land. It appears that one of the major reasons that conflicts between user groups has lessened is because land use controls in these areas have been imposed. Much testimony was received regarding the benefits of trail and area designations on public lands for exclusive snowmobile use. However, it was noted by several snowmobile users that some conflicts with cross-country skiers did occur this past winter (1976-77) due to limited snow fall caused by the drought.

Most dealers stated that snowmobiles would not be available in Oregon after 1978 if the OSSA petition was denied. The industry's position that they would not build special snowmobiles for the Oregon market evidently had a convincing effect on the dealers.

Most dealers were questioned about the lifetime of older, noisier snowmobiles. They said that because replacement parts were difficult to obtain for older models, when such a model was traded in toward the purchase of a new snowmobile, it would normally be junked to obtain parts. Thus, older models would not be re-sold as used vehicles, resulting in the overall population of these older models quickly decreasing.

No consensus was reached on the average lifetime of a snowmobile. Many thought three to four years was typical. However, variability is great because of differences in individual use. We noted that the industry representative thought seven to eight years was typical.

Much testimony was received from both dealers and users about the riding activities of users. Many people enjoy riding their snowmobiles on packed trails at low speeds (15 to 25 mph) in order to enjoy the scenery. The average user was portrayed as being middle-aged or older, with perhaps small children or grandchildren.

On the other hand, some users enjoy operating at high speeds through unpacked snow in rough terrain. Fifty-foot noise emission levels for current snowmobile models range from approximately 73 dBA at 15 miles per hour to 78 dBA at wide-open-throttle. Thus, the operational mode of the snowmobile is important in determining environmental noise levels. Variability in operator use is expected, with full throttle operation probably more common among younger operators.

A spokesman for a mountain resort testified in support of the petition. His main concern focused on the availability of new snowmobiles to replace the resort's stock of rental machines. He noted that although some customers used to complain about snowmobile noise, since quieter machines were developed, the complaints have stopped. He also noted that resorts cater to cross-country skiers and snow-shoers as well as to snowmobile enthusiasts.

Testimony was sought regarding expected demand for snowmobiles quieter than those presently produced. Several dealers thought that middle age and older people wanted quieter snowmobiles if there was not a loss of too much power. Aside from the environmental noise problem, there is a problem with high noise levels experienced by operators and passengers. It is estimated that 1976 model snowmobiles subject the operator and passengers to noise levels between 95 and 100 dBA. Notwithstanding the potential for possible hearing damage, these levels are probably objectionable to some users.

### 3. Petition Opponents' Testimony

Most of the people opposed to deletion of the 75 dBA standard did not testify at the public hearings. Instead, they submitted written testimony. Comments from this group generally indicated a belief that 75 dBA was a reasonable standard with which manufacturers could comply. It was further noted that if industry was not able to produce all of its models to meet a 75 dBA standard, then only those models that did in fact meet the standard should be available for sale in Oregon.

One person observed that the petition justification to the effect that "For technological and economic reasons, all snowmobiles cannot be produced to emit sound levels below 78 dBA", might mislead many people into believing that no snowmobile could be built to emit levels less than 78 dBA. This person did not believe that this presented an accurate reflection of this situation, and stated that other states should force manufacturers to produce quieter snowmobiles. He also pointed out that although some models did meet the 78 dBA standard, not all of these met it exactly, as some were actually below the regulated limit.

An evaluation of the noise certification data submitted by the largest North America snowmobile manufacturer yielded some interesting results in this regard.

Noise certification levels for twenty 1977 model snowmobiles were examined. Of these, the lowest level was 73.8 dBA and the highest was 79.4 dBA, a level within the 78 dBA standard if the 2 dBA tolerance is added.

Seven of these twenty models, or 35%, were quiet enough to meet the 75 dBA standard for 1979 models, using the 2 dBA tolerance. Sixty-five percent exceeded a strict 78 dBA standard and thus had to fall back on the 2 dBA tolerance in order to be certified.

#### 4. Environmental Protection Agency Testimony

Testimony was offered by a representative from the U.S. Environmental Protection Agency's Region X Office. EPA is presently evaluating snowmobile noise as it approaches a decision in the next few months on whether to set new product noise standards for this source.

Although many of their snowmobile information gathering contracts have not yet been completed, they were able to offer some preliminary assessment information of the subject.

Based upon a proposed regulatory level of 73 dBA and a "not to exceed" level of 76 dBA, the consensus was that such a level would be achievable if a major re-design and engineering effort were undertaken. Increased costs of 1.5% to 6% and an additional weight penalty of 20 pounds could be expected as a result of these modifications.

Although the 1979 Oregon standard is a "regulatory" level of 75 dBA and a "not to exceed" level of 77, the EPA estimates based upon the "not to exceed" level of 76 dBA are comparable.

If, after this study, EPA decides to identify snowmobiles as a major noise source category, it would have to adopt snowmobile noise emission standards. These standards would then be preemptive of any non-identical state or local regulations. Thus, Oregon's standards for new snowmobiles could be preempted in the future by Federal regulations.

#### Discussion

Generally, the snowmobile industry stated that it would not build special models to meet Oregon's 75 dBA standard. They justified this by pointing out that only five states presently have snowmobile standards more stringent than the present 78 dBA standard. Of these, Minnesota, New York, Rhode Island and Connecticut are scheduled to drop to 73 dBA in 1977 and 1978. Oregon will drop to 75 dBA beginning in model year 1979.

The doctoral thesis offered as testimony by the snowmobile industry did not convince the Department that the present 78 dBA standard represented

sufficient progress in snowmobile noise reduction. The thesis recommended that an average acceleration test level of 75 dBA be achieved. Although the thesis concluded that this could be achieved by "strict enforcement" of the 78 dBA standard, this would require the deletion of the 2 dBA tolerance, which was used by at least one manufacturer to certify approximately 65% of its Oregon models.

Snowmobiles certified as meeting the current 78 dBA standard--i.e., those certified with the 2 dBA tolerance available--produce a weighted sound level average, when taken together, of 78.1 dBA. Thus, the regulated limit of 78 dBA with the 2 dBA tolerance in use, produces an overall average slightly above the regulated limit itself. Therefore, in order to achieve an average level of 75 dBA, a regulated limit of 75 dBA with a 2 dBA tolerance would appear to be the appropriate formula to follow.

It should be pointed out, however, that the author of the thesis noted that "the differences in noise impact between populations of 78 dBA and 75 dBA are not sufficiently great that the need for this reduction should be considered to be an urgent one, especially while many noisier snowmobiles remain in use."

Many of the conflicts between user groups of the wintertime outdoors are now being resolved through land use management practices. The snowmobile industry recommends this approach to the problem, and the various groups generally find it acceptable. However, as pressure increases for additional land to be designated as areas for one exclusive use over another, whether it be for snowmobile users or other groups, conflicts will continue to arise. Therefore, a total solution to the problem is not possible based on land management practices alone.

The petitioner stated that replacement of the older generation of noisier snowmobiles with newer, quieter models would eventually eliminate any noise problems that now remain. However, although older, noisier snowmobiles are gradually being replaced by quieter models, the lifetime of these older vehicles is long. Due to increased initial costs, they are often maintained until replacement parts are no longer available.

#### Summation

The petition submitted by the Oregon State Snowmobile Association asking for repeal of the 75 dBA snowmobile standard is based upon the Association's belief that, (a) the present 78 dBA standard provides an adequate level of protection for the environment, (b) the industry will not produce snowmobiles that meet a 75 dBA standard, and (c) older, noisier snowmobiles are decreasing in population, leaving only newer, quieter models in use which do not create an environmental noise problem.

An evaluation of the testimony received from snowmobile manufacturers, dealers, users and those affected by snowmobile noise, as well as an examination of information contained in the Department's files led the staff to reach the following conclusions:



1. The present 78 dBA standard is not adequate to reduce environmental noise caused by snowmobiles to "negligible" levels as claimed by the petitioner. Furthermore, the 75 dBA level, recommended by the industry consultant, can be achieved with a regulatory level of 75 dBA plus a 2 dBA tolerance, but cannot be achieved with the present 78 dBA standard.
2. Land use controls, although helpful, cannot be depended upon to resolve all user group conflicts. Noise controls must also continue to be implemented in order to mitigate this problem. As user pressures increase on available lands, effective buffer areas between groups will no longer be possible.
3. The technical means exist to construct 75 dBA snowmobiles. However, not all makes and models can comply with this standard unless major engineering and redesign efforts are made. Presently, up to 35% of the 1977 models comply with the 75 dBA standard. Therefore, industry could comply with the 75 dBA standard if they were willing to offer only a limited number of their present models for sale in Oregon.
4. Increased costs of between 1.5% and 6% and an additional weight penalty of approximately 20 pounds have been estimated by industry as necessary before snowmobiles could be built to comply with the 75 dBA standard. One manufacturer estimated that a \$250 list price increase would result and that they could therefore not economically justify meeting the standard. However, models which are presently capable of meeting a 75 dBA level would need no changes, and thus would not incur increased weight or cost penalties.
5. Oregon dealers recognize the market for quieter snowmobiles. However, they are concerned that manufacturers will not build new vehicles in compliance with a 75 dBA standard. It is unclear what the effect on new sales would be if only a limited number of models were available, due to non-compliance of many (approximately 65 percent) model types. It is possible that the lack of model choice could discourage some sales.
6. The average lifetime of a snowmobile is estimated by industry to be seven or eight years. Approximately 30 percent of Oregon's present 6000 vehicle snowmobile population meets the current 78 dBA standard. However, the remaining 70 percent emit levels up to 102 dBA.

7. EPA is evaluating snowmobile noise and will be determining whether new product noise emission standards below the present 78 dBA level are necessary. If such a Federal standard is adopted, it would preempt any non-identical state standard.

Director's Recommendation

It is the Director's recommendation that the Commission adopt the following:

1. Deny the Oregon State Snowmobile Association petition asking that new vehicle noise standards for 1979 and subsequent model year snowmobiles, now set at 75 dBA, be amended by maintaining the 78 dBA standard currently in effect for pre-1979 models.
2. Amend the standards for the sale of new snowmobiles, as attached, such that the 75 dBA standard is not effective until the 1981 model year. Thus, at a future time, the Commission could, upon re-petition, re-examine the standard in light of improved noise reduction techniques and changes in Federal regulations.

*Bill*

WILLIAM H. YOUNG

John Hector;dro  
229-5989  
9/2/77

Attachment: 1. Proposed Table A  
New Motor Vehicle Standards

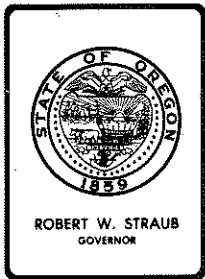
Proposed Amendments

TABLE A

New Motor Vehicle Standards

Moving Test At 50 Feet (15.2 meters)

<u>Vehicle Type</u>	<u>Effective For</u>	<u>Maximum Noise Level, dBA</u>
Motorcycles	1975 Model	86
	1976 Model	83
	1977-1982 Models	81
	1983-1987 Models	78
	Models after 1987	75
Snowmobiles as defined in ORS 481.048	1975 Model	82
	1976-1978 Models	78
	Models after [1978] <u>1980</u>	75
Truck in excess of 10,000 pounds (4536 kg) GVWR	1975 Model	86
	1976-1981 Models or Models manufactured after Jan. 1, 1978 and before Jan. 1, 1982	83
	Models manufactured after Jan. 1, 1982 and before Jan. 1, 1985	80
	Models manufactured after Jan. 1, 1985	(Reserved)
Automobiles, light trucks, and all other road vehicles	1975 Model	83
	1976-1980 Models	80
	Models after 1980	75
Bus as defined under ORS 481.030	1975 Model	86
	1976-1978 Models	83
	Models after 1978	80



## *Environmental Quality Commission*

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 PHONE (503) 229-5696

To: Environmental Quality Commission  
From: Hearing Officer  
Subject: Hearing Report: Petition to Amend Rule Governing Noise  
Emissions from Snowmobiles

### Summary of Procedure

On March 23, 1977 the Oregon State Snowmobile Association (hereinafter, OSSA) petitioned the Commission to amend the rule embraced by Table A of Oregon Administrative Rule 340-35-035 which would require post 1977 snowmobile models to emit no more than 75 decibels on the A scale (dBA) at a distance of 50 feet when operating at wide open throttle. OSSA urged that a .78 dBA standard be retained for both present and future new snowmobiles.

Pursuant to the Commission's authorization of April 22, 1977 three public hearings were held, one in Portland and two in Bend. Approximately 30 witnesses appeared. Few opposed the amendment despite specific efforts to elicit testimony from cross country skiers whose use of the countryside in winter has found them seeking an atmosphere somewhat disparate to that sought by the snowmobiler. The first Portland hearing occurred on June 16 with the Bend hearings following on the afternoon and evening of June 17.

Attached are the OSSA Petition (A); a list of witnesses and their affiliation (B); the testimony of the International Snowmobile Industry Association (C); the testimony of the six manufacturers who participated (D); a copy of the Wisconsin regulation embraced by the International Snowmobile Industry Association (E); a copy of the Snowmobile Safety Certification Committee's sound test criteria (F); and the Statement of EPA's Region X (G).

### Summary of Testimony

This summary will be somewhat cursory insofar as the staff recommendation is to postpone the 75 dBA standard and to give snowmobilers and those who hear snowmobilers a later opportunity to revisit the issues at hand in the light of such technology and listening experience as the future may bring.

1. The sale of new snowmobiles to Oregon buyers constitutes only 0.5 percent of the total market, a market which most, if not all, snowmobile makers will abandon before investing the moneys necessary to manufacture a more expensive, less maneuverable, less climatically versatile, and less salable vehicle for the sole purpose of serving Oregonian buyers in their need to comply with environmental regulations more stringent than other jurisdictions.



Contains  
Recycled

2. As the population of older snowmobiles is replaced by the current vehicles whose ability to pass the 78 dBA test far exceeds the capabilities of the earlier models, the aggregate noise-caused annoyance to the general public will be reduced even below the greatly diminished level now evidenced by drastically reduced complaints.
3. Manufacturers have made Promethian reductions in sound levels of snowmobiles at a competitive rate which has left their numbers greatly reduced, left the survivors suffering uncertainty, and left the equities of the noise issue weighing in favor of a breathing space in the strategy of forced technology.
4. The percentage of Oregon families who enjoy snowmobiling has risen with the increase in the realization that snowmobiling with modern, quiet, more versatile machines lends itself to passive recreation for the old and the young as well as the young adult.
5. Retention of the present (75 dBA) requirement would prolong the use of older, louder machines, put dealers out of business in Oregon, leave Oregonians free to import louder machines from out-of-state, and have a generally adverse impact on the noise environment, the economy, and the quality of life enjoyed by those who go snowmobiling.
6. While no statistics are available, it is probable that most of the greatly diminished complaints about snowmobiles are either noise related and addressed to older, extremely noisy machines or use related in that some users of the winter wilderness would find even an absolutely silent snowmobile offensive.
7. The majority of snowmobilers have come to realize that they must resolve noise conflicts and other conflicts by reasoned use designation of recreational lands and other agreements of protocol and this majority has and will continue to resolve differences at an amicable, non-regulatory level.
8. The issue is basically to be solved by use agreements and firm enforcement of them. The snowmobiler has come to that he is not entitled to take his machine into all areas.
9. Use of wilderness areas by snowmobiling "outlaws" is as anathematic to the organized snowmobiler as it is to the cross country skier and has been the subject of an attempt by the snowmobilers themselves toward increased enforcement of regulations with the use of funds from snowmobile registration.
10. Users of snowmobiles prefer to ride the quieter models, providing a strong marketing incentive to the industry to try hard in the area of sound reduction.
11. Today's new snowmobile, even to its rider, is quieter than many common noise sources such as blenders, electric shavers, outboard motors, etc. The snowmobile is a source of family visitation to wild recreational areas which should not be singled out for regulation more strict than other common sources must meet.

Specifics of Testimony

A fair review of testimony requires focus on the following particulars:

Snowmobiles contribute from two to two and a half million dollars to the economy of LaGrande. Lawrence W. Hermann.

In 1967, Diamond Lake purchased its first snowmobile. Today, a 250,000 dollar investment results in the resort's staying open all winter, providing guided tours on snowmobiles which avoid their misuse and give older persons access to the wilds, employing a full time crew of thirty people, and often exceeding 600,000 in gross receipts. To require a noise reduction in new models which would prohibit their sale would greatly impair the Diamond Lake Resort, forcing it to close again in the winters. It would also be a disservice to the 67,800 winter visitors to the area who use snowmobiles. Steve Koch.

It is unfair that snowmobiles, used in areas much less congested than power boats, are required to be twice as quiet as the boats (which may emit 84 dBA at 50 feet.) Darrell Ferns and Don Stonehill.

The industry agreed with the 73 dBA standard for new models in 1974 and should abide by it now. Even further noise reduction is warranted to protect the back country from intrusive noise. Snowmobilers are working in the wrong direction in asking the Commission to relax standards. They should ask the manufacturers to meet the standards. Gary Shaff.

Intent to purchase a snowmobile in the near future is predicated only on the option to purchase a quiet one that will not intrude on the rights of others and will not cause upset to wildlife. The dealers face no economic hardship. The manufacturers should be complaining if anyone is. The petitioners are neither the dealers nor the manufacturers but probably a group of heavy-footed riders. Vencel Hamsik.

If only some models can meet the standard, a claim that is not proven, then let only those that do meet the standard be sold in Oregon. Economic hardship is not limited to dealers and manufacturers. Those who go to the back country to be refreshed for return to their jobs suffer economic hardship when the quiet is disrupted. The petitioners should be more specific about the future date when we may expect the older, noisier population of vehicles to have been replaced. Respect of others for snowmobile enthusiasts should be returned in kind. We are all in this together. Carl Anderson.

New models get quieter every year due to buyer demand alone. The unorganized users do most of the complaining, both among snowmobilers and among cross country skiers. Regardless of how quiet the snowmobile becomes, its presence, just like the presence of other cross country skiers, will always offend some cross country skiers and hikers. 45% of all the moneys spent registering snowmobiles is dedicated to enforcement activities to keep the vehicles out of unpermitted areas and to grooming trails. Some snowmobilers have not been satisfied with the enforcement efforts of the State and are hoping to get the money made available to local authorities. Frank Ellis.

While there may be room for vigorous debate as to how much land should be set aside for different uses, it is clear that the ultimate answer is one of setting aside certain lands for certain uses, some for the use of snowmobiles on well planned, well groomed trails.

A total of 26 million dollars has been paid by the owners of 240 thousand machines in reducing sound from 84 to 78 dBA.

An average of all machines being sold now would yield 78.1 dBA under the wide open throttle and 70.4 at fifteen miles per hour. What few tests are available from other jurisdictions indicate that snowmobiles are operated at 5% of the time at wide open throttle. The EPA study has shown indication that the total sound contributed by snowmobiles to the universe of sounds has been reduced by two thirds over a ten year period. Of the six states requiring future snowmobiles to emit no more than 75 (or less) dBA, Montana is legislatively expected to relax its standard; Minnesota recently held hearings for the same purpose; Rhode Island (having about 70 machines) has expressed intent to do so; Connecticut has expressed intent toward relaxation; New York has relaxed its standard; and Oregon considers doing so by entertaining the current petition. Minnesota has some 312 thousand registered snowmobiles and probably 400 thousand in operation. It constitutes 6% of the new snowmobile market. Like Oregon, Minnesota was told (with more reluctance) that failure to relax its standard would result in industry's withdrawal from the sale of new vehicles in that state. W.T. Jobe

Yamaha's new models currently test at about 77.5 dBA. It should be remembered that one justification for the two dBA tolerance for snowmobiles is that more than with other forms of surface transportation, there is a variance in sound possible due to varying terrains of operation, such as packed snow, soft snow, ice, etc. Russel Jura

One level of impact is simply detection. Based on an ambient level of 40 dBA, a 78 dBA snowmobile can be detected at one half mile away on flat terrain. Yamamoto

The rapidity of the phase out of older, noisier vehicles will be somewhat contingent on the degree to which prices rise for new machines. If noise control requirements force the price of new vehicles up to 23 or 2400 dollars, many will repair their old vehicles and try to get one more year out of them. It is getting increasingly difficult to get parts for '68, '69 and '70 model machines. Many more people find snowmobiles acceptable recreation due to today's quieter, safer machines. L.W. Hermann

The retention of the 75 dBA limit for future snowmobiles will result in the abandonment of Skidoo Vehicles from the market and all the new sales and related sales activities for the B & C dealership will cease. This would amount to about \$50,000 worth of gross business lost to the dealership. Conflict between snowmobilers and others on Mount Hood and in the Mount Hood National Forest area has been largely eliminated. While liquid cooled snowmobiles hold some promise, the cost, 28 to 29 hundred dollars per machine, is generally prohibitive at this point. Sig Raethke

Most of the game animals in Washington and Oregon are out of the snowmobile use areas during the use season because the snow has covered up the animal's food supply. Also, most snowmobile use is above 2500 feet, well away from most homes and populated areas. Snowmobile-impacted areas (where homes suffer 30 or more passes per day) are virtually nonexistent in Oregon due to the use of high country for operation. Oregon operation is probably done about fifty percent on packed trails. Even when operation is on new snow, the new machines, designed for better pulling power at lower RPMs, do not tend to be at wide open throttle as much. Robert Church

From December through April, the Mount Hood Snowmobile Club has scheduled events every other weekend. There are about 60 family memberships. Fifty percent stay over in campers or trailers during the events. The largest event last year showed 142 cars registered at the parking lot. Two cabins are maintained unlocked in the wilds with emergency provisions for the use of anyone in trouble, be he skier, hiker, or snowmobiler. The club has supplied labor to the Lost Creek nature trails for the handicapped, helped the Cerebral Palsey Center to plan further trails, and has an annual cancer fund raising event. What the alternatives to this type of activity would be, in the event the sale of new snowmobiles was discontinued, should be considered by the Commission. Brent Yonker

A great number of the louder machines are machines which have been modified by the users. Also, the use of higher throttle levels in new snow is offset in its sound impact by the fact that the new snow muffles sound better. John Cross.

Even during racing events, noise from snowmobiles is greatly reduced. A school cafeteria or a basketball game will reach noise levels in excess of what is made at a snowmobile race. Patricia Taylor.

Deschutes County enjoys the best snowmobiling areas and weather in the State. Snowmobiling is one of the three large winter sports activities. The OSSA Petition should be granted to insure the continued economic boost snowmobiling gives to Deschutes County. The imposition of a 3 dBA increment splits hairs at the risk of the economy of the County. It also requires a much tighter control than is used to meet the 84 dBA marine motor standard. The power boats are used in more heavily populated areas than is the snowmobile. Basically there is a successful use designation in Deschutes County whereby everything north of the Cascade Lakes Highway belongs to the Cross Country Skier/Hiker and the rest is for snowmobiles, except for Mount Bachelor, Dutchman Flats, and a multiple-use corridor between Dutchman Flats and Sisters. Donald Grubb, Deschutes County Commissioner

Some of the recommendations of an EPA-hired consulting firm were implemented by Scorpion at a cost of \$285 to \$300 per machine in money and a cost of 16 to 20 additional pounds per machine in weight. The reduction in noise was negligible. If Oregon adopts a uniquely severe noise restriction and the manufacturers try to meet it, the entire cost would have to be born by Oregon buyers alone. Scorpion is working on a steady basis to reduce noise and may one day be able to meet tougher standards. The present Scorpion models weigh about 385 lbs. Ed Graves



Most riders do wear some type of ear protection; such as earmuffs, a stocking cap, helmet, etc. So do cross-country skiers, except on extremely warm days. Therefore, a lot of the noise effects are lessened by protective wear. There should be a relaxation in the rules to allow the testing of racing vehicles so that Bend racers will not have to travel 90 miles to the nearest sanctioned track merely for testing. La Moine Grant.

In the designated areas near Diamond Lake, one never meets a cross country skier while riding a snowmobile except on the designated snowmobile trail, which leads to the lodge and which is legitimately for snowmobile use as well as for skier use. Users of the vehicles do not resent the current noise levels of new vehicles. At Diamond Lake, the management cracks down on snowmobile noise that is excessive. Leon Perrault.

Klamath County registers the second largest number of snowmobiles in the State of Oregon. A tape recording was used to demonstrate that there is little difference to the user (or to one nearby) between many appliance-type sounds of today and the snowmobile. These include blenders, razors, drills, tractors, outboard motors, garbage disposals, hairdryers, automobiles, etc. Many appliances are as noisy or more noisy than a snowmobile to the user and the noise of today's snowmobile at operating engine speed when heard sixty feet away is likely to be more quiet than the average sound of automobiles going by on a highway at an equal distance. Snowmobiles usually last between four and seven years. The older, louder models (more than three years old) should be phased out in two or three more years. The imposition of noise restrictions should not be carried to the point of wasting fuel due to a less efficient machine. One of the largest breakthroughs has been the tuned expansion chamber that allows the proper amount of backpressure to reduce noise and still have power. It used to be thought that noise was speed. This has been destroyed as a commonly accepted myth. The newer snowmobiles have a smaller displacement engine. 440 cc is about the largest available. It gives more horsepower than the 800 cc engine of a few years ago. Newer snowmobiles may turn to a liquid cooled design that will allow more noise suppression. It will require more power however, due to the weight.

Bombadier (Skidoo) has come out with a trial snowmobile this past year that is liquid cooled and much quieter. It is more heavy than those of the last few years. This vehicle is priced at \$2795, compared to a \$895 vehicle that can now be purchased new. Nearly all manufacturers are now building liquid cooled engines.

On all night snowmobile search parties for missing skiers or snowmobilers or backpackers, the machines have passed within forty to fifty feet of each other and the riders remained unaware of each other's presence.

On May 26, 1977 there was held a meeting in Klamath County to discuss uses of the backwoods areas. Among those invited were representatives of the Chamber of Commerce Recreation Committee, Winema National Forest managers, the Forest Products Committee, Snowmobilers, The Sierra Club, a downhill ski club, a cross country ski club, the Oregon Fish and Wildlife Commission, The Klamath County Commissioners, the Rocky Point Area Summer Home Association, camping groups, the Isaac Walton League, the small timber operators and the Agriculture Council. At this meeting, there was only one complaint against the use of snowmobiles in that the complainant had heard a snowmo-

bile in the distance some five years ago while he was sitting on a ridge, hunting for elk. The management of the Winema National Forest recognizes the designated use concept as one solution to the problem. The setting aside of certain areas under this concept has made the snowmobiler more sensitive to the needs of others. Dan Eastman, who is the District wildlife biologist in the Klamath Falls area, has conducted numerous studies and has found absolutely no adverse effect on wildlife from snowmobiles.

Most riders in Klamath County do not wish to go into the wilderness areas. There are many unknown dangers, such as precipices, etc. Reading between the lines, it appears that those DEQ personnel present at the hearing favor the retention of the stricter standard. Don Stonehill

It should be noted that many snowmobilers take long trips and use two snowmobiles to provide a margin of safety in case one becomes disabled. It would take all day to hike out of areas that can be reached on a snowmobile in a few minutes. To purchase expensive, liquid cooled snowmobiles in pairs for family use would pose a burden which cannot be met by many families that now can own and maintain two of the less expensive, air cooled machines.

There should be considered the use of a test at less than wide open throttle. Most vehicles are used at wide open throttle rarely. Also, there are many variables, such as wind velocity and type of snow, that may enter into the test results. Finally, the liquid cooled vehicles are too expensive and will not replace air cooled vehicles if the latter are ruled too noisy. The result will be economic depression to the winter recreational industry. Perry Crates

The new air cooled machines are remarkably quiet. DEQ personnel should ride them to get an idea of the degree of improvement. The purchase of one new, quiet one to replace one of two old ones resulted in the purchase of another new one because neither spouse wanted to ride the older, louder vehicle. Ronald Gerhardt

The manufacturers might be bluffing somewhat about their ability to meet the standard. Also, it should be remembered that blenders and other appliances that seem fairly loud are so in part because they are operated inside rooms. The switch to liquid cooled engines should not be taken as an expense that some undergo for noise reduction alone. In such a move, there are other advantages as well. While it may be that designation and enforcement of use restrictions is a good approach to resolving differences between snowmobilers and cross country skiers, it remains true that wherever the two users meet, noise is the principle irritant with which the skier contends. Most of those encountered illegally in the wilderness areas tend to be young adults travelling at wide open throttle (Michigan experience). The statement "All snowmobiles cannot meet the 75 dBA level" should not be read to mean that no snowmobiles can. If jurisdictions such as Rhode Island and Connecticut retain their 73 dBA standard, we will see many models sold in those states which can meet the limit. There is the entire question of possible effects on wildlife which must be considered along with the effect on humans. In choosing standards, it should be remembered that progress stops if there is no incentive and, in this area, the primary incentive is the law. David McClellan

Respectively Submitted,

*Peter W. McSwain*  
Peter W. McSwain

Petition to the  
Oregon Environmental Quality Commission  
on an  
Amendment to Table A, New Motor Vehicle  
Standards, Moving Test at 50 Feet (15.2 Meters)  
Chapter 340, Oregon Administrative Rules

The Oregon State Snowmobile Association (OSSA) hereby petitions that Table A, New Motor Vehicle Standards, Moving Test at 50 Feet (15.2 Meters), OAR 340-35-035 Noise Control Regulations for Industry and Commerce be amended as shown in enclosure 1.

This amendment to Table A, OAR 340-35-035 is submitted so that Oregon's 27,000 snowmobilers will continue to have the opportunities for healthy outdoor winter recreational experiences through snowmobiling. The justification for this proposal is as follows:

- There is no need for further reductions in the maximum noise level limit imposed on snowmobiles. The significant improvements in sound attenuation engineering of snowmobiles over the past three years, which has resulted in new models that emit no more than 78 dB(A) when measured 50 feet from the tested vehicle traveling at wide open throttle, has reduced complaints about snowmobile noise to negligible levels.

At a sound demonstration conducted by United States Testing Company for the benefit of the U. S. Environmental Protection Agency in March 1976 it was revealed that snowmobiles emitting 78 dB(A) at 50 feet with throttle wide open, emitted less than 73 dB(A) at 50 feet at a constant 15 mph, and only 50-55 dB(A) inside a house trailer at the test site 50 feet away when measured at wide open throttle. Inside a regular home the level would be 45-47 dB(A).

Normal conversation at three feet is in the 70 dB(A) range. At 900 feet the level was 34 dB(A) which can be compared to a whisper at 5 feet.

- The manufacturing process for 1979 model year snowmobiles in the U. S., Canada and Japan has already begun. For technological and economic reasons, all snowmobiles cannot be produced to emit sound levels below 78 dB(A). Unless this regulation of the Department of Environmental Quality is changed it will be impossible to buy new model snowmobiles in Oregon after mid-1978. Without new machines to sell, it is unlikely that Oregon snowmobile dealers will continue in the business. Profits from the remaining maintenance activity simply will not sustain continued operation.

Adoption of the proposed amendment will extend into the future the maximum noise limits for new snowmobiles at 78 dB(A), as they have been regulated by Oregon since 1974 effective with the 1976 models. By this act a continuation in the reduction in the total contribution of noise to the Oregon environment will occur as older, noiser models are junked and leave the trails, and as the percentage of quiet 78 dB(A) machines increases. Thus, all Oregonians who are winter recreationists will benefit. To the individual Oregon snowmobiler, adoption of the proposed amendment means that he will not be denied the opportunity to replace his older machine with a new, safer, quiet 78 dB(A) model.

In support of this petition, we submit herewith the statement made by the Snowmobile Safety and Certification Committee, Inc. at the

March 23, 1977, public hearing on proposed revision to noise regulations before the Oregon Environmental Quality Commission (enclosure 2).

The names and addresses of persons known to have a special interest in the rule sought to be amended, in addition to the petitioner, include:

Mr. Darrell Ferns, President  
Oregon State Snowmobile  
Association  
50475 Fremont Highway  
LaPine, Oregon 97739


  
\_\_\_\_\_  
Dr. Kenneth Haevernich  
Route 2 Box 176K  
Lebanon, Oregon 97355  
Petitioner

TABLE A

## New Motor Vehicle Standards

Moving Test At 50 Feet (15.2 meters)

<u>Vehicle Type</u>	<u>Effective For</u>	<u>Maximum Noise Level, dBA</u>
Motorcycles	1975 Model	86
	1976 Model	83
	1977-1982 Models	81
	1983-1987 Models	78
	Models after 1987	75
Snowmobiles as defined in ORS 481.048	1975 Model	82
	(1976-1978 Models) <u>Models after 1976</u>	78
	(Models after 1978 )	(75)
Truck in excess of 10,000 pounds GVWR	1975 Model	86
	1976-1981 Models or Models manufactured after Jan. 1, 1978 and before Jan. 1, 1982	83
	Models manufactured after Jan. 1, 1982 and before Jan. 1, 1985	80
	Models manufactured after Jan. 1, 1985	(Reserved)
Automobiles, light trucks, and all other road vehicles	1975 Model	83
	1976-1980 Models	80
	Models after 1980	75
Bus as defined under ORS 481.030	1975 Model	86
	1976-1978 Models	83
	Models after 1978	80

Witness

Anderson, Carl \*  
 Bertrand, Guy  
 Brandt, Ray  
 Brant, La Moine  
 Church, Robert  
 Crates, Perry  
 Cross, John  
 Ellis, Frank H.  
 Ellis, Gerette  
 Ferns, Darrell  
 Gerhardt, Ronald  
 Graves, Edgar  
 Grubb, Donald T.  
 Haevernick, Kenneth  
 Hermann, Lawrence W.  
 Jura, Russell  
 Koch, Steve  
 Muth, Roy W.  
 Penn, John C.  
 Perreault, Leon A.  
 Peterson, Clinton M.  
 Raethke, Sig  
 Shaff, Gary \*  
 Stonehill, Don  
 Taylor, Patricia J.  
 Uppiano, Armildo \*  
 Waldrip, F.A. \* \*  
 Yamamoto, Deborah \*  
 Younker, Brent  
 Unsigned  
 Unsigned

Affiliation

None indicated (from Troutdale, Oregon)  
 Bombardier LTEE/LTD  
 Western Power Sports, Inc.  
 (Boise, Idaho Snowmobile Distributors)  
 None indicated (from Bend)  
 Mt. Hood Snowmobile Club (from Newberg, Oregon)  
 and petitioners  
 Perry's Motorcycle Service (Bend)  
 John Deere Co.  
 Ellis Alpine House  
 Ellis Alpine House (Bend)  
 Oregon State Snowmobile Association  
 None indicated  
 Scorpion of Bend  
 County Commissioner, Deschutes County  
 Oregon State Snowmobile Association  
 Hermann's Trailer Sales & Rentals, Inc. (LaGrande)  
 Yamaha Motor Corporation, USA  
 Diamond Lake Resort  
 Snowmobile Safety Certification Committee  
 Arctic Enterprises, Inc.  
 High Lakes Sanitation (Diamond Lake Area)  
 Oregon State Snowmobile Association  
 M B Motors, Inc. (Portland)  
 None indicated (from Wasco, Oregon)  
 Stoney's Sports Center (Klamath Falls)  
 Oregon State Snowmobile Racing Association  
 None indicated (from Lostine, Oregon)  
 None indicated  
 EPA's Region X  
 Mt. Hood Snowmobile Club  
 Deere & Company  
 Kawasaki Motors Corp., USA

\* Not supportive of Petition

\*\* Signed up but declined to testify

Add: McClellan, David\*

Former member of Michigan Snowmobile Club

STATEMENT OF THE  
INTERNATIONAL SNOWMOBILE INDUSTRY ASSOCIATION  
PRESENTED TO THE  
ENVIRONMENTAL QUALITY COMMISSION  
JUNE 16, 1977  
PORTLAND, OREGON

In the Matter of a  
Proposed Rules Amendment for  
Decibel Standards for  
New Snowmobiles  
OAR 340-35-035

Ladies and gentlemen, my name is William T. Jobe, Jr. I am the Executive Vice President of the International Snowmobile Industry Association. We appreciate this opportunity to share our views with the Environmental Quality Commission on the subject of the proper regulatory level of new snowmobile sound emissions in Oregon.

Before discussing several aspects of the subject of this hearing, I would like to submit several documents which I ask be made a part of the official record of this hearing. I will be referring to these documents during the course of my statement.

The first document is a copy of a statement presented by the Snowmobile Safety and Certification Committee, Inc. at a sound emission hearing conducted by your Commission on March 29, 1977.

The next document is the doctoral thesis of Andres Soom, May 1976, University of Wisconsin - Madison, entitled "Emission, Propagation and Environmental Impact of Noise from Snowmobiling



Operations."

The next document is an ISIA publication entitled "Who's Who in Snowmobiling, 1977" which lists ISIA members, directors, officers, committees and ISIA public policies. This booklet also contains information about other organizations active in the snowmobiling community.

The next document is the Snowmobile Safety and Certification Committee "Green Book" entitled, "Safety Standards for Snowmobile Product Certification" which contains the current safety standards of the SSCC which are adhered to by the manufacturers of over 90% of the snowmobiles produced for sale in North America. The standards include this sound emission standard on page 11:

"The sound pressure level for snowmobiles manufactured after June 30, 1976, shall not exceed 73 decibels on the 'A' scale (73 dB(A)) at 15m (50 ft.) when measured in accordance with SAE Recommended Practice J1161, 'Operational Sound Level Measurement Procedure for Snow Vehicles'' and, the sound pressure level for snowmobiles manufactured after February 1, 1975, shall not exceed 78 decibels on the 'A' scale (78 dB(A)) at 15m (50 ft) when measured in accordance with SAE Recommended Practice J192a, 'Exterior Sound Level for Snowmobiles' Class I competitive snowmobiles are exempted from this requirement."

The next documents are SAE Recommended Practice J1161 and SAE Recommended Practice J192a, which set forth the test procedures that all SSCC certified snowmobiles must meet in order for the SSCC certification label to be affixed to the snowmobile.

The next document is a copy of the Wisconsin regulation promulgated by the Wisconsin Department of Natural Resources, Chapter NR 6, requiring that all snowmobiles offered for sale in that state be certified by the SSCC or an independent testing laboratory to be

in compliance with Wisconsin's 78 dB(A) sound level limit.

Finally, I offer for the record the brief statements of ISIA's snowmobile manufacturing members which set forth their individual views of the proper level of snowmobile sound regulations in Oregon.

I call your attention to the fact that without any cost to the State of Oregon, its snowmobile sound level regulation is being enforced by the SSCC employment of the United States Testing Company to certify the snowmobiles of manufacturers of over 90% of the snowmobiles produced for sale in North America. On November 21, 1975, Mr. John Hector, Chief, Noise Control Division, Department of Environmental Quality, was notified by letter from the United States Testing Company of the 1976 model year snowmobiles that had been certified to be in compliance with SSCC standards, and therefore Oregon's sound level regulation.

On October 1, 1976, and December 30, 1976, Mr. Hector was notified by letter of the 1977 model year snowmobiles certified by United States Testing Company to be in compliance with SSCC standards, and therefore Oregon's sound level regulation. Copies of all three letters are included for the record.

The Wisconsin regulation which is before you, is submitted for your consideration for use in Oregon. We believe independent enforcement of safety standards, including sound emissions, is very important, not only to snowmobilers, but also to the public at large.

The statement of the SSCC at the March 29, 1977, hearing of this Commission comprehensively sets forth the realities of snowmobile sound regulations in layman's language. The real reason that 78 dB(A), tested per Society of Automotive Engineers procedure J192a, eliminates

citizen complaints and concerns can perhaps be best explained this way. Few people are outdoors in the snow areas of Oregon in places where most snowmobiling occurs. Most are indoors, with their doors and windows closed.

The 78 dB(A) limitation is measured by a sound meter as the snowmobile passes, at a distance of fifty feet, at wide open throttle. If the meter is placed 100 feet away, the sound drops in half to 73 dB(A). At 200 feet away, it drops in half again to 66 dB(A). Every six decibels represent a 50% reduction.

Sound levels are reduced by 27 decibels from the outside to the inside of a house in areas of cold climate, with the windows closed.

Thus, even if a snowmobile passes a house at wide open throttle (which is not typical) at only fifty feet distance from the house (this too is not usual) the sound inside is only 51 dB(A).

If the snowmobile passes at wide open throttle a distance of 100 feet from the house, the sound inside is only 45 dB(A).

If the machine passes fifty feet away at 15 mph, the sound inside is 46 dB(A). If it passes 100 feet away at 15 mph, the sound inside is only 40 dB(A).

The average indoor sound level reported by the U. S. Environmental Protection Agency is 59.4 decibels during the day and 46.9 decibels at night.

The reality is that these machines are not audible at all in such circumstances, even during periods of sleep.

A bench mark for understanding noise is that normal conversation at three feet is 70 dB(A).

All of Canada regulates snowmobile sound emissions at 78 dB(A). All snowbelt states presently accept 78 dB(A) level machines without problems. In March 1977 Montana repealed its requirement that snowmobiles go below 78 dB(A) in the future. Minnesota completed hearings last week on a proposal to extend its present 78 dB(A) regulation indefinitely into the future. The New York legislature is completing action this week on a bill to extend its present 78 dB(A) limit into 1980. Connecticut and Rhode Island have initiated similar action.

The Doctoral Thesis of Andres Soom which you have before you provides some objective insight into the proper approach to snowmobile sound emissions regulation. On page 2 Dr. Soom writes:

"It is the central purpose of this work to develop objective methods for the assessment of snowmobile noise impact which can be used for trail design and for the evaluation of future snowmobile noise legislation."

It is Dr. Soom's view, which seems eminently sound, that a significant part of controlling snowmobile noise impact on man and beast lies in trail design. I will return to this idea in a moment, but first I want to highlight the conclusion reached by Dr. Soom after three years of studying snowmobile sound emissions.

His first conclusion is stated on page 4:

"The following conclusions may be drawn from this work: 1. Legislated snowmobile noise limits should be permitted to remain at the 78 dB(A) level (as per SAE J192a) although strict enforcement of existing standards are required if significant community noise impact is to be avoided."

His succinct explanation of this conclusion, after much data is supplied, is found on page 212:

"It should be pointed out that the recommendation that, on the average, snowmobiles should meet a 75 dB(A) limit, (as per SAE J192a), does not necessarily mean that this should be the legislated level. The desired result might well be achieved by a strict enforcement of the current 78 d B(A) limit. A population of snowmobiles, all measuring 78 d dB(A) or less as per SAE J192a, would most probably result in average levels close to the recommended 75 dB(A) limit. Also, the differences in noise impact between populations of 78 dB(A) and 75 dB(A) are not sufficiently great that the need for this reduction should be considered to be an urgent one, especially while many noisier snowmobiles remain in use."

I have two comments to make about Dr. Soom's findings which I just quoted. First, the means are at hand to strictly enforce the current 78 dB(A) regulation in Oregon. Wisconsin has adopted a regulation that requires independent certification of compliance with its regulated sound level which is 78 dB(A). Such an enforcement tool costs the government nothing.

My second comment on Dr. Soom's findings is that the only way for Oregon to bring the average levels of snowmobile sound emissions down to the 75 dB(A) target recommended by Dr. Soom is to allow Oregonians to replace their older, noisier machines, as needed, with new quiet 78 dB(A) machines. Banning the sale of more noise efficient machines is like cutting off your nose to spite your face.

Now I would like to return to a theme that runs throughout Dr. Soom's thesis. Land managers, trail and area use planners, and community leaders with citizen participation need to plan sensibly where it is appropriate for snowmobiles to operate.

I quote from a statement of Jack P. Maloney, Executive Secretary of MINNTOUR, an organization of twenty-three ski touring

clubs throughout the State of Minnesota, at a May 18, 1976, snowmobile sound level hearing in that state:

"In general, noise is no longer an important cause of conflict between ski tourers and snowmobilers. Yet problems still exist. Why? Not because of snowmobile noise, but because shortsighted recreation land management policies have forced snowmobiles and ski tourers into the same space at the same time . . . More stringent noise emission standards will never make a snowmobile trail a pleasant place to ski or snowshoe . . . But they need not be in conflict. The State of Minnesota has ample public lands. Given intelligent management, they could be equitably zoned into non-motorized and motorized recreation areas. Let snowmobilers have good, safe, ample, well-groomed trails in designated motor zones. And let ski tourers, snowshoers, hikers, have a fair share of public land on which to enjoy their slower, quieter recreation."

Now I call your attention to pages 16-18 of "Who's Who in Snowmobiling, 1977," which is a part of the record, where the snowmobile industry's public policy is set forth. The pertinent portions are:

"Land Use. The International Snowmobile Industry Association advocates and supports programs and policies for the multiple use of lands consistent with the protection of the environment. . .

"Wherever possible, public land use management should provide for maximizing recreational opportunities for all citizens, with environmental safeguards assured.

"Further, the industry believes that regulations should be kept as simple as possible. On vast portions of public lands, snowmobile use can and should be allowed, except in areas specifically marked closed. At the same time, it is recognized that managers of land should always have the prerogative of placing part or all of their land off-limits to various activities from time to time, or of determining the conditions under which their land may be utilized. . .

"Availability of Land Areas. It is recommended that areas in the North American snowbelt which can be

utilized for good snowmobile trails and use facilities without great expenditures of money be made available for such purposes to provide safer and more enjoyable snowmobiling, while minimizing the interruption of other human activities.

"Zones of Use. Those government officials responsible for land management should identify public land areas determined, on the basis of available research, data and other competent scientific evidence, to be unsuitable for unrestricted snowmobiling because of the likelihood of significant adverse and permanent environment damage. In respect to such areas, these officials should, to the extent consistent with the policy of fostering broad use of public lands and after taking into account competing uses of such land and the right of enjoyment of persons having conflicting uses, establish reasonable and appropriate restrictions on snowmobile use or, in the event that the environmental damage referenced above cannot be acceptably minimized through use restrictions, such areas should be closed to snowmobile use."

Lest I mislead you, let me state clearly and emphatically that the snowmobile clubs in Oregon may discuss vigorously with the ski touring clubs in Oregon which acreage and how much acreage should be closed to snowmobiling in the state. But the evidence is available to you that conflicts can be resolved.

We do not believe that snowmobiles are entitled to go everywhere at any time. We support wise land management that provides appropriate wilderness areas in which no motorized activity is permitted. Again, we may debate how much wilderness is enough, because we too enjoy the scenic winter beauty of remote areas. We believe in access without avoidable conflict. Our public policies so state.

Anyone who fails to acknowledge the snowmobile industry's commitment to wise land use planning is blind to the evident support we have given to well-groomed, well-placed snowmobile trail development.

The snowmobile industry has done its job and we believe the burden of proof is on this Commission to justify to Oregon's snowmobilers, and to the hundreds of small businesses which depend on snowmobiling to survive, why any regulation below 78 dB(A) is needed.

Only one-half of one percent of all snowmobiles sold last year were sold in Oregon. The major price to be paid for your failure to act to ensure continuing new snowmobile sales in Oregon will be paid by others, not snowmobile manufacturers:

- Oregon snowmobile dealers, their employees and their families who will have no product to sell.
- Oregon snowmobilers who will not be able to replace their old machines. It is not likely they will be able to get service or parts, because dealers cannot live on maintenance business alone.
- The many miles of recreational trails in Oregon are likely to deteriorate when snowmobile registration and tax moneys dry up. Non-snowmobile users of these trails are likely to lose them.
- Individual motel, restaurant, resort and other small businesses that are the backbone of a blossoming tourist activity in the state will be forced to close in winter as snowmobiling dies. In that process, the communities which they nurture will wither.
- A healthy and enjoyable form of outdoor recreation in which thousands of Oregonians participate will be denied to them, unless they snowmobile in British Columbia,



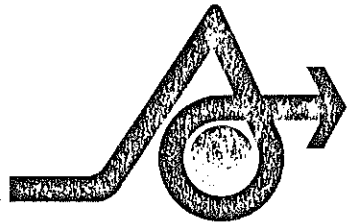
Washington, California, Idaho or other jurisdictions that are more hospitable.

The economic contribution of snowmobiling to Oregon is significant and needs to be encouraged.

The best test of whether snowmobiles are causing problems in Oregon, because of their present sound levels, is whether Oregonians are complaining about snowmobile sound emissions. We are assured by snowmobiling leaders here in Oregon that snowmobiles are no longer generating sound level complaints.

We, therefore, call upon you to stick with acceptance of a 78 dB(A) regulation, and strictly enforce it through the adoption of a regulation identical to the Wisconsin regulation which I have already submitted for the record.

Thank you for your attention. I will be glad to try to answer any questions you may have.



May 19, 1977

Mr. Mort Doyle, President  
International Snowmobile Industry Association  
Suite 850 South  
1800 M Street, N. W.  
Washington, D. C. 20036

Re: Oregon snowmobile sound level hearings

Dear Mort:

Following is Arctic's statement concerning the 75 dBA snowmobile sound limits scheduled to go in effect with the 1979 models in the state of Oregon.

Arctic Enterprises, Inc. is the largest snowmobile manufacturer in the United States, having started in 1962 when approximately 100 units were sold. Ten years later, during 1972, Arctic's annual sales of snowmobiles had reached approximately 100,000 units. For the last few years, however, Arctic is only selling about 50,000 Arctic Cat snowmobiles itself. Currently, Arctic is also manufacturing snowmobiles for another company under their brand name and according to their design.

While Arctic's principal business is the manufacture and sale of snowmobiles, it also manufactures a line of cold weather clothing which is worn for snowmobiling and other winter activities. Arctic also sells a complete line of fiberglass pleasure boats in Moorhead, Minnesota which is sold under the Silverline brand name.

Arctic is not prepared to meet the 75 dBA sound requirements as currently written in Oregon's administrative rules governing sound emissions from snowmobiles. The major reasons Arctic is not prepared to meet that law are as follows:

1. Arctic does not believe that there is any rational evidence available to reduce the sound emissions below the current level, i.e. 78 dBA

maximum sound level when measured in accordance with SAE J-192. The new snowmobiles with their greatly reduced sound levels have decreased the complaints received from irate citizens complaining of the noise to virtually zero in most jurisdictions, I am told. If there is no rational reason for further decreasing the sound emissions from a snowmobile, why should it even be considered?

2. Compliance with 75 dBA as currently measured would increase the suggested retail price of most of Arctic's snowmobiles. Neither the snowmobile users nor those who are near usage areas will receive benefits equal to the necessary price increases. Also Arctic strongly resists any cost increase since its sales decreased by more than 50% in the past few years. The Panther, which has been the backbone of Arctic's product line since 1967, sold for \$1250 in 1972 versus \$1900 for the 1977-78 model. In 1972, Arctic sold about 50,000 of this model versus 9000 that will be manufactured this year.

3. Any further sound reduction in snowmobiles will inevitably increase the weight of the snowmobile and thereby reduce its attractiveness to the consumer. The brief history of the snowmobile industry includes the names of several major companies who built heavier snowmobiles and have departed from the industry after losing millions of dollars.

4. Arctic fully supports the ISIA position in this matter in that there is no scientific basis to substantiate a further reduction in sound from the present level of 78 dBA.

All members of the industry have worked hard to decrease the sound emissions from snowmobiles to the current sound levels. Extremely significant progress has been made in the last five to six years. To accomplish these results, major design changes have been made in the snowmobiles. Mufflers have been improved, new carburetors designed, totally new engines developed and tooled, air intake systems developed and acoustical insulation installed in critical areas. Before we are forced to go further and spend a great deal of money in design, development, testing, tooling and adding new components, strong evidence must be seen of the need to further reduce sound levels.

Mort Doyle

-3-

May 19, 1977

I strongly request that the current Oregon administrative rules governing sound emissions from snowmobiles requiring the 1979 models meet 75 dBA be deleted and that 78 dBA be substituted in its place.

Very truly yours,

ARCTIC ENTERPRISES, INC.

A handwritten signature in cursive script, appearing to read "John C. Penn", written in dark ink.

John C. Penn  
President

la



**BOMBARDIER LTÉE / LTD**

**Groupe des produits récréatifs  
Recreational Products Group**

Valcourt, Qué., Canada, J0E 2L0  
Téléphone (514) 532-2211  
Cable Bombarsnow, Télex 05 / 832550

Valcourt, Que., Canada, J0E 2L0  
Telephone (514) 532-2211  
Cable Bombarsnow, Telex 05 / 832550

Bombardier Limited's Position Paper to the Oregon Environmental  
Quality Commission. June 1977. Snowmobile Sound Levels.

---

BOMBARDIER LIMITED as manufacturer of both Ski-Doo and Moto-Ski snowmobiles, brand names which have achieved approximately 30% of today's North American snowmobile market, welcomes the opportunity of participation in this hearing and hereby endorses the industry position and recommendations, as set forth by the International Snowmobile Industry Association and the Snowmobile Safety and Certification Committee.

In addition, we fully realize the benefits of this hearing both for ourselves and the Commission in that it represents the traditional practices and opinions and provides opportunity to eliminate or modify many of the 'sacred cows' relating to snowmobile sound levels.

In 1969, all were painfully conscious of the need for regulation of snowmobile noise. And we feel, since then, we have more than contributed in the development of standards pertaining to such regulations.



**BOMBARDIER LTÉE / LTD**

**Groupe des produits récréatifs  
Recreational Products Group**

Valcourt, Qué., Canada, JOE 2LO  
Téléphone (514) 532-2211  
Câble Bombarsnow, Télex 05 / 832550

Valcourt, Que., Canada, JOE 2LO  
Telephone (514) 532-2211  
Cable Bombarsnow, Telex 05 / 832550

2 ...

However, eight years have passed and with them hundreds of thousands of dollars in development and implementation of standards addressed to the ultimate 'quiet snowmobile'.

Today, we, as 98% of other snowmobile manufacturers, build our machines to conform to 73 dBA at 15m. when measured in accordance with recommended practice J1161. In addition, we also conform to 78 dBA at 15m. when measured in accordance with practice J192A.

It should be noted that even with today's technological advances, that compliance with such standards is not an easy task to achieve when faced with economical, safety, and marketing conditions.

However, even with such considerations we continually conduct research into snowmobile sound levels. Of recent, the Federal E.P.A. through Cambridge Collaborative Institute, submitted technological recommendations to lower snowmobile sound levels. Upon completion of the incorporation of such technology into existing current models, the dBA of one model increased by 1 dBA over the standard model. The second model which underwent three stages of technological change, lowered 0.4 dBA.



**BOMBARDIER LTÉE / LTD**

**Groupe des produits récréatifs  
Recreational Products Group**

Valcourt, Qué., Canada, JOE 2L0  
Téléphone (514) 532-2211  
Câble Bombarsnow, Téléx 05 / 832550

Valcourt, Que., Canada, JOE 2L0  
Telephone (514) 532-2211  
Cable Bombarsnow, Telex 05 / 832550

3 ...

Our list of research projects goes on; all, however, achieving no noticeable decrease in sound levels. Thus, in view of this, we comment that a sound level of 75 dBA as measured by S. A. E. J192A, is totally unattainable by Bombardier Limited and, plead, on behalf of snowmobilers in the State of Oregon, adopting of the recommended practice J1161.

GUY BERTRAND, Eng.  
Vice-President  
Research & Development.

June 2, 1977.

STATEMENT

DEERE & COMPANY  
SAFETY & ENVIRONMENT DEPARTMENT  
JOHN DEERE ROAD  
MOLINE, ILLINOIS 61265

PRESENTED TO:

OREGON ENVIRONMENTAL QUALITY COMMISSION  
1234 S.W. MORRISON STREET  
PORTLAND, OREGON 97205

HEARING - ON THE MATTER OF AMENDING  
CHAPTER 340 OREGON ADMINISTRATIVE RULES  
PARAGRAPH 35-035 NOISE CONTROL REGULATIONS  
TABLE A, NEW MOTOR VEHICLE STANDARDS FOR  
SNOWMOBILES MANUFACTURED AFTER 1978 MODEL YEAR

JUNE 16, 1977  
PUBLIC SERVICE BUILDING  
920 S.W. 6TH AVENUE  
PORTLAND, OREGON



DEERE & COMPANY STATEMENT  
ON AMENDMENT TO OAR-340-35-035  
TABLE A NOISE REGULATIONS - SNOWMOBILES  
16 JUNE 1977

Deere & Company manufacturers John Deere Agricultural Equipment, John Deere Industrial and Construction Equipment, and John Deere Lawn and Garden Equipment as well as John Deere Snowmobiles. Deere & Company has manufactured snowmobiles since 1971.

Although Deere & Company has no Oregon manufacturing facility, it is active in the business community of this state. We have a long standing statewide dealer organization and a Sales Branch which has operated in the Portland area for more than 75 years. We are sincerely interested in the long-term welfare of Oregon and its people.

For the past several years, our general philosophy toward noise regulation has been that maximum noise limits should be established only at levels for which a need has been shown to exist. The level established should be based on the best available and well documented studies concerning factors of noise annoyance rather than on arbitrary levels based on an estimated state of art of manufacturing. We do not see any good reason to modify this basic position -- specifically, that regulation of snowmobile noise should not go beyond recognized need, and that a 78 dB(A) limit (per SAE J192a) is responsive to that need. The apparent lack of recent noise complaints seems to substantiate the reasonableness of this position.

We feel there are several reasons why the 75 dB(A) limit (per SAE J192) for snowmobiles manufactured for the 1979 model year should not be imposed on snowmobile manufacturers and users by the State of Oregon.

Key among these are the following:

- . The International Snowmobile Industry Association (ISIA) statement questions the need for such regulation based on virtual disappearance of noise complaints, as well as mounting evidence that current levels do not pose a problem for wildlife. In addition, please consider the fact that, as existing older snowmobiles are replaced by current 78 dB(A) machines, average noise levels will be further reduced. The low number of noise complaints which might be experienced today should thereby be eliminated.
  
- . Even though it may be technically feasible for John Deere to achieve sound levels of 75 dB(A) per SAE J192, it is not feasible to manufacture and distribute these snowmobiles for our Oregon customers. A special machine modified to meet Oregon sound levels would be required. Our manufacturing, warehousing, and distribution systems do not lend themselves to this approach even though we allocated the added cost to Oregon snowmobiles.
  
- . To meet the proposed Oregon requirements after 1978 models, the average additional cost would exceed \$250 list which cannot be justified.

Deere & Company strongly supports the position taken by ISIA. We hope that reasoned judgment will result in repeal of the 75 dB(A) limit, and in continuation of the current 78 dB(A) limits.

In event that the 75 dB(A) limit is not repealed, pure economics indicate that Deere will be unable to provide snowmobiles for sale in Oregon after the 1978 model year.

We are not opposed to regulation of snowmobile noise, per se. Rather, we are opposed to regulation beyond recognized and justifiable need.

We wish to thank you, again, for the opportunity to present our viewpoint at this hearing.

# # #

STATEMENT  
BY  
KAWASAKI MOTORS CORPORATION, U.S.A.  
5080 36th STREET S.E.  
GRAND RAPIDS, MICHIGAN 49508

PRESENTED TO THE  
ENVIRONMENTAL QUALITY COMMISSION  
OF THE  
STATE OF OREGON

ON THE MATTER OF A PROPOSED  
RULES AMENDMENT (OREGON ADMINISTRATIVE)  
RULE 340-35-035, TABLE A)  
RELATING TO  
SNOWMOBILE SOUND EMISSION STANDARDS

JUNE 16, 1977  
PUBLIC SERVICE BUILDING  
920 S.W. 6th AVENUE  
PORTLAND, OREGON

KAWASAKI MOTORS CORPORATION, U.S.A.

STATEMENT ON

OAR 340-35-035

Kawasaki Motors Company, U.S.A. makes the following statement concerning Table A, New Motor Vehicle Standards (Moving Test at 50 Feet), OAR 340-35-035, relating to snowmobile sound emission standards.

The noise emitted by a typical snowmobile is composed of four predominant noise sources - engine mechanical and combustion noise, exhaust system noise, induction system noise, and track noise. All these individual major sources add together in a unique manner in which acoustical energy from the multiple sources combine. A breakdown of noise sources and the resulting overall noise level is pictured schematically in the enclosed diagram.

It should be emphasized that noise levels from intake and exhaust systems as shown in the diagram represent noise suppression achieved in recent years as a result of extensive development within the snowmobile industry. Unmuffled induction noise in the early years of snowmobiling was in the range of 95 dB(A). The same applied for unsophisticated early exhaust systems. It is important to understand that additional noise reduction of these two sources would amount to very little overall noise reduction because intake and exhaust systems are already 10 dB(A) below that of engine mechanical and combustion noise.

To illustrate, if intake noise and exhaust in our example were hypothetically decreased by an additional 3 dB, it would result in only a .5 dB(A) overall noise reduction. However, the 3 dB(A) noise reduction would result in a 50 percent production cost increase of exhaust and intake systems.

From this illustration, the predominance and significance of engine noise becomes very evident.

There are two basic approaches to solving this problem. One is to prevent transmission of the noise emitted by the engine by means of an engine enclosure. The second is to control the noise at its source.

Major problems arise in applying an effective engine enclosure because of the requirement for cooling air. Many possible approaches, with complicated ducting systems, have been developed and tested with very little encouraging results. The final product is characterized by huge and heavy configurations. Such prototypes were accompanied by major overheating problems, which in many instances resulted in potential safety hazards.

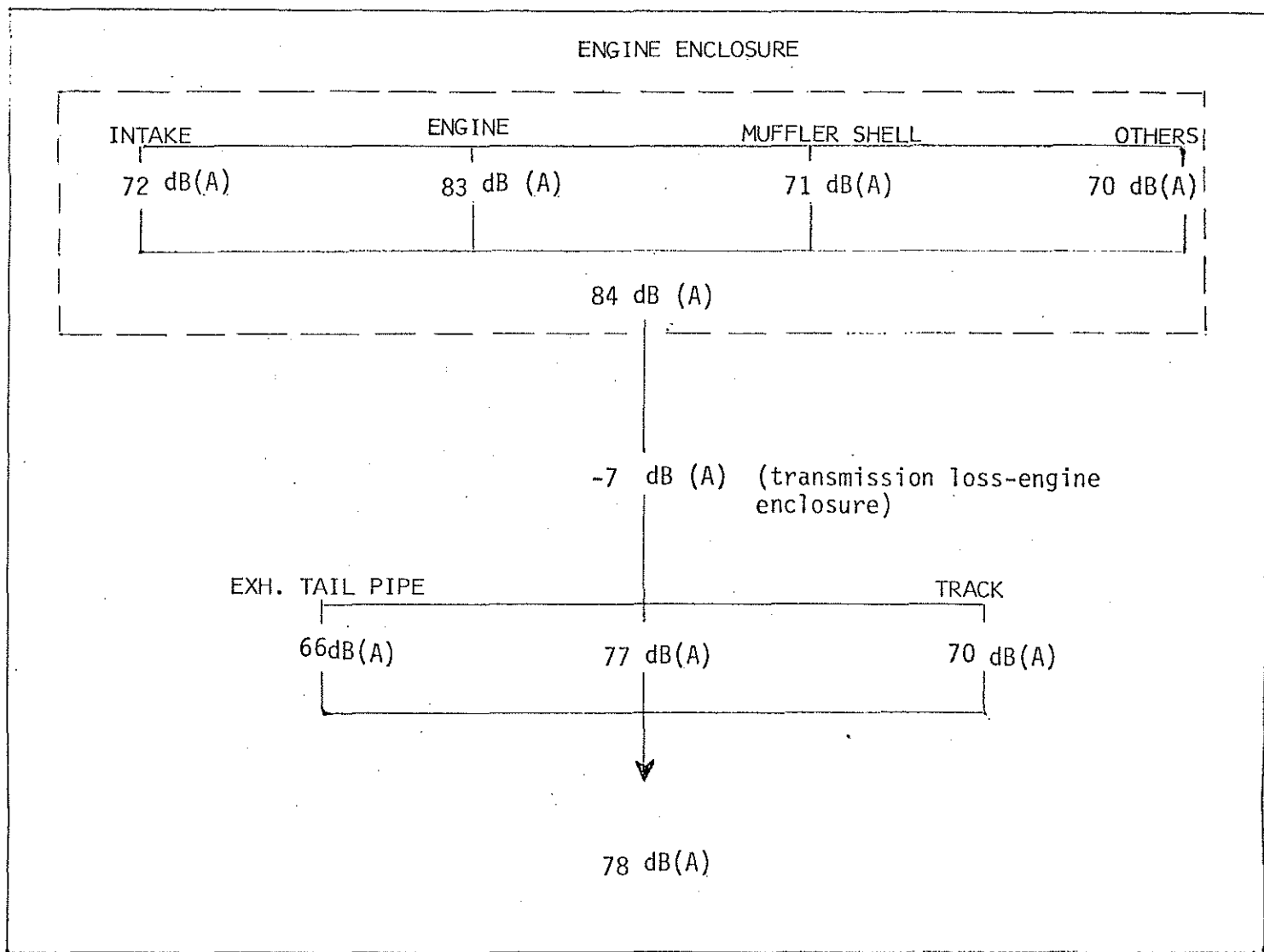
We have concluded that the most fruitful approach to successfully further attack the noise problem is to decrease the engine noise level. In our estimation, it would require an additional 5 dB(A) of engine noise reduction to meet the Oregon requirement of 75 dB(A). It is a very costly engineering task to research the modal characteristics of engine surfaces as a source of noise radiation because of the present state of technology, and the nature of the two cycle fan cooled engine. Such a fundamental research program would run into hundreds of thousands of dollars.

It should be noted that even the use of liquid cooled, two cycle engines, which would contribute considerably to the weight and cost of our snowmobiles, does not result in acceptable noise levels to meet the required 75 dB(A).

We feel that any other approaches which will result in heavy engine structure designs will not be acceptable to consumers.

In spite of this heavy burden in research cost, Kawasaki Motors Corporation is working on solving this problem for future generations of snowmobiles. However, for the present, the state-of-the-art does not allow us to meet the 75 dB(A) noise regulation for snowmobiles in the State of Oregon, and produce a snowmobile that will sell.

# SNOWMOBILE NOISE SOURCES



ENCLOSURE 1



## SCORPION STATEMENT FOR OREGON HEARINGS

Scorpion Engineering Department has had a continuing project whose purpose was to design and develop a snowmobile having a maximum noise level of 73dBA, as measured according to SAE J-192, and still be practical, usable, have satisfactory performance and be salable. This project has existed since some states first published timetables designating the maximum allowable levels at scheduled dates. We have managed to reach 78dBA and keep the design criteria but we have not managed any further reduction.

We define practical as meaning that the snowmobile can be easily serviced. Without special tools a snowmobile owner shall be able to quickly replace drive belts, spark plugs and adjust track tension.

To be usable means that the snowmobile must continue to run under all ambient conditions without fuel vapor locking, piston seizure or piston burning. Each of these heat related problems causes the engine to stop running. Usable also means that the sled should weigh as much under 400 pounds as possible since each pound of excess weight is a detriment, and can be a health hazard to some people if the snowmobile becomes stuck in deep, loose snow.

Satisfactory performance means keeping the acceleration quick and free of hesitation, the hill climbing ability unimpaired, the clutch response to load changes smooth and free of sticking.

Salable, of course, means that cost of the snowmobile can be kept attractive to the customer who chooses our snowmobile because of their reliability, light weight, and performance characteristics.

As stated above, we have done an acceptable job of meeting a 78dBA reading at fifty (50) feet. This has been accomplished by designing ducts, baffles and shields which bring outside, unheated air to the engine carburetor and cooling fan. Once heated by the waste heat from the engine, this air is difficult to move out of the engine compartment without allowing noise to escape.

A snowmobile which measures 78dBA at fifty (50) feet has a bass tone. This is because high frequency sounds are easiest to absorb. Just as the low frequency noise of thunder or a rumbling truck will pass through the walls of a house, so will the low frequencies pass through snowmobile enclosures.

When we try to absorb these low frequencies with extra enclosures we find we have trapped heat in the engine compartment and the engine vapor locks and stops or goes into preignition and seizes pistons. If extra fans and ducts are provided to correct this, weight and cost increase to impractical limits.

In the fall of 1976, Scorpion responded to a request by Cambridge Collaborative of Cambridge, Massachusetts, who in turn were under contract to EPA to provide technical expertise on reducing snowmobile noise. Their request was for us to cost out items they recommended to reach three levels of noise reduction. These were as follows:

Level One to be 77dBA regulation level

Level Two to be 74dBA regulation level

Level Three to be 72dBA regulation level

We physically tried to do the things recommended by Cambridge Collaborative for Level One. The recommendations did not reduce the noise from 78dBA on our snowmobile.

The 75dBA scheduled for 1979 models by the Oregon law is closest to the requirement of Level Two.

Our best estimate of the cost of reaching Level Two (assuming that Cambridge Collaborative recommendations would work) was \$285. Even after estimating how weight could be saved throughout the sled, our estimate was that the snowmobiles would increase by 16 to 20 pounds.

In summary, we do not at this time know how to design a practical, usable, performing, salable snowmobile having a noise level of 75dBA as measured by SAE J-192. Should the 75dBA limitation stay in effect, Scorpion would have to decide whether to abandon the Oregon market or try to make a model(s) which conformed - if we were able to meet the 75dBA sound level, the cost to the Oregon consumer would be extremely high since all costs would be amortized only over sleds sold in Oregon.

5/24/77

STATEMENT TO OREGON ENVIRONMENTAL QUALITY COMMISSION ON 1979  
AND LATER MODEL YEAR SNOWMOBILE NOISE LEVELS

Presented by: Russell D. Jura  
Yamaha Motor Corporation, USA

June 16, 1977

Good Afternoon

My name is Russell Jura. I am Technical Staff Council for Yamaha Motor Corporation, USA. Yamaha distributes snowmobiles manufactured by Yamaha Motor Company, Ltd. of Japan.

Yamaha is a member of the International Snowmobile Industry Association (ISIA) and fully supports the testimony previously presented today by ISIA. We would like to add the following comments in addition to the ISIA testimony.

First, we fully recognize the need for quiet snowmobiles. We feel that the control of snowmobile noise, particularly in wild areas, is essential. To this end we have conducted a research and development program to reduce snowmobile noise, and have succeeded in reducing the noise levels of all our consumer snowmobiles to 78 dBA.

We believe that the current snowmobile noise emission levels are quiet enough to meet all objections to snowmobile noise. As indicated by ISIA a current model snowmobile will produce only 34 dBA at 900 feet. When this level is compared with an ambient wild area noise level of 45 dBA it is apparent that

current snowmobiles pose no threat to the peace and quiet of the winter outdoors.

Second, current snowmobiles are so designed as to minimize sound emissions. Further reductions, while perhaps possible, would require a complete redesign of the snowmobile. Modification of current snowmobiles to a 75 dBA level through "add-on" technology is not possible. The total redesign to produce a 75 dBA snowmobile may be possible, but such a snowmobile will not be practical, useable, or commercially saleable. Such a snowmobile is obviously unacceptable.

Third, if we are faced with designing an unacceptable snowmobile solely for Oregon we will not do so. Canada and most states require a level of 78 dBA, with no further noise level reductions planned. Of those states that have required lower than 78 dBA levels, the trend is to change the final required level to 78 dBA.

We cannot and will not totally redesign our snowmobiles to produce an unacceptable snowmobile because of the State of Oregon. Oregon is an extremely small snowmobile market. Since we will be unable to use "add-on" technology to reduce our snowmobiles to a 75 dBA level, continuation of the 75 dBA level will force us to leave the Oregon snowmobile market.

Based upon these comments and those of the ISIA Yamaha recommends that the petition by the Oregon State Snowmobile Association be granted, and the current 78 dBA level be made permanent.

## Chapter NR 6

## SNOWMOBILE STANDARDS CERTIFICATION

NR 6.01 Purpose	NR 6.05 Department approval
NR 6.02 Applicability	NR 6.06 Modification
NR 6.03 Definitions	NR 6.07 Inspection
NR 6.04 Severability	NR 6.08 Testing criteria

**NR 6.01 Purpose.** The purpose of this chapter is to establish procedures for certification of snowmobile equipment standards pursuant to section 350.09, Wis. Stats.

**History:** Cr. Register, February, 1977, No. 254, eff. 3-1-77.

**NR 6.02 Applicability.** The provisions of this chapter are applicable to all snowmobiles which are manufactured, sold or offered for sale within the state of Wisconsin.

**History:** Cr. Register, February, 1977, No. 254, eff. 3-1-77.

**NR 6.03 Definitions.** (1) "Snowmobile" has the meaning designated in section 340.01 (58a), Wis. Stats.

(2) "Department" means the department of natural resources.

(3) "Sound level" (noise) means total noise emission from the entire snowmobile.

(4) "Headlamp" has the meaning designated in section 340.01 (21), Wis. Stats.

(5) "Tail lamp" has the meaning designated in section 340.01 (66), Wis. Stats.

**History:** Cr. Register, February, 1977, No. 254, eff. 3-1-77.

**NR 6.04 Severability.** Should any section, paragraph, phrase, sentence, clause, or word of this chapter be declared invalid or unconstitutional for any reason, the remainder of this chapter shall not be affected thereby.

**History:** Cr. Register, February, 1977, No. 254, eff. 3-1-77.

**NR 6.05 Department approval.** (1) No snowmobile manufactured after January 1, 1977 may be sold or offered for sale by any manufacturer, distributor or dealer in the state of Wisconsin unless such snowmobile is constructed so as to meet the requirements of section 350.09, Wis. Stats. Proof of compliance with the foregoing requirements shall be in the form of either:

(a) A Snowmobile Safety and Certification Committee, Inc. certified label conspicuously attached to the snowmobile, showing that such snowmobile meets the requirements of section 350.09, Wis. Stats., or

(b) A letter from the applicant to the Wisconsin Department of Natural Resources, Box 7921, Madison, Wisconsin 53707 (attention: Snowmobile Safety Section) listing the following information on each model of snowmobile:

Register, February, 1977, No. 254

1. The description and model number of the snowmobile to be approved;

2. A copy of the test results required by Wis. Adm. Code section NR 6.08 done by an independent testing laboratory currently engaged in the examination, testing and evaluation of noise control devices and which maintains or employs adequate staff and facilities to perform such function;

3. A certificate certifying that the snowmobile has been tested in accordance with Wis. Adm. Code section NR 6.08 and meets the requirements of section 350.09, Wis. Stats.

(2) The certification and test reporting procedure followed shall be approved by the department, provided that:

(a) The snowmobile has a S.S.C.C. label conspicuously attached, showing that said snowmobile meets the requirements of section 350.09, Wis. Stats., and has been tested in accordance with the provisions of Wis. Adm. Code section NR 6.08, or

(b) Certification has been obtained from an independent testing laboratory as defined in NR 6.05(1)(b)2., and said certification and test report states that the equipment has been tested in accordance with the provisions of Wis. Adm. Code section NR 6.08. The certification shall be accompanied by a full and complete test report setting forth the specifications and the general conditions under which the test was conducted.

(3) Upon receipt of a copy of an acceptable certification under sub. (2)(b), the department shall by letter notify the applicant that the snowmobile has been approved and that it may legally be manufactured, imported, offered for sale and sold in the state of Wisconsin.

**History:** Cr. Register, February, 1977, No. 254, eff. 3-1-77.

**NR 6.06 Modification.** No manufacturer shall modify a snowmobile on which approval has been issued so as to change its conformance with the requirements of section 350.09, Wis. Stats., without resubmission of the modified snowmobile for approval in the same manner as required for the original snowmobile.

**History:** Cr. Register, February, 1977, No. 254, eff. 3-1-77.

**NR 6.07 Inspection.** The department may, in order to insure compliance with the requirements contained in section 350.09, Wis. Stats., and Wis. Adm. Code section NR 6.08 inspect during normal business hours any snowmobile manufacturing plants and any snowmobile being offered for sale in the state of Wisconsin by commercial dealers.

**History:** Cr. Register, February, 1977, No. 254, eff. 3-1-77.

**NR 6.08 Testing criteria.** Testing criteria are as follows:

(1) **SOUND LEVEL LIMIT.** (a) The total vehicle noise produced by every snowmobile manufactured after July 1, 1972 and offered for sale or sold in the state of Wisconsin shall not exceed 82 dB on an A weighted network at 50 feet when measured in accordance with the procedures required herein.

(b) The total vehicle noise produced by every snowmobile manufactured after July 1, 1975 and offered for sale or sold in the state of Wisconsin shall not exceed 78 dB on an A weighted network at 50 feet when measured in accordance with the procedures required herein.

(c) The sound level requirements and testing criteria of the Society of Automotive Engineers Technical Report J192a, as amended 1975, shall be adhered to in certifying compliance with snowmobile sound level requirements.

(2) **HEADLAMP REQUIREMENTS.** After February 12, 1970 the headlamp(s) on a snowmobile may be of the single beam or multi-beam type; in either case, the headlamp requirements and testing criteria of the Society of Automotive Engineers Technical Report J280, as amended 1973, shall be adhered to.

(3) **TAIL LAMP REQUIREMENTS.** After February 12, 1970 the tail lamp(s) on a snowmobile shall adhere to the tail lamp requirements and testing criteria of the Society of Automotive Engineers Technical Report J279, as amended 1972.

(4) Copies and amendments of the 1975 Society of Automotive Engineers Technical Report J192a, entitled "Exterior Sound Levels for Snowmobiles"; 1973 Society of Automotive Engineers Technical Report J280, entitled "Snowmobile Headlamps"; and 1972 Society of Automotive Engineers Technical Report J279, entitled "Snowmobile Tail Lamps", are available for inspection in the following offices:

(a) The Department of Natural Resources, 4610 University Avenue, Madison, Wisconsin;

(b) The Office of the Secretary of State, Capitol, Madison, Wisconsin;

(c) The Office of the Revisor of Statutes, Capitol, Madison, Wisconsin. Copies may also be obtained from the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, Pennsylvania 15096.

(5) Copies of the Snowmobile Safety and Certification Committee, Inc. minimum safety standards for snowmobile product manufacture, entitled "Safety Standards for Snowmobile Product Certification" October 15, 1974, are available for inspection in the following offices:

(a) The Department of Natural Resources, 4610 University Avenue, Madison, Wisconsin;

(b) The Office of the Secretary of State, Capitol, Madison, Wisconsin;

(c) The Office of the Revisor of Statutes, Capitol, Madison, Wisconsin. Copies may also be obtained from the Snowmobile Safety and Certification Committee, Inc., Suite 850 South, 1800 M Street, NW, Washington, D. C. 20036.

**History:** Cr. Register, February, 1977, No. 254, eff. 3-1-77.

4. Sound Level

The sound pressure level for snowmobiles manufactured after June 30, 1976 shall not exceed 73 decibels on the "A" scale (73 dBA) at 15 m (50 ft) when measured in accordance with SAE Recommended Practice J1161, "Operational Sound Level Measurement Procedure for Snow Vehicles;" and, the sound pressure level for snowmobiles manufactured after February 1, 1975 shall not exceed 78 decibels on the "A" scale (78 dBA) at 15 m (50 ft) when measured in accordance with SAE Recommended Practice J192a, "Exterior Sound Level for Snowmobiles." Class I Competitive snowmobiles are exempted from this requirement.



STATEMENT OF THE  
ENVIRONMENTAL PROTECTION AGENCY

PRESENTED TO THE  
DEPARTMENT OF ENVIRONMENTAL QUALITY

JUNE 16, 1977

PORTLAND, OREGON

MR. HEARING OFFICER:

GOOD AFTERNOON, I AM DEBORAH YAMAMOTO, NOISE CONTROL REPRESENTATIVE FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY IN REGION X. I AM PLEASED TO REPRESENT THE EPA TODAY AT THESE HEARINGS ON SNOWMOBILE NOISE. EPA HAS BEEN QUITE ACTIVE IN THE AREA OF SNOWMOBILE NOISE AND WE APPRECIATE THIS OPPORTUNITY TO DESCRIBE OUR ACTIVITIES. I HAVE A PREPARED STATEMENT AFTER WHICH I WOULD BE HAPPY TO RESPOND TO ANY OF YOUR QUESTIONS.

IN RESPONSE TO THE GROWING NATIONAL CONCERN OVER NOISE, THE U.S. CONGRESS ENACTED THE NOISE CONTROL ACT OF 1972 (PL 92-574). IN THIS LAW THE CONGRESS FOUND THAT INADEQUATELY CONTROLLED NOISE PRESENTED A GROWING DANGER TO THE HEALTH AND WELFARE OF THE NATION'S POPULATION AND THUS DECLARED IT THE POLICY OF THE UNITED STATES TO PROMOTE AN ENVIRONMENT FOR ALL AMERICANS FREE FROM NOISE THAT JEOPARDIZES THEIR HEALTH OR WELFARE. TO THAT END THE CONGRESS FOUND THAT WHILE PRIMARY RESPONSIBILITY FOR CONTROL OF NOISE RESTS WITH STATE AND LOCAL GOVERNMENTS, FEDERAL ACTION IS ESSENTIAL TO DEAL WITH MAJOR NOISE SOURCES IN COMMERCE, CONTROL OF WHICH REQUIRES NATIONAL UNIFORMITY OF TREATMENT. THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY (EPA) IS THUS AUTHORIZED AND DIRECTED, AMONG OTHER THINGS, TO ESTABLISH FEDERAL NOISE EMISSION STANDARDS FOR PRODUCTS DISTRIBUTED IN COMMERCE, WHICH MEET THE PRECEDING CRITERIA AND TO PROVIDE INFORMATION TO THE PUBLIC RESPECTING THE NOISE EMISSION AND NOISE REDUCTION CHARACTERISTICS OF SUCH PRODUCTS.

SHOULD THE EPA ADMINISTRATOR FIND IT APPROPRIATE UNDER THE NOISE CONTROL ACT TO ESTABLISH NOISE EMISSION REGULATIONS FOR NEWLY MANUFACTURED PRODUCTS NO STATE OR POLITICAL SUBDIVISION MAY ADOPT OR ENFORCE A REGULATION, WITH RESPECT TO THAT NEW PRODUCT ONCE THE FEDERAL REGULATION BECOMES EFFECTIVE, WHICH IS NOT IDENTIFCAL TO THE FEDERAL REGULATION GOVERNING THE PRODUCT. STATE OR LOCAL IN USE REGULATIONS OF SUCH PRODUCTS, HOWEVER, WOULD BE UNAFFECTED BY AN EPA TIME OF SALE STANDARD.

SECTION 8 OF THE NOISE CONTROL ACT ALLOWS A PRODUCTS, NOT NECESSARILY IDENTIFIED UNDER SECTION 5(B)(1), TO BE IDENTIFIED AS BEING CAPABLE OF ADVERSELY AFFECTING THE PUBLIC HEALTH AND WELFARE. SECTION 8 GIVES THE ADMINISTRATOR THE AUTHORITY TO REQUIRE THAT NOTICE BE GIVEN TO PROSPECTIVE USERS, OF THE PRODUCT, OF THE LEVEL OF NOISE THE PRODUCT EMITS.

AS YOU MAY BE AWARE, EPA HAS BEEN CONDUCTING EXTENSIVE STUDIES OF SNOWMOBILES. THESE STUDIES ARE SCHEDULED TO BE COMPLETED WITHIN THE NEXT SEVERAL MONTHS. THE AGENCY HAS NOT YET ARRIVED AT A DECISION WITH REGARDS TO WHAT ACTIONS, IF ANY, IT IS APPROPRIATE TO TAKE IN RESPECT TO FEDERAL REGULATION ON NEWLY MANUFACTURED SNOWMOBILES.

IN 1974 EPA ANNOUNCED IT INTENTIONS TO STUDY SNOWMOBILES AS A POSSIBLE MAJOR SOURCE OF NOISE SUBJECT TO FEDERAL REGULATION UNDER THE NOISE CONTROL ACT OF 1972. PRIOR TO 1974, HOWEVER, CONCERNED STATES AND THE SNOWMOBILE INDUSTRY BECAME INCREASINGLY AWARE OF THE SERIOUSNESS OF THE NOISE IMPACT OF SNOWMOBILE OPERATIONS. IT WAS THIS AWARENESS, AND THE ACTIONS THAT FOLLOWED

THAT WERE RESPONSIBLE FOR MAJOR STRIDES IN REDUCING THE OVERALL NOISE IMPACT OF SNOWMOBILES OPERATIONS. AS A RESULT OF THE LOWER NOISE LEVELS ATTRIBUTABLE TO NEW SNOWMOBILES, THE AREA IMPACT OF SNOWMOBILES APPEARS TO HAVE BEEN CONSIDERABLY REDUCED.

A PRELIMINARY ASSESSMENT OF SNOWMOBILE NOISE REDUCTION TECHNOLOGY INDICATES THE NOISE FROM NEW SNOWMOBILES COULD BE REDUCED TO 73 DB(A) (REGULATORY LEVEL-NOT-TO-EXCEED BASIS: 76DB(A) ACCORDING TO J-192A) THROUGH THE APPLICATION OF CURRENTLY AVAILABLE TECHNOLOGY TO ALL MODELS. SUCH TECHNOLOGY WOULD INCLUDE LARGER INTAKE SILENCERS, LARGER EXHAUST SYSTEMS, BETTER ACOUSTIC TREATMENT OF THE ENGINE COMPARTMENT, USE OF FAN COOLING, AND LINED DUCTS. THE CONSENSUS INDUSTRY REACTION TO SUCH A POSSIBLE REGULATORY LEVEL IS THAT THESE LEVELS COULD POSSIBLY BE ACHIEVED, BUT THAT IT WOULD REQUIRE A MAJOR REDESIGN AND ENGINEERING EFFORT, AND THAT THE COST (A 1.5 TO 6% PRICE INCREASE) AND THE ADDITIONAL WEIGHT PENALTY WOULD FAR OUTWEIGH ANY BENEFIT REALIZED. THE ESTIMATED WEIGHT PENALTY COULD BE APPROXIMATELY 20 POUNDS. SOME MANUFACTURERS HAVE INDICATED THAT A 20 POUND INCREASE IN WEIGHT WOULD ADVERSELY AFFECT THE PERFORMANCE AND MARKET ACCEPTABILITY OF THEIR SNOWMOBILES.

ESTIMATES OF FURTHER NOISE REDUCTION INDICATE THAT A 70DB(A) DESIGN LEVEL (73DB(A) REGULATORY LEVEL) COULD BE ACHIEVED THROUGH THE USE OF LIQUID COOLED ENGINES. THE SNOWMOBILE INDUSTRY, HOWEVER, FEELS THAT THIS LEVEL IS UNACHIEVABLE WITH CURRENT STATE-OF-THE-ART TECHNIQUES. ACHIEVEMENT OF THIS LEVEL WOULD REQUIRE AN EXTENSIVE R&D REPORT, AS WELL AS A MAJOR REDESIGN OF THE SNOWMOBILE. THIS REQUIREMENT COULD POSSIBLY FORCE MARGINAL MANUFACTURERS OUT OF THE SNOWMOBILE BUSINESS. THE PRICE INCREASES RESULTING FOR A 73 DB(A)

REGULATORY LEVEL COULD RANGE FROM 10 TO 20% OF THE PRESENT COST OF SNOWMOBILES.

THE ENVIRONMENTAL IMPACT OF SNOWMOBILES CAN BE SEPERATED INTO TWO DISTINCT AREAS: IN-THE-HOME IMPACT IN POPULATED AREAS; AND OUTDOOR IMPACT IN OTHERWISE VERY QUIET AREAS.

IN-THE-HOME-IMPACT: THE AVERAGE DWELLING IN A SNOWMOBILE IMPACTED REGION IS ESTIMATED TO HAVE ABOUT 30 SNOWMOBILE PASS-BYS PER WINTER DAY. PASS-BYS ARE ASSUMED TO RANGE FROM 100 TO 2000 FEET. ALLOWING A 27 DB SOUND REDUCTION BY THE DWELLING UNDER WINTER CONDITIONS, SNOWMOBILE PASS-BY CAN RANGE FROM 20-45 DB(A) IN THE INTERIOR OF A DWELLING DEPENDING ON PASS-BY DISTANCE. USING ACTIVITY INTERFERENCE AS A CRITERION, THERE SHOULD BE LITTLE OR NO HEALTH AND WELFARE IMPACT DURING THE DAY. SLEEP INTERFERENCE WOULD POSSIBLY OCCUR WHEN A SNOWMOBILE PASSED WITHIN 200 FEET OF A DWELLING AT NIGHT, BUT IS NOT LIKELY TO OCCUR AT GREATER DISTANCES.

OUTDOOR IMPACT: SNOWMOBILES ARE COMMONLY USED IN FOREST AND OTHER WILDERNESS AREAS WHERE AMBIENT LEVELS ARE EXTREMELY LOW AND DETECTION OF MOTOR VEHICLE NOISE MAY LESSEN THE ENJOYMENT OF THE OUTDOORS BY NONSNOWMOBILERS. BASED ON AN AMBIENT LEVEL OF 40 DB(A), A 78 DB(A) SNOWMOBILE COULD BE DETECTED A HALF-MILE AWAY OVER SMOOTH TERRAIN.

PRELIMINARY ESTIMATES INCIDATE THAT THERE ARE 33,000 SQUARE MILES OF LAND IMPACTED BY NOISE FROM SNOWMOBILE OPERATIONS. THIS ESTIMATE IS BASED ON A ZERO IMPACT WHEN THE YEARLY LEQ RESULTING FROM SNOWMOBILE OPERATIONS IS BELOW THAT OF THE AMBIENT LEVEL

(40 DB(A)). THIS CORRESPONDS TO IN EXCESS OF 3 MILLION PEOPLE CURRENTLY IMPACTED BY SNOWMOBILE OPERATIONS. THERE ARE AN ESTIMATED 200 SQUARE MILES OF IMPACTED LAND WHERE THE YEARLY LEQ IS 70 DB(A) OR GREATER DUE TO SNOWMOBILE OPERATIONS ALONE. IN THIS AREA THERE ARE APPROXIMATELY 19,000 PEOPLE WHOSE NOISE EXPOSURE IS ABOVE THE EPA IDENTIFIED SAFE LEVEL TO PROTECT AGAINST HEARING LOSS (YEARLY LEQ OF 70DB(A)) DUE TO SNOWMOBILE OPERATIONS ALONE. IT CAN BE EXPECTED THAT NEARLY HALF OF THESE PEOPLE WOULD EXPRESS EXTREME ANNOYANCE IF QUESTIONED ABOUT THE NOISE. THESE FIGURES DO NOT INCLUDE THE ESTIMATED 4.5 MILLION SNOWMOBILE OPERATORS AND ENTHUSIASTS.

IN THE ABSENCE OF MORE STRINGENT NOISE REGULATIONS WITH ALL OTHER FACTORS REMAINING CONSTANT, (I.E. POPULATION DENSITY, HOURS OF INDIVIDUAL SNOWMOBILE USE, LENGTH OF TRAILS, SNOWMOBILE SALES AT 1976 LEVELS, ETC), THE PROJECTED AREA AND POPULATION IMPACT FOR THE 1984-85 SNOWMOBILE SEASON, THROUGH REPLACEMENT SALES ONLY, WILL BE DECREASED TO APPROXIMATELY ONE-THIRD OF THE ESTIMATED CURRENT IMPACT.

PEOPLE IN THE VICINITY OF SNOWMOBILES MAY HAVE AN ADVERSE REACTION TO THE NOISE DEPENDING ON THEIR ATTITUDE TOWARD THE SOURCE AND THE USERS. SINCE INTERFERENCE WITH COMMUNICATION IS AN IMPORTANT PART OF NOISE-RELATED ANNOYANCE, IT IS HELPFUL TO EXAMINE THE SITUATION BY ESTIMATING HOW MANY POSSIBLE CONVERSATIONS WOULD BE INTERRUPTED AS AN INDICATION OF IMPACT OF SNOWMOBILE NOISE. OUTDOOR SPEECH COMMUNICATION CAN TAKE PLACE WITH 95% SENTENCE INTELLIGIBILITY AT A DISTANCE OF 2 METERS OR LESS WITH NORMAL VOCAL EFFORT, AS LONG

AS THE NOISE LEVEL IS LESS THAN 60 DB(A). BASED ON THE ABOVE ESTIMATES FOR POPULATION AND LAND IMPACTED, AN ESTIMATED 5 MILLION IMPACT EVENTS COULD HAVE OCCURRED DURING THE PREVIOUS SNOWMOBILE SEASON WHEN SOUND LEVELS EXCEEDED 60 DB(A).

THE FUNDAMENTAL ISSUE PRESENTLY UNDER CONSIDERATION BY THE AGENCY IS WHETHER SNOWMOBILES ARE A "MAJOR SOURCE OF NOISE" IN THE CONTEXT OF THE NOISE CONTROL ACT, NOT WHAT STANDARD SHOULD BE SET IF ONE IS DEEMED APPROPRIATE. SINCE SNOWMOBILE USE IS ESSENTIALLY LIMITED TO THE SNOWBELT STATES, WE HAVE REQUESTED INFORMATION, FROM THE GOVERNORS OF THE AFFECTED STATES, ON THE NOISE IMPACT PROBLEMS IN THEIR STATES, RESULTING FROM SNOWMOBILE OPERATIONS. THE PACKAGE THAT WAS SENT TO THE GOVERNORS IS INCLUDED IN OUR TESTIMONY AND IS SUBMITTED AS PART OF THE RECORD IN ITS ENTIRETY. WE ANTICIPATE THAT THE ADMINISTRATOR'S DECISION ON WHETHER OR NOT SNOWMOBILES ARE A MAJOR SOURCE OF NOISE WILL BE MADE BY THE END OF THE SUMMER.

IF IT IS DETERMINED THAT SNOWMOBILES ARE NOT A MAJOR SOURCE OF NOISE FOR ENVIRONMENTAL IMPACT, THE EPA WOULD SERIOUSLY CONSIDER REQUIRING LABELS ON THE SNOWMOBILES SPECIFYING THEIR NOISE EMISSION LEVELS AS DETERMINED BY SAE-J192A (EXTERIOR SOUND LEVELS FOR SNOWMOBILES). THIS PROCEDURE WOULD PROVIDE INFORMATION THAT COULD BE HELPFUL IN TWO WAYS. FIRST, IT WOULD PROVIDE THE CONSUMER CONCERNED WITH SNOWMOBILE NOISE IMPACT WITH INFORMATION ON THE NOISE EMISSIONS PRODUCED BY THE SNOWMOBILE MODEL WHICH HE IS CONSIDERING, AND ALLOW HIM TO MAKE AN INFORMED PURCHASE CHOICE. SECOND, WITH ACTUAL VEHICLE NOISE LEVELS KNOWN, ENFORCEMENT OF STATE AND LOCAL NOISE REGULATIONS WOULD BE FACILITATED.

ONE ASPECT WHICH WE HAVE NOT YET DISCUSSED, BUT IS OF CONCERN TO THE AGENCY IS THE OPERATOR/PASSENGER IMPACT (HEARING RISK) FROM SNOWMOBILE OPERATION. AN OPTION WHICH IS AVAILABLE TO THE EPA IS TO IDENTIFY SNOWMOBILES AS A "MAJOR SOURCE OF NOISE" ON THE BASIS OF OPERATOR/PASSENGER IMPACT ONLY. STUDIES ARE CURRENTLY UNDERWAY TO ASSESS THIS IMPACT. HOWEVER, SUFFICIENT AMOUNTS OF QUALITATIVE DATA ARE NOT IMMEDIATELY AVAILABLE TO ADEQUATELY ADDRESS THIS ISSUE. BASED UPON ESTIMATES FOR 1976 MACHINES, NOISE LEVELS AT THE OPERATOR'S POSITIONS ARE IN EXCESS OF THE SAFE OR NO-EFFECT LEVEL IDENTIFIED BY EPA. HOWEVER, THIS ANALYSIS DOES NOT INCLUDE THE MITIGATING EFFECTS OF HELMETS OR CLOTH HEAD COVERINGS. PREVIOUS STUDIES HAVE INDICATED THAT HELMETS ALONE CAN PROVIDE FROM 2 DB(A) AMPLIFICATION TO 10 DB(A) REDUCTION IN SOUND LEVELS. TAKING INTO CONSIDERATION THE EFFECTS OF HELMETS, THERE IS A HIGH PROBABILITY THAT THE AVERAGE CUMULATIVE NOISE LEVELS ARE BELOW THE IDENTIFIED SAFE OR NO-EFFECT LEVEL. IF SNOWMOBILE NOISE IS THE OPERATORS ONLY SOURCE OF LOUD NOISE EXPOSURE. HOWEVER, THIS IS ONLY AN ESTIMATE SINCE DATA ARE NOT AVAILABLE TO MAKE A PROPER DETERMINATION.

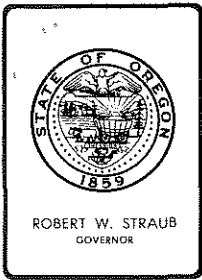
IN THIS LIGHT, ANOTHER OPTION WHICH IS BEING CONSIDERED IS TO REQUIRE LABELING OF SNOWMOBILES WITH REGARD TO THEIR IMPACT ON OPERATORS/PASSENGERS. IN THIS MANNER THE CONSUMER WOULD BE PROVIDED INFORMATION WHICH WOULD ALLOW HIM TO MAKE AN INFORMED PURCHASE CHOICE. IT SHOULD BE NOTED THAT SOME MANUFACTURERS, IN AN EFFORT TO REDUCE SIDELINE NOISE, RE-DIRECTED SOME OF THE SOUND TOWARD THE OPERATOR/PASSENGER POSITION. AS A RESULT OF THIS ACTION THERE IS NOT DIRECT CORRELATION BETWEEN THE REDUCTION OF SIDELINE NOISE



LEVELS AND THE REDUCTION OF NOISE LEVEL AT THE OPERATOR/PASSENGER POSITION.

IN CONSIDERING THE IMPACT OF SNOWMOBILES AND OTHER OFF-ROAD VEHICLES AND THE REDUCTION THAT MIGHT OCCUR FROM QUIETER VEHICLES, IT SEEMS APPARENT THAT NEW PRODUCT STANDARDS, BY THEMSELVES, WOULD NOT BE ABLE TO ELIMINATE THE RESULTING NOISE IMPACT. CONSEQUENTLY, DESPITE ANY EPA OR STATE STANDARD, SITUATIONS WILL PROBABLY EXIST WHERE IN-USE AND OPERATIONAL RESTRICTIONS MAY STILL BE REQUIRED TO EFFECTIVELY LIMIT AND REDUCE THE NOISE IMPACT OF SNOWMOBILE OPERATIONS.

MR. HEARING OFFICER, THIS CONCLUDES MY PREPARED STATEMENT. I WOULD BE HAPPY TO RESPOND TO YOUR QUESTIONS.



**DEPARTMENT OF  
ENVIRONMENTAL QUALITY  
MIDWEST REGION**

16 OAKWAY MALL • EUGENE, OREGON • 97401 • Phone (503) 686-7601

MEMORANDUM

To: Environmental Quality Commission  
From: Regional Manager, DEQ Midwest Region  
Subject: Agenda Item No. M, September 23, 1977, EQC Meeting  
Agenda Item No. M - Report of Midwest Region Manager  
on Significant On-Going Activities in the Midwest Region

Background

Provide a report on significant on-going activities in the Department of Environmental Quality Midwest Region.

Evaluation & Summation

Discuss the major on-going activities, items 1 through 7 (Attachment A).

This is an information discussion. No specific, formal Environmental Quality Commission action is necessary.

VERNER J. ADKISON  
MIDWEST REGION MANAGER

VJA,MD:ckw  
686-7601  
9/13/77  
Attachment A



Contains  
Recycled  
Materials

ATTACHMENT A  
ENVIRONMENTAL QUALITY COMMISSION MEETING  
SEPTEMBER 23, 1977  
AGENDA ITEM M

Hines Lumber Company

As of September 19, 1977, the Edward Hines Lumber Company of Westfir, Oregon will officially close their operation.

Mitchell, Blacketer and Associated, Ltd., will assume ownership of the plant following that date.

Hines Lumber Company notified the Department of Environmental Quality that they no longer own the sources contained in their NPDES permits. The new owners will now request transfer of the permits and agree to fully comply with the terms and conditions of those permits.

At present, the facility contains two NPDES permits; one for the mill, and another for the Hemlock Subdivision Sewage Treatment Plant.

We are concerned that the facility retain a qualified operator to manage the facility.

The Lane Regional Air Pollution Authority states that present facility steaming rates indicate the plant is operating within compliance of its air permits. However, a change in the fire rate's fuel mixtures may result in non-compliance. Further tests would then be required.

Additionally, if there is a new start-up of the plywood plant, a compliance schedule will have to be negotiated.

In summary, the Hines situation is indicative of the complexity in operation older mills, primarily due to market variability and the current timber supply and demand.

Other Midwest Region mills that have closed this year include the Cabax Sawmill and Veneer plants, Star Wood Products Sawmill, Bohemia Fencing Division plant, all of Eugene, and the Tomco Stud and Veneer Operation in Cascadia.

River Road Survey

Lane County is pursuing a study whose goal is to determine whether there is an existing groundwater degradation problem in the River Road - Santa Clara area northwest of Eugene. The study will hopefully determine, 1) whether, there is an existing problem, 2) whether, keeping future growth in mind, there will be a problem, or, 3) whether there is a problem at all. The study is expected to be completed by the end of this year.

Lane County is now in the process of hiring a consultant, whose initial task will be to research all existing county literature on the River Road - Santa Clara ground water situation, taking into account the projected growth of the area.

This will be a technical report, without a recommended solution. Any solution on the matter will come from Lane County officials.

#### Lane County Educational Program on Septic Tanks

Lane County's new septic tank management program is being presented to the public on an educational level, rather than on an inspection level.

The Board of Commissioners scrapped a plan that would have required periodic inspections of septic systems at \$25 per inspection, at an early July meeting. Considerable rural opposition was voiced on the periodic inspection plan. The Commissioners have also asked for continued study of the possibility of contamination of underground water supplies from septic systems.

The septic tank educational program will be directed at teaching people how to avoid septic tank problems and what to do when problems occur.

#### Weyerhaeuser Fish Hatchery

Weyerhaeuser Company is in the process of constructing a \$6-million salmon hatchery northeast of Springfield.

The hatchery will be part of a \$10-million company investment in commercial salmon ranching.

The proposal is significant to the Department of Environmental Quality in that the company plans to utilize a thermal discharge to aid in accelerating the growth of the fish. One NPDES permit will be necessary for use of the water inlet and outlet from the adjacent McKenzie River. In addition, the sanitary system within the facility will require the use of a holding tank, before the material is transported to other facilities. This will also require a DEQ permit.

#### Lane County Solid Waste Program

The Lane County Solid Waste transfer station continues its successful operation; the facility was opened to the public last December. Construction of the resource processing facility (a \$2.19-million project) is approaching a 60% completion level, with the physical facility up, the 1,000 horsepower motors installed, and storage bins and structures now being completed. The shredder is now enroute to Eugene. The entire transfer facility should be completed by early November, at a cost of \$2.1-million - counting equipment. The DEQ contributed \$1.5-million to the entire project in the form of a grant.

Eugene-Springfield Oxidant Alert

The Eugene-Springfield metropolitan area went on a 23-hour air pollution alert for photochemical oxidants on August 16 and 17. Oxidant levels reached 226 micrograms per cubic meter on the afternoon of August 16. As you know, the oxidant alert level is 200 micrograms per cubic meter. The last alert in the Eugene-Springfield area occurred in 1974, also for photochemical oxidants.

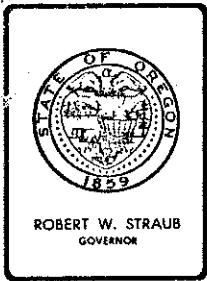
The high oxidant levels last month were attributed to vehicular traffic, poor air ventilation and extremely high temperatures.

## Eugene-Springfield Air Quality Maintenance Area Activity

The first phase of the Eugene-Springfield Air Quality Maintenance study is nearing completion. The Lane Regional Air Pollution Authority-Department of Environmental Quality emission inventory update contract with the Seton, Johnson and Odell Consulting Firm will conclude on October 1st. Included in that contract were home heating and commercial boiler use surveys, a street dust sampling project, an intensive balloon tracking project, an area vehicle mix study, and taking a number of traffic counts throughout the AQMA.

A meteorology contract has been awarded to Science Applications, Inc., of LaJolla, California. This contract involves the analyzing of data from the Eugene-Springfield area meteorological network to determine the wind circulation patterns in the AQMA. The contract should be concluded by mid-November.

Finally, the initial work on selecting an AQMA advisory committee has begun. The committee will be responsible for choosing the alternatives to be included in an air quality maintenance strategy. A letter will be drafted to the cities of Eugene and Springfield, and to Lane County asking each to appoint a representative, who will then nominate the rest of the committee.



## Department of Environmental Quality

1234 S.W. MORRISON STREET, PORTLAND, OREGON 97205 Telephone (503) 229- 5395

### M E M O R A N D U M

TO: EQC Members Date: September 16, 1977

FROM: William H. Young, Director

SUBJECT: Topics of Discussion for Breakfast and Lunch at the September 23, 1977 EQC Meeting in Eugene

Many of the topics that you have requested we cover informally at the September 23rd breakfast or lunch meeting involve items that you have already received written information on at various times during the last two months. I would like to remind you of those items here so that you can refer to those documents or bring them to the meeting with you:

1. Roseburg Lumber, Dillard--Status of variance for air pollution regulations.
2. Audit Report, DEQ, July 1, 1975 to December 31, 1976--Review of audit comments.
3. Legislative Action on DEQ's Budget Request, July 28, 1977--Review of approved budget for 1977-79.
4. Staff Evaluation of C2E "Pollution Discharge Study" on Teledyne Wah Chang (to be distributed to EQC September 19, 1977).
5. Critical Situation Policy--USA Banks--Review of Water Rights relative to Banks Sewage Treatment Plant effluent (report attached).
6. Contested Case Hearings Status Report--EQC guidance on reporting format, frequency and mechanism.

Other items that you may wish to discuss include:

1. List of pending litigation against DEQ and EQC--Ray Underwood will distribute list at meeting and review important cases.
2. Future EQC meeting dates and places November through January.
3. Local items of concern--Vern Adkison will brief EQC on issues that are current topic of concern in the Eugene area that may be brought up during the Public Forum portion of the meeting.



Contains  
Recycled  
Materials

4. Mitigation of Civil Penalty against Al. Peirce Lumber Company, Coos Bay--Execution of mitigation order.
5. Award of Pollution Control Bond Sale.

MJD:cs





September 23, 1977

TO: Environmental Quality Commission

FROM: Roy L. Burns, Director  
Water Pollution Control Division  
Environmental Management Department

RE: Amendment to Special Repair Permits

On behalf of the Board of County Commissioners we would request that an addition to the special repair permit fees be considered and adopted.

Immediately following health hazard area, insert or applicants receive assistance through the Farmers Home Administration sections 502 or 504 loan and grant programs.

The requested special repair permits section would than read:

"Special repair permits shall be issued upon application therefor to the owner (or contract purchaser) to repair the system serving the owner (or contract purchaser) occupied housing unit located within the boundaries of any area which has been formally declared by the Lane County Board of Commissioners ("Board") or the Oregon State Health Division to be a health hazard area, or applicants receiving assistance through the Farmers Home Administration section 502 or 504 loan and grant programs or within an area defined in a sewer plan adopted by the Board recommending correction of individual systems; provided that a repair permit application and fee is filed not later than 30 days after the date of written notification that the applicant's system has failed."

RLB/gr



September 21, 1977

TO: Environmental Quality Commission

FROM: Roy L. Burns, <sup>RB</sup> Director  
Water Pollution Control Division/  
Environmental Management Department - Lane County

RE: Moratorium on Subsurface and Alternative System  
Installation in the Dexter Area

The request before you today is one portion of a problem solving strategy adopted by the Lane County Commissioners for the unincorporated community of Dexter on June 8, 1977. The Commissioners adopted a four point approach to remedy the existence of a possible health hazard associated with failing subsurface sewage disposal systems within the Dexter area. The four elements of the program are:

- 1) Request that the Oregon Environmental Quality Commission (EQC) establish a moratorium on the issuance of new construction permits in Dexter. Establishment of such a moratorium would prevent additional installations and increased population in an area with already identified sewage disposal problems.
- 2) Initiate repairs on systems which have already been identified as failing. A staff evaluation indicates that conditions in the community of Dexter will require expensive repair efforts and that such repairs will only be an interim solution to Dexter's sewage disposal problems.
- 3) Provide routine surveillance on systems performance within the Dexter area and correct additional failing systems as they are identified.
- 4) Form a county task force to continue to promote efforts to ultimately arrive at a regional sewage disposal solution for the Lowell/Dexter area. Such an involvement could eventually lead to a vote on formation of some type of District for providing sewer service to the community of Dexter.

With this hearing today on the establishment of a subsurface moratorium in the Dexter area, all four elements of the program adopted by the Lane County Commissioners are being implemented.

Attached for your consideration are several informational items associated with establishment of a moratorium on further subsurface disposal system installations in the Dexter area, as follows:

1. A staff report which presents a summary of all of the items required by ORS 454.685 to be evaluated during your deliberations on establishment of the moratorium.
2. A map indicating the proposed Dexter Moratorium boundaries.
3. A written description of the proposed Dexter moratorium area boundaries.
4. A petition requesting that the appropriate changes in the Oregon Administrative Rules be ordered if you find that establishment of the proposed moratorium is appropriate.
5. A letter, dated September 20, 1977, from the Midwest Region of the Department of Environmental Quality concurring with the moratorium proposal.

In addition to the legal hearing notice requirements satisfied by DEQ's public notice procedures, Lane County mailed copies of the public notice information to many interested parties within the community of Dexter. For the information of any Dexter residents in attendance today, additional copies of the staff report accompanying this memorandum are provided in the back of this room.

RLB/gr

STAFF REPORT  
DEXTER MORATORIUM HEARING

By  
Lane County Water Pollution Control Division

By resolution of the Lane County Board of Commissioners, dated June 8, 1977, the Oregon Environmental Quality Commission (EQC) was requested to consider establishment of a moratorium on the issuance of new construction permits and favorable reports of evaluation of site suitability for new subsurface sewage disposal systems. The resolution by the Board of Commissioners was based upon a series of surveys and reports considering the operational suitability of existing subsurface sewage disposal systems and the physical limitations affecting the installation of new systems. A copy of the Board of Commissioners' resolution is attached as Exhibit A of this report.

Oregon Revised Statute (ORS) 454.685 provides the EQC with the authority to limit or prohibit the construction of subsurface sewage disposal systems in an area if it finds that such construction should be restricted. ORS 454.85 further describes the factors which the EQC must consider in arriving at a finding which will limit or prohibit the construction of subsurface sewage disposal systems. The purpose of this staff report is to present a discussion of the items specified by ORS 454.685 for consideration at the hearing scheduled by the EQC, as follows:

- A. Present and projected density of population. The community of Dexter has an estimated (1975) population of approximately 570 people. The population of Dexter is currently projected to increase slowly at a rate consistent with other rural communities in Lane County to a year-2000 estimated population of 795 people. A copy of a table of population projections for the rural areas of the Willamette Basin portion of Lane County is attached as Exhibit B.

The boundaries currently proposed for consideration at this moratorium hearing contained an area of approximately 340 acres. Based upon this area, the proposed moratorium area has a population density of approximately 1.7 people per acre (1975) and would have a projected year-2000 population density of approximately 2.3 people per acre.

- B. Size of building lots. Existing lots in the community of Dexter range in size from smaller than 7,500 square feet (0.2 acre) to in excess of 10 acres. Further,

developed lots in Dexter vary from a single residence or other structure on the parcel to mobile home parks containing several dwelling units.

Lots created in the community of Dexter in the future will be required to conform to the minimum sizes prescribed by the land use zones. The major portion of the proposed moratorium area is zoned rural residential (minimum lot size of 1, 2 or 5 acres depending upon circumstances) with smaller areas zoned farm-forestry 20 (minimum parcel size of 20 acres). AGT (minimum lot size of 5 acres) and commercial. The map attached as Exhibit C represents the zoning now existing within the community of Dexter.

- C. Topography. The community of Dexter is located on the older alluvial terraces of the Middle Fork Willamette River and its tributary, Lost Creek. The area is generally gently rolling and flat with slopes usually less than 5 percent.
- D. Porosity and absorbency of soil. Soils typical of much of the proposed moratorium area consists of silty clay loam over clay or clay cemented gravels. The low porosity and absorbency of these soils is evidenced by the presence of temporarily perched water at or near the ground surface (0 to 24 inches) during much of the winter.

The upper terrace east of the community of Dexter has dense clay soils over smooth weathered bedrock, which results in a sheeting effect of surface runoff. The area along Lost Creek is represented by poorly drained gravelly loam soils over very gravelly clay loams interspersed by limited areas of deep silty clay loam soils and open gravels.

- E. Geological formations adversely affecting subsurface sewage disposal. The community of Dexter is located within the transitional area between the Willamette Valley and western Cascades geologic provinces. Erosion has been the most recent dominant geological process and, consequently, the valley bottoms of the Middle Fork Willamette River, Lost Creek and Rattlesnake Creek have been filled with river sediments. Suitability for subsurface sewage disposal is much more closely related

to the characteristics of these sediment deposits than to the underlying geologic characteristics.

- F. Ground and surface water conditions and variations therein from time to time. As previously presented, the proposed moratorium area lies in a geological and soil transition area; consequently the ground-water quantity and quality vary widely. Groundwater supplies in the younger alluvium along Lost Creek and in the older, high river terraces are generally adequate. In limited areas, generally in the upland and hillside areas, groundwater may be found to be naturally contaminated by arsenic.

Major surface waters in the vicinity of the proposed moratorium area includes Dexter Reservoir, the Middle Fork Willamette River and Lost Creek. Generally, the quality of these major surface waters is acceptable except for seasonal problems associated with low summer flows, high temperatures and occasional organic and bacterial enrichment in Lost Creek. Water quality monitoring performed in the small ditches and drainageways of the community of Dexter in 1973 found significant concentrations of total and fecal coliform bacteria.

- G. Climatic conditions. The climate of the proposed moratorium area is typical of the Willamette Valley with warm dry summers and mild wet winters. Annual precipitation averages 45 to 50 inches, most of which occurs from November to March. Rainfall during these winter months averages from 5 to 8 inches per month.
- H. Present and projected availability of water from unpolluted sources. Residents of the proposed moratorium area utilize individually owned wells as their only source of domestic water. As has been previously discussed, water for domestic use is readily available in moderate quantities from shallow aquifers underlying the area. These aquifers are generally protected from surface contamination by the intervening clay soils. However, improperly constructed wells in proximity to malfunctioning subsurface sewage disposal systems could present a threat to the continued acceptability of such aquifers.

- I. Type of and proximity to existing domestic water supply sources. The City of Lowell, located across Dexter Reservoir from the proposed moratorium area, operates a community water supply system serving its residents. The U.S. Corps of Engineers operates a small water supply system utilizing Dexter Lake as a water source, but the service area of this system is limited to Dexter Park.

With the exception of the groundwater currently supplying the individual wells within Dexter, the Middle Fork Willamette River and Dexter Lake are the only likely sources of domestic water supply in the area. Both of these potential water supply sources would require the construction of water treatment facilities to insure the potability of the water.

- J. Type of and proximity to existing surface waters. The only surface water of any consequence actually within the proposed moratorium area is a portion of Lost Creek. Lost Creek is a small stream with a dry-weather low flow of approximately 10 cfs. Dexter Lake, a reregulation reservoir of approximately 1025 acres, and the Middle Fork Willamette River, a moderate-sized river with a dry-weather low flow of approximately 1,500 cfs, are other surface waters in relative proximity to the proposed moratorium area.

- K. Capacity of existing subsurface sewage disposal systems. The operational status of the existing individual subsurface sewage disposal systems within the proposed moratorium area has been evaluated several times beginning in 1967-68 with the most recent survey completed in May, 1976. All of the surveys indicate the existence of serious problem with failing or marginally operating subsurface sewage disposal systems in the community of Dexter. The results of the 1968 and 1976 sanitary surveys are summarized in Exhibit D (from Appendix G from the "Dexter-Lowell Area Facilities Plan", Lane Council of Governments).

More recently, in April and May 1977, the Lane County Water Pollution Control Division conducted a more detailed evaluation of those subsurface sewage disposal systems identified as failing in the 1976 community survey. It is anticipated, as a result of

Dexter Moratorium Hearing  
September 15, 1977

that evaluation, that satisfactory repair of the currently failing systems will be both difficult and expensive and that even such expensive repairs may have only a limited life expectancy. Exhibit E presents the conclusions of the study performed by the Water Pollution Control Division.

GCS/gr

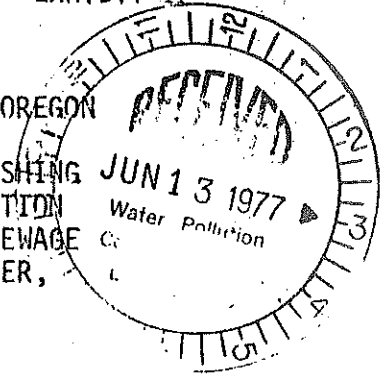


IN THE BOARD OF COUNTY COMMISSIONERS OF LANE COUNTY, OREGON

RESOLUTION

77-6-8-12

IN THE MATTER OF ESTABLISHING  
A MORATORIUM ON CONSTRUCTION  
PERMITS FOR SUBSURFACE SEWAGE  
DISPOSAL SYSTEMS IN DEXTER,  
OREGON



WHEREAS, the Lane County Environmental Health Division, in a May, 1976, survey of on-site subsurface sewage disposal systems in the unincorporated community of Dexter, Oregon found a large percentage of these disposal systems to have failed or to be marginally operative, and

WHEREAS, the Lane County Water Pollution Control Division, through on-site investigations, has determined that the failing subsurface sewage disposal systems in the community of Dexter are caused by a combination of system age, the silty clay composition of the area soils, and poor installation and design practices during construction, and

WHEREAS, the high number of subsurface sewage disposal system failures in the community of Dexter represents a potential health hazard to the citizens of Dexter and, because the Dexter Reservoir attracts many visitors each year, to other Lane County residents, and

WHEREAS, the State of Oregon Environmental Quality Commission, pursuant to ORS 454.605 to 454.745, has been granted the authority over subsurface sewage disposal systems within the State of Oregon, and therefore be it hereby

RESOLVED that the State of Oregon Environmental Quality Commission be requested to place a moratorium upon the issuance of construction permits and favorable reports of evaluation of site suitability for new subsurface sewage disposal systems within the boundaries of Dexter, Oregon, hereinafter attached as Appendix A.

RESOLVED that this moratorium shall last only so long as the above-listed conditions continue to cause a high number of subsurface sewage disposal failures in Dexter, Oregon.

DATED this 8th day of June, 1977.

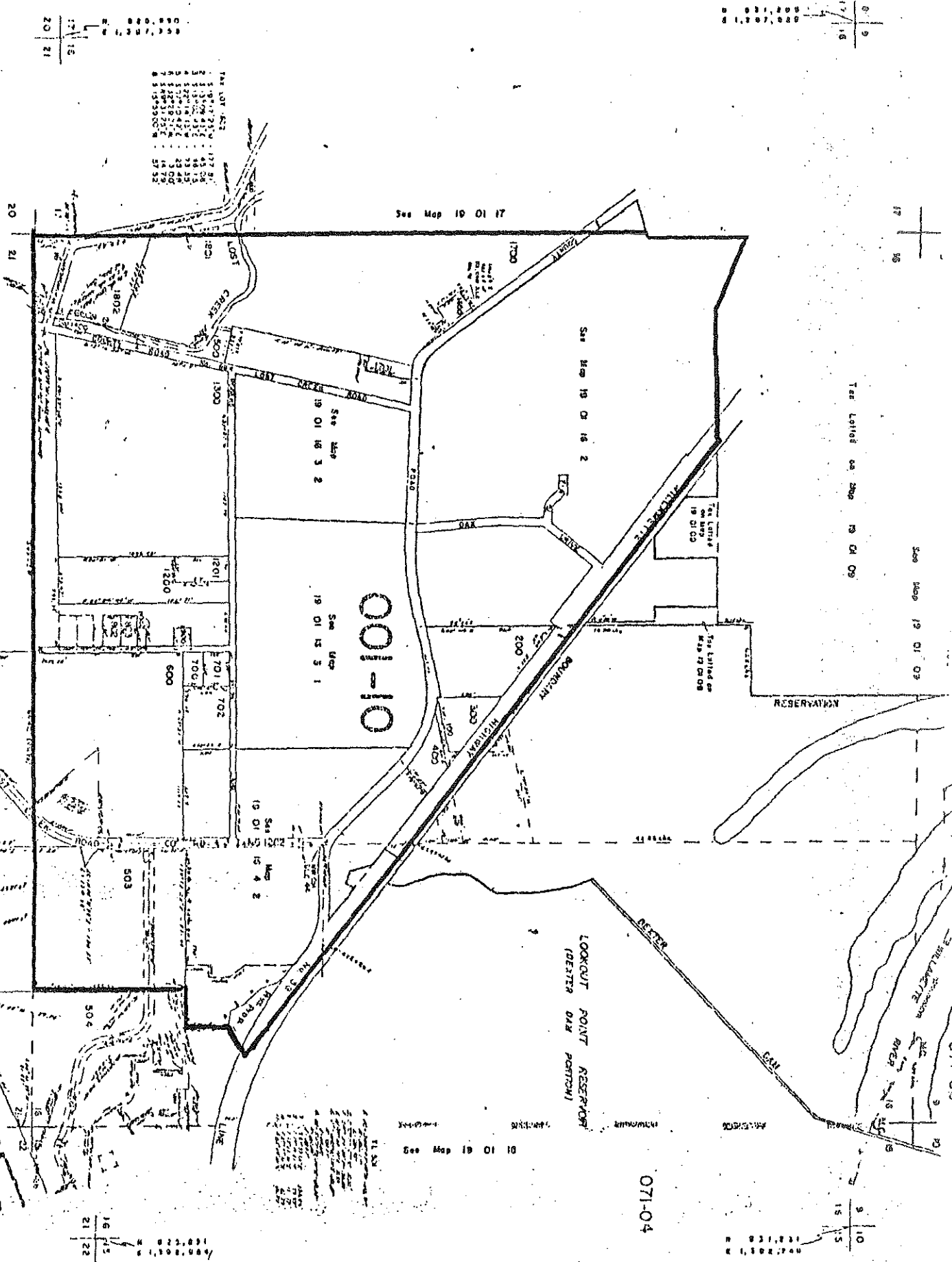
BOARD OF COUNTY COMMISSIONERS,  
LANE COUNTY, OREGON

*Archie Weinsten*  
Chairman

APPROVED AS TO FORM  
DATE *June 10 1977*  
*Arthur J. Clark*  
OFFICE OF LEGAL COUNSEL

# APPENDIX 'A'

## PROPOSED MORATORIUM BOUNDARY



REVISED POPULATION PROJECTIONS BY SUB-BASINS (2-10-76)

	1970	1975	1980	1985	1990	1995	2000
<u>SUB-BASIN #1</u>							
Urban: Creswell	1,199	1,500(1,525)**	1,700	2,000	2,300	2,650	3,053
Creswell Urbanizing	1,100	1,250	1,450	1,650	1,950	2,250	2,550
Sub-Total: Creswell	2,299	2,750	3,150	3,650	4,250	4,900	5,603
Cottage Grove	6,004	6,900(6,700)	8,000	9,250	10,750	12,800	15,241
Cottage Grove Urbanizing	2,200	2,500	2,900	3,400	3,900	4,650	5,650
Sub-Total: Cottage Grove	8,204	9,400	10,900	12,650	14,650	17,450	20,891
TOTAL URBAN	10,503	12,150	14,050	16,300	18,900	22,350	26,494
RURAL*	7,177	6,714	7,231	7,808	8,483	9,128	9,886
GRAND TOTAL - SUB-BASIN #1	17,680	18,864	21,281	24,108	27,338	31,478	36,380
<u>SUB-BASIN #2</u>							
Urban: Dexter	525	570	615	660	705	750	795
Lowell	567	646(620)	725	804	883	960	1,137
Sub-Total: Dexter-Lowell	1,092	1,216	1,340	1,464	1,588	1,710	1,932
Oakridge	3,422	3,590(3,910)	3,770	3,958	4,156	4,364	4,582
TOTAL URBAN	4,514	4,806	5,110	5,422	5,744	6,074	6,514
RURAL	6,071	6,434	6,812	7,189	7,575	8,039	8,447
GRAND TOTAL - SUB-BASIN #2	10,585	11,240	11,922	12,611	13,319	14,113	14,961
<u>SUB-BASIN #3</u>							
Urban: Blue River	520	530	550	560	570	590	600
Marcola	560	570	590	600	620	630	650
Coburg	713	770(830)	830	890	960	1,040	1,127
TOTAL URBAN	1,793	1,870	1,970	2,050	2,150	2,260	2,377
RURAL	5,923	6,518	7,107	7,929	8,733	9,625	10,627
GRAND TOTAL - SUB-BASIN #3	7,716	8,388	9,077	9,979	10,883	11,885	13,004
<u>SUB-BASIN #4</u>							
Urban: Junction City	2,373	2,740(2,730)	3,200	3,630	4,010	4,430	4,894
Elmira	600	675	760	860	970	1,095	1,236
Veneta	1,377	1,558(1,990)	1,763	1,995	2,257	2,554	2,890
TOTAL URBAN	4,350	4,973	5,723	6,485	7,237	8,079	9,020
RURAL	14,871	16,619	18,544	20,755	23,229	26,016	29,144
GRAND TOTAL - SUB-BASIN #4	19,221	21,592	24,267	27,240	30,466	34,095	38,164

\* Does not include Goshen area.

\*\* Figures in parentheses are estimates by Center for Population Research & Census, Portland State Uni

EXHIBIT B

EXHIBIT C

Generalized County Zoning

- Rural Residential
- Agric., Grazing, and Timber-5 Acre Minimum
- Industrial
- Public Reserve
- Forest Management
- FF-20 Acre Minimum
- Commercial

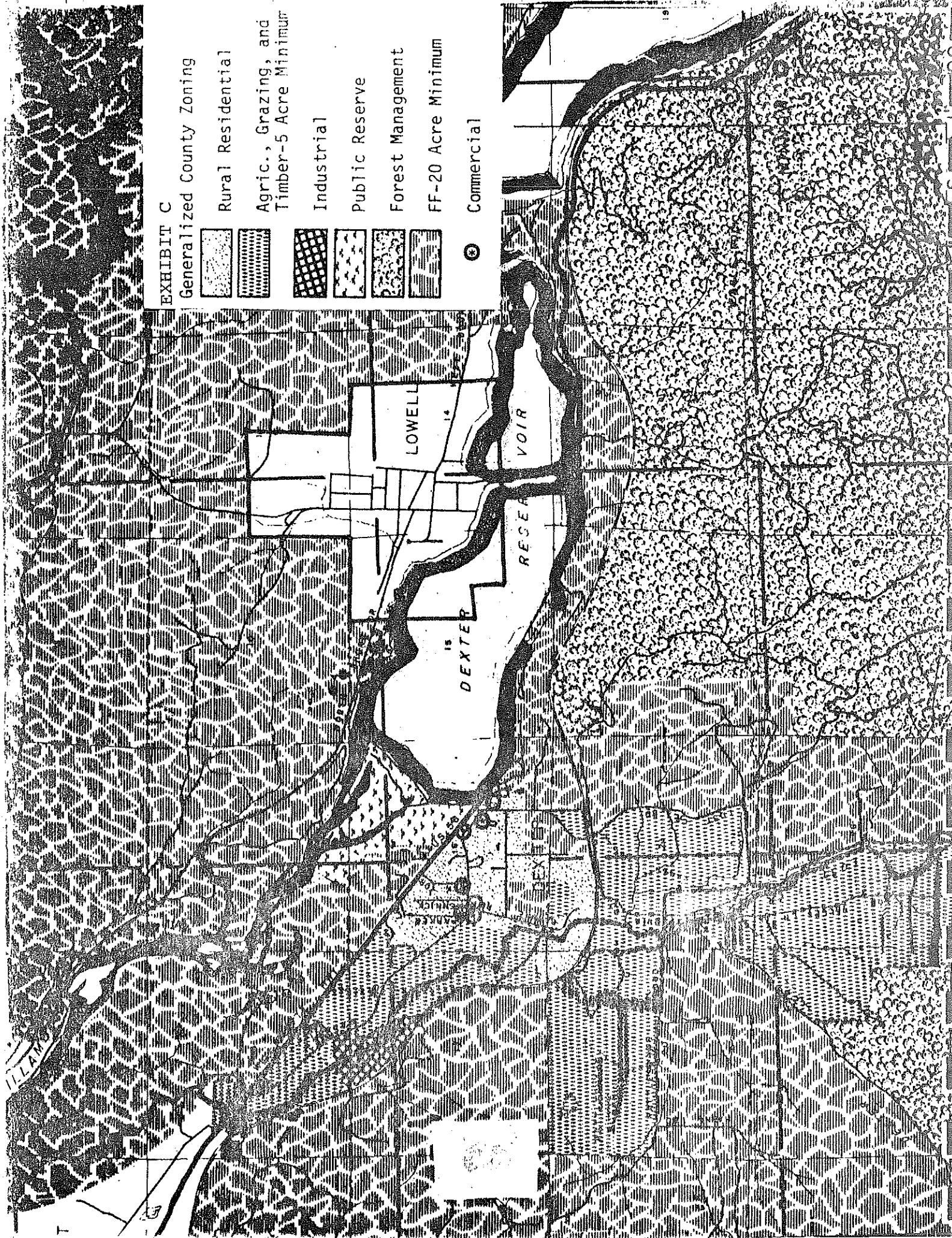


EXHIBIT D

APPENDIX G

Dexter Area Survey Update \*  
1976

In the way of background information, a health hazard survey was conducted in the Dexter area in 1968 to determine the adequacy of the sewage disposal systems in that area.

As a result of a request from the Committee of Concerned Citizens for Better Living in Dexter through the Lane Council of Governments, an update of the 1968 health hazard survey was conducted by this division.

Surveys are normally conducted during the heavy rainy season, however, in order to accommodate the request of the Dexter people for an update of the work done in 1968, the survey was conducted in May 1976, a relatively dry month. The survey team reported that they found no water flowing in ditches, drainage ways or on the surface of the ground. In contrast, the 1968 survey was conducted in January, a relatively wet month.

The 1976 survey was concerned primarily with the condition of the existing subsurface sewage disposal systems and other individual means of sewage disposal.

Some of the data may appear to be in conflict when comparing the totals for the study. The following facts will help resolve any apparent discrepancies.

1. More than one structure exists on some tax lots.
2. Some structures have been removed.
3. Unable to determine location or condition (see footnotes).
4. Some of the older failing systems have been repaired.
5. New failures were noted in 1976 which were not noted in 1968.
6. 1976 was a relatively dry year and the rainy season had already passed.

Data Comparison of 1976 and 1968  
Dexter Environmental Surveys

	<u>1976</u>	<u>1968</u>
Properties visited* (tax lots)	147	92 less U.T.D.
Structures investigated	202	Not Given
Number of failing SDS	54	35
Number of marginal SDS	27	20
Number of satisfactory SDS	108	34
Percent of failing systems	26.7	39
Percent of marginal systems	13.4	22
Number of U.T.D**	13	14
Percent of failing and marginal systems	40.1	61

\* 1968 report does not list U.T.D. in total of properties visited. There is a difference of 41 properties visited in the two surveys. Some of this difference may be accounted for by partitioning of the tax lots since 1968, but a check of tax lot survey forms against the original composite study area map does not account for this difference.

\*\* U.T.D. - denotes unable to determine the condition of sewage disposal system for various reasons such as refusal of entry to property by owner, dogs, property overgrown with grass and weeds, or a lack of any clues as to the location of sewage disposal system.

Conclusions and Observations

Considering the time of year and the dryness of the season, a significant number of marginal or failing sewage disposal systems were noted in the 1976 survey (40.1 percent). It is felt that with a failure rate this high in the month of May, that if the survey had been conducted during the height of the rainy season, this percentage could have even exceeded the 1968 results which were 61 percent.

Another interesting factor to consider is that not all the same properties were failing in 1976 as compared to 1968. This indicates that there is a continuing sewage disposal system failure rate which cannot be solved merely by repairing the presently failing systems.

EXHIBIT E

EXCERPTED FROM: "Staff Report-Dexter Individual Waste Disposal Evaluation", Lane County Water Pollution Control Division, May 1977

CONCLUSIONS:

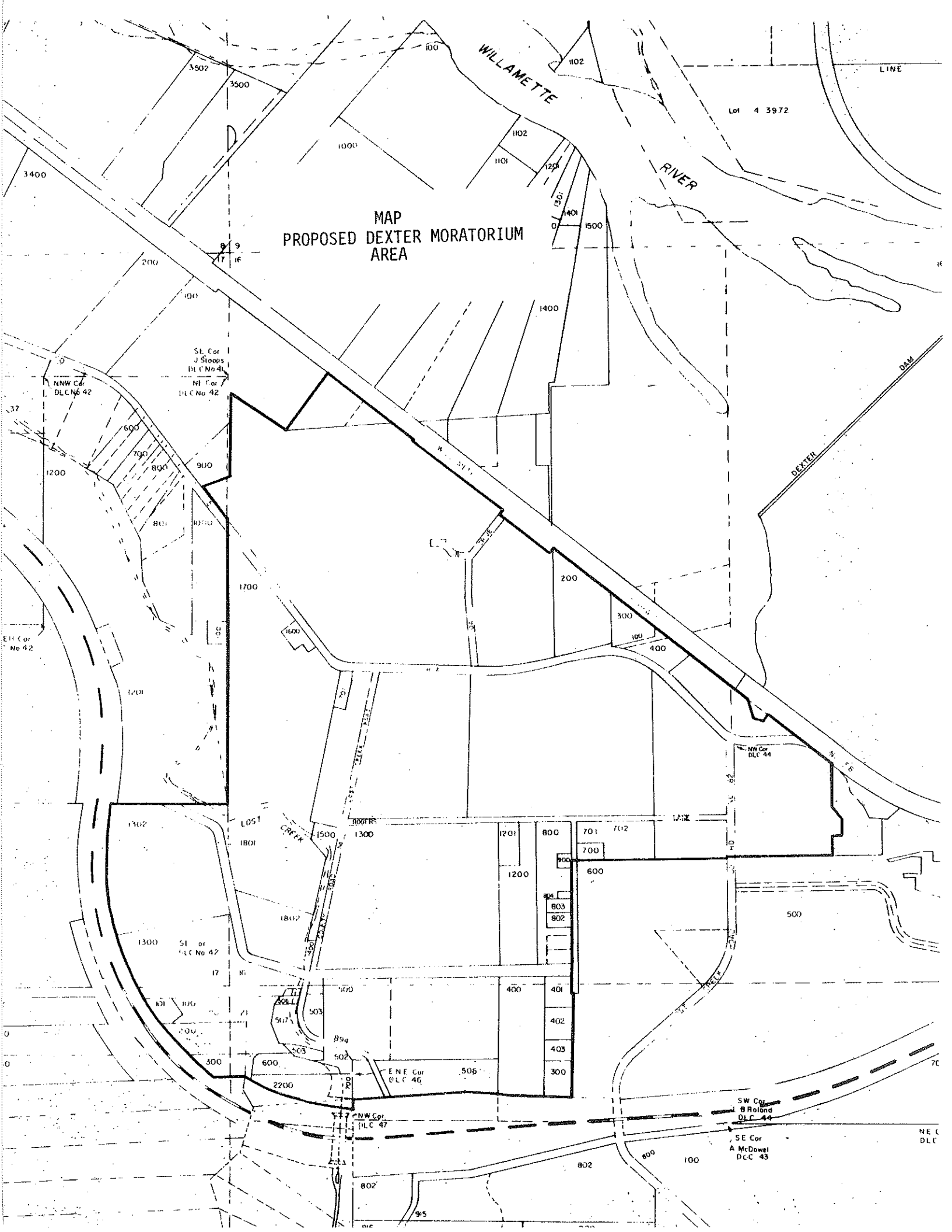
In summary, the Water Pollution Control Division identified twenty (20) parcels within the community of Dexter containing approximately 53 dwelling units which are presently being served by the failing on-site waste disposal systems. Based upon the use of mounded disposal systems as a means of solving the identified waste disposal problems, it is estimated that an expenditure of approximately \$98,000 would be required.

In addition, another thirteen (13) dwelling units within the community of Dexter are being served by on-site waste disposal systems which are suspected of failing, but the system failure has not been confirmed. If all of these systems are found to be actually failing, preliminary estimates indicate that approximately \$25,000 to \$40,000 would be required for installation of appropriate repair systems.

In developing the estimated costs for upgrading failing on-site waste disposal systems serving many of the dwellings in the community of Dexter, every effort was made to provide repair systems which would have a reasonable chance of survival. However, in some instances the physical limitations are so severe that even the proposed design may have only a limited effective service life before failure occurs and the system would have to again be repaired.

GCS/gr

MAP  
PROPOSED DEXTER MORATORIUM  
AREA





WRITTEN DESCRIPTION  
DEXTER MORATORIUM AREA

Starting at the intersection of the West line of Section 16, Township 19 South, Range 1 West, Willamette Meridian, the intersection of the Northerly right of way line of County Road No. 95 (Dexter Road); run thence Northerly along said North right of way line of said County Road No. 95, 370 feet, more or less; thence north  $72^{\circ} 27'$  East 230 feet, more or less; thence North 600 feet, more or less; thence South  $69^{\circ}$  East 460 feet, more or less; thence North  $38^{\circ}$  420 feet, more or less, to the Southerly right of way line of State Highway No. 58 (Willamette Highway); run thence easterly along the said South right of way line of said State Highway No. 58, 4700 feet, more or less, to a point; thence South 300 feet, more or less; thence Southeasterly 115 feet, more or less; thence South 120 feet, more or less; thence West 66 feet, more or less; thence South 145 feet, more or less; thence West 770 feet, more or less, to the Westerly right of way line of County Road No. 1282 (Lost Creek Road); thence South 20 feet, more or less, along said West line of said County Road; thence West 1140 feet, more or less; thence South 870 feet, more or less; thence East 20 feet, more or less; thence South 1110 feet, more or less, to the Southerly right of way line of the Southern Pacific Railroad; thence Westerly along the said Southerly right of way line of said Southern Pacific Railroad to its intersection with the North line of the South one-half of the Southeast one-quarter of Section 17, said Township and Range; thence east to the east line of Section 17 of said Township and Range; thence North along the said West line of said Section 17, said Township and Range to the point of Beginning in Lane County, Oregon.

PETITION  
TO  
OREGON ENVIRONMENTAL QUALITY COMMISSION  
FOR  
CHANGE TO OREGON ADMINISTRATIVE RULES  
DEXTER MORATORIUM AREA

- (a) The petitioner hereby requests that the Oregon Environmental Quality Commission instruct the Director of the Department of Environmental Quality to immediately develop the necessary changes or additions to the Oregon Administrative Rules which would prohibit the issuance of construction permits for new subsurface sewage disposal systems or favorable reports of evaluation of site suitability within the boundaries of the following geographic areas of the unincorporated community of Dexter, Oregon:

Starting at the intersection of the West line of Section 16, Township 19 South, Range 1 West, Willamette Meridian, the intersection of the Northerly right of way line of County Road No. 95 (Dexter Road); run thence Northerly along said North right of way line of said County Road No. 95, 370 feet, more or less; thence North  $72^{\circ} 27'$  East 230 feet, more or less; thence North 600 feet, more or less; thence South  $69^{\circ}$  East 460 feet, more or less; thence North  $38^{\circ}$  420 feet, more or less, to the Southerly right of way line of State Highway No. 58 (Willamette Highway); run thence Easterly along the said South right of way line of said State Highway No. 58, 4700 feet, more or less, to a point; thence South 300 feet, more or less; thence Southeasterly 115 feet, more or less; thence South 120 feet, more or less; thence West 66 feet, more or less; thence South 145 feet, more or less; thence West 770 feet, more or less, to the Westerly right of way line of County Road No. 1282 (Lost Creek Road); thence South 20 feet, more or less, along said West line of said County Road; thence West 1140 feet, more or less; thence South 870 feet, more or less; thence East 20 feet, more or less; thence South 1110 feet, more or less, to the Southerly right of way line of the Southern Pacific Railroad; thence Westerly along the said Southerly right of way line of said Southern Pacific Railroad to its intersection with the North line of the South one-half of the Southeast one-quarter of Section 17, said Township and Range; thence east to the east line of Section 17 of said Township and Range; thence North along the said West line of said Section 17, said Township and Range to the point of Beginning in Lane County, Oregon.

(b) The petitioner alleges the following facts in support of his request for the adoption of the proposed rule:

1. A May 1976 survey of on-site systems in Dexter, performed by the Lane County Health Division, indicated that the number of system failures and marginally operative systems were 27% and 13%, respectively.

2. Large portions of the soils of the Dexter area are largely permeable, coarse gravels, slowly permeable silty clay loams and clays, or dense clay situated over smooth weathered bedrock.<sup>1</sup>

3. The unincorporated community of Dexter is no longer primarily at rural densities.

4. The large percentage of subsurface sewage disposal systems, with attendant surfacing of largely untreated sewage, represents a serious potential for a communicable disease health hazard.

(c) Petitioner alleges that the following propositions of law pertain to the adoption of the proposed rule:

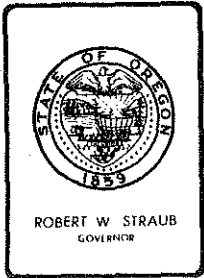
1. ORS 454.605 to 454.745, which pertain to the regulation of subsurface sewage disposal in Oregon. Petitioner specifically relies upon ORS 454.685 which authorizes the Oregon Environmental Quality Commission to limit the construction of subsurface sewage disposal systems.

(d) Petitioner alleges substantial interest in the adoption of this rule in the following specifics:

1. Petitioner, as an agent and representative of the Lane County Board of Commissioners, in charged with protecting the health, safety, and general welfare of the residents of Lane County, Oregon.

2. Petitioner, as a resident and private citizen of Lane County, is personally interested in the promulgation of the proposed rule in that he has, and plans to continue, to visit the Dexter area for recreational purposes.

  
\_\_\_\_\_  
ROY L. BURNS, DIRECTOR  
WATER POLLUTION CONTROL DIVISION



**DEPARTMENT OF  
ENVIRONMENTAL QUALITY  
MIDWEST REGION**

16 OAKWAY MALL • EUGENE, OREGON • 97401 • Phone (503) 686-7601

September 20, 1977

Roy Burns  
Lane County  
Dept. Environmental Management  
125 East 8th  
Eugene, Oregon 97401

Dear Mr. Burns:

Based upon informational meetings, document review, and cursory inspection of the proposed moratorium area of Dexter, the Department of Environmental Quality offers its concurrence with the proposed subsurface sewage disposal moratorium and its purpose to provide relief to the community of Dexter from continued and mounting exposure to health hazards in the form of human sewage.

This concurrence is based upon commitment of Lane County to provide, as an integral part of this moratorium, an active program to accomplish repair or solution to the existing failing sewage disposal systems and to plan for a suitable means of sewage treatment and disposal related to future growth and welfare of the community of Dexter.

Sincerely,

  
Verner J. Adkison  
Region Manager

DSJ/jnf  
cc: DEQ/Subsurface Sewage Division  
Regional Operations

CONSULTING  
*Engineers*

J. VAL TORONTO & ASSOCIATES, INC.

STATE OF OREGON  
LICENSE #5802  
STATE OF WASHINGTON  
LICENSE #11766  
STATE OF ALASKA  
LICENSE #1413

TELEPHONE (503) 276-7402  
219 S. E. 2ND  
PENOLETON, OREGON 97801

September 21, 1977

Joe B. Richards, Chairman  
Environmental Quality Commission  
Eugene, Oregon 97401

Dear Mr. Richards:

The following information was obtained from Kent Mathiot, Hydrologist for the State Water Resource Department, Salem, Oregon.

"Spring flows in the Columbia River raise the water table in the City of Irrigon to within 15' of the ground surface. Hydraulic gradient of the water table is northwest toward the Columbia River. If asked, his recommendations would be to limit growth to low density development of 1 acre lots, and this would only be a temporary measure in delaying pollution of the groundwater table. Trench drainfields should be limited to a maximum depth of 3', however, in Irrigon this places the pipe trench drainfields immediately over the course gravel. In general three-quarters of the Irrigon area is immediately underlain with course grained material, hence, septic tank drainfields are being installed and have been installed just above material that is classified as course grained material", (in violation of O.R.S. 454.605 - 454.745 and Oregon's recommended procedure for the safe installation of septic tank drainfields.) "Groundwater table fluctuates with the high and low water elevation in the Columbia River and this action acts to flush the septic tank drainfields effluents towards the river. The results of this flushing action is that drainfield effluent comes in contact and is mixed with the groundwater table underlying the City. Because the present City density is low, effluent and groundwater concentrations are low, however, these can be expected to increase with increased City development."

The following information was obtained from Doctor Robert Paeth, Soil Scientist for the D.E.Q.

"Examination of the recently taken 10 well water samples tend to indicate that the noted differences between the nitrates and chlorides probably results from agriculture, and that soil analysis indicates course grained soil."

The City wishes to enter into the commission's records correspondence, date July 5, 1977, from Doctor Paeth to Steve Gardels, D.E.Q.

CIVIL - HYDRAULICS - STRUCTURES

HIGHWAY DESIGN  
ACCIDENT INVESTIGATION

COMMUNITY PLANNING  
PARKS AND SWIMMING POOLS

WATER AND SEWER DESIGN, PLANTS AND FACILITIES

SITE DEVELOPMENT INVESTIGATION  
CONSTRUCTION MANAGEMENT & SUPERVISION

SUBDIVISION PLANNING AND SURVEYS  
CANALS, DRAINAGE STRUCTURES & STORM DRAINS

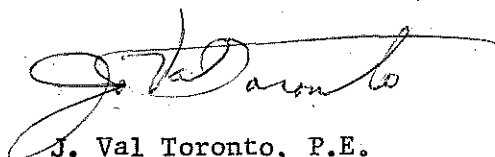
FOUNDATION INVESTIGATION - BORINGS, CLASSIFICATION & TESTING

The cost of a septic tank and drainfield installation is conservatively placed at \$1,000.00. During the last 2 years the City has gained approximately 100 new residences. The \$100,000.00 capitalized cost of this lost investment would have made a significant contribution towards the City's proposed sewage system. This sum represents one-fifth the total cost of installing a municipal sanitary sewer system. With the City's present rate of growth, by 1980 (3 years hence) one-half of the cost of a municipal sanitary sewage system will be invested in sub-surface drainfield installations and it can be anticipated that all of these residences having only recently installed expensive septic tank installations can be expected to resist passage of any bond election for sewage system purposes.

The preparation of the facility plan was undertaken through the efforts of a far sighted City Planning Commission and City Council. The 1976-77 priority list indicated a priority rating of 128. The 1977-78 priority list indicates a priority rating of 149. Though 54 projects are expected to be funded, the City's position has moved back by twenty one points.

We urge reconsideration of the City's position on the priority list.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "J. Val Toronto". The signature is written in dark ink and is positioned above the typed name.

J. Val Toronto, P.E.

JVT/dar



State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: Steve Gardels  
From: Bob Paeth *Bob*  
Subject: Irrigon Grant Project Desirability

Date: July 5, 1977

I asked Kent Mathiot to prepare a short summary of geology and ground water for the area you are concerned about in Irrigon. I will not address this question.

The soils information developed by Bruce Sarazin and J. Val Toronto indicate that this area is underlain by open porous gravels and gravely sands. Depth to coarse-grained material ranged from 30 to 42 inches. Depth to ground water according to your memo is 20 or 30 feet.

This is a situation similar to a 30-square mile area in East Portland on which a study was done in 1974. Depth to ground water in East Portland is in excess of 100 feet. Subsurface disposal of domestic waste in East Portland has contaminated ground water. Nitrate-nitrogen was significantly higher within this area than it was in adjacent sewered areas. This was particularly apparent in wells which developed water from the upper part of the saturated zone. The study also showed a historic increase in  $\text{NO}_3 - \text{N}$  in ground water in this unsewered area.

A properly operating treatment and disposal system partially treats effluent before disposal into a medium through which it passes into ground water. Most soil systems can remove BOD, phosphates, and fecal organisms, but have little effect on removal of some chemical contaminants. In general, fine-grained soils remove suspended solids, fecal organisms, and chemical contaminants better than coarse-grained soils. But nitrogen and fecal organisms can travel substantial distances in effluent percolating through course-grained material.

Geologic materials in the Irrigon area appear to be similar to those in the East Portland area. Ground water is much shallower. With a parcel size of 1/6 acre in Irrigon, we can expect contamination of ground water to take place. This is an area of urban development with small lot sizes. The potential is for high population density. Further development should be based on area-wide sewerage if the quality of the ground water is to be maintained.

RCP/bw

cc: Fred M. Bolton  
Kent Mathiot  
Bruce Sarazin

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED  
JUL - 6 1977

PENDLETON DISTRICT OFFICE

To Members of the Environmental Commission  
and fellow Citizens:

I am William Adams, better known as Bill Adams, of Yachats, Ore. PH. 547-3181. The opinions I desire to present are my own, but are shared by our City Council and Utility Board. And most have been presented to the Lincoln County Solid Waste Advisory Board.

- 1- It is vital to have an extension on present disposal sites, even though the voters have approved a bond issue of \$600,000. No action has been taken to provide service to the general public, other than what was provided prior to the bond approval by private collectors.
- 2- I feel that any extension granted should stipulate adequate provisions to provide the general public a reasonable service at a reasonable price.
- 3- We are aware that Lane County closed private dumps about 20 years ago, and established public sanitary landfills. To my knowledge Lincoln Co. has one public owned dump. Owned by the City of Newport and it is located in a known land slide area, which would seem to make it unsuitable for Capitol improvement, yet this site was selected to remain open under a County solid waste plan.
- 4- How can the public be assured of continued future service without control through long time lease or out-right purchase of disposal sites. The plan being considered has a 1 year price guarantee. And all facilities are privately owned.
- 5- The plan currently being presented to the County & Cities for consideration does not take into consideration the environmental impact of running 45 to 50 yard tandem trailers on our present over taxed roads, and the advisability of long hauls as presented by a national study sent out by region x of the D.E.C. And the uncertain duration of the transport of shredded rubber to the Toledo pulp mill where burning occurs on an experimental basis. This is occurring as far as I know without either an Impact statement or a conditional use permit, as Benton County will require prior to accepting Lincoln Co. garbage. The people in the prevailing wind direction will find this to be a year round pollutant rather than seasonal such as slash and field burning, if regional disposal occurs.

Any help you can offer in this regard I'm sure will be appreciated by all persons concerned in maintaining our environment for present and future generations.

*William C. Adams*  
12417 Yachats Ore  
97498



...gaming  
ough the air. (Staff

# Catch Up No Way Down

anglers that the bottom fishing had been good, and noted one of his boats had done particularly well up north between the mouth of the Siletz and the mouth of the 'D' River.

Ruth Olsen of Riverbend Marina said that fog had kept some anglers from crossing the bar to fish on Sunday, and many tried trolling in Yaquina Bay.

"They had some success, but there were seals around too, and that didn't help," she said.

Elsewhere in the bay, Jerry Golden of Deep Sea Bill's reported the jetty fishing to be "pretty much the same as last week."

That means that anglers are still doing well fishing for perch, flounder and greenling.

Golden said he had seen some coho being taken, but there was so much natural feed in the water it was hard to get the salmon to bite.

He noted that he had seen very few chinook caught from the jetty all summer long. "And it may be too late now," he said. "Last year they were caching chinook from the jetty in July."

...come up river in good numbers, but it was hard getting the bigger fish to bite.

Divers were spearing perch and bass, Golden said, although the visibility, from 3 to 4 feet, had been poor. But he expected the water to settle down and cool down later in the week.

## Garbage Plan Rejected

The Yachats City Council Thursday evening rejected a proposed contract between the garbage collectors of Lincoln County and Valley Landfill, Inc. of Philomath.

The rejection of the contract came after Bill Adams, who had represented the city on the county-wide solid waste committee, questioned the advisability of transporting the solid waste from South Lincoln County to a landfill in the valley.

He recommended that the Council not approve the agreement until the proposers prepare an environmental impact statement for the project.

few, and some would come back with great catches.

He also noted that the fly fishing was good, and recommended the "Alsea Special," a version of the Skykomish Sunrise fly. "It's a real fish-catcher," he said.

to pick up a few jack salmon and a few bluebacks.

Hancock said that herring were still working the best below tidewater.

"I hope it will pick up," she said. "It's not like the fish aren't there."



NELDA HOLME (right) of Westwood Village caught this 28-pound chinook over the weekend near Taylor's Landing on the Alsea. Helping Holme with her catch is Cleo Humphrey. The chinook was caught on a triple teaser. (Photo by Joann Huebner)

## Rate Hikes Due

# Extension Asked for County Garbage Dumps

County garbage haulers plan to ask for a nine-month extension on a state permit that would expire Oct. 1, forcing local dumps to close.

In a discussion Aug. 17 with Lincoln County commissioners, the county's four franchised garbage haulers said the extension should give them time to implement a plan to take garbage to neighboring Benton County.

Once that plan is in effect, disposal rates will increase by \$1 a month for a household with one can of garbage collected each week, the haulers estimate. For two cans, the increase is expected to be \$2.

County commissioners and city councils regulate rates for the franchised disposal businesses.

The haulers met with the county commission to report on the progress of the transfer plan and to ask for tentative approval of it.

The idea to haul Lincoln County garbage to the massive Coffin Butte landfill near Corvallis is nothing new. It was raised last year, at about the same time county voters approved another plan at the Nov. 2 election to deal with solid waste.

County commissioners decided to abandon the voter-approved plan — which called for a garbage grinder to be installed at Agate Beach — after the Coffin Butte idea surfaced. Private business apparently could solve the county's garbage disposal problems without government help, they said.

The problem stems from a state regulation administered by the Oregon Department of Environ-

A permit for an exception to those requirements expires Oct. 1, but county officials and garbage haulers were guardedly optimistic that an extension can be obtained.

Under the Coffin Butte plan, no organic garbage would be dumped or incinerated in Lincoln County. Trash would be dumped into large containers at transfer stations at or near existing dump sites. Trucks owned by Valley Landfill, which manages the Coffin Butte operation, would be hired to haul the garbage east.

Each of the four county garbage disposal businesses — Toledo Sanitary Service, Waldport-Yachats Disposal, North Lincoln Sanitary Service and Thompson's Sanitary Service, Newport — would contract to pay for

hauling and disposal at Coffin Butte. No public money will be used.

Robert Bunn of Valley Landfill has said he intends to start a recycling program at his 200-acre landfill when the volume of refuse it accepts is increased.

Lincoln County's 17,000 tons of garbage each year would help boost the volume enough to make recycling profitable, said Emmett Dobey, county sanitarian.

Gordon Macpherson, Newport lawyer representing the garbage haulers, said nine months would be a "realistic" period to clear legal hurdles, construct transfer stations and begin trucking loads to Coffin Butte. In addition to an extension of the DEQ permit, approval from the Benton County Planning Commis-

sion must be obtained before Lincoln County trash can cross the county line.

Dobey said that raising Lincoln County dumps to sanitary landfill standards would require expensive rebuilding. Passed on to customers, the expense would increase garbage bills.

Ray McDuffee of Seal Rock, a county Solid Waste Committee member, said the Coffin Butte proposal seemed to be the least expensive solution available.

Residential customers pay from \$2.50 to \$3.90 per month for garbage collection, depending on their location and type of service. Haulers estimate those rates would be increased to cover expenses of building transfer stations and disposal at Coffin Butte.



tic  
its  
ar  
nt  
is  
re  
of  
id  
it  
er  
ie  
st

# Depoe Slough Residents Oppose Toledo Additio

Possible flooding of lands and homes in the north Depoe Slough area was the major concern of persons attending the Aug 10 Toledo Planning Commission meeting. They also spoke in opposition to the annexation of land northeast of Highway 20.

The land in question is 40 acres located north of Highway 20 and east of 229. It is owned by Rex Edmondson and Glenn Lyons of Toledo.

The commission took no action on the proposed annexation but said it would have to look into the matter further and at the same time consider other areas to be brought into the city to meet Land Conservation and Development Commission (LCDC) urban growth boundary requirements.

The commission asked Lyons and Edmondson to submit more detailed plans for their proposed development.

Edmondson said they were looking at annexation of the land to the city as part of their development plan. "We need to know the services that will be available," he said.

About half of the land is low and would not be suitable for building. Only the upper 20 acres would be developed for houses, he said.

The low lands could be developed into a horse pasture or a possible park development, he suggested.

Edmondson said he and

put a bridge or causeway across the slough from Highway 229 but that the area could not be diked.

He said the State Highway Division had suggested access to the land from Highway 229 rather than Highway 20, the latter being a busier road.

The development, he said, would be residential, and if with mobile homes it would not be a "trailer court."

City manager Larry Hart told the commission that before annexation could take place at least four steps would have to be taken: 1) consultation with the Highway division; 2) discussion with the Lincoln County School District about the effect that the increase in population would have on school enrollment; 3) compliance with the LCDC goals and guidelines; and 4) the legal aspects of annexing an area that is not contiguous to the rest of the city.

Sid Neal, vice chairman of the commission, said he felt eventually the city would be growing in that direction. "We thought we had enough property to grow into," said Neal, referring to the proposed Urban Growth Boundaries selected earlier

## Manhole Left Open

A manhole on NW Third Street in Newport was left open Aug. 13, its cover removed sometime during the previous night.

by the commission. "But we have lost the Skelton property and the Goddard land is under a cloud. We have lost over 100 acres (within the proposed boundaries)," he said.

The Skelton property is that land adjacent and north of the Goddard annexation across Butler Bridge. The land was recently purchased by Georgia-Pacific Corp. The Goddard annexation is being contested by G-P since that firm does not want a

residential development so close to its mill site. The Yaquina River runs between the mill and the Goddard land.

Carol Gillen of Toledo said Highway 20 is a natural boundary for the city limits and she does not think the town should jump a major road. She likened the potential traffic situation to problems faced by Newport with Highway 101 running through the center of that town.

Dorothy Fieber, home owner in the north slough area, said the Highway 20 bypass had caused drainage troubles with low lands. She said she has one field that used to be planted in grain but since the bypass was built it was too wet for a crop.

Jay Rasmussen of Route 2, Toledo, said he felt any impediment in the slough would run an increased chance of changing the water flow. He said that

although government agencies other than the city would be issuing permits for work in the slough, Toledo would be the one eventually faced with law suits if flooding of homes in the slough area were to occur.

Eric Crookshank of Siletz was afraid the city would not stop with that annexation but continue right up the road. "We'll have a super highway to Salishan," he said.

He said he did not want the city of Toledo to grow and

asked where all the people who would live in the new development would work.

Neal said that was not the commission's problem. "If there are no jobs, they won't come," he said.

Opal Bates of Highway 229 asked if the city could consider taking the upper Olalla area into its urban growth boundaries.

Neal said it was a possibility and the commission would be looking into a number of alternatives.

Kathy Fitzpatrick of R Box 58, Toledo, said Citizen Advisory Committee (CAC) would also be looking into alternatives for the city of Toledo's proposed urban growth boundaries.

**Green Electric**  
**WIRING**  
**Newport, Oregon**  
123 N.E. 8th 265-267

STATE OF OREGON  
**ROUTE SLIP**

Date 9-21-77  
TO: Mike Douvo

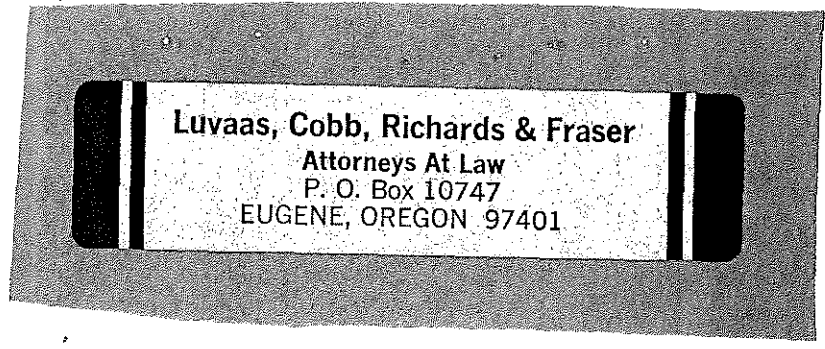
FROM: William H. Young

- CHECK  Approval  Investigate  
 Necessary Action  Confer  
 Prepare Reply  Per Telephone Conversation  
 For My Signature  For Your Information  
 Your Signature  As Requested  
 Comment  Note and File  
 Initial and Return  Return With More Details

**COMMENTS:**

*Presume this should be at  
commission meeting Friday as part  
of record created*

81-125-1569



# »»» Petition «««

We, the undersigned, believe the Teledyne Wah Chang plant in Albany, Oregon to be discharging unacceptable quantities of toxic materials into the environment including our rivers, the ground, and the air we breathe. We believe this condition exists because of the Department of Environmental Quality's (DEQ) lack of understanding of the problem. We demand the DEQ perform a thorough analysis of the pollution discharge. We believe that in order for the DEQ to undertake the responsibility, it must have a complete understanding of Wah Chang's entire production process. We, the undersigned, demand that the DEQ study in detail the effects of nuclear radiation, air toxicity (sulfur dioxide, carbon monoxide), MIBK, phosgene gas, hydrogen cyanide, sulfuric acid and Radium 226. We demand that the DEQ uphold the July 1977 standards on water discharge which will limit no more than 300 lbs. of ammonia nitrogen to be discharged per day. We understand this request to be technologically possible and will not suffer the health and environmental costs in order for Wah Chang to avoid financial inconveniences.

Name	Address	Phone
Ed Epley	3053 NW Harrison Blvd Corvallis	752-3808
Rick Ruffin	3536 NW Second St Albany	926-4742
Leslie Coyle	2120 SE Van Buren Corvallis	753-0777
Kalee Powell	2120 SE Van Buren Corv.	753-0777
Roy Green	7969 12th Philomath	929-3999
Abby Kennedy	Route 2 Box 20 Philomath	Phone
Nancy King	836 SW 10th, Corvallis, Ore	

Please return to: Community Focus  
P.O. Box 749  
Corvallis, OR 97330

# »» Petition ««

We, the undersigned, believe the Teledyne Wah Chang plant in Albany, Oregon to be discharging unacceptable quantities of toxic materials into the environment including our rivers, the ground, and the air we breathe. We believe this condition exists because of the Department of Environmental Quality's (DEQ) lack of understanding of the problem. We demand the DEQ perform a thorough analysis of the pollution discharge. We believe that in order for the DEQ to undertake the responsibility, it must have a complete understanding of Wah Chang's entire production process. We, the undersigned, demand that the DEQ study in detail the effects of nuclear radiation, air toxicity (sulfur dioxide, carbon monoxide), MIBK, phosgene gas, hydrogen cyanide, sulfuric acid and Radium 226. We demand that the DEQ uphold the July 1971 standards on water discharges which will limit no more than 300 lbs. of ammonia nitrogen to be discharged per day. We understand this request to be technologically possible and will not suffer the health and environmental costs in order for Wah Chang to avoid financial inconveniences.

Name	Address	City	Phone
Nancy Watkins	546 Oak Creek Drive #3	Corvallis	752-8688
Janet Kinsler	2543 NW OLNEY DR	Corvallis	322-1080
Geoff Morris	1217 NW 23 <sup>RD</sup>	CORVALLIS	
Mike Halpern	Box 23441 Rt 36	Cheshire Ore	
Patricia Elk	112 NW 30 <sup>th</sup> St	Corvallis Ore	753-4451
Susan Koster	265 E 25 <sup>th</sup> St	Eugene, Ore	97405 341-643
Maurice Good	2878 1/2 Friendly St	Eugene, OR	97405
Allan Werstman	245 SW Cummings	Corvallis	
Lee A. Zetser	103 NW 30 <sup>th</sup> St	Corvallis, Ore	97330

Please return to: Community Focus  
P.O. Box 1043  
Corvallis, Ore.  
97330

# »»» Petition «««

We, the undersigned, believe the Teledyne Wah Chang plant in Albany, Oregon to be discharging unacceptable quantities of toxic materials into the environment including our rivers, the ground, and the air we breathe. We believe this condition exists because of the Department of Environmental Quality's (DEQ) lack of understanding of the problem. We demand the DEQ perform a thorough analysis of the pollution discharge. We believe that in order for the DEQ to undertake the responsibility, it must have a complete understanding of Wah Chang's entire production process. We, the undersigned, demand that the DEQ study in detail the effects of nuclear radiation, air toxicity (sulfur dioxide, carbon monoxide), MIBK, phosgene gas, hydrogen cyanide, sulfuric acid and Radium 226. We demand that the DEQ uphold the July 1971 standards on water discharges which will limit no more than 300 lbs. of ammonia nitrogen to be discharged per day. We understand this request to be technologically possible and will not suffer the health and environmental costs in order for Wah Chang to avoid financial inconveniences.

Name	Address	Phone
<del>Brian</del>	205 NW 11	4-2461
Mitt Carter	7075 Mountain View Dr	75-5449
David A. Brandon	4850 SW Riverside Drive	926-0906
Cindy Warnock	1108 JAN BAKER	
Abigail St. Clair	435 Wake Robin Ln.	753-8384
John F. Forbes	P.O. Box 15 Bladgett	
Fred Ziebel	725 SW Washington	Corvallis #8
Bridley & McLaughlin	550 NW 8th	Corvallis, Ore.
Joe & Ann M. Walls	924 NW Symmore	Corvallis, ORE
Richard Straden	1801 SW Western	Corvallis
Mary Van Holde	229 NW 32nd	Corvallis
Andy Culmer	Rt. 2 Box 392	Corvallis 973-5167
Florida Wolgast	1121 N.W. <del>6th</del> 25th	Corvallis 753-9838
Mark W. Offield	4850 Riverside Dr.	Albany
Burton Elliott	Rt. #3 Box 837	Albany, Ore.
Michael Barham	Rt #3 Box 837	ALBANY

Please return to: Community Focus  
P.O. Box 1043  
Corvallis, Ore.  
97330

# »» Petition ««

We, the undersigned, believe the Teledyne Wah Chang plant in Albany, Oregon to be discharging unacceptable quantities of toxic materials into the environment including our rivers, the ground, and the air we breathe. We believe this condition exists because of the Department of Environmental Quality's (DEQ) lack of understanding of the problem. We demand the DEQ perform a thorough analysis of the pollution discharge. We believe that in order for the DEQ to undertake the responsibility, it must have a complete understanding of Wah Chang's entire production process. We, the undersigned, demand that the DEQ study in detail the effects of nuclear radiation, air toxicity (sulfur dioxide, carbon monoxide), MIBK, phosgene gas, hydrogen cyanide, sulfuric acid and Radium 226. We demand that the DEQ uphold the July 1971 standards on water discharges which will limit no more than 300 lbs. of ammonia nitrogen to be discharged per day. We understand this request to be technologically possible and will not suffer the health and environmental costs in order for Wah Chang to avoid financial inconveniences.

Name	Address	Phone
W. Gandy	400 SW Twin Oaks Cr.	752 1238
Jane Beard	1121 NW 25th Corvallis Or	753-4838
Sandra	231 SW 2nd St. Corvallis	753-8237
Peter Greenberg	738 E. 5th Albany	928-0956
Dolly Honey	P.O. Box 163 Corvallis	-
Robert Baumgartner	230 NW Kline Ave. Corv.	752-4177
Judi Klopfer	7290 NE Pettibone	745-5774
Patty Choadle	1126 NE Tillamook Portland	281-2027
Pat Mazzer	3402 SW 11th #3 Portland	97201 222-3113
Richard Rahner	110 N.W. 35 <sup>th</sup> St. Corvallis	
Andrea Lindberg	2855 NW Tyler Ave Corvallis	
James Bush	6025 Happy Valley Rd. Corvallis	<del>745-5680</del> 745-5680
Michael Palmer	1015 NW Monroe Corvallis	754-3602
Michael McDonald Pettibone	733 S. Westgrove Rd Virginia Beach Va	
Daryl Wilson	426 NW 1st Corvallis	
Nashmas	215 S. S. Lilly Ave Corvallis	753-0660
J. Mark Egger	215 S.E. Lilly Ave. Corvallis	753-0660

Please return to: Community Focus  
P.O. Box 1043  
Corvallis, Ore.  
97330



# »» Petition ««

We, the undersigned, believe the Teledyne Wah Chang plant in Albany, Oregon to be discharging unacceptable quantities of toxic materials into the environment including our rivers, the ground, and the air we breathe. We believe this condition exists because of the Department of Environmental Quality's (DEQ) lack of understanding of the problem. We demand the DEQ perform a thorough analysis of the pollution discharge. We believe that in order for the DEQ to undertake the responsibility, it must have a complete understanding of Wah Chang's entire production process. We, the undersigned, demand that the DEQ study in detail the effects of nuclear radiation, air toxicity (sulfur dioxide, carbon monoxide), MIBK, phosgene gas, hydrogen cyanide, sulfuric acid and Radium 226. We demand that the DEQ uphold the July 1971 standards on water discharges which will limit no more than 300 lbs. of ammonia nitrogen to be discharged per day. We understand this request to be technologically possible and will not suffer the health and environmental costs in order for Wah Chang to avoid financial inconveniences.

Name	Address	Phone
Dave Feinberg	444 S.W. 8th, Corv.	753-4037
Cory Maffey	Rt 1 Corv 70C Philomath	463-4061
Edith Willet	Wheeler St 24 SW 8th Corvallis	
Janice Woodruff	80 Box 416 Philomath	
Dany H. Woodruff	" " " "	
Marta Horton	P.O. Box 1293 CORVALLIS, OR.	
Bird Hansen	Rt. 3, Box 135 B Albany	928-0251
Marie Farrell	214 N.W. 14th St. Corvallis Ore.	
Nancy Almon	Rt 1 Box 336 Corvallis	745-5211
Christina Cantley	3830 West Hills Rd Corvallis	
Margaret Gallo	752-6575 Corvallis	
Robin Wagers	636 NW 11th Corvallis	
C.A. Taylor	521 N.W. 7th Corvallis	
K.B. Lowney	5060 W. Hills Corvallis	
C.R. Sarfan	621 NW 14th Corvallis	
Lenola Pofah	940 S Ferry Albany	

Please return to: Community Focus

P.O. Box 1043  
Corvallis, Ore.  
97330

# »» Petition ««

We, the undersigned, believe the Teledyne Wah Chang plant in Albany, Oregon to be discharging unacceptable quantities of toxic materials into the environment including our rivers, the ground, and the air we breathe. We believe this condition exists because of the Department of Environmental Quality's (DEQ) lack of understanding of the problem. We demand the DEQ perform a thorough analysis of the pollution discharge. We believe that in order for the DEQ to undertake the responsibility, it must have a complete understanding of Wah Chang's entire production process. We, the undersigned, demand that the DEQ study in detail the effects of nuclear radiation, air toxicity (sulfur dioxide, carbon monoxide), MIBK, phosgene gas, hydrogen cyanide, sulfuric acid and Radium 226. We demand that the DEQ uphold the July 1971 standards on water discharges which will limit no more than 300 lbs. of ammonia nitrogen to be discharged per day. We understand this request to be technologically possible and will not suffer the health and environmental costs in order for Wah Chang to avoid financial inconveniences.

Name	Address	Phone
Ant Eves	Star Rt #2, Box #1	929-6865
Jo Ann Cues	"	"

Please return to: Community Focus  
P.O. Box 1043  
Corvallis, Ore.  
97330

# »»» Petition «««

We, the undersigned, believe the Teledyne Wah Chang plant in Albany, Oregon to be discharging unacceptable quantities of toxic materials into the environment including our rivers, the ground, and the air we breathe. We believe this condition exists because of the Department of Environmental Quality's (DEQ) lack of understanding of the problem. We demand the DEQ perform a thorough analysis of the pollution discharge. We believe that in order for the DEQ to undertake the responsibility, it must have a complete understanding of Wah Chang's entire production process. We, the undersigned, demand that the DEQ study in detail the effects of nuclear radiation, air toxicity (sulfur dioxide, carbon monoxide), MIBK, phosgene gas, hydrogen cyanide, sulfuric acid and Radium 226. We demand that the DEQ uphold the July 1971 standards on water discharges which will limit no more than 300 lbs. of ammonia nitrogen to be discharged per day. We understand this request to be technologically possible and will not suffer the health and environmental costs in order for Wah Chang to avoid financial inconveniences.

Name	Address	Phone
Thomas Kridan	Rt. 1, Clatsburg, Ohio 43115 -	
J. Chandler	4425 Woodman #8	752-4583
Randy Barolet	214 NW 14 <sup>th</sup> St, Corvallis	no phone
Elizabeth S. Frembel	1431 NW Vista Rd Corvallis	752-5730
Madame Allford	926 SW 11th St Corv.	757-7788
Dawn L. The Young	222 NW 16 <sup>th</sup> Corv.	753-8173
Roberta Saloma	1161 NW Polk St Corv.	752-9010
James Wagner	644 S. W. 5 <sup>th</sup> Corvallis	753-9783
Steve Barney	2928 N.W. Polk	753-8725
Michael Smith	3635 NW Elmwood Dr.	753-9713
Ivory Rabinich	2311 NW Grant Ave	757-8494
Lynn Stockard	2285 NW Chenook Dr.	752-2071
Margaret K. Murray	1215 NW 16 <sup>th</sup> St CORV.	753-8141
Chris Pennooth	203 NW 7 <sup>th</sup> Corvallis, OR	755-2A28
Sara E. Beddow	329 NW 23rd	757-0331
Dian Cobedy	611 NW Van Buren Apt 2	754-2911
MaryAnn Spigrocker	Corvallis, Ore	805 E Richland

Please return to: Community Focus

P.O. Box 1043

Corvallis, Ore.

97330

753-0496

# »» Petition ««

We, the undersigned, believe the Teledyne Wah Chang plant in Albany, Oregon to be discharging unacceptable quantities of toxic materials into the environment including our rivers, the ground, and the air we breathe. We believe this condition exists because of the Department of Environmental Quality's (DEQ) lack of understanding of the problem. We demand the DEQ perform a thorough analysis of the pollution discharge. We believe that in order for the DEQ to undertake the responsibility, it must have a complete understanding of Wah Chang's entire production process. We, the undersigned, demand that the DEQ study in detail the effects of nuclear radiation, air toxicity (sulfur dioxide, carbon monoxide), MIBK, phosgene gas, hydrogen cyanide, sulfuric acid and Radium 226. We demand that the DEQ uphold the July 1971 standards on water discharges which will limit no more than 300 lbs. of ammonia nitrogen to be discharged per day. We understand this request to be technologically possible and will not suffer the health and environmental costs in order for Weh Chang to avoid financial inconveniences.

Name	Address	Phone
Bill Faraizio	1846 SE Alton Eugene	485-1692
Stuart Hills	901 1/2 Hill 1530 Olive Eugene	47902
Beck Baldwin	358 W 10th Eugene	
Robert Williams	POB 150 Alsea	47324
Mark Linnell	5000 10th SE Eugene	841-1000
Donna J. O'Connell	8 A SONG GARDEN HILL EUGENE	47902
Mary Bender	1569 SW Bryant Dr. Albany Ore	47321
Barbara Blooming	731 W. 11th Eugene	344-1180
Robert Solotar	937 Crane Av Foster City, Ca	(415) 349-3720
George A Plummer	Eugene Ore	47402
James Cohen	968 W. 19th Eugene	444-5900
Robert Pyatt	741 S.W. 3rd St. Corvallis, Ore	
Mike Cahn	2875 NW Clearidge Corvallis Ore	
Paula Krumpal	3110 NW Tuff Corvallis	
Bruce Halbo	Box 53 Blodgett	9732 C
Burt Shoenakett	RT. 2 Box 60 Toledo	97391

Please return to: Community Focus  
P.O. Box 1043  
Corvallis, Ore.  
97330

# »»» Petition «««

We, the undersigned, believe the Teledyne Wah Chang plant in Albany, Oregon to be discharging unacceptable quantities of toxic materials into the environment including our rivers, the ground, and the air we breathe. We believe this condition exists because of the Department of Environmental Quality's (DEQ) lack of understanding of the problem. We demand the DEQ perform a thorough analysis of the pollution discharge. We believe that in order for the DEQ to undertake the responsibility, it must have a complete understanding of Wah Chang's entire production process. We, the undersigned, demand that the DEQ study in detail the effects of nuclear radiation, air toxicity (sulfur dioxide, carbon monoxide), MIBK, phosgene gas, hydrogen cyanide, sulfuric acid and Radium 226. We demand that the DEQ uphold the July 1971 standards on water discharges which will limit no more than 300 lbs. of ammonia nitrogen to be discharged per day. We understand this request to be technologically possible and will not suffer the health and environmental costs in order for Wah Chang to avoid financial inconveniences.

Name	Address	Phone
Gary Zuckerman	1051 SW Adams	753-6739
Barbara J. Ferguson	Rt 2 Box 62b Monmouth	963-4052
Scott W. Bentley	1335W 2 <sup>ND</sup> Corv.	752-9032
Alan Jensen	1932 NW Grant, Cor.	752-0706
Marcia Greve	1830 Ferry Eug. Oregon	97401
Gary Shaffer	Rt 2 Box 67 Monmouth	
Jack Goedert	275 SE Van Buren Corvallis, OR	97330
Ann Hamer	6460 NW Oak Creek OR Corvallis	752-5273
Tom Griffes	Rt 2 Box 192 Monmouth OR	97361
Michael Whipple	1140 W. 15 <sup>th</sup> St. Corvallis, OR	97330
Patricia James Chubor	660 SW 7 <sup>th</sup> Corvallis	757-7160
Judith Murray	Rt. 1 Box 336 Corvallis	745-5206
MITZI STOEHRKE	RT. 2 BOX 60 TOLEDO	97391
Liz Capizzi	5440 Sky View Avenue Corvallis	753840
Orman Tripp	Summit St. Rt 6	
Charles R. Rice	336 NW. 10 <sup>TH</sup> CORVALLIS	97330

Please return to: Community Focus

P.O. Box 1043  
Corvallis, Ore.  
97330

# »»» Petition «««

We, the undersigned, believe the Teledyne Wah Chang plant in Albany, Oregon to be discharging unacceptable quantities of toxic materials into the environment including our rivers, the ground, and the air we breathe. We believe this condition exists because of the Department of Environmental Quality's (DEQ) lack of understanding of the problem. We demand the DEQ perform a thorough analysis of the pollution discharge. We believe that in order for the DEQ to undertake the responsibility, it must have a complete understanding of Wah Chang's entire production process. We, the undersigned, demand that the DEQ study in detail the effects of nuclear radiation, air toxicity (sulfur dioxide, carbon monoxide), MIBK, phosgene gas, hydrogen cyanide, sulfuric acid and Radium 226. We demand that the DEQ uphold the July 1971 standards on water discharges which will limit no more than 300 lbs. of ammonia nitrogen to be discharged per day. We understand this request to be technologically possible and will not suffer the health and environmental costs in order for Wah Chang to avoid financial inconveniences.

Name	Address	Phone
James W. Coffey	510 SE Chester	753-8935
Stephen F. McLaughlin		757-8127
Emmanuel Rosales	795 N. W. 25th St. Apt 66	757-7253
Suzanne Stillwagon	628 SW 3rd St	753-9366
Ruth Stone	995 N. W. Highland Terr	753-3809
David L. Rea	628 1/2 SW 3rd	753-9366
Barbara Galt	Rt 1 Box 403 Edenville	456-4345
Samuel H. Spence	2909 NW 91st Ave NW	926-6373
Betsy Newkirk	1220 SW 37th St	
Kenneth B. Lickender	1220 SW 37th St	757-1082
Domin Spangroft	4205 NW 53rd	753-6707
Dennis Stillwagon	628 SW 3rd	753-9366
John R. Ambler	720 SE Park	752-5403
Julie Ambler	720 SE Park	752-5403
Kathleen Billed	960 SW Jefferson	753-6094
Alic Triakada Cl.	2949 Fillmore	753-5241
Mary Betty Sinclair	326 SW 7th	753-1905
Colleen Callahan	408 S. W. Monroe	757-7140

Please return to: Community Focus  
P.O. Box 1043  
Corvallis, Ore.  
97330

# »»» Petition «««

We, the undersigned, believe the Teledyne Wah Chang plant in Albany, Oregon to be discharging unacceptable quantities of toxic materials into the environment including our rivers, the ground, and the air we breathe. We believe this condition exists because of the Department of Environmental Quality's (DEQ) lack of understanding of the problem. We demand the DEQ perform a thorough analysis of the pollution discharge. We believe that in order for the DEQ to undertake the responsibility, it must have a complete understanding of Wah Chang's entire production process. We, the undersigned, demand that the DEQ study in detail the effects of nuclear radiation, air toxicity (sulfur dioxide, carbon monoxide), MIBK, phosgene gas, hydrogen cyanide, sulfuric acid and Radium 226. We demand that the DEQ uphold the July 1971 standards on water discharges which will limit no more than 300 lbs. of ammonia nitrogen to be discharged per day. We understand this request to be technologically possible and will not suffer the health and environmental costs in order for Wah Chang to avoid financial inconveniences.

Name	Address	Phone
F. J. Gallagher	4 NW 99 Box 52	Glendale
Lina Warbold	949 N.E. Rowle	677-1970
Grenda Brecke	Coos Bay	269-1980
Lennon Brecke	Coos Bay	269-1987
Kathleen F. Warren	30169 Summit	456-4153
Sally Crocroft	2295 Byram	Salem 364-1600
Joyce Kowden	639 Dennis Ln N. Salem Oregon	350-1686
Janella Utterback	general Delivery Otter Rock, Oregon	765-2442
Leslie Blaine	1540 Murray Road	92522
Maureen J. Smith	554 SW Jefferson	Corvallis
Gary Van Eyckman	540 NW 9	Corvallis
Robert J. Van	2610 NW Van Buren	Corvallis
Kelana E. Johnson	1645 S. Hill Rd Albany	
Karen Samell	1611 N.W. 3rd	Corvallis
Perry Danelli	P.O. Box 752	Sweet Home 367-6022
Archie Dwyer	Country Fair	U.S.A.

Please return to: Community Focus  
P.O. Box 1043  
Corvallis, Ore.  
97330

# »» Petition ««

We, the undersigned, believe the Teledyne Wah Chang plant in Albany, Oregon to be discharging unacceptable quantities of toxic materials into the environment including our rivers, the ground, and the air we breathe. We believe this condition exists because of the Department of Environmental Quality's (DEQ) lack of understanding of the problem. We demand the DEQ perform a thorough analysis of the pollution discharge. We believe that in order for the DEQ to undertake the responsibility, it must have a complete understanding of Wah Chang's entire production process. We, the undersigned, demand that the DEQ study in detail the effects of nuclear radiation, air toxicity (sulfur dioxide, carbon monoxide), MIBK, phosgene gas, hydrogen cyanide, sulfuric acid and Radium 226. We demand that the DEQ uphold the July 1971 standards on water discharges which will limit no more than 300 lbs. of ammonia nitrogen to be discharged per day. We understand this request to be technologically possible and will not suffer the health and environmental costs in order for Wah Chang to avoid financial inconveniences.

Name	Address	Phone
Patty Collins	510 SE Chester Corvallis	753-8935
Mark X. Moore	214 N.W. 7 Corvallis	752-4124
Simon Brown	1357 Grove, Lebanon	258-5545
R. Drayton	1394 E. Belmont Albany	928-7310
Patricia Smith	828 E. 1st ALBANY	928-4912
Patricia Christman	<del>875</del> 237#43 Corvallis	753-9436
Dee Leno	828 E. 1st ALBANY	928-4912
Christa Carson	1283 4th Ave SweetHome	
Jane Allen	3800 SE MT VIEW DR #5	928-2267
David Soyars	1025 S. GAGE ALBANY	928-6247
Larry Reich	350 N.W. 9th CORVALLIS	
Jane Musick	135 NW 12th Corvallis	753-4675
Steve Foubert	3785 NW Chunguagin Corvallis OR	753-4860
Fred Brandegee	755 E 24th Albany OR.	
James W. Montgomery	309 W. 12th Albany OR	928-4096
Hilary Hilacher	973 Cleveland #1, Corvallis, OR.	
Kirsten B. Carroll	621 NW 8th Corvallis	752-0865

Please return to: Community Focus  
 P.O. Box 1043  
 Corvallis, Ore.  
 97330



# »» Petition ««

We, the undersigned, believe the Teledyne Wah Chang plant in Albany, Oregon to be discharging unacceptable quantities of toxic materials into the environment including our rivers, the ground, and the air we breathe. We believe this condition exists because of the Department of Environmental Quality's (DEQ) lack of understanding of the problem. We demand the DEQ perform a thorough analysis of the pollution discharge. We believe that in order for the DEQ to undertake the responsibility, it must have a complete understanding of Wah Chang's entire production process. We, the undersigned, demand that the DEQ study in detail the effects of nuclear radiation, air toxicity (sulfur dioxide, carbon monoxide), MIBK, phosgene gas, hydrogen cyanide, sulfuric acid and Radium 226. We demand that the DEQ uphold the July 1971 standards on water discharges which will limit no more than 300 lbs. of ammonia nitrogen to be discharged per day. We understand this request to be technologically possible and will not suffer the health and environmental costs in order for Wah Chang to avoid financial inconveniences.

Name	Address	Phone
Dan Standley	Rt. Box 333A Corvallis	745-5782
Robert Alan Fried	PO Box 805 <sup>Drain Ore</sup>	836-2497
Alb Everett	919 ALMASON ST. Eugene	345-0709
Vanell Anderson	PRIMA AL Eugene	485-0366
Wanda Kunt	624 NW King's M Corvallis	753-6138
Lynnea Storey	1996 Garfield Eugene	687-8636
Barbara Stern	35239 McKinnon Driv Spfld	726-8349
Gene Withelst	3397 University Eugene	343-2871
Peter Jensen	1035 1/2 Ferry St Eugene	343-7997
Sun Drop	231 SW 2ND ST Corvallis	753-4137
Dan Ferrans	" " " "	" "
Charles P. Glenn	" " " "	" "
Catcher Standard	1302 40th Eugene	97405 343 3826
Gene Taber	1876 JEFFERSON Eugene	285-1672
Brian Long	244 W. 12th, Eugene	484-9133
Ron Nelson	128 SW 9th Corvallis Ore	753-1243

Please return to: Community Focus  
P.O. Box 1043  
Corvallis, Ore.  
97330

# »» Petition ««

We, the undersigned, believe the Teledyne Wah Chang plant in Albany, Oregon to be discharging unacceptable quantities of toxic materials into the environment including our rivers, the ground, and the air we breathe. We believe this condition exists because of the Department of Environmental Quality's (DEQ) lack of understanding of the problem. We demand the DEQ perform a thorough analysis of the pollution discharge. We believe that in order for the DEQ to undertake the responsibility, it must have a complete understanding of Wah Chang's entire production process. We, the undersigned, demand that the DEQ study in detail the effects of nuclear radiation, air toxicity (sulfur dioxide, carbon monoxide), MIBK, phosgene gas, hydrogen cyanide, sulfuric acid and Radium 226. We demand that the DEQ uphold the July 1971 standards on water discharges which will limit no more than 300 lbs. of ammonia nitrogen to be discharged per day. We understand this request to be technologically possible and will not suffer the health and environmental costs in order for Wah Chang to avoid financial inconveniences.

Name	Address	Phone
Jan R. Macrae	4004 SE Holgate	775-8468
Donna S. Cropper	1820 NE 13 <sup>th</sup> Port.	
Clairne Nebel	133 NW Trinity, Portland	
Bar Lindner	-21 <sup>st</sup> NW Hayden, Portland	227-5803
Art Honeyman	11631 SW 39 <sup>th</sup> Portland	245-6172
Melvin Bell	1804 N SIMPSON, PORTLAND	289-4642
Tom Ross	1803 NE 12 <sup>th</sup>	97212 287-8082
Donald Shuck	3021 SE Salmon Ave.	236-6319
John C. Wambrey	2587 NW Overton, Portland	242-2057
Michael A. Stopp	8337 N.E. Ainsworth, Portland, OR	-224-9307-offer
Robert Medley	7735 N. Edison Portland, OR	286-9247
John Kelly	11631 S.W. 39 <sup>th</sup> Portland, OR	-245-6132
Gottlieb M. Buehl	2146 N. E 8 <sup>th</sup> Portland	
Paul E. Tibley	4815 N. E 50 <sup>th</sup> Portland	97218
James D. Callaway	3421 S.E. Morrison Port.	233-9376
Mina J. Panzica	2928 N.E. 59 <sup>th</sup> Port.	249-1804
Jean L. Dodier	1404 N.E. Terrett Port.	281-4252

Please return to: Community Focus,  
P.O. Box 1043  
Corvallis, Ore.  
97330

# »»» Petition «««

We, the undersigned, believe the Teledyne Wah Chang plant in Albany, Oregon to be discharging unacceptable quantities of toxic materials into the environment including our rivers, the ground, and the air we breathe. We believe this condition exists because of the Department of Environmental Quality's (DEQ) lack of understanding of the problem. We demand the DEQ perform a thorough analysis of the pollution discharge. We believe that in order for the DEQ to undertake the responsibility, it must have a complete understanding of Wah Chang's entire production process. We, the undersigned, demand that the DEQ study in detail the effects of nuclear radiation, air toxicity (sulfur dioxide, carbon monoxide), MIBK, phosgene gas, hydrogen cyanide, sulfuric acid and Radium 226. We demand that the DEQ uphold the July 1971 standards on water discharges which will limit no more than 300 lbs. of ammonia nitrogen to be discharged per day. We understand this request to be technologically possible and will not suffer the health and environmental costs in order for Wah Chang to avoid financial inconveniences.

Name	Address	Phone
Julie Stenson	3530 Country Club Corvallis, Or	752-1245
Dennis P. Fetsch	3530 COUNTRY CLUB CORVALLIS	752-1245
John French	Corvallis OR	no phone
Eric A. Hanson	Corvallis OR	752-5483
Nancy Waldron	1155 W B Corvallis	52-0065
James Staker	187 NW 10th Corvallis	
Dorcas Mason	3020 State St CORVALLIS	
Ralph De Argenzio	1404 HARRISON BV CORVALLIS	753-6113
Jean Hamilton		753-1118
WVNE Plunkett	340 NW 35th	753-1118
Pete M. Miller	Box 50A Summit	456-4575
David Miller	31 NW 2nd St Corvallis	753-2163
Eric Bromberg	496 S Union Granite Park	9-9391
Janet M. Miller	Box 50A Summit	456-4575

20 Albany

14  
16  
34  
14

Please return to: Community Focus  
P.O. Box 1043  
Corvallis, Ore.  
97330

16 Lines

# »»Petition««

We, the undersigned, believe the Teledyne Wah Chang plant in Albany, Oregon to be discharging unacceptable quantities of toxic materials into the environment including our rivers, the ground, and the air we breathe. We believe this condition exists because of the Department of Environmental Quality's (DEQ) lack of understanding of the problem. We demand the DEQ perform a thorough analysis of the pollution discharge. We believe that in order for the DEQ to undertake the responsibility, it must have a complete understanding of Wah Chang's entire production process. We, the undersigned, demand that the DEQ study in detail the effects of nuclear radiation, air toxicity (sulfur dioxide, carbon monoxide), MIBK, phosgene gas, hydrogen cyanide, sulfuric acid and Radium 226. We demand that the DEQ uphold the July 1977 standards on water discharges which will limit no more than 300 lbs. of ammonia nitrogen to be discharged per day. We understand this request to be technologically possible and will not suffer the health and environmental costs in order for Wah Chang to avoid financial inconveniences.

Name	Address	Phone
Becky Parker	1104 E. 7th Albany	928-7913
and Shira	1370 Hwy. 30 Corvallis	752-0367
Liz Elledge	Rt 2 Box 271 Albany	329-2649
KEN HUMPHREY	7798 MAINS AVE ALBANY	Dec 928 9576
S.W. Callaway	5652 Botana Pl. Albany Ore.	9265210

Please return to: Community Focus  
P.O. Box 749  
Corvallis, OR 97330