1/12/1976

OREGON ENVIRONMENTAL QUALITY COMMISSION MEETING MATERIALS



State of Oregon Department of Environmental Quality

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AGENDA

SPECIAL MEETING

Oregon Environmental Quality Commission Monday, January 12, 1976 Multnomah County Courthouse - Room 602 1021 S.W. Fourth - Portland, Oregon

9:00 a.m.

- A. Reynolds Metals Company, Troutdale (Request for variance from Criteria for Approval of New Air Contaminant Sources in The Portland Metro Special Air Quality Maintenance Area rule to enable installation of a new fluoride and particulate control system.)
- B. Macadam Avenue Corridor John's Landing Area of Portland (Applications for new parking lot construction permits under the Department's indirect (Air Quality) source rule.)
 - a) Willamette Wharf
 - b) Oregon Bank
- C. Last Minute Addition Variance Extension Request Union Carbide Ferroalloy Division Multnomah County

Note: Some or all of the Commission members may breakfast at the Trees Restaurant (Hilton Hotel) at approximately 7:30 a.m. at which time the Department's Budget may be discussed.

MINUTES OF SPECIAL MEETING

OF THE

OREGON ENVIRONMENTAL QUALITY COMMISSION

January 12, 1976

Pursuant to required notice and publication, a special meeting of the Oregon Environmental Quality Commission was called to order at 9:00 a.m. on Friday, January 12, 1976. The meeting was convened in Room 602 of the Multnomah County Courthouse at 1021 S.W. Fourth Avenue, Portland, Oregon.

Commissioners present included Mr. Joe B. Richards, Chairman; Dr. Morris Crothers, Vice Chairman; Dr. Grace Phinney; (Mrs.) Jacklyn L. Hallock; and Mr. Ronald M. Somers.

The Department was represented by its Director, Mr. Loren (Bud) Kramer, the Coordinator of Technical Programs, Mr. E. J. Weathersbee; the Assistant Director in charge of the Air Quality Program, Mr. H. M. Patterson; and several additional staff members. Mr. Raymond Underwood, counsel to the Commission was present.

MACADAM AVENUE CORRIDOR: INDIRECT SOURCE REVIEW

The Honorable Neil Goldschmidt, Mayor of Portland, was invited to testify regarding indirect source congestion in the Macadam Avenue-John's Landing area of Southwest Portland. The mayor was particularly concerned with regard to an indirect source permit application filed by First Midland, Inc. (ORBANCO). He stated himself to be familiar with the problem in the Macadam Avenue corridor due to his responsibilities for the city and CRAG with regard to transportation planning. He stated the City to have been proceeding on a request for a traffic signal in front of the proposed facility with the assumption that 177 spaces would be authorized there. He recalled that, after the report of the Macadam Avenue Corridor Task Force had been filed, the city had included Macadam Avenue on the State Highway Bonding Priority List along with projects on Union Avenue and Southeast Powell. Powell, he recalled, had been rated first due to the decision on the Mount Hood Freeway. Macadam was rated third and out of the money. He reported that the City had acted on the belief that all three projects could be met out of the State Highway Bond Measure. To the contrary, he noted, limited funds had been made available to encompass only one project. The result of these happenings, he explained, was the processing of plans for ORBANCO's development in the expectation that necessary improvements along Macadam Avenue would be accomplished.

It was Mayor Goldschmidt's contention that the only potential source of immediate funding for Macadam Avenue improvement would be from Mount Hood transfer funds, a source whose use would have to be approved by the Governor.

Alluding to a congressional bill which would permit funds for interstate highways to be transferred to other uses, Mayor Goldschmidt noted that the question of using Mount Hood transfer funds would be a politically delicate one in light of present congressional and presidential scrutiny of the bill. He added that the State Highway matching funds which would be needed were, in any event, probably not available.

The Mayor supported the staff's suggestion that the Macadam Avenue Task Force be reconvened. He stated the City's willingness to work with the Department to accomplish whatever might be necessary to let the ORBANCO project go forward, contending that the events which had transpired were out of the control of the applicant and were the responsibility of government.

Commissioner Richards asked if the Mayor would find it appropriate to permit a degree of air quality degradation temporarily until such time as transportation facility development might be forthcoming.

Mayor Goldschmidt suggested this should be done. He cautioned that the alternative (unbending air quality standards) would serve only to transfer logical economic development to illogical suburban areas. He added that the City had just spent a good deal of planning moneys for the Corbett-Terwilliger area (adjacent to Macadam) in an effort to retain family dwellers. He pointed to this expenditure as evidence that the City is not willing to permit long term degradation of air quality in the area.

Commissioner Somers, alluding to Lake Oswego commuter traffic, railroad tracks on one side of Macadam, and a hillside on the other, inquired if there was any realistic expectation that Macadam could be sufficiently improved. Citing the conclusions of the Task Force, Mayor Goldschmidt replied in the affirmative. He added that the railroad no longer uses the track other than to serve Schnitzer and Zidell industrial sites and would probably relinquish unneeded track. As a philosophical issue, he argued that the mere existence of suburban commuter traffic in a given area of the city should not be reason to defer otherwise logical economic development. (Following Mayor Goldschmidt's testimony, the Commission returned to the agenda as ordered, arranging to address the Macadam Avenue problem later in the meeting.)

VARIANCE REQUEST: REYNOLDS METALS OF TROUTDALE

Mr. Jack Payne of the Department's Air Quality Program presented the staff report. The report recited the applicant's need for a variance from the Commission's rule for allowable total SO₂ emissions for sources within the Portland Metropolitan Special Air Quality Maintenance Area [OAR Chapter 340, Section 3202(2) and (3)]. Also needed was a variance from the 1977 emissions standards for existing aluminum plants. It was reported that the applicant's installation of a dry control system at a cost of some 22 million dollars would result in best practicable control of particulate and fluoride emissions as well as reduction of water pollution and wet sludge problems. However, there was predicted an increase in SO₂ emissions. The increase, it was concluded, would not

violate any federal or state ambient air standards, even if the sulphur content of available coke (a circumstance beyond the applicant's control) were to increase substantially over the present level. It was deemed unreasonable for the Department to require the applicant to spend some six million additional dollars to further abate the SO₂ problem. The staff recommendation was that the variances be granted, conditioned on non-violation of ambient standards, a maximum 5% sulphur content in the coke used, and various monitoring and reporting requirements. It was noted that delay in working out the proposed plan would necessitate a public hearing on the issue of whether a post 1976 compliance schedule for the aluminum plant's adherence to aluminum plant regulations should be granted. A compliance date of January 12, 1978, was recommended.

It was noted that the boundary of the Portland Metropolitan Special Air Quality Maintenance Area (drawn from a Portland-Vancouver Transportation Control Study) had proven arbitrary in its inclusion of the Reynolds plant and should be changed. The variance was recommended to last until such change occurs.

Mr. Payne pointed out that Mr. Ed Taylor of the Southwest Air Pollution Control Authority of Washington had expressed written concern (as conveyed to the Commission) about the potential SO₂ impact on the Vancouver area from the possible use of high sulphur coke by Reynolds. Mr. Payne noted that this same potential exists with regard to Vancouver's Alcoa plant.

Commissioner Somers asked if the applicant was seeking solicitude not available to the Martin Marietta Plant near The Dalles, noting that both plants are located in airsheds of potentially pristine areas in terms of land use planning. Mr. Payne was unable to predict whether the future would bring Class I designations which would affect either plant. He noted that the potential impact of Reynolds was inclusive of the Lewis and Clark State Park area as well as some six kilometers of downwind area which is largely subject to industrial development. It was noted that no violations would occur at Lewis and Clark State Park with the manifold dispersion stack which was proposed.

Mr. Payne explained to Commissioner Hallock that Reynold's use of 67% of the allowable Class II increment would limit new development for approximately six kilometers downwind to the remaining 33%. He added, however, that the combined emissions from Reynolds and Rivergate (or some other area) might affect new development in places beyond the six kilometers.

Mr. Payne conceded to Commissioner Hallock that, under the terms proposed, the variance, if granted, would be in perpetuity. He explained that the future availability of low sulphur coke was unpredictable and would provide no basis for choosing an expiration date for the variance.

Commissioner Hallock was concerned about permitting a large increase in ${\rm SO}_2$ tonnage with no expiration date at a time when the Commission is requiring schools and hospitals to use expensive low sulphur fuels as part of the ${\rm SO}_2$ abatement program.

In response to inquiry by Commissioner Crothers, Mr. Payne reported that the economical desulphurization of coke was only in a research stage and that the molecular structure of low sulphur coal does not lend itself to the manufacture of low sulphur coke.

Commissioner Phinney inquired if it was the staff's intention to propose a rule amendment which would essentially punch out a hole in the Portland Metropolitan Special Air Quality Maintenance Area boundary so as to eliminate only the Reynolds plant. Mr. Payne stated that the rule revision would be based on a study of impact on the downtown area of sources at increasing distances from downtown. He noted that the present rule has a boundary based on transportation strategy and, in some instances, is arbitrary.

In response to further inquiry from Commissioner Phinney, Mr. Payne explained that recovery of fluoride ions from the dry control process would pose a definite economic advantage to the applicant. Mr. Payne and Commissioner Somers recalled that a Pollution Control Facility Certificate had already been granted by the Commission to enable the applicant to borrow money for the project.

Commissioner Somers clarified for the record that, approximately 80% of the time, the prevailing winds at the Reynolds Plant would result in major impact from the source over approximately one to two miles east-southeast of the plant. He wanted it known that this impact area is, in fact, owned by the applicant himself and used to raise cattle. It was agreed by Commissioner Somers and Mr. Payne that the applicant's activity, in a large measure, would affect only his own property. Mr. Payne, however, reaffirmed his speculation that future development within six kilometers of the plant might be affected.

It was the conjecture of Commissioner Somers that east winds, occurring largely in the winter when pollution is a lesser problem, would occur only infrequently and have an infrequent effect on property between Portland and the plant.

Mr. Raymond Underwood, Counsel to the Commission, informed Commissioner Hallock that the statutory authority to grant a variance included authority to modify or revoke the same after a ten day notice and hearing. He interpreted this to negate the apprehension that the variance, if granted, would be forever. Mr. Underwood explained to Commissioner Richards that, while the statutes place no time limit on variances, the Commission has authority to impose a time limit on variances as granted.

In response to Commissioner Richard's question, Mr. Payne reported the applicant to have been on schedule both with regard to the acquisition of equipment and the construction of its new system except for the applicant's hesitance to write purchase orders and proceed further without approval from the agency. It was noted that the equipment would take ninety four (94) weeks to arrive after being ordered. This lengthy delivery time was seen as a component of the need for an extension in the compliance schedule.

Commissioner Richards was told that "negligible impact" on the downtown core, as claimed in the staff report, meant that modeling techniques yield an insignificant number (on the order of 1%) while SO₂ instrumentation in the downtown area would probably not detect any impact.

Mr. Payne confirmed Commissioner Richard's understanding that a critical test for approval of new industry in the downtown area might be whether its impact within six kilometers of Reynolds would exceed the remaining 33% of deterioration allowable.

Commissioner Phinney noted that the Special Air Quality Maintenance Area Rule was a consideration apart from the Significant Deterioration Rule. Mr. Payne noted that Reynolds, an existing source under federal definition on July 1, 1975, was not subject to significant deterioration limitations. Any new plant, however, would be limited by the Reynolds emissions, he stated.

Mr. Kowalczyk of the Department's Air Quality Control Program explained that any new source in Rivergate would be expected to comply with the 370 tons per year SO₂ limitation of the special rule to afford protection to the downtown area and assure remaining airshed capacity for other sources that might follow. Mr. Kowalczyk reported to Commissioner Somers that the applicant would accept the proposals of the staff if the Commission approved them.

It was $\underline{\text{MOVED}}$ by Commissioner Somers and seconded by Commissioner Crothers that the Commission approve the Director's recommendation to grant a variance and consider a compliance extension (as set forth more particularly in the written staff report).

In response to Commissioner Richard's concern about the impact on the Southwest Air Pollution Control Authority's Camas airshed, Mr. Kowalczyk noted the variance requested could be modified in light of impending air quality maintenance plans or upon discovery of a greater impact than had been projected.

Commissioner Somers expressed his disagreement with the notion that the applicant should be encouraged to spend 20 million dollars only to be told soon thereafter that additional restrictions would be imposed. It was Mr. Kowalczyk's response that all industries in the airshed face the possibility that further restrictions might be needed to reduce pollutants or allow for added development.

Representatives of the applicant declined to testify on the variance request, offering to supply any specific information the Commission might request.

The motion carried with the support of all Commissioners except Commissioner Hallock who voted against the motion.

MACADAM AVENUE CORRIDOR: INDIRECT SOURCE REVIEW

Mr. Carl Simons of the Department's air quality program presented the staff report indicating severe congestion on Macadam Avenue, questionable capacity for additional parking spaces in adjacent developments, the need for an air quality study to determine impact, and the staff's recommendation that such air quality study be required of the permit applicants along the corridor to determine the capacity for additional sources.

It was noted that a letter from ORBANCO, supplemented by Mr. Simons inspection of the site had revealed that 92 (rather than 80) of the proposed spaces should be regarded as existing. The result, Mr. Simons reported, was that the applicant was requesting 36 spaces above the number he could build with no permit.

Commissioner Somers added that it was his recollection from aerial photographs that many more spaces used to exist in the area with relation to now defunct industrial sites.

Mr. Simons called to the Commission's attention the fact that an application to construct some 300 parking spaces at Willamette Wharf, where there are no existing spaces, had preceded by more than one month the ORBANCO application.

Commissioner Phinney questioned the notion that the Commission, in its February 1974 meeting, had decided to require improvements to Macadam Avenue before allowing any more indirect source permits. She stated that the minutes of that meeting reflect a policy of requiring the improvements prior to approval of the entire John's Landing project.

Mr. Simons conceded that such may have been the case and added that much more development is now expected along the corridor than was known of at the time of the Commission's 1974 review of John's Landing. He recalled that Mr. Grey, a developer in the area, had only recently visited the agency and informed of his expectation to file additional applications. In Mr. Simons' understanding, the ORBANCO application was only a first phase of the applicant's planned development in the corridor.

Commissioner Phinney expressed curiousity as to why ORBANCO requested only 177 spaces for a facility to house 300 employees and received Mr. Simons conjecture that the request was based on the Department's guideline of .59 spaces per employee.

Mr. Simons pointed out that not many applications are significant in themselves as potential pollutors. He said the applications pending and expected in the Macadam Avenue Corridor, taken in their aggregate, were cause for serious concern, particularly in the absence of a favorable outlook for improvement of the roadway. This circumstance, he felt, had brought the Department to the limits of the Commission's policy as expressed in 1974.

It was Commissioner Somers view that through traffic commuting to and from Portland and the poor road condition were contributors to air pollution to a far greater degree than the indirect sources in the area. Further, he questioned whether it were appropriate to call a halt to economic development while the Commission studies solutions to the problem.

Mr. Simons explained that the Department was not advising a halt to development other than as would be necessary for a very short study. It was noted that alternatives to the improvement of Macadam, such as diversion of traffic over other bridges or operation of the Lake Oswego Park and Ride Station, might lend some relief to the corridor's air pollution problems.

It was Commissioner Somers contention that the permits should be processed as a matter apart from the study. The Director stated that he would revise his recommendation in the light of Commissioner Phinney's information concerning the minutes of the February 1974 meeting. In his view, the permits could be granted with the condition that the applicants participate in the study.

Commissioner Phinney was concerned that awaiting the study might delay Willamette Wharf's project, a project whose application had preceded ORBANCO's. It was the Director's understanding that the Willamette Wharf project was not yet ready for construction.

Commissioner Hallock felt that the development should not be held up for the study because the likelihood that Macadam Avenue would be improved in the next few years was not good. She reasoned that the study would not yield any solution to the long term problem.

Mr. Simons informed Commissioner Richards that he could not give hard numbers relating to the increased pollution to be expected from development along the corridor. He did say, however, that eight hour CO standards were probably being violated at peak traffic hours near the Sellwood Bridge. Further, he noted, in view of a delay in the federal auto emissions control program, the impact statement filed on John's Landing was probably optimistic in predicting no violations. He stated he had no reason to question the Highway Department's assessment that prevailing winds would blow pollutants out of the corridor area some 11% of the time. He stated his concern to be addressed principally the Highway Department's projection of increased traffic in the area as a result of new development.

Commissioner Richards inquired if some of the ORBANCO traffic to its new facility would not be traffic already going through the corridor and its crucial intersection at the Sellwood bridge. Mr. Simons conjectured that some traffic would be the same but that new trips would be involved also. He noted a representative of the Highway Department was present and might be able to comment on the report under discussion (Attachment 2 of the staff report before the Commission).

Given that only 36 of the requested spaces were needing of a permit; and given that the entire 177 lot facility would involve some trips which are present in the corridor anyway, Commissioner Richards felt that the permit might not involve sufficient concern to warrant its delay.

Mr. Gary Putnam, representing ORBANCO, recited for the Commission the history of ORBANCO's project, reporting that considerable expense had been involved in reliance on the permit and that circumstances of planning called for occupancy of the new facility by June 30, 1976. It was stated that the Macadam Avenue facility would constitute only one portion of the company's overall plan to facilitate headquarters functions. Another facility on the transit mall was planned.

It was Mr. Putnam's contention that architects representing ORBANCO had come away from a meeting with representatives of the Department with the understanding that the proposal to construct 177 parking spaces for their new facility would be acceptable if Macadam Avenue were improved in front of the project (as discussed earlier by Mayor Goldschmidt). In reliance on this understanding, he stated, ORBANCO had purchased the property and undertaken a sizable monetary obligation to assist in widening Macadam Avenue. It was not until after these commitments, he reported, that ORBANCO learned of the Department's moratorium on new permits for indirect sources in the Macadam Avenue Corridor.

Mr. Putnam stated that the applicant considers 177 spaces a minimum number acceptable for the project. In the absence of this number, he said, the applicant would be forced to look elsewhere for a location and explore any legal redress available regarding the purchase price of the property, the penalties that might accrue for failure to vacate its present facility, moneys invested in improving the street, and other monetary loss that might result from the project's abortion.

Mr. Putnam added that many of the 200 employees who would occupy the proposed facility now work in the neighborhood of the facility and use Macadam Avenue anyway.

Mr. Putnam stated that ORBANCO is willing to pay its fair share of the costs of the study proposed by the Department but is unwilling to have its project delayed or preconditioned by the study. The latter circumstance, he stated, would cause the company to miss its deadline for vacating present premises. He assured Commissioner Somers that the company would participate in the study if the permit were granted.

Commissioner Somers expressed his concern that Willamette Wharf, whose permit application preceded that of ORBANCO, should not be left out of any permits which might precede the study. It was explained by the Director that the participation requested of the applicants was purely in the form of funding to obtain a consultant to do monitoring of the air in the area. He stated that the cost of the study had not yet been determined. The estimated cost was \$6,000 to \$8,000 according to the staff report.

Mr. Fred Bender, owner of Willamette Wharf, reported that the developers: John's Landing, ORBANCO and himself had agreed to fund the study but objected strenuously to the study's being a precondition to the permits.

Mr. Bob Bothman, assistant state highway engineer with the Highway Division, stated that the Highway Division has no position on the permits in issue. He recited that he had participated in the Macadam Avenue Task Force and was unaware of any funding presently available for the recommended improvements. This conclusion, he stated, had been reached after consideration of many alternatives by his agency and the city. He explained to Commissioner Somers that, even with the introduction of a transit lane such as was installed on the Banfield freeway, no additional federal dollars would become available. He stated that priority of higher rank was given to the Banfield, I-5 North, and the Sunset Highway because of the potential for denser traffic on those roads. This had resulted in no funds for a Macadam Avenue transit lane. He added that alternatives such as metro cars on the unused track would fall into the same category as general improvement of the roadway, the category of insufficient funding. Mr. Bothman noted in passing that people objecting to traffic on Terwilliger had actually proposed its diversion to Macadam, a step which would exacerbate the problem on Macadam This, he said, would mitigate in the opposite direction of any attempt to divert traffic on Macadam.

Mr. John Grey, developer of John's Landing, endorsed the Commission's statements regarding Willamette Wharf and ORBANCO and stated his willingness to participate in a new air quality study despite the fact that one had been included in the impact assessment filed with regard to John's Landing. He noted that the cessation of development would be a very costly event for everyone involved. It was his wish that development of Willamette Park to the South of John's Landing and development of John's Landing in its phase toward the river from the old water tower could go forward even though they would involve additional parking spaces. He reminded the Commission of the possibility under current rules that, without permits, a number of parking lots for 49 or fewer cars could spring up in an unregulated fashion. He reported that the plan for development would involve an increasing number of owners and investors.

In response to Commissioner Crother's inquiry, it was determined that, of some 2,464 spaces projected for the area, approximately 2,000 remained to be allocated under the permit system. Commissioner Crothers defined the problem as one of deciding how much of the planned total could be permitted into existence before air quality considerations would demand a halt.

Mr. Grey stated he had worked with the agencies who might be able to fund improvement of the roadway and understood their difficulties in obtaining funding.

It was MOVED by Commissioner Somers and seconded by Commissioner Hallock that the Director's recommendation be amended to (1) request the developers of John's Landing, Willamette Wharf, and the ORBANCO facility to participate in a joint air quality study (as submitted to the developers on December 18) for the Macadam Corridor, (2) to request that the City of Portland reconvene the Macadam Avenue Corridor Task Force or a similar organization to seek construction of a four lane boulevard in the corridor or alternative solutions to traffic congestion, and (3) to issue the permits for the pending indirect source permit applications of Willamette Wharf and ORBANCO. The motion, as seconded, was to adopt the director's recommendation as amended by the motion.

Commissioner Richards stated himself as in support of the motion. His support, he said, was based in a large measure on the testimony of Mayor Goldschmidt that, at least with relation to the two permits in issue, the city would be willing to accept some degradation of air quality in the corridor until facilities catch up with development. He cautioned that his support was in no way conditioned on the information that one of the applicants had gleaned the impression from the staff that the permit would be granted as requested. While stating his recognition that the staff is competent and has the support of the Commission, Commissioner Richards said he wanted the public to be aware of a fact well known to both the Commission and the staff: the fact that the staff's representations in no way bind the Commission in its policy making activities.

The motion was carried with the support of all five Commissioners.

CONFIRMATION OF VARIANCE GRANTED TO STANDARD OIL COMPANY OF CALIFORNIA FROM RULE GOVERNING SULPHUR CONTENT OF FUELS.

It was MOVED by Commissioner Somers, seconded by Commissioner Phinney, and carried that the Commission ratify its action of January 12, 1976 wherein each Commissioner (except Commissioner Richards who could not be reached) agreed by telephone that the Standard Oil Company should have a variance to burn 1.9% sulphur fuel oil resulting from the mixing of 2.1% sulphur content oil with oil on hand. The 2.1% oil had arrived on a 16,000 barrel barge which was to return to its origin with other cargo. To leave the oil on board and ship it elsewhere would have involved a \$200 per day demurrage for each day the barge was delayed from its scheduled rounds. The motion had the support of all Commissioners except Commissioner Richards who abstained for reason of his not having participated in the telephone polling.

AREA RULE ADOPTION FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS IN WASCO COUNTY

It was MOVED by Commissioner Somers, seconded by Commissioner Hallock, and unanimously carried that the Commission should hold a public hearing in its next regular meeting to consider the adoption of a regional area rule which would permit the approved use of cesspools in Wasco County.

EXECUTIVE SESSION

After a short executive session concerning matters in litigation, the Commission meeting was adjourned.

Somers - Mr. Chairman I have the following motion to make: I MOVE that the Director's recommendations shall be as follows and we shall approve them: That the developers of Johns Landing, Willamette Wharf and the Delta Processing Center ORBANCO, be requested as they have agreed to do today to participate in a joint air quality study as submitted to the developers on December 18, 1975 for Macadam corridor.

Richards - Mr. Somers, you're reading from the Director's recommendations with the changes you are making?

Somers - Yes, with the changes. So if you have a copy of that and want to read along as to what I've done. Second sentence after the word "be" right after ORBANCO, put "requested". Go down to the next sentence and blank out everything right up to the comma and then it starts in with "to participate in a joint air quality study as submitted to the developers on December 18, 1975 for Macadam corridor."

(b) would remain unchanged— the request we made to the city of Portland to reconvene the Macadam corridor task force or a similar type of organization to evaluate alternate methods to reduce traffic congestion on Macadam Avenue if a firm commitment cannot be made to improve Macadam Avenue to a four lane boulevard type facility.

Now (c) read along carefully as this is where the major change is made.

(c) shall read as follows: "The pending (next 2 words deleted) indirect source permits (omit the word "including") Willamette Wharf and the Oregon Bank Processing Center in Macadam Avenue area be issued." Now does that cover everything?

Hallock - I second it.

Richards - It has been MOVED and seconded. Is there a discussion on the motion?

Somers - Did anybody get left out in that one? I don't think so. I don't know why that word "including" is in there. It probably - a finer piece of drafts-manship. Does that sound all right Ray?

Underwood - Yes.

Richards - Any seconds?

Crothers - I second it.

Richards - It's been seconded.

Somers - Call for the question

Richards - Is there a discussion on the motion? Mr. Somers I'm going to support your motion and it's not in any sense going to be because of, as one witness stated, there had been some reliance by ORBANCO on the staff, or at least the impression, that it got from the staff. I think it would be bad policy for any member of the public to feel that because the staff, or what they understood to be a staff recommendation, is going to bind this Commission. It does in no sense and I'm not saying that you deal with the staff at your peril, you certainly don't. It's a fine staff and we stand behind it, but it does not make policy decisions. The staff knows that and we know that and we certainly want the public - I want the public to know that we (won't?) be bound by predictions of what the Commission will do. On the other hand I thought Mayor Goldschmidt made an outstanding presentation that this city is prepared to accept some degradation at that point while the facilities catch up over a period of years. While I didn't understand him to be speaking to the next permits that will be before us, I certainly feel his testimony was adequate to be a strong recommendation in favor of granting both of these permits, and for that reason I will support the motion.

Richards - Question. Call the roll.

Dr. Phinney Aye

Dr. Crothers Aye

Mrs. Hallock Aye

Mr. Somers Aye

Mr. Chairman Aye

Richards - The recommendation as modified is approved.



ENVIRONMENTAL QUALITY COMMISSION

1234 S.W. MORRISON STREET PORTLAND, ORE. 97205 Telephone (503) 229-5696

ROBERT W. STRAUB GOVERNOR

To:

Environmental Quality Commission

From:

Director

Subject: Agenda Item No. A, January 12, 1976 EQC Meeting

<u>Variance Request - Reynolds Metals Company</u> (From Criteria for Approval of New Contaminant Sources in the Portland Metropolitan

Special Air Quality Maintenance Area Rule)

Background

Reynolds Metals Company Aluminum Plant, located on Sun Dial Road in Troutdale, Oregon, is a prebake electro-chemical reduction facility that converts alumina into aluminum at a rated production rate of 130,000 tons a year.

The Plant's present wet scrubbing air pollution control system is not adequate to meet 1977 particulate and fluoride emission standards. The plant has proposed to replace the present system with an elaborate dry control system which not only represents the highest and best practicable control of particulate and fluoride emissions from an existing aluminum plant, but has significant advantages with regard to material recovery, reuse, reducing water quality problems and wet sludge production and disposal. One disadvantage of the dry system is that it provides little or no control for removal of sulfur dioxide emissions which would result in an increase from present SO₂ levels from the plant. The SO₂ increase is of further importance because of the potential increase in the sulfur content of the calcined coke that the plant uses to make anodes which are then consumed in the pots. Because of this potential increase in sulfur dioxide emissions from the plant, the Department and Reynolds have had to fully evaluate the possible effect this might have on the Portland Metropolitan airshed.

Discussion

Reynolds Metals Company Aluminum Plant, located on Sun Dial Road in Troutdale, Oregon, is a prebake electro-chemical reduction facility that converts alumina into aluminum at a rated production rate of 130,000 tons a year. The Troutdale plant is required under Oregon Administrative Rules (OAR) Chapter 340, Section 25-265(4)(a) to comply with emission standards in Section 25-265(3) for total particulate and total fluoride by January 1, 1977. An appropriate compliance schedule for obtaining compliance with the 1977 emission standards was incorporated into Reynolds Metals Company's Air Contaminant Discharge Permit (No. 26-1851).



DEQ-46

The plant's existing air pollution control systems are inadequate and unable to comply with the 1977 aluminum plant emission standards. Reynolds Metals Company personnel for the past two years have been investigating possible alternate means of achieving compliance. The Department has generally supported the direction in which Reynolds has planned to control fluoride and particulate emissions.

On March 10, 1975, Reynolds Metals Company formally submitted plans and specifications for a \$22 million project to the Department for construction of a new pot room fume control system (principle source of particulate and fluoride emissions). The fume control system proposed included:

- The replacement of the present primary pot room fume control system (courtyard wet scrubbers) for all five lines, with a dry collection system.
- 2. Deactivation of the secondary roof vent wet scrubbers.
- 3. Replacement of all present cover door hoods with new interlocking door hoods.

During this meeting, both Reynolds Metals Company and the Department expressed concern about the possibility of a sulfur dioxide problem with the new dry collection system since it would not control $\rm SO_2$ emissions as effectively as the present system. The matter of sulfur content of coke was discussed including the fact that the Troutdale plant's current 1% sulfur coke would be increasing over the years to come and could go as high as 3.5% by weight. This was the first clear indication to the Department that there was a potential for a 470% increase in sulfur dioxide emissions from Reynolds' Troutdale plant.

Department Review of Reynolds Metals Company's Original Proposal

The Department's review of Reynolds' Troutdale plant proposal completed in July 1975, showed that the new dry control system represented highest and best practicable control for the capture and removal of total particulate and total fluoride emissions from an existing aluminum plant. It was felt that the plant would be able to achieve and maintain compliance with aluminum plant emission standards effective January 1, 1977 and at 1% sulfur coke (annual average for 1974) the net increase in sulfur dioxide emissions (between 30% and 60% increase) would result in no violations of any Oregon or Federal sulfur dioxide emission, ambient air quality or significant deterioration standards. However, if the sulfur content of coke were to rise to 2.5 to 3.0% and no additional SO2 controls were provided, it was projected that several state and/or Federal sulfur dioxide rules and/or regulations would be exceeded.

The Department's analysis did indicate that a 2.0% coke sulfur (equivalent to 2400 tons per year $\rm SO_2$ emissions) limitation on the Troutdale Plant would insure that $\rm SO_2$ air quality standards and deterioration limits would not be exceeded.

The following tables summarize Reynolds' present and projected total plant emissions at various sulfur content cokes to the atmosphere.

Annual Emissions to the Atmosphere (production rate 130,000 short tons aluminum per year)

Table 1 Present Emissions (tons per year)

<u>Pollutant</u>	DEQ Estimate
Total Particulate	1420
Total Fluoride	760
Sulfur Dioxide (1% sulfur in coke)	730

Table 2 Projected Emissions with Proposed New Control Systems (tons per year)

	DEQ Estimates		
Pollutant	Best	Most	Worst
	Control	Likely	<u>Case</u>
Total Particulate	350	540	940
Total Fluoride	110	160	380
Sulfur Dioxide (1% sulfur in coke)	1210	1210	1210

Table 3
Projected SO, Emissions with New Control Systems
Increased Sulfur Content in the Coke
(tons per year)

% Sulfur In Coke	DEQ Estimate
1.0	1210
2.0	2390
3.0	3570
4.0	4740
5.0	6000

Reynolds Metals Company Response to Sulfur Coke Limitation or Equivalent Control

The Reynolds Metals Company would not accept any coke sulfur content limitation or equivalent control requirements imposed on the Troutdale plant. The reasons for Reynolds taking such position were:

- 1. The Company had no control over the sulfur content in their coke. There is presently a world-wide shortage of coke. The sulfur content of coke suitable for consumption by the Troutdale plant is rising and could reach 3.5 wt percent by 1977. After 1977, the industry could not project what will happen with the sulfur content of coke. Reynolds suppliers of coke will not sign contracts for longer than one to three years or guarantee a supply for coke less than 3.0 percent sulfur in coke. The reasons for the rise in sulfur content of coke is due to the diminishing supplies of low sulfur feed stock for the cokers and greater demand for low sulfur fuel oils.
- 2. Financing for a major portion of the pollution control project through the issuance of \$20.7 million worth of revenue bonds by the Port of Portland has been completed and to obtain approximately \$6 million for additional \$0₂ control at this time would be financially burdensome to Reynolds Metals Company and could cause potential water quality and sludge handling problems.
- 3. The Company contended, and EPA has reafirmed, that Reynolds modification is not subject to Federal Significant Deterioration Limitations review procedures and thus any conditions imposed by the Department because of significant deterioration would not be valid. The reason for this determination is the fact that Reynolds modification, as defined in the Federal Regulations, commenced before June 1, 1975. (EPA did indicate that Reynolds SO₂ impact would be counted in the allowable increment for the purpose of determining remaining airshed capacity for other growth.)
- 4. Reynolds does not believe their SO_2 air quality impact would be as great as projected by the Department.

Subsequent Meetings with Reynolds

Following this apparent impasse between Reynolds and the Department numerous meetings were held to exchange information and ideas, discuss differences and try to come to a mutual understanding and develop a solution that would be acceptable to both parties. Following the last of these meetings in October 1975, Reynolds Metals Company hired a private consulting firm to evaluate the sulfur dioxide air quality impact from the Troutdale plant. The consultant's findings generally agreed with the Department's evaluation. Based on the findings of their consultants, Reynolds Metals Company proposed to modify their original proposal which called for each individual dry control system for each of the five potlines to have two short stack emission points. The modification consisted of a manifold system where all the emissions from all five pot lines would be ducted then exhausted to the atmosphere via one single stack exhaust point elevated 150 feet above ground.

The Department's review of Reynolds' proposal for a single exhaust point for the dry control system via a 150 foot exhaust stack showed a significant improvement with respect to the Troutdale plant's projected SO_2 impact. It was felt that Reynolds could use coke up to a sulfur content of 5% by weight without violating any Oregon or Federal sulfur dioxide emissions or ambient air quality standard.

The projections made by the Department indicate that the maximum short-term impact from Reynolds Troutdale plant would occur at Broughton Bluff (a 450 foot promontory at Lewis and Clark State Park, about 2 kilometers southeast of the plant site). The most stringent standard for SO₂ in this case is Oregon's maximum 3-hour average standard of 1300 ug/m^3 . At 5% sulfur coke it is projected that the maximum 3-hour average would be 1150 ug/m^3 . Both the 24-hour and annual sulfur dioxide standards would be easily complied with.

The maximum annual impact from Reynolds proposed control system would occur approximately 1.0 to 2.0 km west-northwest of the plant site. The annual impact at 4% sulfur coke would be 10 ug/m^3 .

The Department projects that with Reynolds proposed new control system and at 4% sulfur coke, approximately 67% of the Class II increment for SO_2 maximum average of 15 ug/m 3 would be used up. The Department's review also projected a negligible impact on the downtown core area of Portland.

Availability of Low Sulfur Content

Although a 5% coke sulfur limit would insure compliance with air quality standards and not use all the significant deterioration increments, the Department believes that a plant SO₂ emission limit should be imposed which insures that such emissions will be kept to the lowest practicable level. Recent studies regarding the transformation products of sulfur dioxide in ambient air to principally sulfates, and their effect on haze formation has lead the Department into taking a stronger look into SO₂ emissions within the Portland Metropolitan airshed. The Department's concern has lead to limiting sulfur dioxide emissions for several new and modified industrial sources and a lowering of the sulfur content limitation for residual fuel oil (from 1.75% to 0.5%) within the Portland Metropolitan area. Reynolds projected increase in SO₂ emissions (4000 tons per year) could negate more than half of the SO₂ reduction projected for the Portland area due to implementation of a new clean fuels policy. The Department has, therefore, investigated the future trends in coke sulfur content.

The Department does feel that 4% maximum sulfur content in coke limitation is reasonable for at least the next six years. The Department is aware that conditions within the coke market could change unexpectedly for the worse and could force the Troutdale plant to use higher than 4% sulfur coke. Should Reynolds Metals Company be placed in this position and can supply necessary documentation concerning unavailability of low sulfur coke, the Department would consider this to be reasonable basis for adjusting the limit to a more practicable level provided ambient air quality standards would not be violated, more than two-thirds of the SO_2 deterioration increment was not used and other ambient air requirements in effect at that time are not exceeded. If existing air quality rules would not allow Reynolds to increase their SO_2 emissions to meet available coke sulfur content then a short-term variance would be needed while Reynolds completes a control program which might include secondary sulfur dioxide controls or other equivalent methods such as financing of a coke desulfurization facility.

Request for Variance

For the 4700 tons per year total plant sulfur dioxide limitation to be imposed on Reynolds Metals Troutdale Plant, the plant must obtain a variance from OAR Chapter 340, Sections 32-020(2) and (3), Criteria for Approval of New Contaminant Sources in the Portland Metropolitan Special Air Quality Maintenance Area. The State of Oregon, Department of Justice has determined that the proposed Troutdale construction is subject to the criteria rule.

The Department, in evaluating Reynolds Metals Company's Troutdale Plant projected impact concluded the special AQMA rule limitation of 357 tons per year SO2 increase is not properly applicable for the remote location of the Reynolds plant to the main problem area of Downtown and Northwest Portland. The Department's air quality modeling of the Troutdale plant's emissions projects that the plant's emissions would not violate any ambient SO_2 air quality standards and would have a negligible affect on the Downtown area of Portland. The Department's findings show that the Special Portland AQMA boundary which includes the Troutdale plant, which is based on the Vancouver-Portland Transportation Study boundary, is not properly applicable and for the purposes of this special rule the boundary should exclude the plant.

The Department does feel that in order to keep Reynolds' impact as minimal as practicable that the plant should be required to use the lowest sulfur content coke that is practicably available, but not to exceed an equivalent SO_2 emission rate of 4700 tons per year. Justifications for this restriction are based on the following:

- 1. Significant deterioration limitations would not be exceeded thus allowing for expansion of existing industry and for potential new industry within the area.
- 2. No ambient air quality SO_2 standards would be exceeded.
- 3. Resulting impact within the critical Downtown core area of Portland from the Troutdale plant would be negligible.

Based on the Department's findings Reynolds requested a variance from the rule and that the Portland Metropolitan Special Air Quality Maintenance Area boundaries be changed so as to exclude the Reynolds plant site.

The granting of such a variance by the Environmental Quality Commission would be allowable in accordance with Oregon Revised Statutes (ORS) Chapter 468.345 because:

- 1. Conditions exist that are beyond the control of Reynolds Metals Company. The sulfur content of coke is directly related to the sulfur content of crude oil feed stock over which Reynolds has no control.
- 2. Special circumstances render strict compliance unreasonable, burdensome or impractical. Reynolds Metals Company has already arranged financing for a major portion of this project and an additional expenditure of approximately \$6 million for additional \$0₂ control at this time would be financially burdensome and might cause unnecessary water quality and sludge handling problems.

Conclusions

- 1. Reynolds Metals Company's Troutdale plant is required by Department rules pertaining to existing aluminum reduction plants to reduce total particulate emissions by 770 tons per year and total fluoride emissions by 600 tons per year and demonstrate compliance by January 1, 1977.
- 2. The Department has reviewed Reynolds Metals Company's detailed plans for achieving compliance and has concluded the proposed system will adequately control particulate and fluoride emissions. The system proposed is considered to represent highest and best practicable treatment and control at an existing aluminum plant for these air contaminants.
- 3. In reviewing Reynolds control plans, the Department has determined that present SO_2 emission control effectiveness would be reduced by installation of the new system as much as 60% and SO_2 emissions could increase from present levels of 730 tons per year to 1210 tons per year assuming Reynolds sulfur content of coke, which is the major source of SO_2 emissions, does not increase.
- 4. Reynolds Metals Company has indicated that the sulfur content of their coke will very likely rise in the future due to factors beyond their control and could increase by a factor of 4.0 or greater from the present 1% level. SO₂ emissions from the plant could thus increase at least 4000 tons per year from the present levels.
- 5. Considering the remote location of the Troutdale plant to the critical Downtown Portland air quality area, the Department has projected that Reynolds SO₂ emissions could increase 4000 tons per year without exceeding air quality standards. About two-thirds of the allowable significant deterioration increment would be used if emissions increased this much. This is based on exhausting all gases from the pot room dry control system through a 150' stack.
- 6. The Department's Special Air Quality Maintenance Area Rule, adopted in October 1974 to prevent future violation of air quality standards while allowing some orderly growth, would allow the Reynolds modification a maximum 357 tons per year of SO₂ emission increase. A variance from this rule would be required to allow installation of the dry pollution control system and operation with a coke sulfur content up to 4%.
- 7. Reynolds Metals Company has delayed installation of the presently proposed control system pending resolution of the SO₂ issue which, in turn, has caused a delay in improving existing particulate and fluoride air quality conditions around the Troutdale area.
- 8. The delay in resolving Reynolds Metals Company's Troutdale plant's sulfur dioxide impact will result in the plant being unable to demonstrate compliance by January 1, 1977. The plant will thus need a variance from the EQC for the additional length of time to install the proposed new dry control system. In addition, Reynolds compliance schedule in their air contaminant discharge permit will have to be modified which requires a public hearing in front of a hearings officer.

- 9. The Department believes that an SO₂ emission limit must be imposed on the Troutdale plant to insure the use of the lowest sulfur content coke practicably available, that compliance with ambient air standards are maintained, that growth is not unduly restricted within the airshed because of one source using all the allowable significant deterioration increments and that significant threats to public health and welfare from conversion to SO₂ to sulfate particulate is avoided.
- 10. Should Reynolds Metals Company be able to provide documentation that it is practicably obtaining the lowest available sulfur coke and still will be unable to stay below the 4700 tons per year $\rm SO_2$ limit the Department would consider this to be a reasonable basis for modifying the $\rm SO_2$ total plant emission limit provided the Troutdale plant does not violate any applicable $\rm SO_2$ rules, regulations or standards that are in effect at that time.

Recommendations

It is the Director's recommendation that the Commission grant a variance to Reynolds Metals Company's Troutdale aluminum plant from the Department Rules, Oregon Administrative Rules, Chapter 340, Section 32-020(2) and (3) (pertaining to criteria for approval of new air contaminant sources in the special air quality maintenance area) which limits the maximum allowable annual tonnage increase of SO₂ from a single stationary source. That the variance shall terminate upon termination of the Criteria Rule or modification of the rule to exclude the plant site from the boundaries of the Rule. The variance should be granted subject to the conditions in Attachment A which shall be incorporated in Reynolds' Air Contaminant Discharge Permit and based upon a finding by the Commission that strict compliance with the Department rule is inappropriate because:

- 1. Conditions exist that are beyond the control of the persons granted such variance.
- 2. Special circumstances render strict compliance unreasonable, burdensome or impractical due to special physical conditions.

Further, it is the Director's recommendation that the Commission authorize a public hearing at a time and place to be determined to consider revising OAR Chapter 340, Section 32 to exclude the Reynolds Metals Company Troutdale plant site from the Special AQMA Rule.

LOREN KRAMER

JAP:cs 1/6/76

Attachment

Attachment A

- 1. The permittee shall utilize the lowest sulfur content coke which is practicably available.
- 2. The annual sulfur dioxide emission rate from the entire plant site shall be kept as low as practicable, but shall not exceed 4700 tons per year.
- 3. The permittee shall conduct a special one year SO₂ ambient air quality impact monitoring program when the potline dry scrubber system is operating. A program and schedule for this study shall be submitted to the Department for review and approval at least six months prior to operation of the dry scrubber system.
- 4. The permittee shall submit semi-annual reports to the Department listing the quantity and sulfur content (percent by weight) of the baked anodes used during the previous six months and projections of the sulfur content of coke to be used for the ensuing six month period.
- 5. The permittee shall install a single stack of not less than 150 foot (45.7 meters) in height which shall exhaust all gases from the potline dry scrubbing system.
- 6. The permittee shall submit plans for the 150' stack to the Department for review and approval and shall install the stack concurrent with installation of the potline dry scrubbers.
- 7. Continuous stack opacity monitoring shall be required on the 150 foot exhaust stack for the potroom dry scrubbing system, if the Department's evaluation of the system, indicates such monitoring would be practicable and necessary to effectively maintain bag integrity and particulate emission control.
- 8. The permittee shall monitor the dry scrubber stack SO₂ emissions concurrently with the required particulate emission monitoring.



ENVIRONMENTAL QUALITY COMMISSION

1234 S.W. MORRISON STREET PORTLAND, ORE. 97205 Telephone (503) 229-5696

ROBERT W. STRAUB GOVERNOR

To:

Environmental Quality Commission

From:

Director

Subject: Addendum to Agenda Item No. A, January 12, 1976, EQC Meeting

Variance Request - Reynolds Metals Company (From Criteria for Approval of New Contaminant Sources in the Portland Metropolitan

Special Air Quality Maintenance Area Rule)

The delay in initiating construction of control facilities has resulted in a Reynolds Metals Company request for a variance from OAR Chapter 340, Sections 25-265(4)(a) which requires existing aluminum reduction facilities to comply with the particulate and fluoride ion emission limitations of subsection (3) on or before January 1, 1977.

The staff has reviewed the request and considers it reasonable. A compliance schedule, including increments of progress, should be incorporated in an amended air contaminant discharge permit. Such a proposed permit would be subject to a public hearing as it is considered to be an amendment to Oregon's Clean Air Act Implementation Plan.

Director's Recommendation

It is recommended that:

- A variance be granted from OAR Chapter 340, Section 25-265(4)(a) 1. requiring compliance by January 1, 1977.
- 2. The final compliance required in OAR Chapter 340, Section 25-265(4)(a) be extended to January 12, 1978
- The Commission find that strict compliance is unreasonable, burdensome or impractical due to current conditions.
- 4. The Department be directed to incorporate the new compliance schedule into the Air Contaminant Discharge Permit, including appropriate increments of progress negotiated with Reynolds Metals Company and submission of plans and information as may be required.



5. A public hearing before a hearings officer be authorized to consider the issuance of the proposed amended permit containing the new compliance schedule.

LOREN KRAMER

HMP:cs 1/8/76

Attachment: Letter from Reynolds requesting variance



REYNOLDS ALUMINUM

NORTHWEST OPERATION OFFICE

January 8, 1976

Mr. Loren Kramer
Director
Department of Environmental Quality
1234 SW Morrison
Portland. OR 97201

Dear Mr. Kramer:

Re: Reynolds Metals Company - Troutdale Plant

Reynoids Metals Company hereby requests a variance from the compliance date set forth in 340 OAR 25-265(4)(a) as applied to the Company's Troutdale Reduction Plant. 340 OAR 25-265(4)(a) requires that all existing aluminum plants must comply with the emission standards set forth in 340 OAR 25-265(3) on or before January 1, 1977. The Company's existing discharge permit applicable to the Troutdale Reduction Plant incorporates the requirements of this regulation requiring compliance by January 1, 1977. The Company requests the Environmental Quality Commission to approve a variance from the regulation and an amendment to its discharge permit, granting the Company an extension of its compliance date to a date 24 months subsequent to the date on which the variance is approved by the Environmental Quality Commission.

This request is based on information recently obtained from the supplier of the major components of the new control system which the Company will install at the Troutdale facility. The supplier estimates that it will require 94 weeks to deliver the components. Additional time between delivery and final compliance will be required for installation, correction of deficiencies in the system and testing.

Reynolds Metals Company will continue to do everything practicable to install its new equipment at the earliest possible date, but the Company has no control over the delivery schedule

Mr. Loren Kramer January 8, 1976 Page 2

of its supplier. Any change in the Company's progress in meeting this compliance schedule will be reported immediately to the Department of Environmental Quality.

Very truly yours,

Harry V. Helton

Northwest Operations Manager

cc: Mr. Jack Weathersbee Mr. Harold Patterson

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY CONTROL

Southwest Air Pollution Control Authority

LONGVIEW

DONALD HOGARTY

PHONE 206 636-3810

P. O. BOX 503

LONGVIEW, WA.

7601 H N. E. HAZEL DELL AVENUE VANCOUVER, WASHINGTON 98665

PHONE 206 696-2508

January 9, 1976

Oregon Environmental Quality Commission 1234 S.W. Morrison Portland, Oregon

Re: Reynolds Metals Company, Troutdale Variance Request.

Gentlemen:

The Southwest Air Pollution Control Authority has concern relating to the potential increase of emissions of sulfur dioxide in the Camas-Troutdale air shed. As you may recall the Portland Interstate Air Quality Region is classified priority I for sulfur dioxide. This classification was established due to high sulfur dioxide levels in the Camas-Troutdale air shed.

The ambient standard of 0.40 ppm sulfur dioxide by volume for any one hour period is exceeded in the Camas area. The location of the sampling site is not representative of the whole air shed. It is therefore reasonable to expect that excursions over the standard occur more frequently than indicated by measured samples.

Washington State Law and the Environmental Protection Agency approved Implementation Plan would not permit the establishment of a new or added sulfur dioxide emission of the magnitude proposed within the Camas-Troutdale air shed.

Technology is available that could be used to maintain, as a minimum, the current sulfur dioxide emissions from the aluminum plant in Troutdale. To further insult the air quality and cause continued contravention of the air quality standards is not warranted. The choice of control systems for the control of fluoride and particulate matter should consider the control of other air contaminants. These considerations should be even greater when an ambient standard is either being violated or harshly threatened.

Hopefully you will consider the needs of the whole air shed and the requirement to maintain the air quality standards throughout the air quality control region.

Very truly yours,

Edward K. Taylor, Executive Director

Southwest Air Pollution Control Authority

cc: Dept. of Ecology
Olympia, Washington 98504

Environmental Protection Agency 1200 6th Ave. Bldg. Seattle, Washington 98101

EKT/b



ENVIRONMENTAL QUALITY COMMISSION

1234 S.W. MORRISON STREET • PORTLAND, ORE. 97205 • Telephone (503) 229-5696

ROBERT W. STRAUB GOVERNOR

To:

Environmental Quality Commission

From:

Director

Subject: Agenda Item No. B. January 12, 1976, EQC Meeting

Macadam Avenue Corridor - John's Landing Area of Portland (Applications for new parking lot construction permits under the Department's Indirect [Air Quality] Source Rule.)

Background

On December 19, 1973, the Department received an application from Macadam Investors, Oregon Ltd., to construct 2,464 parking spaces to serve a new residential/commercial development on a 70 acre site between S. W. Macadam Avenue and the Willamette River in Portland called Johns Landing. On February 22, 1974, the EQC approved the construction of 272 spaces for areas D, G, F, E and P (refer to Attachment #1) of the Johns Landing complex with the following conditions:

- Macadam Investors, Inc. were to write into Homewoners As-٦. sociation agreements, Tenant Association agreements and Office Management agreements a means of providing a 20% reduction in transit fares for residents, tenants and employees of the Johns Landing complex.
- 2. Macadam Investors, Inc. were to construct bus shelters to meet or exceed Tri-Met specifications on Macadam and on Corbett Avenues at the Water Tower site, and on the east side of Macadam Avenue near the Town Center site.
- Macadam Investors, Inc. were to provide current Tri-Met schedules and route information which were to have been displayed in shops and offices in Johns Landing and at the bus shelters.

The Commission further authorized the Director to approve the entire Johns Landing project parking facilities only if the following commitments are made by the appropriate governmental agencies:



- 1. Improvement of Macadam Avenue to a four lane boulevard type facility with 12 foot lanes and left turn refuges and including appropriate measures to reduce noise such that the median ambient noise level is not increased over existing levels.
- 2. Improved mass transit service in the Macadam corridor including feeder bus, mini-bus, or dial-a-bus service.

On September 11, 1975, the Department received an Indirect Source application from 4728 S. W. Macadam Partnership, a general partnership composed of Mrs. John D. Gray and four of her children to construct 120 parking spaces to serve a 45,500 square foot office building with an estimated employee population of 250 to 275 persons to be known as the Windsor Door Office Building. The location of the building is within the area originally covered by the Commission's approval of February 22, 1974. (Refer to Attachment #1 for location.)

On October 31, 1975, LaBien Oregon Ltd. submitted to the Department an Indirect Source application to construct 312 parking spaces for a mixed commercial development called Willamette Wharf and bounded on the north by S. W. Hamilton Court, on the west by the Southern Pacific railroad tracks, on the east by the Willamette River, and on the south by S. W. Seymour Court (refer to Attachment #1 for location). This application represents the first phase of a two phase development utilizing approximately three acres and containing 92,134 square feet in five buildings. As proposed, the total project will include ten buildings and 166,434 square feet of commercial space with an additional 120 parking spaces. The location of the development is adjacent to but not in the area originally covered by the Commission's approval of February 22, 1974 (refer to Attachment #1 for location).

On December 17, 1975, the Department received an Indirect Source application from the First Midland, Inc., a holding company for the Oregon Bank (ORBANCO) to construct 177 parking spaces for a data processing center to house approximately 300 employees. Discussions with Oregon Bank personnel indicated that approximately 80 of the requested 177 parking spaces are existing parking spaces, having been used by the previous owners of the building. This facility is also adjacent to the area originally covered by the Commission's approval of February 22, 1974.

Since these applications represented a potential increase of 729 parking spaces, generating an extimated 6,820 additional vehicle trips per day, and since the Department has not received a commitment by the appropriate agencies to improve Macadam Avenue, it was decided that a comprehensive review of the aggregate environmental impact of these facilities in conjunction with future development in the Johns Landing area would be needed to assess whether compliance with State and Federal ambient air standards would be threatened.

Discussion

A. Existing Traffic on Macadam Avenue

In approving the Johns Landing Development, the EQC recognized that there were existing traffic problems in the Macadam Corridor, primarily on Macadam Avenue from the Sellwood Bridge to the Ross Island Bridge. According to a project assessment report prepared by the Oregon State Highway Division last year, traffic congestion will worsen over the next five years with the development of Johns Landing and other new facilities. Peak hour congestion is severe (at the lowest rating of Level F) from Taylor's Ferry Road to the Sellwood Bridge, and is in immediate need of improvements (refer to Attachment #2 for more details).

While the Department does not presently have ambient air data in the Macadam Avenue Corridor, previous experiences with traffic configurations of this type indicate that there is a high probability that mobile source ambient air standards are presently being violated or near violation levels and will be violated over the next several years if no improvements are made to Macadam Avenue or if no alternative traffic control methods are developed to reduce existing and projected traffic.

B. Status of Pending and Future Indirect Source Applications

1. Windsor Door Building

As part of their application, 4728 Macadam Partnership indicated Macadam Investors had undertaken the initial roadway improvements as part of the overall required improvement to Macadam Avenue. improvements include the widening and improvement of certain key intersections and signalization as required by the City. In addition, Johns Landing has installed, and will be installing six bus turnout lanes and several bus shelters along Macadam and Corbett Avenues. The developer has also agreed to an employee transit fare subsidization program for employees working in the Windsor Door Building. On December 4, 1975, the Department indicated to the developer of the Windsor Door Building it would approve their application with conditions, since improvements to certain sections of the Macadam Avenue were committed but would require that approval of future development in the Johns Landing area would be contingent on a new traffic and air quality study being completed. purpose of this study would be to evaluate whether additional development could occur in the Macadam Corridor without violating State and Federal ambient air standards if no further improvements were made to the Macadam Avenue.

On December 18, 1975, an air quality work program was sent to Johns Landing stating the necessary information needed to be collected in order to evaluate existing and future air quality in the Macadam Corridor (refer to Attachment #3 for details) As outlined, the developers are requested to provide the Department with ambient air data, traffic data and meteorological data which would be used in model to project future air quality in the Macadam Corridor. The estimated costs to the developers would be in the range of \$6,000 to \$8,000 total.

2. Willamette Wharf

While the Indirect Source application for Willamette Wharf was received on October 31, 1975, the Department's staff met with the architect of Willamette Wharf as early as May 6, 1975 to discuss the traffic problem existing on Macadam Avenue and possible limitations on future development in the Macadam Corridor due to a lack of firm commitment to improve Macadam Avenue. Staff met with the developer of Willamette Wharf on December 15, 1975, to inform him that the Department could not consider approving a project of this magnitude without an air quality study being completed. This position is consistent with the information given to the developer's architect on May 6, 1975, and the intent of the EQC approval of February 22, 1974, regarding future development in the Johns Landing area. Mr. Fred Bender, the developer of Willamette Wharf, in a letter to the Department, has agreed to participate in the required air quality study.

3. The Oregon Bank - Data Processing Center

As in the case with Willamette Wharf, the Department informed the architect for the proposed data processing center of the Oregon Bank several months before the submission of their application that there may be limitations on future development in the Macadam Corridor due to lack of a definite commitment to reduce traffic congestion on Macadam Avenue. In more recent discussions with the architect and several representatives of the Oregon Bank, there appeared to be a misunderstanding of the Commission's condition imposed upon Johns Landing and their impact on future development in the Macadam Corridor. The architect assumed that the Commission's conditions referred to only road improvements directly in front of the Johns Landing property and not to the entire corridor from the Ross Island Bridge to the Sellwood Bridge. It has always been the Department's understanding the February 22, 1974 EQC conditions related to improving Macadam Avenue into a four lane boulevard facility extended from the Ross Island Bridge to at least the Sellwood Bridge. This understanding is confirmed by at least three documents:

- a. The Final Report of the Macadam Corridor Task Force on Transportation (dated February 4, 1974), a document which was used as a basis for several of the required EQC conditions.
- b. Attachment #2 The Oregon State Highway Division Project Assessment Report on Macadam Avenue.
- c. The Staff Report on a Plan for Corbett, Terwilliger and Lair Hill, dated August 26, 1975, prepared by the Portland Bureau of Planning.

Further discussions with Oregon Bank personnel indicate that at least 80 existing parking spaces are located on the property to be used as a new data processing center. These spaces were used by the former tenants of the building that ORBANCO plans to rehabilitate. Since the existing Indirect Source Rule states that the permit is for construction of 50 or more new parking spaces, the Oregon Bank could construct 129 parking spaces (80 existing and 49 new spaces) without the Department's approval. (Of course, construction of this number of parking spaces without Department review would be contingent on clear documentation of the existing parking spaces.) Approval of any additional parking spaces would be contingent on the results of the air quality study for the Macadam Corridor. The Oregon Bank has been informed of the above items.

At the time at which this report was written, ORBANCO could not confirm as to whether they would participate in the air quality study.

4. Future Development in the Macadam Corridor

As indicated in the original Environmental Impact Statement for Johns Landing and in discussions with the staff of the Portland Bureau of Planning, it is expected that there will be significant amount of development proposed in the Johns Landing area over the next several years. Clearly, the traffic impact from these developments in conjunction with expected increases in commuter and noncommuter traffic in the Macadam Corridor will most likely further degrade air quality if no further improvements are made to Macadam Avenue, particularly in the Sellwood Bridge area.

It is the Department's understanding that at the time at which Johns Landing was approved, improvements to Macadam Avenue to reduce congestion where once a high priority item, but at present appear to be a low priority with the City and State Highway Division. Unless priorities are changed the Department would appear to have no alternative but to restrict issuance of new Indirect Source Permits for new development in the Johns Landing area if further air quality problems from increased traffic congestion are to be prevented.

Conclusions

- A. Macadam Avenue is extremely congested during peak hour periods and apparently cannot effectively handle more traffic without causing further air quality problems.
- B. The Commission's action in 1974 recognized the problems with traffic in the Macadam Corridor by requiring necessary commitments from the appropriate governmental agencies to improve the traffic flow before allowing issuance of any more Indirect Source Permits.

- C. The Department does not have adequate information at this time to accurately evaluate air quality impact of pending and future development in the Macadam Corridor if improvements are not made to Macadam Avenue. However, it is believed that further degradation of air quality would result.
- D. With the completion of an air quality study proposed to be required of pending indirect source permit applicants in the Macadam Corridor, the Department could evaluate whether development on a limited basis can be approved.
- E. Resolution of whether commitments to improve Macadam Avenue can be made in the near future is needed to provide guidance to both the Department and to developers as to how much new parking could be allowed and when, relative to assured improvements to Macadam Avenue.

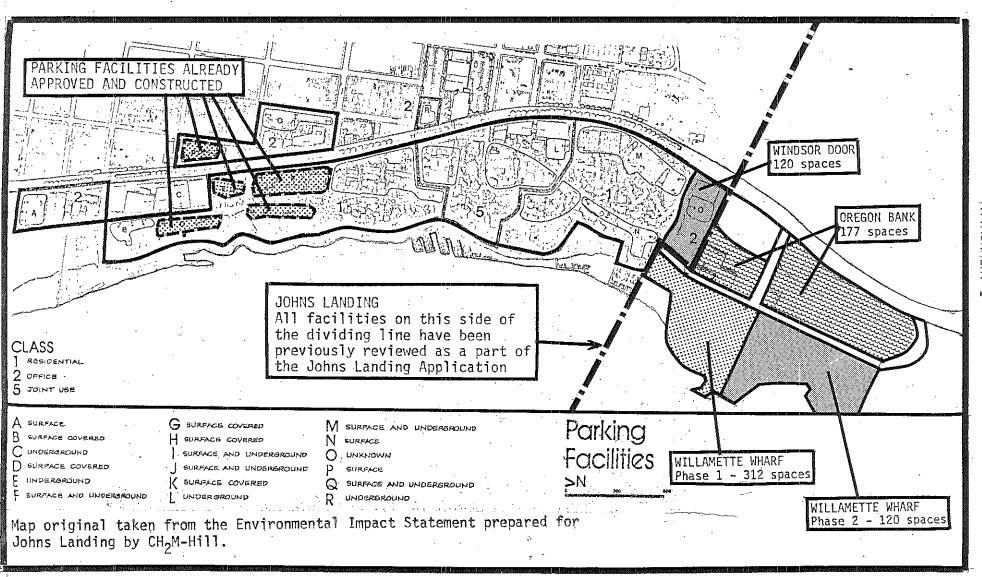
Director's Recommendation

It is the Director's recommendation that:

- A. The developers of Johns Landing, Willamette Wharf and the Data Processing Center for ORBANCO be required as a condition to further parking facility permits, to participate in a joint air quality study (as submitted to the developers on December 18, 1975) for the Macadam Corridor.
- B. A request be made to the City of Portland to reconviene the Macadam Corridor Task Force or a similar type of organization to evaluate alternative methods to reduce traffic congestion on Macadam Avenue if a firm commitment cannot be made to improve Macadam Avenue to a four lane boulevard-type facility.
- C. The pending and future Indirect Source Permits, including Willamette Wharf and the Oregon Bank Data Processing Center in the Macadam Avenue area be issued only after the required air quality analysis is completed and only to the extent that traffic improvements can be committed which would prevent unacceptable air quality or noise problems.

LOREN KRAMER

CAS:cs 1/7/76 Attachments



PROJECT ASSESSMENT
MACADAM AVE. SECTION
OSWEGO HIGHWAY
MULTNOMAH COUNTY

INTRODUCTION

This project is approximately two miles in length from the Sellwood Bridge to Bancroft Street. Macadam Ave. is the main route from Lake Oswego to Portland City Center. Sellwood Bridge and the Virginia Ave. (Taylors Ferry Road) intersections are presently the most troublesome areas. The existing lanes throughout this project are narrow, and no left turn refuges are provided, thus impeding traffic flow. The opening of Johns Landing has created some problems for the present, and future, through expansion of its facilities without adequate traffic control. This project will be a four lane boulevard with a planted median wide enough to accomodate left turn refuges at signalized intersections (see Figure 1). The approach to the Sellwood Bridge will be widened to allow better access and egress, with an extra lane for traffic from the Sellwood Bridge to northbound Macadam Ave. Signals would be installed at Boundary St., Nebraska St., Virginia Ave., and the Bellwood Bridge.

State of Oregon
SEPARTMENT OF ENVIRONMENTAL QUALITY

The present ADT is 18,500 from Bancroft Street to Taylors Ferry Road and 25,700 from Taylors Ferry Road to the Sellwood

AM COALTY CONTROL

Project Assessment - Introduction

Macadam Ave. Section - Oswego Highway

Bridge. The 1990 predictions for ADT are 31,000. During peak hours, the section from Taylors Ferry Road to the Sellwood Bridge is jammed (level F). Improving this area, as well as providing left turn refuges, will greatly enhance traffic movement. A widening project from Flower St. to Iowa St., with a signal at Pendleton St., will be let by the Oregon State Highway Division this spring. A proposal for signalizing as well as maintaining free movement of through traffic at Virginia Ave. and the Sellwood Bridge is enclosed (see Figure 3). This proposal will be used in evaluating this assessment, as it involves the least expenditure. An alternative for Taylors Ferry Road and Virginia Ave. with overcrossing to maintain free movement on Macadam in both directions is also enclosed, (Figure 4), with costs included later in the report.

All electrical distributions will be located underground by agreement between the City of Portland and the utilities involved. A P.G.E. substation is located at Virginia Ave. and Macadam, but it should not be affected by this project as the state has already purchased the additional land in this area.

Willamette Park is located one block east of Macadam Ave. from Carolina St. to the Sellwood Bridge, and Powers Marine Park from the Sellwood Bridge south.

All existing pavement, curbs and sidewalks will need to be

Project Assessment - Introduction

Macadam Ave. Section - Oswego Highway

replaced causing added traffic congestion, but this can be held to a minimum through staged construction. In order to obtain four 12-foot lanes and a median with left turn refuges, an additional ten feet of right-of-way will need to be purchased through most of the project length. There is strong opposition to this from most of the businesses south of Johns-Landing, as it would involve relocation of their buildings. Most of the dissenters could be appeased by staying within the existing right-of-way, using a narrow median, between Iowa St. and California St. The additional width would be needed at Nebraska St. in order to include a left turn refuge. Another problem area is the Water Tower building of Johns Landing, which is located adjacent to the existing right-of-way line. Without the additional ten feet, substandard narrow lanes will have to be used.

There is an existing problem with traffic wanting to get from Macadam to the east side via the Ross Island Bridge, and vice versa, as it must use residential streets in the Corbett neighborhoods. The solution to this problem could be included in the project. One alternative would be a ramp from Macadam northbound to the Ross Island Bridge eastbound, and a ramp from Ross Island Bridge eastbound to Macadam southbound via Hood Ave. Another alternative would be ramps from the Marquam Bridge to Union and Grand Ave. These alternatives will be discussed under Regional Urban Systems Effects. A more

extensive project has been proposed by the City of Portland Planning Commission which includes placing the access and egress from the Ross Island Bridge on Kelly St., and closing Front Ave. between Barbur Blvd. and Arthur St. This would completely remove the bridge traffic from the Corbett and Lair Hill residential neighborhoods. Problems created by diverting traffic can not be assessed at this time.

PROJECT ASSESSMENT MACADAM AVE. SECTION OSWEGO HIGHWAY MULTNOMAH COUNTY

I. Non-User Considerations

A. Community

1. Complies with City Comprehensive Plan

At this time, the City of Portland does not have an adopted comprehensive plan, but an Arterial Streets Plan is under study. Macadam Ave. is the main route from Lake Oswego to the Portland CBD, and future plans are for it to be a major auto and mass transit corridor, preferably with light rail if economically feasible.

2. Local Community Reaction

The local community and the Corbett, Terwilliger, Lair Hill Planning Committee support this project in anticipation of decreasing traffic through their residential streets. There is opposition from the local businesses that would have to be relocated due to the additional right-of-way purchases.

3. Effect on Community Services and Public Safety

By relieving congestion and providing left turn refuges, emergency vehicles would be better able to perform their functions, especially through the Taylors Ferry Road to Sellwood Bridge section. It would have a slight improvement in access to Lewis and Clark College.

B. Social

1. Community Recreation

Recreational opportunities would be augmented by improved pedestrian, auto and transit access to Willamette Park, Powers Marine Park and the Johns Landing Town Center, which will include theaters, boat moorages and other community oriented facilities.

2. Neighborhood Effects

Although an additional ten feet of right-of-way would be required, very few buildings would be displaced, and most of these are commercial and light industrial. There would be very little disruption to family life and community orientation, except during the construction stage. Improved pedestrian access to the river through crossings and signals would enhance the Terwilliger neighborhood.

C. Economic Impact in Project Vicinity

With little displacement of commercial and manufacturing businesses, there would be only a slight decrease in tax revenue and jobs. The overall impact is for increased job opportunities and tax revenues through the Johns Landing development and other businesses that will be attracted to the

area. The roadway improvement, coupled with an improved transit system, would enhance these opportunities.

Constructing the overcrossings at Taylors Ferry Road could have an adverse effect by causing the removal of a large food distributing plant, which lies in the proposed right-of-way.

D. Environmental

Air Quality

Macadam Ave. lies on a terrace above the Willamette River flood plain east of the foothills of West Hills, with the residential neighborhoods located on the foothills. According to the U.S. Weather Bureau, calm periods in the wind have a frequency of occurance of 11%, allowing pollutants to collect; but the majority of the time, these pollutants would be blown from the area. Elimination of the congested sections during peak hours would help decrease pollution in these areas; but increased traffic volumes, expected throughout the project, would have a slight adverse effect on air quality. Most of the additional traffic would be the result of the Johns Landing development. Improved bus service along the corridor, and the possibility of light rail, would help

to minimize the traffic increase.

If either the Ross Island Bridge or Marquam Bridge alternatives were included in this project, the Corbett neighborhoods would obtain a large improvement in air quality by the removal of the Ross Island Bridge access and egress traffic from their residential streets.

2. Noise Pollution

As mentioned above, the increased traffic volumes would tend to slightly increase noise levels on Macadam Ave.

Inclusion of the bridge alternatives would have a positive net effect through reduction of noise levels on the residential feeder streets that far outweigh increases on Macadam Ave.

3. Aesthetic Impact on General Public

With the development of Johns Landing, Willamette Park and the proposed greenway along the waterfront, a landscaped boulevard would be more complementary to the planned setting of the corridor than is the present facility. Right-of-way purchases should not affect

natural areas or the Willamette Park except at the Sellwood Bridge, where an additional travel lane is needed.

4. Urban Design

In its present state, Macadam Ave. serves as a wedge through the community, with no facilities for pedestrian crossings, little traffic control and an antiquated design. The Johns Landing project was the impetus for injection of new commercial and residential construction to the area. This project, with traffic and pedestrian control, landscaping, and the potential for mass transit is needed to meet the demands of the redevelopment program, as well as add form to the existing residential neighborhoods.

II. Regional Considerations

A. Supports Public Transportation

Macadam Ave. is considered a main corridor for auto and public transportation. The potential for light rail transit along this corridor is good with an existing track inside the right-of-way throughout most of the project length. A Park and Ride station for bus and/or light rail is planned for the Lake Oswego area within the next five

years, with express buses to Johns Landing and Portland CBD. Bus turnouts and shelters will be provided along Macadam Ave. for non-express buses to maintain free movement of traffic. According to the Governor's Task Force on Transportation January, 1975, "1990 ridership on this line for either light rail or bus would not be great enough to indicate it deserved significant regional priority."

B. Functional Classification

Macadam Ave. is classified as a principal arterial between Lake Oswego and Portland CBD.

C. <u>Traffic Need Time Schedule</u>

Traffic conditions from Bancroft Street to Taylors Ferry Road are presently below capacity, but will worsen over the next five years with the development of Johns Landing and other new facilities. Peak hour congestion is severe (level F) from Taylors Ferry Road to the Sellwood Bridge, and is in immediate need of improvements.

D. <u>Local Priority</u>

The City of Portland ranks this job as third on its list of three projects.

E. Enhancement of Transportation System

This project is an intermediate link in improving the tie between Lake Oswego, the Sellwood area and Portland.

F. Regional Urban Systems Effects

The purpose of this project is to alleviate problems that exist, or will come about, through the redevelopment along the Macadam Corridor, although the transportation improvements are likely to induce more new development. Vehicular trips generated by the parks and Johns Landing will increase the regional traffic and pollution problems to some extent; but other than in the project limits, there should be little economic, social and land use changes.

The inclusion of the bridge ramp alternatives will have noticeable regional effects. Improving access to the east side of the river will undoubtedly increase traffic along Macadam Ave. as well as the affected bridge. The Ross Island Bridge is already over capacity, although it would be the most direct route and the least expensive of the alternatives. The Marquam Bridge, which is under capacity, could handle the additional vehicles, but it would create added congestion on Union Ave. and Grand Ave., especially for eastbound traffic wanting to get on Powell Blvd. At the same time, this route would decrease traffic

and its pollution on the Ross Island Bridge and the Corbett neighborhood. Either route would improve the regional transportation system.

III. <u>Highway User Considerations</u>

- A. Construction Cost/Average Daily Passenger Mile
 - 1. Boulevard with signals at Taylors Ferry Road
 - a. Cost per mile: $$5,100,000 \div 2 = $2,550,000/mile$
 - b. Average daily passengers: 28,500
 - c. $$2,550,000 \div 28,500 = $89.5/Av$. Daily Pass. Mile
 - 2. Boulevard with overcrossings at Taylors Ferry Road
 - a. Cost per mile: $$6,500,000 \div 2 = $3,250,000/mile$
 - b. A.D.P.: 28,500
 - c. $$3,250,000 \div 28,500 = $114/Av$. Daily Pass. Mile
 - 3. Boulevard with ramps to Ross Island Bridge
 - a. Cost per mile: $$10,000,000 \div 2.2 = $4,545,000/mile$
 - b. A.D.P.: 28,500
 - c. $$4,545,000 \div 28,500 = $159.5/Av$. Daily Pass. Mile
 - 4. Boulevard with ramps from Marquam Bridge
 - a. Cost per mile: $$15,000,000 \div 2.5 = $6,000,000/mile$
 - b. A.D.P.: 28,500
 - c. $$6,000,000 \div 28,500 = $210.5/Av$. Daily Pass. Mile

B. Volume/Capacity Ratio

1. Volume: 20,300 average ADT
Peak hour per direction = 20,300 ÷ 2 x 13% = 1319
(High volume of commuter traffic)

2. Capacity: level of service D per Highway Research Board Special Report #87

<u>Adjustment Factor</u>	Cause	Chapter
0.90	Level D Peak-Hour	10
0.80	Intersections	6
0.80	Narrow Lanes	10 (Table 10.2)
0.85	No Shoulders	5
0.95	Trucks	10

Ideal capacity is 2,000 VPH/lane or 4,000 VPH per direction 4,000 x 0.90 x 0.80 x 0.80 x 0.85 x 0.95 = 1860 VPH

3. Ratio: $1319 \div 1860 = 0.71$

C. Travel Time Ratio

Peak-hour travel time

- Before: 1 mile : 30 MPH x 60 min./hr. = 2 min.
 1 mile : 15 MPH x 60 min./hr. = 4 min.
 6 min.
- After: Posted speed is 35 MPH, but signals south of Johns Landing will slow traffic.

1 mile \div 35 MPH x 60 min./hr. = 1.7 min.

1 mile \div 30 MPH x 60 min./hr. = 2.0 min.

3.7 min.

3. Ratio: 6 min. \div 3.7 min. = 1.62

D. <u>Safety</u>

According to the OSHD Region 1 Urban Current Priorities list for accidents per intersection, Macadam Ave. has two bad intersections of the top 240. Virginia Ave. ranks 67th, and the Sellwood Bridge is 231st. The Virginia Ave. - Macadam Ave. intersection is also listed as the number one priority for signalization in the City of Portland. As development progresses, the need for safer pedestrian and vehicular crossings becomes more apparent. The average accident rate per million vehicle-miles is 5.69 (Table IV) for state primary highways. Macadam Ave. has an average accident experience with 5.66.

- 1) Accidents for the two listed intersections: 26.55
- 3) $26.55 \div 4.69 = 5.66$

* Only data available on 2 intersections in 0.5 mile length.

Project Assessment - Work Sheet

Macadam Ave. Section - Oswego Highway

- A. Boulevard with signals at Taylors Ferry Road
 - 1. Cost of Project

a.	Land acquisition and dislocation	\$1,000,000
b.	Construction - removal; new curbs,	2,500,000
	sidewalks and asphalt pavement;	
	retaining wall; drainage; misc.	* 4
С.	Street Lighting	200,000
d.	Traffic control	150,000
e.	Landscaping - median and sidewalk	400,000
f.	Contingencies (20%)	850,000
	Total	\$5,100,000

- 2. Average daily passengers (same for all alternatives)
 - a. Auto Passengers

1973 ADT per OSHD Traffic Volume Tables

x1000		miles	x1000
18.5	х	1.5	27.75
25.7	х	0.5	12.85
			$40.60 \div 2 = 20.3 \text{ average}$
			$\frac{x1.3}{}$ occupancy
			26.4 passengers

b. Bus passengers

<u>February 1975</u> Tri-Met occupancy figures 2,100 passengers in corridor

Project Assessment - Work Sheet

Macadam Ave. Section - Oswego Highway

- Total passengers
 26,400 auto
 2,700 bus
 28,500
- B. Boulevard with overcrossings at Taylors Ferry Road

 Add \$1,400,000 for ramps and land acquisition

 Total project: \$6,500,000
- C. Boulevard with ramps to Ross Island Bridge

 Add \$5,000,000 for ramps from Macadam northbound to the Ross

 Island Bridge eastbound, and from the Ross Island Bridge

 eastbound to Macadam southbound.

 Total project: \$10,000,000 (2.2 miles)
- D. Boulevard with ramps from Marquam Bridge

 Add \$10,000,000 for ramps from the Marquam Bridge to Union

 Ave. southbound and Grand Ave. northbound to the Marquam

 Bridge.

Total project: \$15,000,000 (2.5 miles)

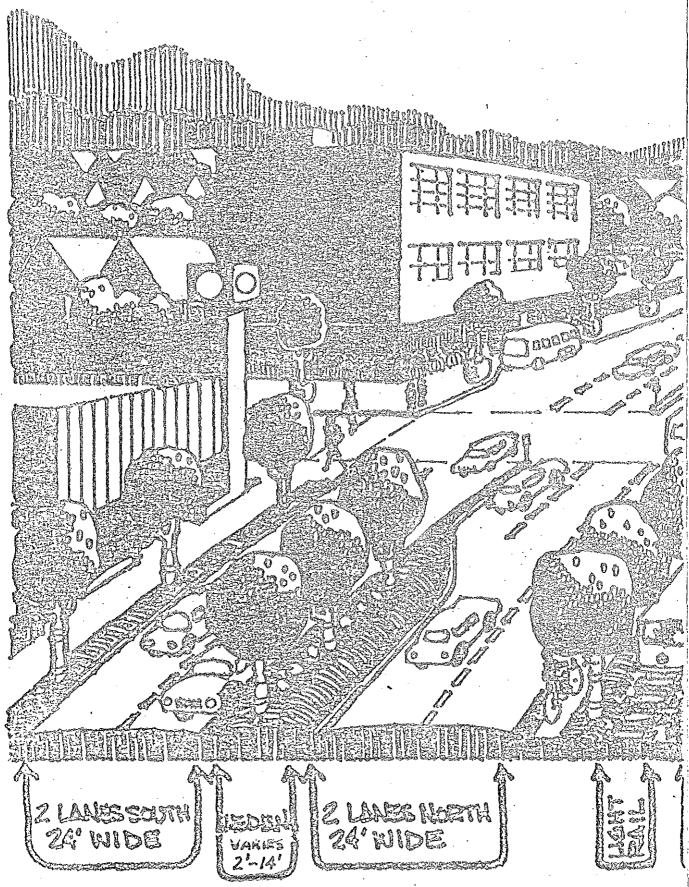
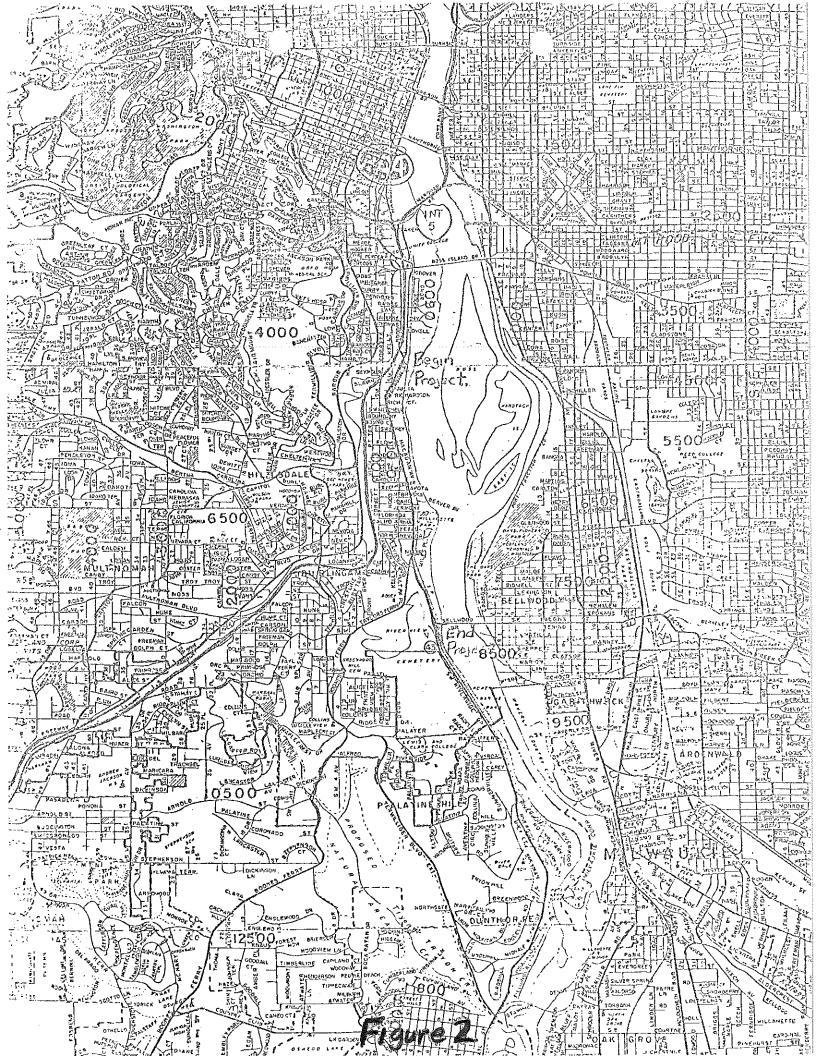
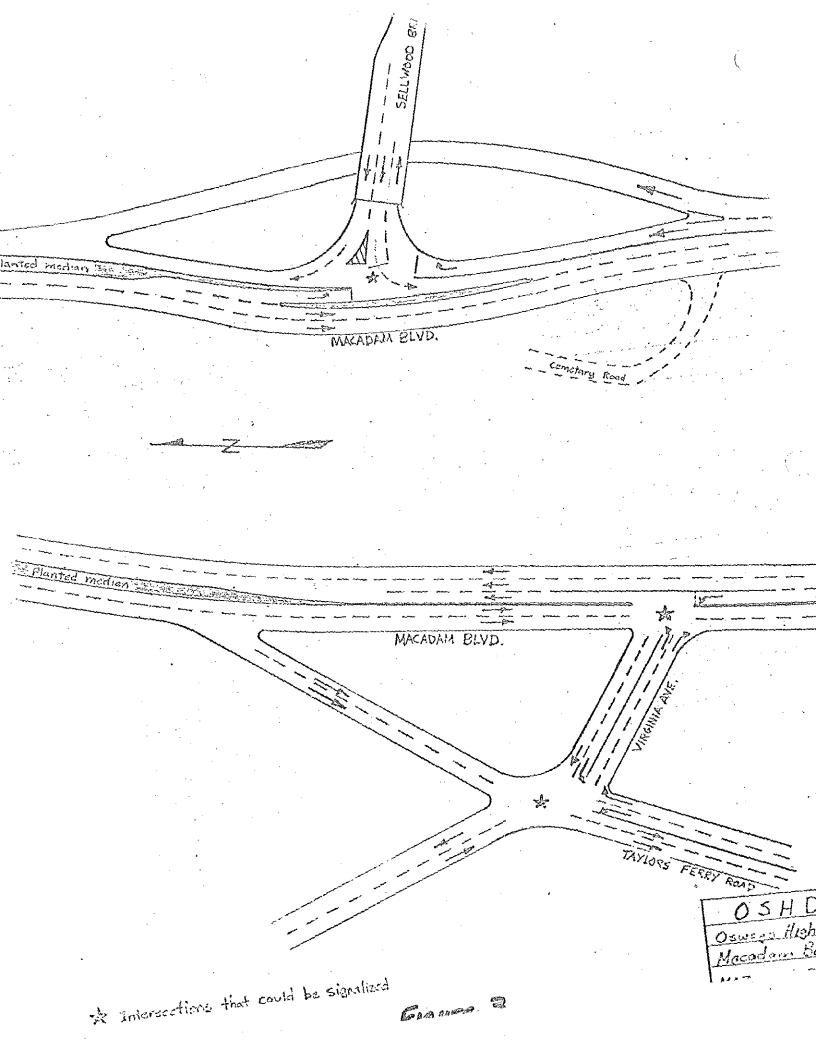
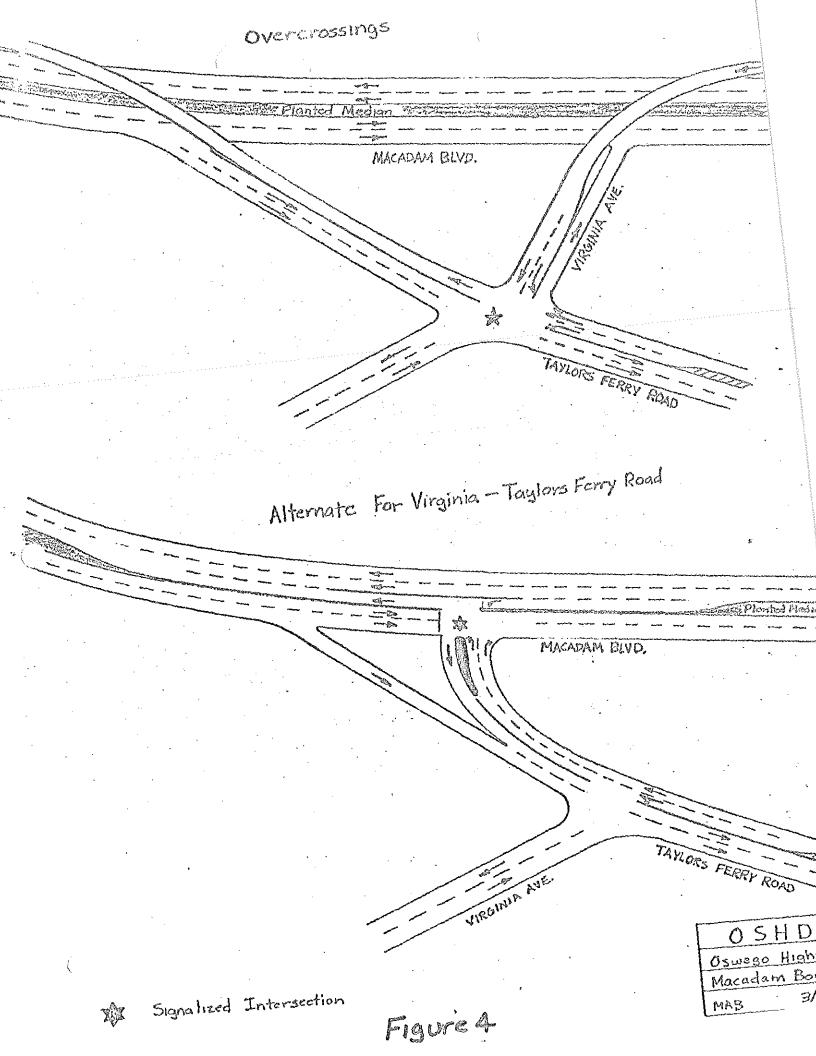


Figure A







The importance of rate comparisons in relation to components of the State Highway System is clearly vigible in examination of rates shown below in Table IV.

There is a strong tendency for accident rates to be greater in the more heavily populated areas, as may be inferred from the following accident rate figures: Rural: 1.45 Suburban: 1.89 Urban: 3.65

Revised TABLE IV - 1973

RATE COMPARISON BY JURISDICTIONAL AND ROADSIDE DEVELOPMENT

•	-			•	Rate	
Description	Miles 1/	Vehicle-Miles 1/	Accidents 1/	Fatalities 1/	Accidents	Fatalities
STATE HIGHWAY SYSTEM Urban 2/ Freeways Non-Freeways	7,579.16	9,459,692,185	20,430	434	2.16	4.59
	619.06	2,812,693,220	10,284	76	3.66	2.70
	95.44	1,053,879,134	849	11	0.81	1.04
	523.62	1,758,814,088	9,435	65	5.36	3.70
Suburban	220.47	1,170,763,165	2,216	30	1.89	2.56
Freewaya	72.98	583,676,414	303	7	0.53	1.20
Non-Freewaya	147.49	587,086,751	1,908	23	3.25	3.92
Ruzal	6,739.63	5,476,235,800	7,930	318	1.45	5.81
Freemays	549.35	1,862,164,653	917	41	0.49	2.20
Non-Freemays	6,190.28	3,614,071,147	7,013	277	1.94	7.66
PRIMARY HIGHWAYS Urban 2/ Freeways Non-Freeways	4,864.09	7,982,590,270	16,029	349	2.01	4.37 .
	434.20	2,388,058,585	8,616	65	3.51	2.72
	87.17	1,012,802,194	790	11	0.78	1.09
	347.03	1,375,256,391	7,826	54	5.69	3.93.
Suburban	148.22	906,383,236	1,474	25	1.63	2.76
Freeways	68.32	544,108,589	278	6	0.51	1.10
Non-Freeways	79.90	362,274,647	1,196	19	3.30	5.24
Rural	4,281.67	4,688,148,449	5,939	259	1.27	5.52
Preeways	549.35	1,862,164,653	917	41	0.49	2.20
Non-Freeways	3,732.32	2,825,983,796	5,022	218	1.78	7.71
SECONDARY HIGHWAYS Urban 2/ Freeways Non-Freeways.	2,715.07 184.86 8.27 176.59	1,477,101,915 424,634,635 41,076,940 383,557,695	4,401 1,668 59 1,609	75 11 0	2.98 3.93 1.44 4.19	5.08 2.59 2.87
Suburban	72.25	264,379,929	742	5	2.81	1.89
Freeways	4.66	39,567,825	30	2	0.76	2.53
Non-Freeways	67.59	224,812,104	712	4 :	3.17	1.78
Ruzal	2,457,96	768,087,351	2,992	59	e 55	7.49
Freeways Non-Freeways	2,457.95	788,087,331	1,991	59	a. 53	. 7.49

^{1/} Data not included for frontage roads, ramps, and connections.
2/ Accidents per ons million vehicle-miles.
Fatalities per 100 million vehicle-miles.

DEPARTMENT OF ENVIRONMENTAL QUALITY GUIDELINES FOR AMBIENT AIR SAMPLING PROGRAM FOR MACADAM CORRIDOR AIR QUALITY ANALYSIS

A. Location of Sampling Sites.

Note: These are general area locations, specific sites must be approved by the Department prior to initiation of sampling program.

Sites shall be located:

- 1. Adjacent to the Johns Landing Condominium located on the east side of Macadam between Pendleton and Flower Streets.
- 2. North of the Sellwood Bridge.
- 3. In the vicinity of the Fashioncraft intersection east of Macadam Avenue.
- 4. In the Willamette Park Area (background).

B. Sampling Frequency and Duration

Sampling shall be done utilizing either continuous CO monitors (EPA reference method type) or Department approved bag samplers. If bag samplers are used, 12 one-hour samples are to be taken between 0700 and 1900 hours, for at least 10 randomly scheduled days during a 30 day period. The specific This schedule shall be approved by the Department prior to sampling initiation.

C. Sampling Methodology

All sampling is to be done utilizing the EPA reference method for carbon monoxide. If bag samplers are utilized, the type and design of the equipment must be approved by the Department.

D. Meteorological Data

A meteorological station shall be established at the Johns Landing Condominium sampling site. This station shall collect wind speed and direction data on a continuous basis throughout the sampling period. The data should be representative of meteorological conditions at least 10 meters above the surrounding terrain and should not be under the influence of any obstruction which might alter the prevailing wind flow.

E. Traffic Data

- Traffic Volumes: Traffic counts shall be taken on Macadam near the sampling sites delineated in Section A, (excluding Willamette Park) and on Corbett near the Pendleton Street intersection. Counts shall be taken on an hour-by-hour basis on all of the CO data acquisition days.
- 2. Traffic Speeds: Average traffic speed shall be calculated on an hour-by-hour basis for all CO data acquisition days.

Note: The Oregon State Highway Division has indicated they have the ability to do the traffic counts on Macadam. The City of Portland should be contacted regarding Corbett Avenue counts.

F. Data Presentation and Analysis

- 1. Ambient air quality data carbon monoxide concentrations shall be supplied to the Department in one hour and running eight hour averages.
- 2. Meteorological data The following information shall be supplied to the Department:
 - a. Hour-by-hour comparative statistics for:
 - 1. Wind speed
 - 2. Wind direction
 - 3. Stability class
 - 4. Traffic volumes
 - 5. Vehicle speeds
 - 6. Mixing heights

for all days monitored. Raw data should be retained for Department review if required.

3. Traffic Data

Traffic data for all sites shall be presented in both ADT and VPH format. Worst case future traffic (ADT and VPH) projections are required on an annual basis through 1986. The projections shall include existing traffic, anticipated growth, and additional traffic generated by Johns Landing, Willamette Wharf, and other developments projected in the Macadam Corridor.

Expected highest traffic volumes, e.g., Christmas Shopping Period.



DEPARTMENT OF ENVIRONMENTAL QUALITY

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

ROBERT W. STRAUB , GÖVERNOR

January 7, 1976

Mr. Glen Jackson Department of Transportation Highway Division Highway Building Salem, Oregon 97310

Dear Mr. Jackson:

A special public meeting of the Environmental Quality Commission will be held Monday, January 12, 1976, to consider applications for permits to construct new parking facilities for the Oregon Bank and Willamette Wharf projects within the Johns Landing development area.

Approximately two years ago the Environmental Quality Commission approved issuance of five parking facility permits for the Johns Landing development with the condition that Macadam Avenue would be improved to accommodate the increased transportation demands prior to issuance of additional parking facility permits for Johns Landing. It was the Commission's understanding at that time that conditions were favorable for improvements to be made to Macadam Avenue in a timely manner which would not interfere with orderly, phased development of Johns Landing and would prevent further aggravation of traffic and air quality problems along Macadam Avenue.

It is now apparent that desired development of Johns Landing is getting ahead of scheduled improvements to Macadam Avenue. In order for the Commission to act responsibly on the pending applications, it is important that the City of Portland's and the State Highway Division's priorities, plans or schedules for improving Macadam Avenue be known.

Therefore, it is respectfully requested that the Highway Division be represented at the January 12 EQC Meeting to inform the Commission of the Highway Division's position concerning scheduling of improvements to Macadam Avenue, specifically in relation to further development along the Macadam Avenue Corridor.

A copy of the meeting agenda is enclosed.

Sincerely.

LOREN KRAMER

Director

EJW:cs Enclosure

Environmental Quality Commission Mr. F. B. Klaboe, Highway Division



DEPARTMENT OF ENVIRONMENTAL QUALITY

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

ROBERT W. STRAUB

January 7, 1976

Honorable Neil Goldschmidt Mayor, City of Portland City Hall 1220 S. W. Fifth Portland, Oregon 97204

Dear Mayor Goldschmidt:

A special public meeting of the Environmental Quality Commission will be held Monday, January 12, 1976, to consider applications for permits to construct new parking facilities for the Oregon Bank and Willamette Wharf projects within the Johns Landing development area.

Approximately two years ago the Environmental Quality Commission approved issuance of five parking facility permits for the Johns Landing development with the condition that Macadam Avenue would be improved to accommodate the increased transportation demands prior to issuance of additional parking facility permits for Johns Landing. It was the Commission's understanding at that time that conditions were favorable for improvements to be made to Macadam Avenue in a timely manner which would not interfere with orderly, phased development of Johns Landing and would prevent further aggravation of traffic and air quality problems along Macadam Avenue.

It is now apparent that desired development of Johns Landing is getting ahead of scheduled improvements to Macadam Avenue. In order for the Commission to act responsibly on the pending applications, it is important that the City of Portland's and the State Highway Division's priorities, plans or schedules for improving Macadam Avenue be known.

Therefore, it is respectfully requested that the City be represented at the January 12 EQC Meeting to inform the Commission of the City's position concerning scheduling of improvements to Macadam Avenue, specifically in relation to further development along the Macadam Avenue Corridor.

A copy of the meeting agenda is enclosed.

Sincerely

OREN KRAMER

Director

EJW:cs Enclosure

cc: Environmental Quality Commission



ENVIRONMENTAL QUALITY COMMISSION

1234 S.W. MORRISON STREET PORTLAND, ORE. 97205 Telephone (503) 229-5696

ROBERT W. STRAUB

To:

Environmental Quality Commission

From:

Director

Subject: Addendum to Agenda Item B, January 12, 1976 EQC Meeting

Macadam Avenue Corridor - Johns Landing Area

Parking Facilities

After the staff report was completed, the attached letter dated January 6, 1976, was received from the Oregon Bank.

This letter states that the Oregon Bank declines to participate in a study as a pre-condition to approval of their application and requests that the EQC promptly approve the full 177 parking spaces asked for.

The staff feels that, in meetings with Johns Landing and Orbanco representatives, all parties should have understood that necessary improvements to Macadam Avenue would involve more than improvements to the Fashion Craft intersection before additional parking facilities could be approved.

Also attached are copies of letters to the City of Portland and State Highway Division asking them to have representatives at the meeting to clarify and update their positions relative to improving Macadam Avenue.

Attachments - 3 letters

EJW:h 1/7/76





HEAD OFFICE + 319 S.W. Washington Street - Post Office Box 3066 Portland, Oregon 97208 226-4266

January 6, 1976

DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY CONTROL

Department of Environmental Quality 1234 SW Morrison Street Portland, Oregon 97205

Gentlemen:

Granting of a permit to construct parking facilities in conjunction with the building alterations now in progress at the former Fashioncraft Furniture building is vitally important to Orbanco. Before purchasing the property, we had our architect consult with your office, and he left with the impression that no major parking problem existed as long as certain improvements were made to the Fashioncraft intersection at Macadam Avenue. We made it clear to Johns Landing, the seller, that the sale was contingent upon the improvements to Macadam at that intersection, as proposed by the Oregon State Highway Department. Subsequent to that, Orbanco has committed to contribute up to \$40,000 as our share of the cost of these improvements.

We purchased the building and land known as the "Fashioncraft property" for \$574,500. We sold our property between Macadam Avenue and Corbett which has been the data processing center for American Data Services for many years.

American Data Services is a subsidiary of Orbanco and has outgrown its present facilities. The buyer of these facilities insisted on a July 1976 occupancy. If we fail to vacate by that time, we must pay him \$150 per day liquidated damages. For that reason, we authorized a fast-track construction schedule and our contractor started work on the Fashioncraft project in early December. The billing we received for his December work is \$76,026. He is committed to long range orders in excess of this amount.

We have had the property surveyed at a cost of \$2,500. Our obligations to the architects and engineers are in excess of \$20,000 to date. Including the purchase of the property, we are committed to three quarters of a million dollars on this project to date. Ultimately, we expect to spend two and a quarter million dollars on the project. If we do not continue, we are without a home for some 300 employees The financial hardship we would experience should this project fail is severe, but the displacement of our people and facilities is even more critical. Due to the dilemma we find ourselves in, we respectfully request that you review our parking application with favor.

page two

Our application for approval of a parking facility was submitted to you on December 17, 1975. You requested that we supply additional information regarding the environmental impact of our proposed parking plan as well as the financial hardships which would accrue to Orbanco if the parking were not approved. This information is attached to this letter.

In the December 17, 1975 application, we pointed out that we are contemplating construction of 177 parking spaces. A plan of the contemplated parking facility has been previously furnished to you. Attached is the affidavit of Eldon Brobst, President of the Fashioncraft Furniture Factory which occupied the site of our development until October 22, 1974. Mr. Brobst states that a total of 92 vehicles were regularly parked at any one time on the Fashioncraft Furniture property. In addition, there were frequently as many as 150 cars parked on the property at times of special sales activity, and during the last three months of operation there were frequently as many as 200 cars parked on the property. Pursuant to your indirect source regulations we are entitled to the 92 parking spaces utilized by Mr. Brobst's company on a regular basis plus 49 additional spaces for a total of 141 spaces not requiring prior approval of the Department of Environmental Quality. We understand from your conversation with Gary D. Putnam, our general counsel, that you agree with our interpretation of the regulations in this respect. You have informed us that a special meeting of the Environmental Quality Commission will be held January 12, 1976 at which this problem will be considered. We ask that the Department of Environmental Quality and the Environmental Quality Commission review the environmental impact and financial hardship data we have submitted and that you promptly approve the 177 parking units applied for in our December 17, 1975 application.

You have asked that we participate in a sixty day ambient air sampling program in the Macadam corridor as a prerequisite to obtaining the full compliment of 177 parking spaces. Because of our previous understanding that our parking application would be approved subject only to the interim widening of Macadam described above, we decline to participate in such a study as a pre-condition to approval of our application. Because of our limited time schedule, and the large financial loss which would result from any delay, we cannot wait sixty days, or for any protracted period, to resolve this matter.

We ask, again, that you resolve this matter promptly so that our construction may go forward or that we may pursue those other remedies available to us.

Ellsworth P. Ingraham

Vice President

Very truly yours,

Financial Administration

AFFIDAVIT

STATE OF OREGON)) ss. County of Clackamas)

I, ELDON BROBST, being first duly sworn on oath, depose and say:

That I reside at 1617 SW. Midvale Road, in the County of Clackamas, Portland, Oregon.

That until the 22nd day of October, 1974, I was the President and operator of the Fashioncraft Furniture Factory located on Macadam Avenue in the City of Portland, County of Multnomah, State of Oregon. That during my Presidency and operation of the Fashioncraft Furniture Factory, the factory employed a maximum of 74 employees. That almost all of these employees drove individual automobiles, or other motor vehicles, to and from their employment at the factory. That all of these employee vehicles were parked daily on the Fashioncraft Furniture Factory property.

That in addition to the above described employee parking, as many as ten customers and as many as three salesmen and five trucks were normally parked upon the Fashioncraft Furniture Factory property on any particular day during its operation. Frequently, the company held "an open house" at the factory premises, and at these times as many as 50 to 60 customers were parked at the factory in addition to the above described employees and salesmen for a total of approximately 150 cars.

That during the last period of operation of the Fashioncraft Furniture Factory, and over a period of three months, various extensive sales were held during which up to 200 cars were parked upon the premises representing employees, salesmen and customers with additional customers parked on adjoining properties and neighborhood streets.

That the above parking took place upon the roof of the Fashioncraft Furniture Factory building, and upon the graveled areas in front of and surrounding the building.

That I make this affidavit in reliance upon employment and other records of the Fashioncraft Furniture Factory in my possession and available for review upon reasonable notice, such records, however, being too voluminous and not in appropriate form, for submission directly with this affidavit.

SUBSCRIBED and SWORN to before me this

đay of

1976

Notary Public for Oregon

My Commission expires 10 28-79

This project proposes to make alterations and additions to the Fashioncraft Furniture Factory located on a 2.4 acre parcel of land fronting on Macadam Avenue. The building will become an operations and data processing center for Orbanco Inc. It is anticipated that 300 people will be employed in the building.

The project consists of 56,000 square feet of finished area, including offices, computer rooms, warehouse space and accessory spaces. The remodeling project will be completed by July 1, 1976.

The entire project is financed and will be owned by Orbanco's real estate holding company, First Midland, Inc.

A total of 177 parking spaces has been planned, including 27 stalls for visitors. The data processing center has numerous visitors delivering and picking up data at all times. Approval of 150 parking spaces for employees and 27 for visitors is requested at this time.

GENERATED TRIPS - 24 HOURS 1976

-	Visito	ors %	Offices	%	Bank	Trucks %	Totals	
12 - 1 am 1 - 2 am 2 - 3 am 3 - 4 am 4 - 5 am 5 - 6 am 6 - 7 am 7 - 8 am 8 - 9 am 9 - 10 am 10 - 11 am	Visito 12 20	10.0% 17.0%	0ffices 34 12 6 10 27 133 1	5.0% 2.0% 1.0% 1.5% 4.0% 20.0%	6 6 6	10.0% 10.0% 10.0% 10.0%	Totals 34 12 6 10 33 139 19 26	4.0% 1.5% 1.0% 1.0% 4.0% 16.0% 2.0% 3.0%
11 - 12 pm	12	10.0%			6 6	10.0%	_ 18	2.0%
12 - 1 pm 1 - 2 pm	1.0	10.0%	100	15.0%		10 0%	100	11.0%
1 - 2 pm 2 - 3 pm	12 12	10.0%	91 22	13.5% 3.0%	6	10.0%	109 40	12.0% 5.0%
3 - 4 pm	24	20.0%	26	4.0%	6	10.0%	56	7.0%
4 - 5 pm 5 - 6 pm	12	10.0%	44 128	6.5% 19.0%	6 6	10.0%	62 134	7.0% 16.0%
6 - 7 pm	8	6.5%	9	1.0%		10.075	17	2.0%
7 - 8 pm 8 - 9 pm	8	6.5%	14	2.0%			22	3.0%
8 - 9 pm 9 - 10 pm 10 - 11 pm		:	11	1.5%		-	11	1.5%
11 - 12 am			8	1.0%			8	1.0%
TOTALS:	120	100.0%	676	100.0%	60	100.0%	856	100.0%

GENERATED TRIPS - 24 HOURS 1981

_	Visitors	%	Offices	%	Bank Tr	rucks %	Tot	als %
12 - 1 am 1 - 2 am 2 - 3 am 3 - 4 am 4 - 5 am			41 1 6	5.5% .5%			41 1 6	4.0%
5 - 6 am 6 - 7 am 7 - 8 am 8 - 9 am 9 - 10 am 10 - 11 am 11 - 12 pm 12 - 1 pm 1 - 2 pm 2 - 3 pm 3 - 4 pm 4 - 5 pm 5 - 6 pm 6 - 7 pm 7 - 8 pm 8 - 9 pm 9 - 10 pm 10 - 11 pm	15 15	10.0% 15.0% 10.0% 10.0% 20.0% 10.0% 7.5%	12 31 157 2 3 118 105 12 50 157 2 6 6	1.5% 4.0% 20.0% 15.0% 13.5% 1.5% 7.0% 20.0% .5%	9999 9999	10.0% 10.0% 10.0% 10.0% 10.0% 10.0% 10.0% 10.0%	12 40 166 26 37 24 118 129 24 51 74 166 14 18 6	1.0% 4.0% 16.0% 2.5% 4.0% 2.5% 12.0% 12.5% 5.0% 7.0% 16.0% 1.5% 2.0%
11 - 12 am TOTALS:	154	100.0%	55 776	7.0%	90 .	100.0%	1020	100.0%

GENERATED TRIPS - 24 HOURS 1986

_	Visitors %	Offices	%	Bank Tru	icks %	Totals	%%
12 - 1 am 1 - 2 am 2 - 3 am 3 - 4 am 4 - 5 am 5 - 6 am	-	27 21 5 6 5	3.0% 2.0% .5% .5%	,		27 21 5 6 5	2.0% 1.5%
6 - 7 am 7 - 8 am 8 - 9 am		15 37 214	1.5% 4.0% 22.0%	12 12	10.0% 10.0%	15 49 226	1.0% 4.0% 17.5%
9 - 10 am 10 - 11 am 11 - 12 pm	20 9.5% 40 19.0% 20 9.5%	3 17	2.0%	12 12 12	10.0% 10.0% 10.0%	35 69 32	3.0% 5.5% 2.5%
12 - 1 pm 1 - 2 pm 2 - 3 pm	20 9.5% 20 9.5%	11 <u>1</u> 18	13.0% 11.5% 2.0%	12 12	10.0% 10.0%	125 143 50	10.0% 11.0% 4.0%
3 - 4 pm 4 - 5 pm 5 - 6 pm	40 _ 19.0% 20 9.5%		2.0% 4.0% 19.0%	12 12 12	10.0% 10.0% 10.0%	70 69 197	5.5% 5.5% 15.0%
6 - 7 pm 7 - 8 pm 8 - 9 pm 9 - 10 pm	15 7.5% 15 7.5%	66 12 5	7.0% 1.0%			81 27 5	6.0% 2.0%
10 - 11 pm 11 - 12 am		27 6	3.0% .5%	·		27 6	2.0%
TOTALS:	210 100.0%	960 1	00.0%	120	100.0%	1290	100.0%

Impact on Surrounding Streets

Macadam Avenue at SW Seymour Stre	t SW Seymour Street		аt	Avenue	Macadam
-----------------------------------	---------------------	--	----	--------	---------

latest City	Engineer	Traffic	Count:	North	Bound	10,400
-	-			South	Bound	8,900
			2	4 hr.	Total	19,300

1976 Impact by This Project

l.	Present Peak Load 8 - 9 am (15%)	2,895/hr.
2.	Added Trips Generated by This Building	<u>139</u>
		3,034

Percentage Increase at Project Peak - 4.8%

1981 Impact by This Project

l.	Estimated 24 Hr. Total in 1981	23,000
2.	Estimated Peak Load 8 - 9 am (15%)	3,450
3.	Added Trips Generated by This Building '81	166
	-	3,616

Percentage Increase at Project Peak - 4.8%

1986 Impact by This Project

1.	Estimated 24 Hr. Total in 1986		26,000
2.	Estimated Peak Load 8 - 9 am (15%)		3,900
3.	Added Trips Generated by This Building	"86	226
		1	4,126

Percentage Increase at Project Peak - 5.8%

OPERATIONS AND DATA PROCESSING CENTER FOR ORBANCO

Employee Estimates

1976	Total Employees This Building Driving Cars Carpools and Public Transportation	329 239 90
1981	Total Employees This Building Driving Cars Carpools and Public Transportation	420 281 139
1986	Total Employees This Building Driving Cars Carpools and Public Transportation	563 378 185



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 J. HALLOCK Portland

MORRIS K. CROTHERS

RONALD M. SOMERS The Dalles

MEMORANDUM

To:

Environmental Quality Commission

From:

Director

Subject: Variance Extension Request - Union Carbide Ferroalloy

Division - Multnomah County

Background

At its October 24, 1975 meeting, the Environmental Quality Commission granted Union Carbide a variance to produce 50% ferrosilicon in its furnace No. I for a period of ninety days (until February 1, 1976). The subject variance request was based upon an economic crisis in the steel industry and the probability that 40 people would lose their jobs if the variance was not granted.

In the attached letter, dated December 19, 1975, Union Carbide reported that market conditions have not materially improved and therefore requests a two-month extension of their present variance. Also mentioned were further control steps the Company is employing to further reduce emissions which to date have been maintained at a low level as verified by the De-In fact, it is Union Carbide's hope that the system modifications will result in ultimate full compliance and eliminate any further need for future variances.

This request is being submitted at this time due to the fact that the Company must make power and reducing agent commitments in advance of the regularly scheduled Environmental Quality Commission (EQC) meeting.

Conclusions

 A two-month extension of Union Carbide's present variance to the Department's opacity and particulate emission standards (Oregon Administrative Rules (OAR), Chapter 340, Sections 28-070 and 21-030) is needed to allow the Company to produce 50% ferrosilicon and thereby stabilize their production and avoid further lay-off of their work force.



- During their present variance period Union Carbide has been able to keep emission within limits which have resulted in no apparent problems or public complaints.
- 3. The Company is presently making further modifications to their control facilities and procedures which should enable them to accomplish a greater degree of collection efficiency while producing 50% ferrosilicon. In fact, they are hopeful that their modifications will result in full compliance. Should source test results verify full compliance, the need for future variances would be unnecessary.
- 4. Failure to obtain the variance would result in substantial curtailment or closing down of a business, plant or operation.
- 5. In accordance with Oregon Revised Statutes (ORS)
 468.345 the Commission has authority to grant a variance extension if it finds that strict compliance would result in the substantial curtailment or closing down of a business, plant or operation.

Recommendation

It is the Director's recommendation that the Commission find that strict compliance would result in substantial curtailment or closing down of a business, plant or operation and that a variance extension of from February 1, 1976 to April 1, 1976 be granted to Union Carbide subject to the conditions required under the current variance.

LOREN KRAMER Director

TRB/mkw January 8, 1976 Attachment



UNION CARBIDE CORPORATION FERROALLOYS DIVISION

PORTLAND WORKS, POST OFFICE BOX 03070, PORTLAND, OREGON 97203

December 19, 1975

Mr. Loren Kramer Dept. of Environmental Quality 1234 S. W. Morrison Portland, Oregon 97205 State of Oregon
MENT OF ENVIRONMENTAL QUALITY.

E G E I V E D

DEC 2 5 1975

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

DEC 22 1975

ATER QUALITY CONTROL

OFFICE OF THE DIRECTOR

Re: Variance #26-1873

As you are aware, we are producing 50% ferrosilicon in our No. 1 furnace under a 90-day variance (subject) which expires February 1. This variance was requested in order to keep our second furnace operating in the face of reduced demand for our normal product, namely standard ferromanganese. The market for standard ferromanganese continues to be severely depressed while our 50% inventory position will permit a further increase.

We now seek a 2-month extension of our present variance.

We believe that your observers will agree that the emissions from No. 1 furnace have been very low, occurring approximately every two hours for from 5 to 10 minutes during tapping operations. The source of these emissions is not the furnace but rather from the runner and ladle into which the molten alloy is tapped. We have succeeded in reducing these emissions by relocating the ladle position closer to the bag house pick up point. Although these emissions continue to exceed 20% opacity they have not exceeded the previous 60% opacity on the three tapping cycles thus far monitored.

We also plan to have installed, as soon as possible, a ladle hooding device which will capture more of the fugitive fume from the tapping operation.

If these modifications are successful in the opinion of your observers and in the tests involved, we would apply for a permanent permit to allow us to produce 50% ferrosilicon in No. 1 furnace.

Please consider this to be a formal request to exercise your good offices before the EQC and recommend the grant of a 60-day extension to our variance permit No. 26-1873.

R.D. Fargery R. D. Forgeng

Manager Portland Works

Nedame, 10-3000



ENVIRONMENTAL QUALITY COMMISSION

1234 S.W. MORRISON STREET • PORTLAND, ORE. 97205 • Telephone (503) 229-5696

ROBERT W. STRAUB GOVERNOR

To:

Environmental Quality Commission Files

From:

Director

Subject: Confirmation of Action Taken by EQC January 9, 1976, January 12, 1976

Consideration of Request for Variance from Rule on Sulfur Content of Residual Fuel Oil by Standard Oil Company of California

and Action Taken

BACKGROUND:

As the Commission may recall, when the Department adopted rules pertaining to the sulfur content in fuel oils on January 24, 1972, one of the sections limits residual fuel oil such that "(2) After July 1, 1974, no person shall sell, distribute, use, or make available for use, any residual fuel oil containing more than 1.75 percent sulfur by weight."

Prior to the effective date of the above section there was considerable concern that many suppliers, distributors and users would not be able to meet the rule limitation.

In considering the request of Union Oil Company and Atlantic-Richfield Company at the June 21, 1974 EQC meeting held at Coos Bay, considerable testimony and information was received relative to fuel available and the sulfur content in fuels. The requested variance to Union Oil Company was granted with specific conditions for reporting. and later approval was given for a variance request to the Atlantic-Richfield Company.

As a result of testimony and subsequent conferences with oil companies, it was concluded that oil companies would be able to meet the limitation most of the time, but occasional shipments of fuel oil over the sulfur limitation would occur - some with very short notice. It was generally agreed that it would be the Department policy to handle these matters on a case-by-case basis and that oil companies would advise the Department as soon as it was anticipated that a shipment of fuel over the sulfur limitation was to be received and therefore a variance required. The Department would evaluate the request, and based upon the findings, the Director would poll the Commission to determine if a variance for the shipment should be granted.



This policy and procedure has been followed. Although notifications and communications have been carried on with oil companies, in a number of instances potential problems were resolved by mixing the shipment with fuel in storage such that the resulting fuel's sulfur content was below the rule's limitation prior to distribution or sale. In only two cases was it necessary to poll the Commission relative to variance requests.

<u>Initial Request from Standard Oil Company of California and Information</u> Provided

In accordance with the above established policy and procedure, word was received from Mr. J. Blamire, Standard Oil Company of California, Portland, Oregon, on January 7, 1976, that a ship load of Bunker "C" oil would be coming from their El Segundo refinery with a measured sulfur content of 2.1% in a 16,000 barrel barge for distribution to Georgia Pacific, Toledo. Standard Oil indicated that Georgia Pacific had on hand 26,000 barrels with a sulfur content such that even when the fuels were mixed the resulting sulfur content would be 1.9%. Since the 1.9% is over the rule limitation of 1.75%, Standard Oil Company requested a variance from Oregon Administrative Rules, Chapter 340, Subdivision 2, Section 22-010(2). A similar request to allow use of the fuel was anticipated from Georgia Pacific Company at Toledo.

As is indicated in the December 23, 1975 Standard Oil Company letter concerning a fuel shipment where a variance was not required, the company has under construction facilities on the West Coast that will increase fuel oil desulfurization capacity by 160,000 barrels per day.

Standard Oil Company has indicated that the cost of a barge to the company is \$200 per hour or \$4800 per day. A rapid response to the variance request was considered necessary by the company to allow the company to minimize fuel costs. Standard Oil Company also indicated that in the last two years 1.800,000 barrels of fuel oil had been shipped to Oregon. The average of all these loads of fuel oil in terms of sulfur content by weight was 1.2%. Four times during this same period questionable loads, in terms of sulfur content, required the company to contact the Department. For two shipments, totalling 25,000 barrels, with a sulfur content of 1.8 - 1.9%, a variance was requested and granted.

Standard Oil Company stated that the primary reason for the sulfur problem was that there was a higher demand for fuel oil which resulted in a higher quantity of the higher sulfur content Arabian crudes being processed.

After consultation, Standard Oil Company determined that Georgia Pacific Corporation did not favor being a prime requestor of a variance and further had determined that pending final arrangements, Standard Oil Company has low sulfur fuel in storage in Astoria. The barge could be shipped to Astoria, pumped to storage, and by mixing and reloading the sulfur content would be below the regulatory limit and therefore no variance would be required. As a result of this information and intended action, the Department issued a letter approving that procedure on January 8, 1976.

Final Request, Action by the Department and Environmental Quality Commission

On January 9, 1976, Standard Oil Company again called the Department and stated they had found that the barge was committed to immediately reload with lumber from Toledo for shipment to California. The additional delay, demurrage costs, and costs directly incurred in transportation and pumping would increase costs significantly. If, in addition, it were necessary to truck fuel oil from Portland to Toledo to meet commitments to Georgia Pacific (until the barge could return) then total increased costs could likely total or exceed \$40,000.

While the barge was now destined for Astoria, it would be in Toledo in the evening of that day, January 9, 1976, if discharge at Toledo were authorized and therefore in order to minimize cost, an almost immediate answer was necessary.

Further staff conferences, conferences with Standard Oil Company and conferences with Georgia Pacific Corporation personnel were held.

Based upon the facts available, the Director requested E. J. Weathersbee to poll the Environmental Quality Commission (because of his unavailability at that time) by telephone, which he did in the presence of H. M. Patterson, Assistant Director for Air Programs. The sequence of calling was Chairman, Joe Richards (not immediately available), Vice-chairman, Dr. Maurice Crothers, and in sequence of availability, Commissioners Dr. Grace Phinney, Ron Somers, Jacklyn Hallock - the latter four all approving the granting of the variance to Standard Oil Company of California to deliver the fuel to Georgia Pacific Company storage facilities and for Georgia Pacific to use the fuel.

Phone calls to each of the companies were completed advising them of the Commission action and letters confirming the action were signed by the Director and mailed to the respective companies confirming the action. (Letters are attached.)

The Environmental Quality Commission, at its January 12, 1976, meeting ratified the action taken.

LOREN KRAMER Director

Attachments



- Standard Oil Company of California, Western Operations, Inc.

520 S.W. Yamhill Street, Portland, OR 97207

Marketing Department
1. J. Blamire
Operations Manager

December 23, 1975



Mr. Thomas R. Bispham
Department of Environmental Quality
Portland Region
1234 S. W. Morrison Street
Portland, Oregon 97205

Dear Mr. Bispham:

This letter is to confirm our conversation of December 18 relative to the notice of violation you sent us on December 11. Your file number is 26-2027.

Our telephone contact of December 4 was to request a variance from the Oregon regulation which limits the sulfur content of fuel oil to 1.75%. The request for a variance was made because our refinery advised us that the fuel oil they were producing at the time might contain 1.8% to 2.0% sulfur. The fuel oil was scheduled for use by Georgia Pacific at Toledo to replace their natural gas supply which had been curtailed. The fuel oil was not to be distributed to any other location.

At this point, I would like to offer you a little background as to why we phoned in for the variance — In 1974, when the sulfur limit was reduced to the 1.75% level, our fuel oil normally met this requirement. However, because of varying crude runs, demands, etc., we felt that we might on occasion exceed the 1.75% level. At that time, DEQ suggested that we ask for variances on a spot basis rather than ask for a general variance. It was also agreed that the variance we ask for would suffice for the user. This has worked well for the two instances in the past where we have exceeded the allowable sulfur limitation, i.e., once at 1.8% and once at 1.9%. However, if you now believe we should come in for a general variance, we would be happy to do so. I would say 2.0% for six months should take care of us at this time.

Incidentally, the shipment to which our December 4 conversation related was reported out after testing by the refinery as having 1.55% sulfur, so a variance is not needed. This, I believe, demonstrates how we will handle matters of this type. That is, we will report to you whenever we believe we might have a problem.

I assure you Standard's concern for the environment is sincere and that the reduction of sulfur in fuel oils has one of our highest priorities.

At this time, we are in the final stages of construction of facilities on the West Coast that will increase our fuel oil desulfurization capacity by 160,000 barrels a day. If you have any questions on the above or would like to discuss this matter or the general subject further, we would be happy to meet with you.

Very truly yours,

Blamme

JB:mct

cc: Mr. Harold Patterson

Dept. of Environmental Quality

Portland Region



DEPARTMENT OF ENVIRONMENTAL QUALITY

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

ROBERT W. STRAUB

January 9, 1976

James P. Thomson
Plant Manager
Georgia Pacific Corporation
Toledo, Oregon 97391

Dear Mr. Thomson:

In response to the request of Standard Oil Company of California, and in accordance with the attached letter, the Commission was polled and the Commission granted a variance to Standard Oil Company to deliver 16,000 barrels of oil containing 2.1% sulfur by weight to Georgia Pacific's Toledo storage tank, and for Georgia Pacific at Toledo to use that fuel in its production operations at Toledo.

Sincerely,

LOREN KRAMER Director

HMP:h

cc: Commission Members

Attachment





DEPARTMENT OF ENVIRONMENTAL QUALITY

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

January 9, 1976

ROBERT W. STRAUB

I. J. Blamire Operations Manager Standard Oil Company of California P. O. Box 950 Portland, Oregon 97207

Dear Mr. Blamire:

In response to your request for approval of shipment and delivery to Georgia Pacific facilities at Toledo of 16,000 barrels of oil containing 2.1% sulfur, the Department considered available information, and in response to your request, polled the Commission for the granting of a variance from Oregon Administrative Rules, Chapter 340, Section 22-010(2).

In view of the information presented to the Commission, the Commission found that strict compliance to the sulfur limitation rule was not reasonable and was burdensome or impractical due to existing conditions. The Commission approved the variance request to deliver residual fuel oil in the amount of 16,000 barrels, containing 2.1% sulfur by weight and for Georgia Pacific to use that oil at its facilities in Toledo.

The Department requests that Standard Oil Company of California provide us with more definitive information concerning the completion of the fuel oil desulfurization facility as outlined in your letter of December 23, 1975.

The Department specifically requests information relative to the current status and actual schedule necessary to bring this facility to completion and specifically what it will mean in terms of low sulfur fuels to the State of Oregon. The Department requests that this information be submitted prior to the submission of any additional request for variance from sulfur limitation rule.

Sincerely,

LOREN KRAMER Director

HMP:h

cc: Georgia Pacific Commission Members



Development parking lots

win approval

Parking lot construction permits for two developments in the Johns Landing area near SW Macadam Avenue were approved Monday by the Oregon Environmental Quality Commission (EQC).

Two firms, The Oregon Bank and Labien Oregon Ltd., builder of Willamette Wharf, sought the permits, under rules governing indirect sources of air pollution, to build spaces for 489 cars in connection with a new data processing center and mixed commercial development.

Both firms and Macadam Investors, Oregon Ltd., developer of Johns Landing, assured the commission they would help finance an air-quality study for the Macadam corridor to evaluate the impact of development on the area's atmosphere. But they asked that completion of the study not be made a prerequisite to permission to construct the parking lots.

A representative of the state highway department told the commission that because of other priorities for funds assigned by the state and the City of Portland, widening of Macadam Avenue to bouleyard standards with a left turn lane cannot be done for six years.

Parts of Macadam north of the Sellwood Bridge are extremely congested, and cannot handle more traffic without creating more air pollutión problems, according to a memorandum to the commission from EQC Director Loren

Portland Mayor Neil Goldschmidt appeared at the hearing to urge the commission to approve the permits despite the shortage of funds to complete improvements to the avenue.

In other business, the commission granted a variance extending the air discharge compliance date for Reynolds Metals Co. at its Troutdale Reduction Plant. The company said it had experienced delays in obtaining pollution control equipment from suppliers.