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A. C. Knight, M.D.
Acting Director

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December 10, 1976

Re: Hoerner-Waldorf Preliminary Environmental
Review

Ladies and Gentlemen:

On October 19, 1976, the Air Quality Bureau distributed the above referenced PER for public comment. Enclosed for your information is a summary of comments and our responses to those comments. Based on the comments received and our review of them, the Department has determined that no Environmental Impact Statement is necessary.

On this same basis, the Department has issued a renewal of Hoerner-Waldorf's construction permit subject to certain conditions. The major conditions are requirements for "best available control technology", stack and ambient air monitoring, and a meteorological study funded by Hoerner-Waldorf.

Thank you for your interest and involvement in this matter.

Sincerely,

Michael D. Roach, Chief
Air Quality Bureau

MDR:JNB:jms

Enclosure

RESPONSE TO AND SUMMARY OF
COMMENTS ON THE HOERNER-WALDORF PER

A total of 50 groups or individuals submitted written comments on the Department's Hoerner-Waldorf PER dated October 19, 1976. Of these 50, 42 made comments supporting the review and conclusions and eight commentors disagreed with either the review and conclusions or the basis for the review, or both.

The favorable comments, with a few exceptions, indicated their support for Hoerner-Waldorf's expansion plan as economically necessary. H-W's pollution control program was considered more than adequate by those in this group who commented on the subject. The use of "5D" wood was another area where those commenting indicated beneficial effects. Two other subjects provided a basis for the supportive comments:

1. The EIS in 1974 adequately evaluated the environmental impacts of the expansion.
2. There have not been any significant changes in the expansion plans.

The "unfavorable" comments cannot be dealt with so succinctly. The comments have addressed several topics and each topic is discussed individually.

ADEQUACY OF THE PER

Many of the comments concerning the adequacy of the Hoerner-Waldorf PER centered around whether the PER complied with the Department's rules, specifically rules MAC 16-2.2(2)-P2020 and P2030. Within this context, the purpose of the Department's PER rules must be considered in light of the statutory requirement that an environmental impact statement be prepared on ". . . major actions of state government significantly affect the quality of the human environment. . . ." (See Section 69-6504, R.C.M. 1947.)

All of the comments received concerning the language contained in Section 69-6504, R.C.M. 1947, misconstrue the purpose of the PER. The provisions of MEPA only apply once it has been determined that the action in question will significantly affect the human environment, thereby requiring the preparation of an environmental impact statement. Until that determination has been made, based on an analysis of the potential impacts, the detailed discussion called for by MEPA is not required. In other words, the PER is not intended to be, nor is it required to be an environmental impact statement. The PER is designed to enable a decision maker to initially determine what the potential impacts might be.

All the commentors referred to the specific language contained in rules MAC 16-2.2(2)-P2020 and P2030. Much emphasis was placed on the language which states that the PER must ". . . include at a minimum . . ." an evaluation of the projected impacts described in the PER rules. But, the commentors overlook the rules' specific statement that the PER evaluation is to be based upon the ". . . information contained in the completed application or project proposal and other available information. . . ."

(See rule MAC 16-2.2(2)-P2030(1). Thus, there is no requirement at the PER stage that the Department prepare a detailed study of the project. The PER is an in-house analysis conducted by the Department in order to project whether the potential impacts of state action will trigger the environmental impact statement process under MEPA.

Several comments questioned whether the PER would be adequate if the renewal application submitted by Hoerner-Waldorf was treated as a new permit application under the Montana Clean Air Act rules. The analysis required under the PER rules is the same regardless of whether the permit application is for a renewal or for a new permit. The Department is required to consider the same potential impacts and to arrive at a decision as to whether or not the action will trigger the environmental impact statement process.

The Department reaffirms the preliminary determination made in the PER that, based on an evaluation of the projected impacts, there is no need to prepare an environmental impact statement on the permit renewal requested by Hoerner-Waldorf. This determination has been made after considering the criteria for preparing an environmental impact statement enunciated in subsections (2) and (3) of rule MAC 16-2.2(2)-P2020. The Department believes that the decision to be made on the permit application does not constitute an action that constitutes a major state action having a significant impact on the human environment. This is especially true because the Department has already prepared an EIS and considered the potential impacts of the proposed expansion in granting the initial permit to Hoerner-Waldorf in 1974. All foreseeable economic, social and environmental impacts of the proposed expansion were discussed in that EIS. The only changes in potential impacts that must be assessed are the projected changes in the amount of cooling water to be discharged and the change in projected air emissions.

INCREASE IN WASTEWATER DISCHARGE

Hoerner-Waldorf's renewal application and the PER indicated a potential increase in contaminated effluent from 21.6 million gallons per day (mgd) in the 1974 EIS to 25.6 mgd. The PER noted this potential increase and several of the commentors addressed this topic. The PER indicated a minor potential impact, based on the Water Quality Bureau's assessment. The commentors, including the Fish and Game Department, stated that the increase in discharge could adversely affect river quality, and flora and fauna dependent on the river.

However, the 25.6 mgd figure was based on analysis of existing process streams projected to the expanded mill. H-W has identified several areas where process water recycling will be employed, reducing the contaminated discharge as calculated by at least 5.8 mgd thus reducing the expanded mills contaminated effluent volume from 25.6 mgd to less than 20 mgd. The recycling efforts may displace the use of clean cooling water and may require an increase in the discharge of clean, warm water. This warm water may require some cooling but the Water Quality Bureau indicated that H-W would have to apply for a modification to their discharge permit prior to any such discharge.

H-W's present MPDES permit expires in December of 1977. An application for a new MPDES permit must be submitted at least 180 days before the expiration date or 180 days before the anticipated additional discharge will occur. In short, any discharge in excess of the limitations contained in the present permit cannot occur until a new (or modified) permit has been granted. At the time that a new permit is applied for, the application will be reviewed under the Department's MEPA and Water Quality Rules.

AIR QUALITY AND HEALTH EFFECTS

Comments to this topic perhaps are the most significant ones related to impact of the expansion and renewal of the permit. The potential increase in fine particulate emissions and their resultant effects on humans is one concern. The AQB has reviewed H-W's emissions and control devices, both current and proposed, and concluded that there should be no increase in fine particulate emissions over the levels approved in 1974. The original permit conditions prohibiting increases in sulfate and particulate emissions prevents any increase in total emission rates. The control devices on the fine ($0.3\mu\rightarrow 2\mu$) particle sources seem to remove particles at a more or less constant efficiency throughout the range of sizes encountered.

Many of the comments addressed the effects of current levels of total suspended particulate (TSP) and soluble sulfate (SS) on human health, and the effect of Hoerner-Waldorf's emission on the current levels. These current levels of air quality exceed, in many cases, federal, state and county standards. These violations dictate that certain emission reductions must occur to achieve the standard. The necessary emission reductions required to achieve ambient air standards will, in all probability, include restrictions on several source categories, and Hoerner-Waldorf may well be in this group. Any such program will be necessarily based on the effect on the reductions on the ambient air quality.

Achievement of the ambient air quality standards is considered adequate to protect the public health, and these standards will be achieved. A health study, as requested by some commentators, would attempt to determine the effects of current levels of sulfate on human health and more particularly Hoerner-Waldorf's contribution to those effects.

When a health study was proposed as a condition of the expansion permit, the Department was contemplating a request by H-W for increased sulfate and particulate emission. The most stringent prohibition contemplated was no increase in the 1974 emission levels. The necessity for the health study was obviated when H-W agreed not to increase the subject emission levels. However, the department will request funds from the legislature for health studies in a number of areas in the state, including Missoula, where ambient air quality exceeds standards.

As the result of a meeting with representatives of the Missoula County Board of Health and Concerned Citizens for a Quality Environment in Helena on December 7, 1976, some of the people present expressed concern that the health study funding proposal should have been included in the Department's regular budget in order to assure passage by the legislature. Unfortunately, the Department's formal budget request has already been submitted to the Governor's Office and the Governor's budget proposal is now being printed. Therefore, the Department's only recourse is to submit a separate bill to the legislature for the health study proposal. The Department sincerely hopes that all of the people who have commented on this PER will support this vital study proposal.

The basis for the decision on the original and renewal application is that approval of the expansion plans will not aggravate the existing situation. H-W has reduced their emissions from 1974 levels by some 19% while air quality levels dropped in 1975, but increased in 1976. Previous analysis of the effects of H-W's emissions on ambient air quality at the locations of violations have shown H-W's contribution to be extremely low. Some additional data has been presented indicating

a possible relationship not previously believed to exist. Further analysis of the data indicates that H-W may be responsible for a noticeable contribution to TSP and SS levels. Dispersion modeling done by the AQB showed a significant contribution to TSP and SS levels, but showed that H-W was not, in and of itself, responsible for any violations. This modeling was preliminary in nature as it was based on estimated meteorological conditions, not measured values. Further, other analyses have shown a greater effect by H-W, while others have shown a much lesser effect. There is insufficient data to establish the relationship and H-W will be funding a meteorological study to obtain much of this necessary data. The study purpose will be collection and analysis of a minimum of 12 months of meteorological data that can be used to predict the effect of H-W's emissions on pollutant levels in the Missoula Valley. H-W's contribution to the study will not exceed \$50,000.

REQUIREMENT FOR A NEW PERMIT

Several commentators have stated the changes in H-W's expansion plans have changed significantly enough to warrant a new and separate construction permit. The contention then is that the review of such a permit would be made against the immediate situation, and therefore, the expansion plans would not be included in the review basis.

Section 69-3911, R.C.M. 1947, addresses the Board's power to require permits for the construction, installation, alteration or use of any machine, equipment, device, or facility which it finds may directly or indirectly cause or contribute to air pollution or which is intended primarily to prevent or control the emission of air pollutants. Pursuant to this section, MAC Section 16-2.14(1)-S1400 details the procedure for the issuance of permits. MAC 16-2.14(1)-S1400(2) says:

"A permit shall be required from the administrator of the Division of Environmental Sciences of the Department for the construction, installation, or alteration of any new equipment or changes of process capable of emitting air contaminants to the atmosphere and any new, altered or revised equipment intended for eliminating, reducing or controlling emission of air contaminants from the following classes of operation. . ."

MAC 16-2.14(1)-S1400(3) says:

"The application for a permit shall be accompanied by plans, specification, and such other information as the administrator deems necessary, except that the administrator may dispense with the submission of plans and specifications upon prior written agreement."

MAC 16-2.14(1)-S1400(4) requires that permits will not be transferable from one location to another or from one piece of equipment to another or from one person to another.

The intent of these sections is clearly to provide for review of any kinds of equipment that go in to a plant. The important consideration is to prohibit the installation of any equipment without prior review by this Department. MAC 16-2.14(1)-S1400(7) requires a permit renewal if construction, installation or alteration for which a permit has been issued is not completed within two years from the date of issuance of the permit. Subsection (7) is the only language in either the regulations or the Clean Air Act which speaks to the question of permit renewal.

In the case of Hoerner-Waldorf's proposed expansion, the Department permitted the entire expansion, not just a first phase or a second phase. Thus, Hoerner-Waldorf is required to apply for a renewal of the permit. The Department, in processing this application for renewal has followed precisely the same procedures of review that it would follow for a new permit. In the process of the permit renewal review, the Department has found that some pieces of equipment shall be changed. In considering these pieces of equipment change, the Department has applied the same stringent standards of review to those pieces of equipment that would be applied if the Hoerner-Waldorf application had been entitled "Application for Permit." Consequently, the labeling of the application as a permit renewal has in no way operated to circumvent the review process that is set out by the permit regulations. The distinction between a "permit renewal" and an application for a new permit is entirely formal. Substantively Hoerner-Waldorf's proposed changes in equipment have received the same review that it would receive if this application were requested a new permit.

NO GROUNDWATER CLASSIFICATION

The WQB has indicated that draft regulations regarding groundwater classifications have been prepared but that EPA will be promulgating regulations in the near future related to the same subject. Thus, the WQB is awaiting EPA before finalizing their rules. It must be emphasized, however, that there is a statutory standard that is applicable to all potential groundwater pollution situations. Section 69-4802 (9), R.C.M. 1947 of the Montana Water Pollution Control Act defines the term "state waters" to include both surface and groundwater. Section 69-4806, R.C.M. 1947 makes it unlawful to cause pollution of state waters. Pollution is defined in Section 69-4802(5) R.C.M. 1947 to include rendering state waters ". . . harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish or other wildlife." Therefore, formal legal action can be taken under the Montana Water Pollution Control Act if any groundwater discharge causes pollution as just described.

NO RECOVERY IN LICHEN BIOMASS

The effect of H-W's gaseous emission on nearby lichens was discussed in the 1974 EIS. The studies showed a lower lichen biomass near the mill. Comments to the PER stated that no recovery has occurred since, which might be expected because of reductions in emission of reduced sulfur compounds. These reductions, however, have not been made recently enough to allow significant change to be observed.

ENERGY

The PER indicated a minor potential impact on energy due to the increased energy demands of more efficient air pollution control equipment. Not indicated, however, were certain demand reductions occurring from reduced lime kiln capacity and other equipment changes. The potential impact on overall energy demands, if any, would be minimal, and the continuing flux in gas supplies and supply projections makes any further analysis of questionable value.

OTHER

Several other comments related to potential impacts of the expansion are well taken if the review basis is expansion versus no expansion. This is not the case as H-W currently has a construction permit for the expansion. Most of these comments were related to current air quality levels, current emissions, the current "state-of-the-art" control technology.

COMPLIANCE WITH PERMIT CONDITIONS

Several comments requested the Department enforce the conditions of the 1974 permit. These comments indicated that commentators were unaware of the actual terms of the permit. The conditions included prohibitions against increases in total particulate emission and sulfate emission. These conditions, as all others, will be enforced. The ambient monitoring program condition has not been adhered to, by mutual agreement. This program was intended to provide 3 years of data from 3 stations - 2 years before expansion and 1 year after. Obviously, had this condition been enforced at the time, there would be no data at the conclusion of the now-delayed expansion. The state will, however, require a similar program to be operated to provide the necessary data. The company is now and will continue to conduct an emission testing and reporting program as provided for in the rules and the permit. The last condition, related to recovery furnace emission control is being accomplished through contributions by Hoerner-Waldorf to the National Council for Air and Stream Improvement.

CONDITIONS OF RENEWAL

Generally, the conditions of permit renewal are listed below. A copy of the complete permit is available from the AQB.

1. Total mill particulate emissions will not exceed 4337 lbs/day, monthly average.
2. Total mill sulfate emissions will not exceed 2286 lbs/day, monthly average.
3. Total mill reduced sulfur emissions will not exceed 723 lbs/day.
4. Total mill sulfur dioxide emissions will not exceed 5000 lbs/day.
5. Hoerner-Waldorf will continue an emission testing and reporting program.
6. Hoerner-Waldorf will conduct an ambient air monitoring and reporting program.
7. Hoerner-Waldorf will fund a meteorological study at a cost to Hoerner-Waldorf not to exceed \$50,000.
8. Hoerner-Waldorf shall submit for approval detailed equipment design data and specifications.