

UNITED STATES OF AMERICA  
ATOMIC ENERGY COMMISSION

In the matter of  
MINES DEVELOPMENT, INC.

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Docket No. 40-1341

BRIEF IN SUPPORT OF AEC STAFF'S PROPOSED  
FINDINGS OF FACT AND CONCLUSIONS OF LAW

Dated: July 25, 1960

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## INTRODUCTION

This memorandum is submitted in support of the "AEC Staff's Proposed Findings of Fact and Conclusions of Law" filed herewith. The Presiding Officer is respectfully referred to the facts recited in that document for the statement of the case.

In consideration of the evidence adduced at the hearing, the salient features of which are set forth in the proposed findings, the AEC Staff recommends that the proposed order contained in the proposed findings be issued. This proposed order, in substance, would require the licensee to submit to the Division of Licensing and Regulation complete information, within 30 days after the order becomes effective, of its radiation safety procedures, including the establishment of an adequate survey program, which has been and will be instituted to bring the Edgemont mill into compliance with the Commission regulations relating to conducting adequate surveys to determine whether or not the exposure of employees to airborne concentrations of radioactive material and to external radiation is in excess of permissible limits and whether or not the discharge of airborne and liquid effluents discharged from the mill to unrestricted areas exceeds permissible limits. It would further require the licensee to report to the Division of Licensing and Regulation on a monthly basis the progress of the survey program, proposed steps to prevent over exposure of individuals, and the effectiveness of such corrective action.

The justification for this recommended order is predicated upon the failure of the licensee to meet the survey requirements of Part 20, as summarized in Section II below, and upon the necessity for the licensee to

establish an effective program to protect the health and safety of its employees and the public, as discussed in Section III below.

Section IV of this brief discusses the legal sufficiency of the Order dated November 2, 1959 (SE. 1-15) and the legal position of the parties at this posture of the case. It must be stressed that the instant proceeding does not seek revocation of the license. Indeed, the proposed order requires the license to do nothing more than to keep the Commission advised concerning actions already required of it by the regulations.

## II

### THE FAILURE OF THE LICENSEE TO COMPLY WITH THE REQUIREMENTS OF THE COMMISSION REGULATIONS TO CONDUCT SURVEYS TO DETERMINE THE EXPOSURE OF EMPLOYEES TO AIRBORNE CONCENTRATIONS OF RADIOACTIVE MATERIAL AND EXTERNAL RADIATION

The history of the licensee's failure to comply with requirements of the regulations with respect to conducting surveys is detailed in the proposed findings. For the assistance of the Presiding Officer, the following is brief outline of the major circumstances of the licensee's conduct in chronological order.

Operations at the licensee's mill at Edgemont commenced in April, 1956 under license from the Commission. Shortly thereafter, the requirements of the Commission's regulation, "Standards for Protection Against Radiation" were published in Federal Register as a proposed rule and a copy sent to the licensee (S.E. 1-7). Mr. Allen D. Gray, who as the licensee's executive vice-president and later president represented the licensee's responsible management from 1956 to the present, testified that the licensee recognized the importance of controlling exposure to airborne concentrations of radioactive material and external radiation at the mill in its earliest

management and staff meetings (Tr. 497, 518-519) (S.E. 1-12).

However, even after Part 20 became an effective regulation in February, 1957, the licensee made no effort to conduct surveys to determine the exposure of its employees to airborne concentrations of radioactive material and to external radiation as required by Sections 20.201, to CFR 20. The attitude of the licensee is expressed in Mr. Gray's words, "In those days we seemed to be less concerned with radiation than with silicosis" and "certainly at that time there were far more pressing problems than radiation taking our attention and time." (Tr. 519).

It may be noted that in 1956, representatives of the South Dakota State Department of Health, the Public Health Service, and the Atomic Energy Commission made a general study of dust conditions in the mill. The samples taken were only "grab samples" which "could only approximate simultaneous conditions." No attempt was made to relate the sample results to exposure of employees. However, the study provided the basis for 11 specific recommendations to the licensee for the modification of procedures and equipment to reduce dust loadings. When Mr. Donald Kurvink of the South Dakota State Department of Health again looked into dust conditions at the mill in 1959, he found that the licensee had failed to make many of recommended modifications. No explanation for the failure to comply with the recommendations was offered by the licensee in the hearing.

On February 6, 1958, Dr. Donald I. Walker, conducted the first inspection of the Edgement mill. He discovered that the licensee had made no surveys whatsoever to determine the exposure of employees to airborne concentration of radioactive material or to external radiation. He testified that at that time he discussed these violations, and others, with responsible management at the mill.

Thereafter the licensee was given an opportunity to achieve compliance by correcting these violations. On June 11, 1958, a notice of violation pursuant to Section 2.201, 10 CFR 2, was sent to the licensee (S.E. 1-10). In the letters sent in reply to the notice, the licensee did express its own difficulty in interpreting Part 20. However, the licensee in these replies (S.E. 1-12a and 12b) stated that it "has been concerned with radio-activity and related problems for some time" and indicated it had undertaken programs to correct the violations. The letters specified:

"However, we do wish to advise of our concern and to state that we recognize our responsibility in connection with this matter and are making a continual effort to fully comply with all requirements."

In the light of these representations the Division of Licensing and Regulation notified the licensee that it appeared that appropriate action was being taken to correct the deficiencies.

However, with respect to surveying to determine exposures of employees to airborne concentrations of radioactive material and to external radiation, the statements in the letters as to survey programs which had been undertaken and as to the effort the licensee was making were not correct. On cross-examination, the licensee's witnesses Mr. H. L. Hazen and Mr. Gray testified that the licensee had no survey program in effect when these letters were written in July, 1958. The licensee did not even order an air sampling device until August, 1958, the month after the notice of violation was received. Even after the device which the licensee had selected, a Gast air sampler, was received. It could not be put into working order by the licensee, although Mr. Hazen testified that it was a simple device and that he could have made an air sampling device himself. The device was finally returned to the manufacturer in December, 1958 and a new one ordered.

The facts are that the licensee did not put any "survey program" to determine exposures to airborne concentrations of radioactive material into effect until August, 1959, over a year after the representations were made and subsequent to the second inspection. Not even test samples were made until April, 1959. The licensee's attitude toward compliance is further demonstrated by its attempt to dismiss the failure to take air samples with the Gast air sampler as "comedy". (Tr. 607,608).

With respect to surveys for external radiation exposure, the record shows that the licensee had no program in effect at the time the letters replying to the notice of violation were written and that prior to September, 1958, had made no attempt at one.

Dr. Walker returned to the Edgement mill for a second inspection on April 13-14, 1959. At this time he found that the licensee had not conducted any survey whatsoever with respect to determining exposure to airborne concentrations of radioactive material and had made only a cursory attempt to survey for exposures to external radiation. The deficiencies in the latter "survey" are detailed in the proposed findings.

Accordingly the Commission, having given the licensee the opportunity to correct these violations as required by Section 2.201, 10 CFR 2, issued the Order of November 2, 1959, directing the licensee to take prompt steps to bring the mill into compliance with respect to these matters.

At the time of the pre-hearing conference, it was believed that the need for a hearing might be avoided because the licensee by that time claimed that it had established an adequate survey program. However, the evaluation of the data submitted pursuant to the pre-hearing conference agreement disclosed that the licensee's surveys were not adequate. The deficiencies in the survey

data concerning exposure to airborne concentrations of radioactive material which were submitted prior to and during the hearing are fully set forth in the proposed findings and no useful purpose would be served by their repetition here. Suffice it to say that these data considered in units or collectively do not constitute an adequate survey to determine conditions in the mill regarding the exposure of employees.

Even during the hearing Mr. Gray attempted to suggest that the report containing "survey data" concerning weighted exposures represented by Licensee's Exhibit 3 was "typical" of others prepared by the licensee. (Tr. 408). On cross-examination, Mr. Hazen stated that Mr. Gray was wrong and that no other occupancy studies had been made, although another such study had been ordered. (Tr. 689).

In addition to the indifference of the licensee toward actually complying with the regulations, a major factor in the licensee's failure to conduct adequate surveys appears to have resulted from lack of technical competence to survey and control airborne concentrations of radioactive material. None of the licensee's employees at the Edgemont mill understood the workings of the Gast air sampler. Mr. Gray, who complained at length that he did not understand Part 20, was shown to have no technical background in the field of industrial hygiene. He did not purport to be technically qualified in the field of radiation safety (Tr. 495-496, 578)

While Mr. Hazen might be qualified as a metallurgical engineer, he did not appear expert in the field of industrial hygiene and ventilation. He testified that he had designed another uranium mill which used a "dust suppression system" as a means of controlling dust. When asked if this system had been more effective in suppressing dust than the system at the



Edgemont mill, he replied, "It was terrible." (Tr. 694). He testified that he personally had never conducted a survey to determine airborne concentrations of uranium (Tr. 654,662). He testified he did not consider himself an expert with respect to effect on the health of employees exposed to airborne concentrations of radioactivity. (Tr. 656).

Finally, as shown in the proposed findings, the survey data compiled by the licensee contained errors both in the failure to include relevant samples above mpc in occupancy study data and in determining which areas of the mill were below mpc (L.E. 3,9).

It was shown by the testimony of the staff's witnesses that the procedures for determining airborne concentration of dust to which individuals are exposed has become standardized over the past 25 years. It seems clear from the record that the licensee could have instituted an adequate survey program at any time it chose, simply by obtaining the services of a qualified consultant in industrial hygiene. Moreover, the Commission sponsored publications "Winchester 114" (S.E. 2) and "HASL-40" (L.E. 2) detail procedures for conducting such surveys. These volumes were obtained by the licensee early in 1959.

It seems clear that the licensee should have acquired the technical competence to set up an adequate survey program and should have done so years ago.

From the evidence adduced at the hearing it seems apparent that the licensee does not have individuals on its staff who are qualified to develop and carry out an adequate radiation safety program with respect to the Edgemont mill. The AEC Staff assumes that the licensee will retain the services of appropriately qualified individuals either as regular employees



or as consultants who are capable of assisting the licensee to carry out the provisions of this Order. However, if the information required to be submitted under the provisions of the proposed Order does not demonstrate that the licensee possesses the necessary technical competence, the Staff may move, pursuant to paragraph "II" of the Order for a further Order from the Hearing Examiner to the licensee requiring, as a condition of further operation, that it obtain the services of individuals who are qualified to carry out an adequate radiation safety program.

### III

#### THE PROPOSED ORDER

The purpose of the requirements contained in Section I.A. 1 of the proposed order is readily apparent. It is necessary that the staff be advised of the procedures the licensee has instituted and will institute to determine (1) whether or not employees are exposed to excessive concentrations of airborne radioactivity and external radiation, and (2) whether or not the licensee is discharging airborne and liquid effluents to unrestricted areas in excess of the permissible limits in Part 20. The proposed findings present complete details concerning the licensee's failure to comply with the survey requirements of Part 20 to determine the exposure of employees to airborne concentrations of radioactive materials. The data collected by the licensee, between the beginning of its "survey program" in August, 1959, and through the date of the hearing, was shown by the expert testimony of the staff's witnesses to be inadequate and in some instances erroneous. With respect to surveying for exposure to external radiation, the film badge program instituted by the licensee was adequate to determine the exposure of employees

for the particular period of time it was conducted. However, two reasons were presented at the hearing which demonstrate that the licensee must continue surveying to determine exposures of employees to external radiation. First, it was shown that radiation levels in uranium mills do not remain static. Accordingly, the survey program must be continued to assure that changing conditions do not result in increased exposure of personnel. Secondly, it was shown from the licensee's own survey data that two employees received exposures to external radiation in excess of 75 mr per week. Pursuant to Section 20.202, 10 CFR 20, these individuals and any other employees whose occupations indicate that they are likely to receive such exposure, must continue to wear film badges.

In view of the errors made by the licensee in compiling the data presented at the hearing and in drawing conclusions therefrom, the staff is fully justified in requiring the licensee to detail its procedures concerning future "surveys" to determine whether or not liquid effluents discharged from the mill do not exceed the permissible limits specified in Part 20. It also appears that the licensee has never made surveys to determine whether or not airborne effluents from the mill released to unrestricted areas exceed the permissible limits of Part 20.

The purpose of the requirement (Section I.A.2) relating to the instruction program for employees again is obvious. Protective equipment or devices in the plant would be of no value unless the employees understood their purpose and used them. It is also necessary that the employees be instructed in good

Equally important is the establishment of an effective supervisory program (Section I.A.3), to assure that radiation safety procedures at the Edgemont mill are followed, and that safety equipment at the mill performs satisfactorily under all conditions.

The purpose of the requirement of the proposed order (Section I.B.1) to submit data relating to the responsible management of the licensee and as to the technical qualifications of the licensee's employees at the Edgemont mill who are responsible for radiation safety was the subject of testimony by Mr. Cunningham. The staff's purpose is to determine whether or not the licensee has established a program whereby management will see to it that radiation safety is in fact practiced in the mill. An additional purpose is to obtain the identities of the officers in the licensee's organization who are directly responsible for enforcing radiation safety at each level of operation.

Requiring the submission of data (Section I.B.2) as to the technical qualifications of individuals at the mill who are directly responsible for carrying out and enforcing safety is obvious. It must be shown that the licensee employs personnel at the Edgemont mill who understand how to make surveys and correctly analyze the results and have sufficient capabilities to understand problems in radiation safety which may arise in uranium milling operations.

The importance of the requirement that the Commission be advised of the licensee's program for conducting surveys in the future (Section I.C.) also is obvious. Section 20.201, 10 CFR 20, of the Commission's regulations require that surveys necessary to determine compliance with the regulations made.

The record amply demonstrates the need for conducting continuing surveys in order to determine the effect the seasonal, meteorological, and ore quality changes on dust loadings in uranium mills. In the instant case the need for an adequate and continuing survey program is even more patent. The licensee has demonstrated that as of the date of the hearing it still was unable to conduct an adequate survey to determine the exposure of employees to airborne concentrations of radioactivity. This fact, together with the licensee's history of failure to comply with the Commission's regulations respecting surveys, demand that the licensee provide the Commission with a clear statement of the steps it will take to assure compliance in the future.

The Order also requires the licensee to advise the Commission of its plans to correct any condition where the exposure of employees to airborne concentrations of radioactive material or external radiation exceeds the limits prescribed in Part 20 and where the effluent discharge exceeds permissible limits. The Order also would require the licensee to report on the effectiveness of such plans after they have been carried out. It should be noted that nothing in this section of the Order requires the licensee to do anything not already required of it by the Commission's regulations, other than reporting its progress to the Commission.

Section 2 of the order provides for the reopening of the hearing in the event the parties disagree as to the adequacy of the licensee's program.

It is the staff's purpose to bring the operations of the Edgemont mill into full compliance with the Commission's Regulations within the shortest reasonable time. In the event the licensee obtains services of an expert in industrial hygiene, it seems clear that a satisfactory program can be quickly prepared and

put into effect in which case it would seem unlikely that many major disagreements would exist. However, it must be considered that the licensee may present an inadequate program and contend that it meets all requirements. Accordingly, the staff believes that the order issued in this case should contain provisions for the speedy reopening of the case to determine whether the actions taken by the licensee are reasonable in the circumstances.

#### IV

##### THE LEGAL SUFFICIENCY OF THE ORDER OF NOVEMBER 2, 1959

At the hearing the Presiding Officer raised a question (Tr. 33) as to whether or not the staff's action in advising the licensee that the steps taken to correct the deficiencies set forth in the notice of violation appeared satisfactory (S.E. 1-13) had had the effect of dismissing the notice of violation. This suggestion infers that if the notice of violation had in fact been "dismissed" by the staff, the notice of violation would not serve as a predicate to the issuance of the Order of November 2, 1959. It is the staff's position that the notice of violation properly supported the Order of November 2, 1959, if such notice was necessary. It is also the staff position that this Order would be valid whether or not predicated upon a notice of violation.

The record shows that the Commission conducted an inspection of the Edgemont mill in February 1958 where it was discovered, among other things, that the licensee had conducted no surveys whatsoever to determine the exposure of its employees to airborne concentrations of radioactive

material and to external radiation. Thereafter on June 11, 1958, a notice of violation pursuant to the provisions of Section 2.201 of the Commission's "Rules of Practice" was sent to the licensee to provide it an opportunity to achieve compliance before the institution of further proceedings. The licensee responded in three letters (S.E. 1-11, 12a and 12b). The first letter came from Mr. Charles S. Leonard who was then President of the licensee. The letter stated that "we are asking Mr. Gray to take immediate steps to affect full compliance with the provisions of the Code at the earliest practicable moment, and we are asking him to furnish us the report of the character which you request we furnish you within 30 days, such report to be forwarded to you from this office immediately upon its receipt." Mr. Gray forwarded two letters to the Commission which were identical except for date. These letters discussed the licensee's "inability to fully understand Part 20" and discussed for the most part the question of the discharge of liquid effluents. However, the letters said specifically that:

"The above matters have been reviewed in an attempt to demonstrate that the Edgemont mill has been concerned with radioactivity and related problems for some time. While such programs as we have undertaken may not be satisfactorily complete, I should like to note that we have been unable to fully interpret the requirements as set forth in Part 20 'Standard for Protection Against Radiation.' Perhaps some clarification can be obtained relative thereto. However, we do wish to advise of our concern and to state that we recognize our responsibility in connection with this matter and are making a continual effort to fully comply with all requirements." (Emphasis supplied).

From the representations in this statement the Division of Licensing and Regulation obviously concluded that the licensee was initiating survey programs. Accordingly, it stated in a letter dated October 6, 1958, that it appeared that the licensee was taking appropriate steps to correct the deficiencies related in the notice of violation. (S.E. 1-13). This action was based solely on the letter from the licensee.

Much was attempted to be made at the hearing of the Commission's "failure" to explain to the licensee the survey requirements of Part 20. This argument ignores a paragraph in the letter of October 6, 1958, which stated in response to the licensee's request for clarification:

"As stated in Section 20.201, surveys are required to determine compliance with applicable sections of this regulation such as release of effluents to unrestricted areas, exposure of personnel to radiation and concentrations of radioactive material in the air. Once this determination has been made and operations standardized, if possible, further surveys would not be required unless conditions are subject to change. If it is not possible or practical to comply with particular sections of this regulation, provisions are included in the regulation (Section 20.201) for obtaining exemption or approval of alternate methods and limits."

The letter invited further inquiry if the licensee had additional inquiries. No such request was made by the licensee.

When the second inspection of the Edgemont mill was conducted on April 13-14, 1959, it was found that the licensee, despite its earlier representations, still had failed to make any survey whatsoever with respect to the exposure of personnel to airborne concentrations of radioactive material and only a most cursory attempt to determine the exposure of employees to external radiation. Having given the licensee



notice and opportunity to correct the deficiencies and thus to achieve compliance with the Commission's Regulations and having found from further inspection that the licensee was not in fact taking steps to correct violations which had been called to its attention, the Commission issued the Order dated November 2, 1959.

The requirement of the Administrative Procedure Act, that a licensee must be given opportunity to achieve compliance with violations before the institution of agency proceedings, is limited to certain classes of cases. The requirements of the second sentence of Section 9(b) of the "Administrative Procedure Act" are limited to cases of the withdrawal, suspension, revocation or annulment of a license. Section 2.201 of the Commission's "Rules of Practice," 10 CFR 2, and Section 40.25 of "Control of Source Material," 10 CFR 40, have substantially the same provision. The Order of November 2, 1959, did not relate to the suspension, revocation, withdrawal, or annulment of the license in this case. It did not impose any substantive burden upon the licensee that was not already required of the licensee by the Commission's Regulations. Hence, there was no requirement upon the Commission that prior opportunity to achieve compliance be given the licensee by a notice of violation prior to issuance of the November 2, 1959, Order.

In fact the licensee has received more than every consideration contemplated by the "Administrative Procedure Act." Even after the hearing commenced, the licensee was given opportunity to demonstrate it had achieved compliance with the Commission's Regulations. As is

contemplated by Section 5(b) of the "Administrative Procedure Act," the licensee was afforded every opportunity to settle the controversy by submission of data which would permit determination of the controversy by consent. As agreed at the prehearing conference, the licensee agreed to submit its survey data to show it had achieved compliance. When the staff advised that these data were insufficient, the licensee refused to submit further data "under compulsion of a public hearing." (S.E. 1-30).

At the hearing it was suggested that the Order might be defective for failing to make findings relating to public health interest or safety or willfulness. There is no validity to this point. As noted above, the requirement that a licensee be given opportunity to achieve compliance is limited to cases involving the revocation or suspension of a license. Here, not even a modification of the license is involved. The proposed Order would merely require the licensee to take steps promptly to do what the licensee was already required to do by the Regulations in Part 20 and report its progress toward achieving compliance.

The Order would require the licensee to report information to the Commission. Section 161(o) and Sections 40.29, 10 CFR 40, specifically authorize this action. It is submitted that under Section 161(o) of the Act the Commission may require a licensee to report data relating to activities under its license whether or not predicated upon any violation, if the information is reasonably needed by the Commission to carry out its regulatory responsibilities. The Commission has authority

to require its licensees to submit information to assist it in deciding whether additions or modifications are needed in regulations or in particular licenses. It is the function of the Commission to prevent hazards to health and safety and, accordingly, it must have authority to compel the submission of such information prior to the occurrence of some accident or violation by a licensee.

At the hearing the licensee moved to dismiss the Order on the grounds that, although the licensee had previously failed to conduct surveys to determine exposure of employees to airborne concentrations of radioactive material and to external radiation by the time the Order was issued, November 2, 1959, the licensee had conducted the "surveys" required by the regulations. The licensee argued that the notice therefore was defective for failing to specify the times of the violation. Actually the Order states that it is based upon information obtained by the Commission during inspections of the Edgemont mill, the times of which were fully known to the licensee. Moreover, as demonstrated at the hearing, the fact is that the licensee was not in compliance at any time up to November 2, 1959, or as late as the time of the hearing in April, 1960. The record fully demonstrates that the violations were continuing violations which continued right down to, and through, the hearing.

Even if, contrary to the fact, there was a defect in the Order of November 2nd, it was waived by reason of the prehearing conference agreement and the subsequent communications between the AEC staff and

the licensee which provided further opportunity for the licensee to present adequate surveys, data and procedures. It was also waived specifically by the licensee at the outset of the hearing when the Presiding Officer inquired of the licensee if he was prepared to go forward. The licensee responded that he was prepared to proceed (Tr. 46-47).

V

CONCLUSION

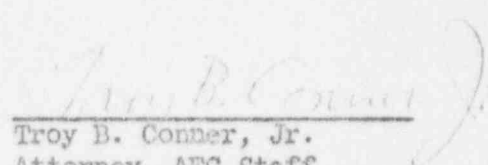
For the foregoing reasons the Order proposed by the staff should be issued by the Presiding Officer.

Respectfully submitted,

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Attorney for AEC Staff

CERTIFICATE OF SERVICE

I hereby certify that two copies of the staff's "Brief in Support of AEC Staff's Proposed Findings of Fact and Conclusions of Law" in the matter of Mines Development Inc., Docket No. 40-1341 was mailed by me to John Tippet, Esquire, Denver Club Building, Denver 2, Colorado, this 26th day of July, 1966.

  
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Attorney, AEC Staff