

UNITED STATES GOVERNMENT

Memorandum

TO : J. C. Delaney, Chief, Nuclear Materials
Branch

DATE:

MAR - 6 1961

FROM : R. F. Barker, Chief, Radiation Safety Branch
Division of Licensing and Regulation

SUBJECT: KERR-MCGEE OIL INDUSTRIES, INC.
ROUTE 1, BOX 569, GOLDEN, COLORADO
DOCKET NO. 40-6175
APPLICATION FOR SOURCE MATERIAL LICENSE

DLR:CGW

This refers to your memorandum of February 8, 1961, concerning the above subject.

On December 22, 1960, we submitted to you our findings, conclusions and recommendations concerning our review of the applicant's letter of application dated December 8, 1960. Based upon those findings and our review of the applicant's letter of February 3, 1961, we offer the following conclusions and recommendations.

Conclusions:

There should be no hazard to individuals in restricted or unrestricted areas from airborne radioactivity since moisture content of the ore is high, the periods for which the operations are proposed are short, and the ore batches involved are small. It appears that there will be no hazard to employees from external radiation. All liquid and solid tailings will be contained on the laboratory site and will not reach unrestricted areas.

The four individuals designated as having responsibility for radiological safety appear sufficiently qualified to perform that function.

Recommendations:

The applicant should be granted a source material license to process uranium ores on a pilot plant scale pursuant to the procedures and methods described in the letters of application dated December 8, 1960 and February 3, 1961.

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RE: Kerr-McGee Oil Industries, Inc.

The following are our findings from a review of the licensee's letter dated February 3, 1961:

Four individuals are specified as having responsibility for radiological safety in the Golden, Colorado facility. They are: W. C. Hazen, John A. Hermann, A. V. Henrickson, and E. Kemp. All four have had previous experience in handling radioactive materials. Collectively, they represent many years of experience in handling Plutonium 239 and other radio-nuclides at the Los Alamos Scientific Laboratories, and in the milling of uranium ores.

The proposed operations include the transporting, crushing and screening of uranium ores in a wet condition. The moisture content will average eight percent as a minimum, and should prevent the production of significant quantities of dust. Furthermore, the proposed operations will last for no more than 8 hours per week and will involve no greater than 5 ton quantities of ore.

No ventilation or air cleaning equipment will be provided, since the production of significant quantities of dust is not expected. However, during the handling and processing of ores, an MSA Fixt-Flo Air Sampler will be used to draw filter air samples from which work area airborne uranium concentrations will be determined.

External radiation surveys will be made using a Mt. Sopris Model SC 129 survey meter.