

DML:DPH
40-8027

DEC 9 1969

Kerr-McGee Corporation
Kerr-McGee Building
Oklahoma City, Oklahoma 73102

Attention: Mr. G. E. Wuller
Nuclear Division - Staff Engineer
Licensing and Regulation

Gentlemen:

This refers to your application dated September 23, 1969, for an AEC source material license.

In support of your application, please provide the following information:

1. A drawing showing the plant layout, including control zones used to prevent the spread of contamination. This should be supplemented with a description in the demonstration section of your application and a specification in Appendix A of employee contamination surveys to be conducted when employees leave potentially contaminated process areas.
2. In the demonstration section of the application (page V-8) you state that process work area air samples are collected continuously at approximately 20 fixed stations strategically located throughout the process area. Please provide in the demonstration section of the application your: (a) criteria for locating these samplers, (b) procedures for relating the results from such samplers to employee exposures, and (c) plans for conducting confirming breathing zone surveys. Appendix A should also contain a specification covering these items.
3. A description in the demonstration section of the application of the sources and quantities of solid wastes generated in your process, including your methods and procedures for collection and disposal.
4. On page V-7 of your application, you indicate that the bone is the

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critical organ for the purpose of controlling exposures to soluble uranium compounds. This should be corrected to indicate that the kidney is the critical organ relative to exposures involving soluble compounds of natural uranium.

5. On page V-11 of the application, you indicate that 0.5 pounds of natural uranium equals 7.2 microcuries of uranium. This should be corrected.
6. In your application, you did not describe an environmental airborne survey program. Based on the nature and scope of your proposed activities, we believe that such a program is necessary. Accordingly, please describe the environmental airborne survey to be conducted, including a specification in Appendix A of your application.
7. In conjunction with your request to dispose of liquid wastes by deep well injection, you indicate that natural uranium and thorium 234 are the only radionuclides which should be considered. It appears that thorium 230 and radium 226 should also be considered in your safety assessment. Please provide your technical basis for omitting these radionuclides in your safety evaluation or provide an assessment which includes these radionuclides if their abundance in your liquid wastes are greater than 10% of the appropriate 10 CFR 20 limits.
8. An assessment and description should be provided of the retention capability and integrity of your two raffinate settling ponds, including conditions that might lead to accidental release of the raffinate, the environmental effects of such a release, and your program of inspection and maintenance to prevent such accidental occurrences. This description should include drawings showing the layout, heights, top width, side slopes, freeboard, seepage control, protection of embankment surfaces, foundation design, typical cross-sections, characteristics of till material, and a discussion of construction methods and specifications.
9. The qualifications of the Sequoyah Health and Safety Officer described in the demonstration section of your application appear satisfactory. However, in Appendix A of the application, you specify that the Health and Safety Officer shall have at least two years' experience in radiation monitoring and personnel exposure evaluation, or three years' experience in industrial safety in a chemical processing plant with three months of training in radiation monitoring and personnel exposure evaluation. It does not appear that these specifications

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necessarily insure that the Health and Safety Officer will be adequately qualified. Accordingly, the specifications should be expanded to provide management's criteria for assuring that the individual appointed to the position of Sequoyah Health and Safety Officer has the required proficiency to perform his assigned duties.

We have not as yet completed our review of the geological and hydrological aspects relative to your request to dispose of your liquid waste effluents by deep well injection. If additional information is needed concerning this item, we will contact you at a later date.

Sincerely,

Original signed by
Don F. Harmon

Don F. Harmon
Source and Special Nuclear
Materials Branch
Division of Materials Licensing

DISTRIBUTION:
PDR
Docket file
Branch R/F
Division R/F
CO, Region IV
Harmon's R/F
N. Doulos, DML

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DATE ▶	12/9/69					

HQ-9401
(9-66)

INTERMEDIATE ACTION FORM

Source & SNM Licenses

REFERENCE NUMBERS

01. PROG. CODE 62		03. DOCKET NO. 40-8027		09. TASK NO. 3634		42. PURPOSE OF TASK amendment		12. CONTROL NO. 3634		15. LICENSE NUMBER SUB-1010	
18. APPLICANT Kerr-McGee Corporation								54. AM. NO. RESULTING FROM TASK			
21. STREET & BUILDING						45. CLASSIFICATION U			63. ASG. TO:		
24. CITY Oklahoma City			27. STATE OKLA		30. ZIP		33. RECEIVED YR. MO. DAY 69 11 21			36. ISSUED YR. MO. DAY	
57. APPLICANT'S COMMUNICATION DATED			YR. MO. DAY 69 11 21		59. ENCLOSURES						
58. DESCRIPTION (MUST BE UNCLASSIFIED) TX req. amendment of SUB-1010 to include authorization for unlimited storage of depleted UF-6 at the Sequoyah facility..... *****								60. DISTRIBUTION 1-PDR cy. 1-compliance cy.			
INTERMEDIATE ACTIONS								OTHER REFERRALS			
TYPE		ON		ACTIV.		RETURNED		DATE		YR. MO. DAY	
ADOL. INFO. REQUESTED FROM APPLICANT		91		92		93		69		11 21	
REFERRED TO:		94		95		96		69		11 21	
REFERRED TO:											
DO NOT REMOVE								DJQ			