

Reg. No.

File No.

DOCKET NO. 40-8006



**KERR-MCGEE CORPORATION**

KERR-MCGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73102

September 13, 1972



Mr. Robert L. Layfield  
Materials Branch  
Directorate of Licensing  
United States Atomic Energy Commission  
Washington, D. C. 20545

Dear Mr. Layfield:

We hereby request that Item 6 of Source Material License SUB-986 be amended to read as follows:

6. Source Material  
Uranium and Thorium

In support of this amendment we enclose a completed AC-2 form covering the proposed use of the thorium source material. As stated, we are beginning a development program involving purification of certain thorium compounds, and expect to require possession of materials containing thorium in excess of the generally licensed quantity.

Thank you for your consideration of this request, and if additional information is required, please call me at 405-341-8551.

Yours very truly,

*W. J. Robertson*

W. J. Robertson

WJR:sw

Enc.

DOCKET NO. 40-8006

Addendum to Application for  
Amendment of Source Material  
License SUB-986

Kerr-McGee Corporation  
Oklahoma City, Oklahoma

11. (a) The bulk of the thorium used in these studies will be in solution. Solutions and thorium cakes will be stored in covered containers well marked with approved warning signs.

Radiation monitoring will be accomplished by the following means:

1. Personnel film badges
  2. Alpha Counter, range 0-100,000 dpm (Eberline Instrument Company, Model PAC-3G)
  3. Geiger Counter, range 0-50 mr (Eberline Instrument Company, Model E-120)
- (b) Radiation instruments will be calibrated quarterly using standard isotopic sources. Personnel film badges are supplied by Landauer on a monthly basis.
- (c) Materials will be received as pure thorium compounds or wet cakes, and actual work will be done with solutions. No dusty operations are envisioned. Ordinary chemical laboratory hoods (face velocity 70-80 fpm) are available for solution preparation.
12. (a) The severity of a possible accident is minimized by the limited size scale of the proposed operations. Although flammable solvents will be used, the quantity on hand at any time is restricted so as not to constitute undue hazard. The building and storage areas are rated as fireproof construction. Normal safety procedures applicable to a good chemical laboratory are adhered to.
- (b) In case of accident involving source material, the affected area will be evacuated until adequate clean-up and decontamination procedures are carried out. A physician who has specialized in nuclear medicine is a consultant for the corporation. He has established a working arrangement with the University of Oklahoma Medical Center staff for assistance in case of emergency.
- (c) The radiation survey program comprises:
1. Personnel film badges (plus control badges).
  2. Routine survey on a monthly basis of the areas where source materials are stored or used. This includes use of a beta-gamma instrument and an alpha survey instrument.
  3. Any additional monitoring for which a need develops as the material is used.

SECRET 67-140-8006

Addendum to Application for  
Amendment of Source Material  
License SUB-986  
Page 2

Kerr-McGee Corporation  
Oklahoma City, Oklahoma

13. (a) Small amounts of raffinate solution from thorium extraction containing Ra-228 and Ac-228, will be generated. Analytical residues containing small quantities of natural thorium will also be generated.
- (b) These solutions will be disposed of within the limits of 10CFR20.

Kerr-McGee Nuclear Corporation  
P.O. Box 25861  
Oklahoma City, Oklahoma 73125

Attn: Mr. W. J. Shelley

35-12630-01 OK  
35-12630-02 OK  
35-12630-03 OK  
35-12630-04 OK  
35-12630-05 OK

35-12630-05 OK

Kerr-McGee Corporation  
Physical Science & Measurement  
P.O. Box 25861  
Oklahoma City, Oklahoma 73125

Attn: Mr. J. P. Hewlett

35-12630-04 OK

Hess American  
P.O. Box 25861  
Oklahoma City, Oklahoma 73125

Attn: Mr. R. S. Hahn

SDA-C16  
OK, but  
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Kerr-McGee Nuclear Corporation  
P.O. Box 218  
Grants, New Mexico 87020

35-11089-01 See if  
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Kerr-McGee Chemical Corporation  
P.O. Box 610  
Hobbs, New Mexico 88240

Attn: Mr. R. C. Green

STA-533 OK

Kerr-McGee Chemical Corporation  
P.O. Box 25861  
Oklahoma City, Oklahoma 73125

Attn: Mr. R. G. Smith

35-12630-06 OK

Kerr-McGee Corporation  
Technical Center  
P.O. Box 25861  
Oklahoma City, Oklahoma 73125

Attn: Mr. Wylie Jennings

# MATERIALS DATA INPUT

REFERENCE COPY



PROJECT NUMBER <b>040-08006</b>	MAIL CONTROL NO. <b>05122</b>	DATE REQUEST REC'D <b>09/18/72</b>	PROGRAM CODE (PRIMARY) <b>11300</b>
SECONDARY PROGRAM CODES			
#1	#2	#3	#4

INDIVIDUAL LICENSEES	NAME	NAME
	NAME	NAME
	NAME	NAME

ORGANIZATION LICENSEES	ORGANIZATION NAME <b>East-McGee Corporation</b>	TYPE OF ORGANIZATION	
	DEPARTMENT OR BUREAU	U. S. GOVERNMENT AGENCY	EDUCATIONAL INSTITUTION
		MEDICAL INSTITUTION	INDUST

ADDRESS	BUILDING, STREET	CITY <b>Oklahoma City</b>	STATE <b>OK</b>	ZIP CODE <b>73102</b>
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APPLICANT'S COMMUNICATION DATED: <b>09/13/72</b>	CLASSIFICATION <b>U</b>	ASSIGNED TO: <b>Layfield</b>	RESULTING AMD. NO. <b>2</b>
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ENCLOSURES: (4 cys rec'd)

- 1 - Application for Source Material License
- 2- Addendum to Application for Amendment of Source Material License SUB-986

UNCLASSIFIED DESCRIPTION:

Ltr. reg. amendment to Item 6 of Source Material License SUB-986.....

DISTRIBUTION:

PDR  
RO

**DO NOT REMOVE**

**ACKNOWLEDGED**

OTHER REFERRALS		NAME	DATE	NAME	DATE
Layfield: W/Reg. file & Folder			9/18		
					crj

[Rptd]

[File No.]

LC NET NO. 40-8106



**KERR-MCGEE CORPORATION**

KERR-MCGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73101

September 13, 1972



Mr. Robert L. Layfield  
Materials Branch  
Directorate of Licensing  
United States Atomic Energy Commission  
Washington, D. C. 20545

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Yours very truly,

*W. J. Robertson*

W. J. Robertson

WJR:sw

Enc.

5122

40-8006

Addendum to Application for  
Amendment of Source Material  
License SUB-986

Kerr-McGee Corporation  
Oklahoma City, Oklahoma

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ADDENDUM TO APPLICATION FOR  
AMENDMENT OF SOURCE MATERIAL  
LICENSE SUB-986  
Page 2

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Kerr-McGee Corporation  
Oklahoma City, Oklahoma

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Kerr-McGee Corporation  
Physical Science & Measurement  
P.O. Box 25861  
Oklahoma City, Oklahoma 73125  
Attn: Mr. W. C. Shelley

35-1174-  
35-1030-  
35-1001-30

35-12030-5-216

Kerr-McGee Corporation  
Physical Science & Measurement  
P.O. Box 25861  
Oklahoma City, Oklahoma 73125  
Attn: Mr. J. P. Hewlett

35-12030-04 OK

Koss American  
P.O. Box 25861  
Oklahoma City, Oklahoma 73125  
Attn: Mr. W. S. Hahn

Kerr-McGee Nuclear Corporation  
P.O. Box 216  
Grants, New Mexico 87020

35-11068-01

OK  
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Kerr-McGee Chemical Corporation  
P.O. Box 610  
Hobbs, New Mexico 88240  
Attn: Mr. R. C. Green

35-11068-01 OK  
See if  
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Kerr-McGee Chemical Corporation  
P.O. Box 25861  
Oklahoma City, Oklahoma 73125  
Attn: Mr. R. C. Green

35-11068-01 OK

Kerr-McGee Corporation  
Technical Center  
P.O. Box 25861  
Oklahoma City, Oklahoma 73125  
Attn: Mr. Wylie Jennings

35-12030-00 OK

# MATERIALS DATA INPUT

14 REFERENCE COPY



SET NUMBER <b>040-08006</b>	MAIL CONTROL NO. <b>05122</b>	DATE RECEIVED <b>09/18/72</b>	PROGRAM CODE (FBI) <b>11360</b>
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SECONDARY PROGRAM CODES				
#1	#2	#3	#4	#5

F I L E S C O D E S	NAME	NAME
	NAME	NAME
	NAME	NAME

O R G A N I Z A T I O N	ORGANIZATION NAME <b>Hart-McGee Corporation</b>	TYPE OF ORGANIZATION	
	DEPARTMENT OR BUREAU	U. S. GOVERNMENT AGENCY	EDUCATIONAL INSTITUTION
		MEDICAL INSTITUTION	INDUST

BUILDING, STREET	CITY <b>Oklahoma City</b>	STATE <b>OK</b>	ZIP CODE <b>73102</b>
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APPLICANT'S COMMUNICATION DATED: <b>09/13/72</b>	CLASSIFICATION <b>U</b>	ASSIGNED TO: <b>Layfield</b>	RESULTING A.M.C. NO. <b>2</b>
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ENCLOSURES: (4 cys rec'd)

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UNCLASSIFIED DESCRIPTION:

Ltr. reg. amendment to Item 6 of Source Material License SUB-986.....

DISTRIBUTION:

PDR

RO

## DO NOT REMOVE

## ACKNOWLEDGED

OTHER REFERRALS			
NAME	DATE	NAME	DATE
Layfield: W/Reg. file & Folder	9/18		
			crj

[REDACTED]

[REDACTED] Oy.

SECRET NO. 40-1166



**KERR-MCGEE CORPORATION**

HEADQUARTERS - OKLAHOMA CITY, OKLAHOMA 73101

September 13, 1972



Mr. Robert L. Layfield  
Materials Branch  
Directorate of Licensing  
United States Atomic Energy Commission  
Washington, D. C. 20545

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*W. J. Robertson*

W. J. Robertson

WJR:sw

Enc.

5122

41-8006

Addendum to Application for  
Amendment of Source Material  
License SUB-986

Kerr-McGee Corporation  
Oklahoma City, Oklahoma

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Page 2

*8006*  
Kerr-McGee Corporation  
Oklahoma City, Oklahoma

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Kerr-McGee Chemical Corporation  
P.O. Box 25861  
Oklahoma City, Oklahoma 73125  
Attn: Mr. A. C. Shelley

Sub-301  
30-12030-5 - c/k.

Kerr-McGee Corporation  
Physical Science & Measurement  
P.O. Box 25861  
Oklahoma City, Oklahoma 73125  
Attn: Mr. J. P. Hewlett

Kerr American  
P.O. Box 25861  
Oklahoma City, Oklahoma 73125  
Attn: Mr. R. S. Fahn

30-12030-04 *ick*

Kerr-McGee Nuclear Corporation  
P.O. Box 218  
Grants, New Mexico 87020

Sub-010

Kerr-McGee Chemical Corporation  
P.O. Box 010  
Hobbs, New Mexico 88240  
Attn: Mr. R. C. Green

30-11009-01

Kerr-McGee Chemical Corporation  
P.O. Box 25861  
Oklahoma City, Oklahoma 73125  
Attn: Mr. R. G. Smith

STA-083 *oil*

Kerr-McGee Corporation  
Technical Center  
P.O. Box 25861  
Oklahoma City, Oklahoma 73125  
Attn: Mr. Wylie Jennings

30-12030-00 *ck*

# MATERIALS DATA INPUT

ST NUMBER		APPL CONTROL N.		DATE RECEIVED		PROGRAM COLL YEAR	
040-08006		05122		09/18/72		11300	
PRIMARY PROGRAM CODES							
SOURCES	NAME			NAME			
	NAME			NAME			
	NAME			NAME			
ORGANIZATION	ORGANIZATION NAME						
	Rear-McGee Corporation						
	DEPARTMENT OR BUREAU						
							TYPE OF ORGANIZATION
							U. S. GOVERNMENT AGENCY
							EDUCATIONAL INSTITUTION
							MEDICAL INSTITUTION
							INDUST
							OTHER
BUILDING, STREET				CITY		STATE	
ADDRESS				Oklahoma City		OK	
						ZIP CODE	
						73102	
APPLICANT'S COMMUNICATION DATED:		CLASSIFICATION		ASSIGNED TO:		RESULTING ACTION	
09/13/72		U		Layfield		2	
ENCLOSURES:							
(4 cys rec'd)							
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UNCLASSIFIED DESCRIPTION:							
Ltr. reg. amendment to Item 6 of Source Material License SUB-986.....							
DISTRIBUTION:							
<div style="display: flex; justify-content: space-between; align-items: center;"> <div> PDR RO </div> <div style="text-align: center;"> <h2 style="margin: 0;">DO NOT REMOVE</h2> <h2 style="margin: 0;">ACKNOWLEDGED</h2> </div> </div>							
OTHER REFERRALS							
NAME		DATE		NAME		DATE	
Layfield: W/Reg. file & Folder		9/18					
						crj	