

70-3073



**KERR-McGEE CORPORATION**

KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

June 7, 1991

**Certified - Return Receipt**

Mr. Damon Wingfield  
Waste Management Service  
Oklahoma State Department of Health  
P. O. Box 53551  
Oklahoma City, OK 73125

Re: Cushing Site

Dear Mr. Wingfield:

Pursuant to Section IX.2 of the Consent Order entered in State of Oklahoma v. Kerr-McGee Corporation, No. C-90-91-H, Kerr-McGee Corporation hereby submits the attached written progress report for the month of May 1991.

Please call me at (918) 225-7753 if you have any questions about this report.

Sincerely,

*James E. Cleveland*

James E. Cleveland  
Project Coordinator

JEC:lld

Attachment

xc: Bill Fisher - U. S. NRC, Arlington, Texas  
William M. Kemp - Radiation Protection Service  
Tony Huffert - U. S. NRC, Washington, D.C.  
Kerr-McGee Citizens' Oversight Committee

09-058

NL101/1

## CUSHING SITE REMEDIAL ACTION

Pursuant to Section IX.2 of Consent Order No. C-90-91H of the District Court of Payne County, State of Oklahoma, Kerr-McGee Corporation hereby submits the Cushing Remedial Action progress report for the month of May 1991.

## RADIOLOGICAL INVESTIGATION AND REMEDIATION

### Site Characterization

Soil sampling data for uranium and thorium is now complete for the Trench, North Block, and Process Building Areas. Updated reports are being prepared and will be submitted to OSDH as an amendment to the Characterization Report submitted May 6, 1991.

The U. S. Nuclear Regulatory Commission (NRC) informed Kerr-McGee Corporation (KMC), by a letter dated May 20, 1991, that "The Atomic Energy Act of 1954, as amended, requires that you have a license issued by NRC for the radioactive contamination." NRC and KMC have scheduled a meeting in Washington, D.C. on June 7, 1991, to discuss a proposed Draft License (see attached) and a schedule for the issuance of a Final Document.

### Processing Site

Work continues to clean up both the uranium and thorium process areas. The ceiling and support beams in the uranium process area are being washed down using a high pressure water-steam generator. Initial surveys show this method is removing radioactive materials below the NRC release limits. Sections of the concrete slab in the thorium processing area, with contamination of thorium above the NRC limits, have been removed. This material is stockpiled in the building for final removal of contamination. All sections of the slab below the NRC limits will be buried with normal construction rubble. Contaminated materials are barreled for shipment to Barnwell, South Carolina as LSA material.

Bricks from the contaminated basement wall have been placed in drums for off-site disposal to Barnwell. Brick from the contaminated soils were cleaned using the high pressure water-steam generator. The clean brick was buried with normal construction rubble. The contaminated soils are being collected for barreling with other contaminated materials.

## REFINERY REMEDIATION

### Refinery Site Cleanup

Work continues to control the pH of Skull Creek using the limestone chat filter-dams. A proposed center line to reroute the creek away from Pit 5 has been marked. A registered land surveyor has surveyed the center line and is preparing a profile and estimated volume of materials to be excavated. An application will be prepared for the U. S. Corps of Engineers to permit the rerouting of the creek. Work has been completed North of Deep Rock Road for the clean up and burial of building rubble and foundations from the old refinery.

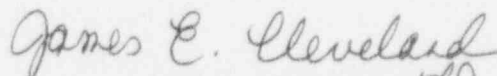
Five barrels of the pit acid-sludge materials were shipped to a laboratory in Pittsburgh, Pennsylvania for neutralization tests. These tests are the first phase of determining a process for clean up of the pits.

### OTHER ACTIVITIES

A meeting of the Citizens' Oversight Committee was held on site on May 31, 1991. The committee was briefed on clean up activities and the NRC license requirements at the site.

### FUTURE ACTIVITIES:

1. The next meeting of the Citizens' Oversight Committee will be on site, August 12, 1991 at 5:00 p.m.
2. After completion of the survey of the proposed Skull Creek routing, a permit application will be filed with the U. S. Corps of Engineers.
3. Application is being prepared for an NPDES permit to discharge treated storm water from the acid-sludge pits.
4. Process investigations will be investigated for the clean up of the acid pits and radioactive contamination on site.

  
James E. Cleveland *JEC*  
Project Coordinator  
Kerr-McGee Corporation

JEC:lld

Attachment - NRC 5/20/91 letter for proposed license



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555

May 20, 1991

RECEIVED by  
E. T. Still

MAY 28 1991

Docket Nos. 70-712  
40-1478

Kerr-McGee Corporation  
ATTN: Mr. E. T. Still  
Vice President and Director  
Environmental and Health  
Management Division  
P.O. Box 25861  
Oklahoma City, Oklahoma 73125

Dear Mr. Still:

Former nuclear operations at Kerr-McGee's Cushing, Oklahoma site were authorized under U.S. Atomic Energy Commission licenses for possession and use of natural thorium and depleted, natural, and enriched uranium. This site remains contaminated today and has been placed on the U.S. Nuclear Regulatory Commission's (NRC's) Site Decommissioning Management Plan list of sites requiring cleanup action. We have concluded that the Atomic Energy Act of 1954, as amended, requires that you have a license issued by the NRC for the radioactive contamination. Specifically, 10 CFR 70.3 states, "no person subject to the regulations in this part shall receive title to, own, acquire, deliver, receive, possess, use, or transfer special nuclear material except as authorized in a license issued by the Commission pursuant to these regulations." You are in possession of special nuclear material, as determined by analysis of soil samples taken from your Cushing, Oklahoma site. In addition, although Kerr-McGee is currently performing cleanup activities under a Consent Order with the State of Oklahoma Department of Health, we have concluded that these cleanup activities must be performed in accordance with NRC requirements under an NRC license.

Therefore, we have developed and enclosed for your review a draft NRC license for decommissioning activities being performed at Kerr-McGee's Cushing, Oklahoma site. This document contains proposed license conditions that would require submittal of several documents the NRC staff considers necessary for protecting the public health and safety and the environment at this site. We would appreciate discussing in a meeting your comments on this document at your earliest convenience, preferably before June 15, 1991.

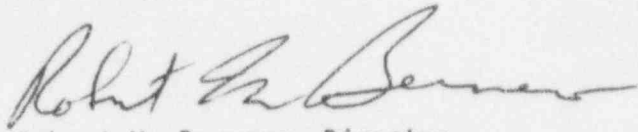
E. T. Still

- 2 -

May 20, 1991

If you would like to discuss the contents of the draft license before our meeting, please call me at (301) 492-3352 or Mr. Richard L. Bangart, Director of the Division of Low-Level Waste Management and Decommissioning, at (301) 492-3340.

Sincerely,



Robert M. Bernero, Director  
Office of Nuclear Material Safety  
and Safeguards

Enclosure: As stated

cc: Sam Becker, EPA R6  
William Kemp, OK DOH

**DRAFT**

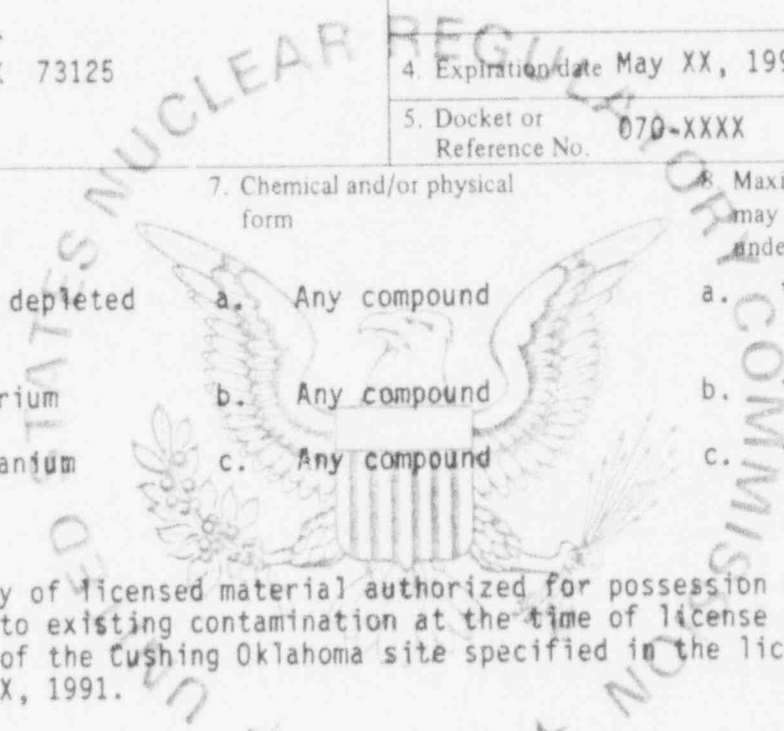
**MATERIALS LICENSE**

**DRAFT**

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 40 and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to ~~XXXXXX XXXXXX~~ possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	
1. Kerr-McGee Corporation	3. License number SNM-XXXX
2. Kerr-McGee Center Oklahoma City, OK 73125	4. Expiration date May XX, 1994
	5. Docket or Reference No. 070-XXXX

6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
a. Natural and depleted uranium	a. Any compound	a. *
b. Natural thorium	b. Any compound	b. *
c. Enriched uranium	c. Any compound	c. *
8. *The quantity of licensed material authorized for possession under this license is limited to existing contamination at the time of license issuance within the boundaries of the Cushing Oklahoma site specified in the licensee's application dated May XX, 1991.		
9. Authorized Use: for possession, use, and transfer of radiologically contaminated material in accordance with the statements, representations, and conditions specified in the application dated May XX, 1991, for the purpose of decontaminating the facilities and grounds so that they can be released for unrestricted use.		
10. Place of Use: The Kerr-McGee facilities located in Cushing, Oklahoma, formerly known as the Oil Refinery Site.		
11. Within 30 days of the issuance of this license, the licensee shall:		
a. Submit to NRC a site characterization report of radiological contamination of facilities and grounds at the Cushing, Oklahoma site.		
b. Submit to NRC a program for control of resuspended soils originating from the Cushing facility grounds.		



**DRAFT**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**DRAFT**

License number:

SNM-XXXX

Docket or Reference number:

070-XXXX

(Continued)

12. Within 90 days of the issuance of this license, the licensee shall:
- Submit to NRC a radiation protection program in accordance with the requirements of 10 CFR 20 for decommissioning activities performed at the Cushing site.
  - Submit to NRC an environmental monitoring program for the Cushing site.
  - Submit to NRC a quality assurance program for decommissioning activities performed at the Cushing site.
  - Submit to NRC a training program for workers at the Cushing site in accordance with the requirements of 10 CFR 19.
  - Submit to NRC a management organization program for personnel responsible for decommissioning the Cushing site.
  - Submit to NRC an assessment of the quantity of special nuclear material that (1) could be onsite at any given time as discrete items or containers (e.g., waste drums awaiting shipment), and (2) is onsite at the time of issuance of this license; and develop the following documents:
    - a security plan, if required, in accordance with the requirements of 10 CFR 72.67; and
    - a material control and accountability program, if required, in accordance with the requirements of 10 CFR 70.51.
13. Within 180 days of the issuance of this license, the licensee shall:
- Submit to NRC a decommissioning plan for the Cushing site. The schedule submitted with the decommissioning plan shall provide the expected dates for submission of (1) the results of the final radiation survey and (2) the request for unrestricted release of the Cushing site by 36 months of the issuance of this license.
  - Submit to NRC a decommissioning funding plan for the Cushing site.
14. The licensee shall dispose at an NRC-approved burial site radioactive solid wastes and soils that have a concentration of radionuclides greater than Option 1 of the 1981 Branch Technical Position entitled "Disposal of Onsite Storage of Thorium or Uranium Wastes From Past Operations."

**DRAFT**

MATERIALS LICENSE  
SUPPLEMENTARY SHEET

**DRAFT**

License number	SNM-XXXX
Docket or Reference number	070-XXXX

(Continued)

- 15. Release of equipment and material for unrestricted use from the facility to offsite areas or from contaminated to clean areas onsite shall be in accordance with the enclosed Annex, "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material," dated August 1987.

FOR THE U. S. NUCLEAR REGULATORY COMMISSION

DATE: \_\_\_\_\_

BY:

Division Low-Level Waste Management  
and Decommissioning  
Washington, DC 20555

