

## MATERIALS LICENSE

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, 39, 40 and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, 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-1999
2. Kerr-McGee Center Oklahoma City, OK 73125	4. Expiration date	January 1, 1997
	5. Docket or Reference No.	70-3073 Amendment No. 6
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. Uranium Enriched in U-235	A. Contaminated soil, sludge, sediment, trash, building rubble, structures, and any other contaminated material.	A. All residual contam- ination which currently exists at the former Cushing Refinery Site.
B. Thorium	B. Contaminated soil, sludge, sediment, trash, building rubble, structures, and any other contaminated material.	B. All residual contam- ination which currently exists at the former Cushing Refinery Site.
C. Natural Uranium and Depleted Uranium	C. Contaminated soil, sludge, sediment, trash, building rubble, structures, and any other contaminated material.	C. All residual contam- ination which currently exists at the former Cushing Refinery Site.
D. U-235	D. Calibration and reference radioactive sources containing U-235	D. No calibration or reference radioactive source containing U-235, shall exceed 0.1 microCurie per source.
9. Authorized Use: Licensed material shall be possessed and used in remediation activities leading to the decommissioning of the Cushing Site.		
10. Authorized Place of Use: The existing facilities of Kerr-McGee Corporation, Environmental Operations, Technology and Engineering Division, P.O. Box 89, Cushing, OK 74023. Location: Two miles North - State Highway 18, 1/2 mile East - Deep Rock Road.		

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11. Conditions:

- A. Kerr-McGee shall submit by license amendment request, before May 1, 1994, a Proposed Decommissioning Plan for the Cushing Site meeting the requirements of 10 CFR 70.38(c)(2)(iii).
- B. Kerr-McGee shall submit, by separate license amendment requests, or as a part of the Proposed Decommissioning Plan, detailed descriptions of the methods for performing the following activities, prior to beginning the activities:
  1. Prior to transferring contaminated material to any of the three temporary storage areas provide an analysis of the ability of the three temporary storage areas to effectively resist erosion by wind and water, and describe the measurement procedures to be used to control the sorting of the contaminated material to be transferred to the temporary storage areas.
  2. Prior to neutralizing the acidic contaminated sludge in Pit 4, describe the methods to be used.
  3. Prior to demolishing potentially contaminated structures, provide a description of the methods to be used.
- C. Both the Initial Radworker Training and the Annual Radworker Requalification Training, described in Item 8 of the application, shall include all of the topics described in 10 CFR 19.12.
- D. Lapel air samplers will be issued when required by a special work permit or at the direction of the health physics personnel. Lapel air samplers would be issued when there is a reasonable probability that personnel may be exposed to airborne radioactive material. Lapel air samplers may be issued at a minimum of one per work crew, or a maximum of one per individual, depending on the work scope and the potential for worker exposure. Downwind area air sampling would be performed when work activities are being performed that would cause the potential of producing airborne radioactivity, such as earthmoving.

Urine sampling and analysis for uranium isotopes will be performed for all workers in a crew, if either area air sample(s) or lapel air sample(s) indicate the following:

- >40 DAC-hrs for a single air sample result,
- >100 DAC-hrs/yr accumulated exposure for any one worker.

Fecal analysis will be performed in cases where thorium exposure is suspected and either area air sample(s) or lapel air sample(s) indicate chronic or acute exposures in excess of 100 DAC-hrs.

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- E. Notwithstanding statements in the application the limits listed in "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material," Policy and Guidance Directive 83-23, August 1987, shall be used as the criteria for the unrestricted release of equipment, material, and personnel.
- F. All radiation protection program procedures or revisions to these procedures shall be approved by the Radiation Safety Officer. All revisions to the radiation safety plan shall be approved by the Radiation Safety Officer, Site Manager, Project Manager, and Project Leader.
- G. All work in radioactive materials areas or restricted areas, or work with licensed material not located in radioactive materials or restricted areas, shall be in accordance with an approved radiation safety procedure. Work may be performed in the haul road corridor area, except in fenced radioactive materials areas located within the haul road corridor area, without implementing a radiation safety procedure.
- H. Wastes disposed offsite shall be classified and meet waste form requirements of 10 CFR Part 61, meet applicable disposal site license conditions, and meet Department of Transportation and 10 CFR Part 71 transportation requirements.
- I. The Radiation Safety Officer for this license is Mr. Terence Moore.
- J. Licensee is exempt from the physical protection requirements of 10 CFR Part 73 and the criticality accident requirements of 10 CFR 70.24.
- K. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with statements, representations, and conditions contained in a letter dated September 25, 1992, as supplemented on December 18, 1992, January 14, 1993, February 23, 1993, August 26, 1993, January 5, 1994, and February 9, 1996.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: February 12, 1997

By: *John W. N. Hickey*  
John W. N. Hickey, Chief  
Low-Level Waste and Decommissioning  
Projects Branch  
Division of Waste Management  
Office of Nuclear Material Safety  
and Safeguards

\* The haul road corridor area is considered to be defined as the aggregate of the 33 survey units addressed in Kerr-McGee's letter to the NRC dated May 30, 1996.

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