

DML:LR
70-925

SMM-928, Amendment No. 25

DEC 21 1971

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J. C. Delaney, DML

Kerr-McGee Corporation
Attn: Mr. George E. Wuller, Staff Engineer
Licensing and Regulations
Nuclear Division
Kerr-McGee Building
Oklahoma City, Oklahoma 73102

Gentlemen:

Pursuant to Title 10, Code of Federal Regulations, Part 70, Special Nuclear Material License No. SMM-928 is hereby amended to authorize the incineration of licensed material in accordance with the statements, representations and conditions contained in your application dated November 8, 1971, and supplements dated December 3, and December 13, 1971.

All other conditions of this license shall remain the same.

Your application of January 7, 1971, requested authority to bury solid wastes containing uranium enriched up to 5 percent in the U-235 isotope in quantities exceeding those permitted by the provisions of § 20.304, 10 CFR Part 20. In considering your application, we have recognized that there may be anomalies between the quantities of natural uranium than can be buried under the provisions of § 20.304 and the combined quantities of U-234 and U-235 contained in enriched uranium that may be buried. The basis for the higher value for natural uranium (and natural thorium) in Appendix C of 10 CFR Part 20 was its low specific activity and the attendant low risk of intake, which might or might not be the case for the combined U-234 and U-235 contained in enriched uranium.

The authority provided by the above amendment to incinerate licensed material appears to alleviate the need for the requested exception to Part 20 requirements; in addition, commercial waste disposal facilities are available for disposal of the type of wastes involved. Accordingly, we plan to take no further action on this application.

FOR THE ATOMIC ENERGY COMMISSION

Original Signed by
Leland C. Rouse

for Donald A. Nussbaumer, Chief

Fuel Fabrication and
Transportation Branch
Division of Materials Licensing

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OFFICE ▶	DML <i>LR</i>	DML <i>Delaney</i>		DML <i>LR</i>
SURNAME ▶	Rouse/mad	JCDelaney		DANussbaumer
DATE ▶	12/21/71	12/21		(12/21/71)

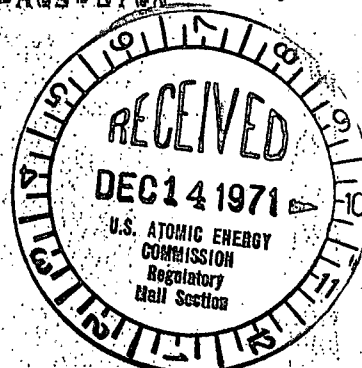
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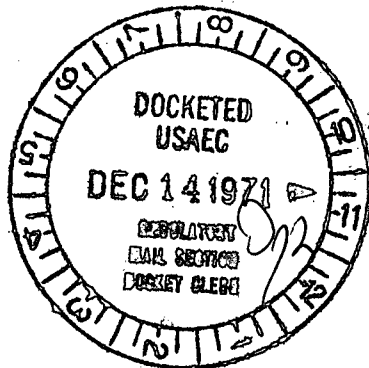
THIS IS KERR MCGEE CORP OKLA CITY OKLA
 MR DONALD A NUSSBAUMER
 FUEL FABRICATION AND TRANSPORTATION BRANCH
 DIVISION OF MATERIALS LICENSING
 UNITED STATES ATOMIC ENERGY COMMISSION
 WASHINGTON D.C.

REFER AMENDMENT APPLICATION NO. 27 TO LICENSE SNM-928, DOCKET NO. 70-925 FOR INCINERATION OPERATION. ADDITIONAL INFORMATION IS FURNISHED IN REPLY TO YOUR TWX OF DECEMBER 10 FOR INCORPORATION INTO LICENSE AMENDMENT.

INCINERATOR TEST PROGRAM CONDUCTED IN AUGUST ON CONTAMINATED COMBUSTIBLES WITH NO FLUE GAS FILTRATION SHOWED STACK RELEASE 4.2×10 TO MINUS TENTH MICROCURIES PER MILLILITER AT 2834 ACFM OR 105 MPC AT 4×10 TO MINUS TWELFTH MICROCURIES PER ML FOR MPC RELEASE TO UNRESTRICTED AREAS. PROPOSED INCINERATOR FLUE GAS FILTRATION EQUIPMENT AT 5130 ACFM (DILUTION REQUIRED FOR DECREASING OFF-GAS TEMPERATURES TO A LEVEL COMPATIBLE WITH EQUIPMENT) IS CONTENDED WILL MAINTAIN CONTAMINANTS IN STACK EFFLUENT TO LOWEST LEVEL PRACTICABLE WITH THE TECHNOLOGY CURRENTLY AVAILABLE. BAG HOUSE FILTERS AT 90% EFFICIENCY COUPLED WITH ABSOLUTE FILTER EFFICIENCY AT 99% IS EXPECTED TO PROVIDE STACK EFFLUENT CONCENTRATION IN THE RANGE OF 2×10 TO MINUS THIRTEENTH MICROCURIES PER MILLILITER (52 MPC). SINCE PUBLISHED NOMINAL EFFICIENCIES OF BAG HOUSE AND HEPA FILTERS ARE 99.9% AND 99.97% RESPECTIVELY, ACHIEVING A LEVEL OF LESS THAN 52 MPC DURING NORMAL INCINERATION OPERATION IS PREDICTED.

WE PROPOSE AN ACTION LEVEL OF 2×10 TO MINUS TWELFTH MICROCURIES PER ML (502 MPC) STACK RELEASE ON BASIS OF DAILY ANALYSIS AT WHICH POINT INVESTIGATION AND CORRECTIVE MAINTENANCE WOULD BE UNDERTAKEN. KINDLY REQUEST EARLY ISSUANCE OF LICENSE AMENDMENT. THANK YOU.

G E WULLER



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