



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION III  
799 ROOSEVELT ROAD  
GLEN ELLYN, ILLINOIS 60137

APR 16 1986

Safety Evaluation Report

DOCKET NO.: 070-00925

APPLICANT: Sequoyah Fuels Corporation

FACILITY: Cimarron Uranium Plant

SUBJECT: REVIEW OF LICENSE AMENDMENT REQUEST, AMENDMENT NO. 03

Background

On March 31, 1983 Kerr McKee-Sequoyah Fuels was issued the renewal of License Number SNM-928 which specified a maximum possession limit of 2000 kilograms of uranium source material. On November 19, 1985 Sequoyah Fuels Corporation requested that the possession limit be modified to include 6000 kilograms of thorium. Approval of this request will allow decontamination of the burial grounds at the Cimarron facility.

Discussion

An inspection of decommissioning activities was conducted at Sequoyah Fuels Cimarron Uranium Plant on January 6-10, 1986. (See Inspection Report 70-0925/86001 DRSS.) During a tour of the facility the inspector observed the following activities in support of the licensee's request for possession of thorium waste.

1. Scalping of vegetation from burial pits in preparation for excavation of thorium waste removal.
2. Construction of a change room and a ventilation shack, complete with filters and air handling equipment, at the burial site. The ventilation shack is constructed over a metal skid which can be towed to an excavation site selected atop the burial pit. Excavation can take place in 10-foot swaths. The ventilation shack door can be lowered into a prepared hole rendering an enclosure in preparation for the 10-foot excavation. Canvas skirts can be fitted around the skid frame to complete the enclosure. Exhaust ventilation includes filters and airflow measuring equipment. Workers will be further protected by donning protective clothing, including respiratory protection if needed.

3. Construction of a loading dock (compacted dirt reinforced with a wall constructed of railroad ties). The height of the dock will accommodate the height of a trailer bed for ease of loading containers of excavated radioactive material.

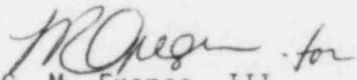
The inspector concluded that the licensees proposed decontamination program for thorium waste removal appears adequate to protect the health and safety of facility workers and members of the general public.

#### Radiological Safety

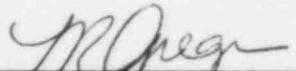
Thorium possession as requested by this license amendment is primarily contained in contaminated equipment transferred from a thorium metal plant that was decommissioned at Cushing, Oklahoma under License Number SMB-664. The waste was buried in accordance with provisions of now defunct 10 CFR 20.304. Licensee records disclosed that both uranium SNM material and thorium waste were packaged and buried at the Cimarron site. Radiation safety procedures that are currently in place coupled with radiometric analysis of burial ground samples appear to be adequate to assure safe operations. Additionally, the licensee constructed a change room and ventilation shack to control radioactive airborne particulate matter.

#### Recommendation

In view of the above, it is recommended that the license be amended as requested by Kerr McGee-Sequoyah Fuels.

  
G. M. France, III  
Facilities Radiation  
and Protection Section

Approved:

  
L. R. Greger, Chief  
Facilities Radiation  
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