

June 18, 1974

H. D. Thornburg, Chief  
Field Support and Enforcement  
Directorate of Regulatory Operations, HQ

KERR-MCGEE SEQUOYAH U<sup>235</sup> PLANT, GORE, OKLAHOMA  
RETENTION POND LEAKAGE

During our June 4-6, 1974, routine inspection of the Kerr McGee Nuclear Corporation Sequoyah Uranium Hexafluoride plant (License No. SUB-1010), apparent seepage from the licensee's Raffinate Storage Pond No. 2 was noted. A licensee representative stated that seepage was first suspected when nitrate results from seepage well 2314 increased from a January 1, 1974 thru March 31, 1974 average of 1.4 mg/liter to 160 mg/liters in April, 1974.

The abrupt rise in nitrate concentrations prompted the licensee to increase their sampling activities to further investigate the extent of the problem. Enclosure No. 1 outlines action appearing in the licensee's log book for the period May 13-30, 1974.

As Enclosure No. 1 indicates, there has also been a significant increase in uranium concentrations found in seepage well 2314. The licensee's records indicated an average uranium concentration in seepage well 2314 of 50  $\mu$ gm/liter for the period January 1, 1974 thru April 30, 1974. A concentration of 6060  $\mu$ gm/liter was measured on May 24, 1974. Enclosure No. 2 is a graph which shows the uranium and nitrate concentrations for the period May 13-30, 1974.

In an attempt to help identify the seepage area, the licensee has drilled 10 additional seepage wells. See Attachment No. 1 (5/28/74 entry), Enclosure No. 3 and Enclosure No. 4. As of June 14, 1974, none of the new wells located outside of the plant area (M1 - M10) have indicated any seepage.

In a phone conversation on June 14, 1974, a licensee representative stated that since June 6, 1974, three new seepage wells were drilled inside the fenced area on the west, south, and east side of seepage well 2314.

According to the licensee, the new south and west wells have accumulated liquid. Samples have been obtained from these two wells and submitted

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for analyses. As of June 14, 1974, results were not available.

As part of our inspection effort a liquid sample was collected on June 5, 1974, from seepage well 2314 for analyses by Health Services Laboratory, Idaho.

Although there is no violation of Commission's requirements at the time of the inspection, this information may be of interest to Lee Rouse, DML.

ORIGINAL SIGNED BY  
G. D. BROWN

Glen D. Brown, Chief  
Radiological and Environmental  
Protection Branch

Enclosures:  
As stated (4)