

JAN 11 1977

FCPF:JER  
DOCKET: 40-8027

Dr. Donald L. Warner  
P. O. Box 781  
Rolla, Missouri 65401

Distribution:  
(w/o encl.)  
LCRouse  
JERothfleisch  
LPDR  
PDR  
Docket 40-8027  
FCPF

Dear Dr. Warner:

By now you should have received a copy of Kerr-McGee Nuclear Corporation's letter dated January 11, 1977 forwarding a supplement to their "Report on Waste Retention Ponds" of January 1976. This supplement presumably contains sufficient additional data to permit you to evaluate the extent to which the ground water may be undergoing contamination by the raffinate storage pond seepage.

Please review the report supplement at your earliest convenience, and advise us if you are now able to complete your environmental assessment of the pond seepage problem along with an estimated completion date. Should additional information be needed, please furnish specific questions to which you require answers in order to complete your assessment.

You will find enclosed copies of USNRC letter dated October 19, 1976 and the first page of the letter enclosure containing our comment on the pond seepage problem along with Kerr-McGee's reply dated January 3, 1977 (with enclosure) to complete your correspondence files on this subject. Please note that the September 28 date referred to in the January 3, 1977 Kerr-McGee letter and the September 10 date referred to in the January 11, 1977 Kerr-McGee letter should both read October 19.

If you have any questions concerning this matter, please contact me by telephone at 301-427-4103.

Sincerely,

Original signed by:

J. E. Rothfleisch  
Fuel Processing and Fabrication Branch  
Division of Fuel Cycle and Material  
Safety

Enclosures:  
as stated

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OFFICE	FCPF	FCPF				
SURNAME	JERothfleisch	cb LCRouse				
DATE	1/26/77	1/26/77				



SECRET

January 3, 1977

RECEIVED: 01/03/77 10:10 AM

January 3, 1977



Mr. J. E. Rothfleisch  
Fuel Processing & Fabrication Branch  
Division of Fuel Cycle and Material Safety  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Docket 40-8027

Dear Mr. Rothfleisch:

*October 19*

Please refer to your letter of September 28 transmitting the results of your review of our submittal dated November 20, 1975.

Your comments and questions are answered on the attached enclosure and referenced to the list attached to your letter.

We regret that we were unable to meet your requested response date because of the assignment of personnel to other urgent activities.

Very truly yours,

*W. J. Shelley*  
W. J. Shelley, Director  
Regulation and Control

WJS:ml

enc1

*Response due  
December 13, 1976*

~~251/6/1/59~~  
2pp.

## ENCLOSURE

### Response to Questions and Comments Related to the Environmental Assessment of the Expansion of the Sequoyah UFG Facility Capacity

- 1,2. In September 1976 with the employment of Dr. W. J. Ganus, a registered hydrologist, a review was undertaken of the seepage from the raffinate storage pond and the information gathered by Kerr-McGee during the period from May 1974 to August 1976. As a result of this review, additional work on defining the subsurface geology and hydrology was undertaken through a series of core holes and additional tests. As a consequence of this additional work a supplement to our report dated January 30, 1976, "Report on Waste Retention Ponds," has been prepared, and a copy directed to Dr. D. L. Warner, Rolla, Mo., for his review as well as being forwarded to your office. We believe the data contained in this report completely answers the first two questions.
3. As we have discussed in previous submittals, it is not contemplated that any contaminated liquids will remain on the plant site when operations are terminated. The only sludges remaining will be the contaminated calcium oxide-fluoride sludge buried in accordance with 10 CFR 20.103, as described earlier (ER, Supplement #1, p. 129; Ltr Dec. 12, 1974). We have calculated that the total quantity of sludge buried in this fashion will be 20,000 tons occupying approximately 700,000 cubic feet and occupying 3.2 acres. Sludges resulting from the disposal of liquid raffinate will be disposed of in a licensed burial site. Currently, we contemplate employing one of two methods: returning the sludges to the Kerr-McGee Mill site in New Mexico and combining it with the tailings there on the site, making the final disposition with the tailings. The second would involve solidification and burial in a commercial licensed low-level burial ground. Only technical evaluation of these alternate disposal methods has been completed thus far. We are currently evaluating methods of shipment and handling prior to doing any preparation for detailed engineering studies. Consequently, we are not prepared at this point to estimate the cost.

OCT 19 1976

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FCPF:JER  
40-8027

Kerr-McGee Nuclear Corporation  
ATTN: Mr. W. J. Shelley, Director  
Regulation and Control  
Kerr-McGee Center  
Oklahoma City, Oklahoma 73125

Gentlemen:

As indicated at our meeting of September 28, 1976, the environmental impact appraisal being conducted in accordance with 10 CFR 51 concerning your license amendment application for expansion of the Sequoyah facility capacity to 10,000 STU per year has been resumed with my reassignment as project manager.

A preliminary review of the environmental information provided through your submittal dated November 20, 1975 indicates the need for additional information along with clarification of certain items, and possibly corrections to the data submitted in support of your amendment application. You will find attached a list of our comments and questions.

In order that we may continue our review in accordance with an established schedule, it is requested that your response be mailed in time to reach this office by December 13, 1976.

Sincerely,

J. E. Rothfleisch

*(Signature)*

J. E. Rothfleisch  
Fuel Processing & Fabrication Branch  
Division of Fuel Cycle and  
Material Safety

Enclosure:  
As stated

*65-1731-222*

*2pp*

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ENCLOSURE

QUESTIONS AND COMMENTS RELATED TO THE ENVIRONMENTAL ASSESSMENT  
OF THE KERR-MCGEE NUCLEAR CORPORATION  
SEQUOYAH UF<sub>6</sub> FACILITY CAPACITY EXPANSION

1. A major problem that must be resolved before Source Material License SUB-1010 can be renewed and an amendment issued authorizing operation at the expanded capacity is the substantiated assurance, acceptable to NRC that the existing seepage from the raffinate storage ponds is not polluting the ground water and that if needed, an acceptable contingency plan is available for recovery of the pollutant from the aquifer. It is suggested that, to expedite matters, questions regarding the pond seepage problem be directed to Dr. D. L. Warner, P.O. Box 781, Rolla, Missouri 65401, with a copy sent to NRC.
2. Please update the information available on the raffinate seepage problem, with particular emphasis on monitor well analyses, indicating whether or not the contamination has spread. Also, please confirm the frequency of sampling the monitor wells in the vicinity of the raffinate storage ponds.
3. Please provide an estimate (with the rationale used) of the quantities of sludges and contaminated liquids remaining on the plant site when operations are terminated. In addition, please evaluate the proposed methods and costs of disposal of these materials along with any proposed financial arrangements to insure that restoration and reclamation of the site will be financially feasible at the time operations cease.
4. Please provide copies, if any, of state or federal certifications issued to the facility that were not included in the Final Environmental Statement issued in February, 1975.
5. Describe your program or plans regarding the sampling of bottom sediments and biota to monitor possible buildup of chemicals and radioactive materials in the Illinois river due to liquid effluents from the plant.

The following questions and comments refer to the Appendix to your letter to R. B. Chitwood dated November 20, 1975:

6. Page 1, Second paragraph under 1. NO<sub>x</sub>: Please clarify the meaning of this paragraph. The reference to an "NO<sub>x</sub> evaporator" is not understood. Also, in what way does omitting an allowance for NO<sub>x</sub> produced in gas-fired boilers constitute a conservative calculation of NO<sub>x</sub> release when the release is presumably based on actual measurements?