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40-8027

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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  
by J. E. Rothfleisch

8507310272 850530  
PDR FDIA  
BARR 85-229 PDR

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

Enclosure:  
As stated

TV

OFFICE	FCPF	FCPF W.J.C.				
SURNAME	JERothfleisch:mjb	LCRouse				
DATE	10/18/76	10/19/76				

ENCLOSURE

OCT 19 1976

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?

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7. Page 4, paragraph 3. Please explain the rationale for the conclusion that there will be no increase in total dissolved solids with the expanded production when paragraph 4 indicates that the sulfuric acid addition required to control pH is expected to be approximately doubled. Shouldn't we also expect an equivalent increase in the dissolved calcium as a result of neutralizing the excess lime?
8. Page 6, Table I
  - (a) NO<sub>x</sub> release shown in footnote (1) reference is given as 12.1 MT/mo vs. 18.6 MT/mo from new calculation.
  - (b) SO<sub>2</sub> shown as 4.10 in footnote (1) reference.
  - (c) Fluoride (elevated) shown as .053 in footnote (2) reference.
  - (d) Fluoride (elevated) shown as .163 in footnote (1) reference.Please amend table as appropriate.
9. Page 8. Nominal 10,000 STU/yr production is equivalent to about 756 MTU/mo. Please explain basis for using 765 MTU/mo in the SO<sub>2</sub> calculation.
10. Page 9. Although not clearly stated, it is assumed that the nominal production rate in 1974 was 211 MTU/mo. Please explain basis for using 754 MTU/mo in scaleup ratio to 756 MTU/mo expanded production rate.
11. Page 12, Table II. Please describe procedure used for measuring airborne effluents from roof vents and roof hatches to obtain 1974 measured release rates. Also, please explain rationale for assumption that increasing production rate from 211 MTU/mo to 756 MTU/mo will produce no increase in effluents from roof vents, roof hatches and the dust collector.

The sum of the four values under insoluble ground level release rate is 4.38 instead of 4.04 as indicated.

Please revise this table as required.
12. Page 13. Please explain reason for using scale-up factors other than 756/211 to project releases at the 10,000 STU/yr production level.

10 CFR 20 defines the specific activity for natural uranium as 0.677  $\mu$ Ci/gm U. Values shown in calculations are 0.62 under Main Stack and 0.67 under Scrubber and Ground Level.

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13. Page 14. Please correct Lung Dose calculations to reflect modified value for insoluble ground level release.
14. Page 16. Please explain the basis for the 5.81 MT/mo  $\text{SO}_4$  added for pH adjustment. Does this quantity represent the estimated requirement scaled up from a measured consumption for a specific  $\text{UF}_6$  production rate?