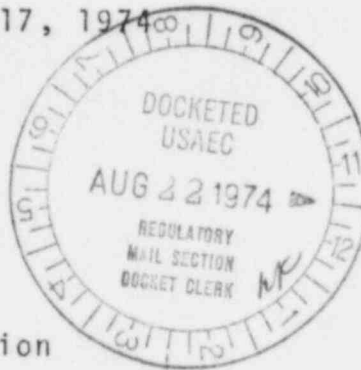


**KERR-McGEE NUCLEAR CORPORATION**

KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

August 17, 1974



Mr. J. E. Rothfleisch
Materials Branch
Directorate of Licensing
U.S. Atomic Energy Commission
Washington, D.C. 20545

Dear Mr. Rothfleisch:

Please refer to your letter of July 5 transmitting a copy of the comments from the U.S. Environmental Protection Agency on the Draft Environmental Statement for the Sequoyah Facility. As has been our previous practice, these comments attached will refer to those specifically made by the EPA as summarized in their statement of conclusions.

In addition to comments on the EPA letter, the previously delayed comments are furnished on archeological survey, the Leak in Raffinate Pond #2, and the report on the current raffinate treatment tests under way during this growing period. The special report on subsurface geology has been delayed due to the interruption by vacations of various contributors. The State Archeologist included in his assessment, information on the Cimarron Facility site located in Logan County in such a manner that they could not be conveniently separated.

If additional or more detailed information is required, please let us know.

Sincerely yours,

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

WJS:m1

Attachment

Cy filed in 70-1193 Env. file (Cameron)

ATTACHMENT
ANSWERS TO COMMENTS BY THE U.S. ENVIRONMENTAL
PROTECTION AGENCY, July 2, 1974

The comments by the U.S. Environmental Protection Agency based upon the AEC's Draft Environmental Statement dated April 24, 1974, were transmitted to Kerr-McGee by a letter of July 5, 1974. Comments by Kerr-McGee are referenced to the summary provided in their conclusions.

No. 1, Page 29, ER Supplement #2, December 1972, shows a total release rate of insoluble uranium compounds of .001235 grams per second. During the 30-year lifetime (estimated) of the plant operating at design capacity, this would result in the release of approximately 7.83×10^5 uCi of natural uranium which is assumed to eventually fall to the earth. This amount of material distributed uniformly over the 10-mile radius area surrounding the Sequoyah Plant would result in a concentration of 9.62×10^{-4} uCi per M^2 . When resuspended to form an air concentration 10^{-8} times the surface density which is in agreement with EPA-520/4-73-002, "Environmental Radiation Dose Commitment: An Application to the Nuclear Power Industry" an airborne concentration of 9.62×10^{-18} uCi per ml. is calculated resulting in an exposure to the population of 4.81×10^{-3} mrem. When applied to the population growth after the year 2000, as estimated by the E.O.D.D. given on page 26, ER Supp. #1, June 1972, and escalating to a 2,040 population (40-year doubling time) the resultant environmental dose commitment is estimated to be .208 man-rem (lung).

Enlarging the radius for dispersion to 50 ml. to calculate dose commitment would reduce it to 8.32×10^{-3} man-rem assuming that the population density is the same.

Question #2, EPA

The total quantities of the uranium, thorium and radium stored in the ponds are tabulated below:

| | |
|---------|------------|
| Uranium | 8,625 kgs. |
| Radium | .091 Ci |
| Thorium | .1568 Ci |

It is noted that these values are slightly different than those reported in ER Supplement #1, June 1972. They represent the totals estimated through 1973 and the result of refinements in analytical techniques which provides a more exact estimate of the total radium than that previously reported. Radium analysis of fresh raffinate consistently runs at 3×10^{-6} uCi/ml. Thorium analysis will vary more widely due to the presence occasionally of feed materials originating in Canada that contain a measureable quantity of natural thorium. We believe the data given above is a conservative estimate. Uranium as stored in the ponds was estimated by accumulating the uranium content of each individual raffinate batch determined by multiplying the volume times the uranium analysis. During the first two years of operation, the limit on this analysis was 10 mgs./l which has since been reduced by a factor of three. Each raffinate batch, if reported to contain less than the detectable amount, was calculated as if it had detection levels. Therefore, a strong element of conservatism is given in this estimate.

Question #3

No answer required.

RESPONSE TO COMMENT

by

ADVISORY COUNCIL ON HISTORIC PRESERVATION
(dated May 14, 1974)

In the referenced letter, the Advisory Council on Historic Preservation asked for additional data on "The Nature and Extent of Archeological Resources in the Project Area (Sequoyah Facility)."

An archeological assessment of the Kerr-McGee Manufacturing Facilities (Sequoyah and Cimarron Facilities) is attached. The report was structured in such a way that both sites are included in one report.

Mr. Wallis concludes the Sequoyah Facility may contain archeological sites and that a complete field survey would be required to determine their extent and importance.

No evidence of an archeological site was discovered during the construction of the plant or its facilities. Since the plant was constructed in 1968 prior to the enactment of the NEPA, the desirability to conduct such a survey prior to construction was not recognized. An historic structure, the original Carlisle house which served as a stagecoach station during the early years of the territory, was removed to a nearby site for preservation and public access.

No further alteration to the original surface of the site is contemplated. Therefore, archeological resources are not threatened. It is concluded that the suggested survey would not be beneficial.