



KERR-MCGEE CORPORATION

KERR-MCGEE BUILDING • OKLAHOMA CITY, OKLAHOMA 73102

June 29, 1970

Mr. Lawrence D. Low
Director, Division of Compliance
United States Atomic Energy Commission
Washington, D.C. 20545

Dear Mr. Low:

This is in reply to your letter of June 8, which referred to the compliance inspection conducted at the Sequoyah Facility on April 29-30, 1970 of activities authorized under AEC Source Material License No. SUB-1010.

Corrective actions and the results achieved are reported on the items cited in your letter. Full compliance is achieved for all of the licensed activities.

Item 1

Exhaust stacks for the sampling plant dust collection system and the sample preparation room have been sampled since March 2. Collection of particulate on filter paper media and alpha counting in a calibrated gas proportional counter is the method used to measure concentrations in these stacks. Concentrations during the period from June 1 to June 11 averaged 4.6×10^{-12} uCi/ml, specified in Appendix B, Table II of 10CFR20 for insoluble natural uranium. However, these concentrations do not represent concentrations released to unrestricted areas since both stacks discharge at a height of approximately seventy-five feet above the surrounding terrain and 650 feet from the nearest unrestricted area or site boundary.

An evaluation has been made of the concentration reduction that can be expected from natural dispersion mechanisms when average atmospheric conditions exist. The concentrations are reduced by a factor of at least 10^4 before reaching the nearest unrestricted area boundary. Based on the results of this evaluation and measured stack releases, the concentrations of radioactivity being released to the unrestricted area are far below the applicable concentration limits specified in Appendix B, Table II of 10CFR20.

* in the sample preparation room stacks, and 7x10⁻¹² uCi/ml in the duct collection system stacks. These concentrations are reduced by a factor of 2.3 and 35, respectively, the limit of 2x10⁻¹² uCi/ml at 27

* Supplied by teleph. G. Walker, Kerr McGee
- July 10, 1970.
J. R. Roach

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Items 2 and 3

In regard to survey deficiencies concerning measurement of airborne concentrations of uranium and evaluations to determine employee exposure and compliance with 10CFR20.103, these steps have been taken to correct the situation:

- a. Twenty area air samples in locations where the highest ambient concentrations are expected are in operation;
- b. Portable air samplers and lapel air samplers are being used to collect breathing zone air samples for time-weighted exposure evaluations;
- c. When concentrations in excess of the 6×10^{-11} $\mu\text{Ci}/\text{ml}$ limit are measured at an area air sampling station, the surrounding area is roped off and posted as a high airborne area. Appropriate respiratory protective equipment is worn by persons entering the area and action is taken to eliminate the source and control concentrations to a minimum; and,
- d. Urine samples are being collected and evaluated to assess the protection provided by respiratory protective equipment.

Item 4

Two air sampling stations have been placed in service since the April 29-30 inspection. Sampling equipment delivery delays prevented earlier installation. These stations are located on the north and south security fence lines and have been sampling continuously since they were placed in service. Sample results for the period from June 15-25, 1970 indicated a maximum concentration of 1.6×10^{-13} $\mu\text{Ci}/\text{ml}$. Concentrations averaged for the same period were approximately 1×10^{-13} $\mu\text{Ci}/\text{ml}$ or 5% of the 2×10^{-12} $\mu\text{Ci}/\text{ml}$ limit specified in Appendix B, Table II of 10CFR20 for insoluble natural uranium. These stations will be used for continued sampling as part of the environmental surveillance program.

Item 5

In regard to deficiencies noted in the respiratory program, we have strengthened the program to meet conditions and specifications outlined in Annex A of the license.

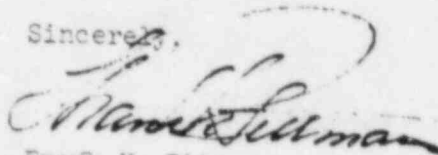
On May 14, 1970, extensive instructions regarding the use of respiratory protective equipment for protection against radioactive dusts were issued to all management and supervisory personnel at the facility. Included in these instructions are procedures for: 1) conditions for usage, 2) issuance of respirators, 3) fitting and testing of respirators, 4) maintenance of respirators, 5) effectiveness of respirator protection,

Mr. Lawrence C. Low
Page three
June 29, 1970

6) documentation of respirator usage. The implementation of these instructions and procedures should fulfill the requirements in Annex A and correct the deficiencies noted during the April 29-30 inspection.

In regard to the conduct of health and safety program audits, according to license conditions, an audit was conducted on May 21 and 22. Future audits will be made at least quarterly to meet the license requirements and to assure continued compliance to health and safety standards and license conditions. Please let me hear if you have any further questions on the above matters.

Sincerely,



Frank K. Pittman
Director
Technical Services

FKP:sl