

J. R. Roeder, Chief, Materials Inspection
& Enforcement Branch, Division of
Compliance, Headquarters

KERR-McGEE CORPORATION, KERR-McGEE BUILDING, OKLAHOMA CITY,
OKLAHOMA - LICENSE NO. SUB-1010 (Docket No. 40-8027)

In accordance with a discussion by telephone on May 1, 1970, the items of noncompliance noted during the inspection of the subject license on April 29 and 30, 1970, are sent to you in this memorandum prior to submission of the 417 report. This will enable you to discuss the items with management during your visit of the week of May 13. George Wuller, Kerr-McGee, was informed by telephone on May 1, 1970, that the AEC discussion with management would be performed by you and that the enforcement letter would be sent from CO:HQ. The items noted were discussed with the Sequoia facility plant manager, Burnell Brown; licensing officer, George Wuller; senior staff engineer (health physics) A. M. Valentine; and facility health and safety officer, F. J. Edwards, Jr., at the completion of the inspection. Robert Craig and Kirk Malone, Oklahoma State Health Department, were present during the inspection and discussion.

In addition to the items of noncompliance noted, no audits to ensure compliance have been performed by plant personnel or technical services personnel, and it was apparent that sufficient thought has not been given to some of the procedures to ensure that license conditions are met. Due to plant process problems, some of the effluents, in particular, the HF scrubber liquid, have not contacted radioactive material and therefore the evaluation of concentrations of material in the effluent discharged to the Illinois River was not necessary at this time. However, at the time of the inspection, the plant personnel responsible for the evaluations were not even aware that the effluent did not come into contact with any uranium.

In general, the inspectors were not impressed with the performance of the plant health and safety officer and felt that Valentine and Wuller had not adequately reviewed the requirements of the license and provided the necessary technical advice to ensure that requirements were being met. Wuller, Brown, Edwards, and Valentine were informed that another inspection would be made within six months.

The items of noncompliance are:

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PDR FOIA

BURR85-229

PDR

OFFICE

CO:IV

SURNAME

HJPaas:15/4

GDBrown

DATE

5/1/70

Contrary to the requirements of 10 CFR 20.201(b), "Surveys," adequate surveys were not conducted in order to show compliance with 10 CFR 20.106(a), "Concentrations in effluents to unrestricted areas," in that:

- (1) During the period March 8 through April 27, 1970, the measured concentration of uranium in airborne effluents discharged to the environs from the sampling plant dust collection system in the restricted area averaged 8.3×10^{-11} uc/ml (41 X MPC for the unrestricted area), and
- (2) During the period March 9 through March 17, 1970, the measured daily concentrations of uranium in airborne effluents discharged to the environs from the sample preparation room exhaust system in the restricted area were in the range of 6×10^{-12} uc/ml to 9.5×10^{-11} uc/ml (3 to 47 X MPC for the unrestricted areas).

Contrary to the requirements of License Condition No. 8, during the period from plant startup on March 2 through April 30, 1970, the environmental airborne sampling program was not maintained in accord with procedures defined in Appendix A, Page 11, in that, no samples, which are required monthly, were collected at downwind locations along the restricted area fence, during periods of plant operation.

Contrary to the requirements of 10 CFR 20.201(b), "Surveys," during the period March 3 through March 20, 1970, no air samples were obtained to determine concentrations of radioactive materials at the third and fourth floor work area of the sampling tower and in the sample preparation room, for purposes of showing compliance with 10 CFR 20.103(a), "Exposure of individuals to concentrations of radioactive material in restricted areas."

Contrary to the requirements of 10 CFR 20.201(b), "Surveys," during the period March 3 through March 31, 1970, in which the average measured concentrations of airborne uranium repetitively showed values in excess of the applicable MPC of 6×10^{-11} uc/ml on the first and second floor work areas of the sampling tower, surveys were inadequate to show compliance with 10 CFR 20.103, "Exposure of individuals to concentrations of radioactive material in restricted areas," in that, no information was obtained to time-weight the exposure of assigned personnel and no information was maintained regarding the intermittent wearing of respiratory protection by assigned personnel as authorized by License Condition No. 11.

Contrary to the requirements of License Condition No. 11, which authorizes the use of respirators, the licensee did not follow all conditions and specifications as required in Annex A in the use of respiratory protection in those areas where concentrations of airborne material exceeded Part 20 limits. The following deficiencies were noted:

- (1) Contrary to the requirements defined in Paragraph 1, C(i), procedures were not established to assure proper selection and supervision of personnel using protective respiratory equipment.
- (2) Contrary to the requirements of Paragraph 1, C(ii), no procedures were established to assure the adequate fitting of respirators and the testing of this equipment for operability.
- (3) Contrary to the requirements defined in Paragraph 1, C(iii), procedures were not established for maintenance of respiratory equipment to assure full effectiveness of the equipment, including issuance, cleaning and decontamination, inspection, repair, and storage.
- (4) Contrary to the requirements defined in Paragraph 1, C(iv), employee bioassay results, ranging up to 230 ug/l on March 5, 6, and 9, 1970, were not used to evaluate individual exposures and to assess protection provided by respiratory equipment.
- (5) Contrary to the requirements of Paragraph 1, C(v), during the period March 3 through April 30, 1970, the licensee failed to initiate a record program for purposes of permitting periodic evaluation of the adequacy of the respiratory protective program.

Contrary to 10 CFR 20.201(b), "Surveys," adequate surveys were not conducted in order to show compliance with 10 CFR 20.103(a), "Exposure of individuals to concentrations of radioactive material in restricted areas," during the following described nonroutine maintenance operations and unusual contamination conditions:

- (1) Airborne concentrations of uranium were not determined on March 2, 1970, when maintenance personnel were involved in the opening and repair of the bucket elevator after it had become plugged and leaked following the introduction of seven drums of yellow cake.

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- (2) No evaluations of concentrations of airborne uranium were made following the failure of the mechanical drum dumper to accept a short drum on March 11, 1970, which resulted in a spill of approximately 250 pounds of yellow cake. The extent of contamination on the three floor levels of the sampling plant was not defined in the records.
- (3) No evaluations of concentrations of airborne uranium were made during the occurrence and subsequent cleanup operations related to a spill involving yellow cake on the storage level on March 13, 1970. The amount and extent of contamination were not defined in the records.

ORIGINAL SIGNED BY

G. D. BROWN

Glen D. Brown
Senior Radiation Specialist

CO:IV:HJP