



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV
URANIUM RECOVERY FIELD OFFICE
BOX 25325
DENVER, COLORADO 80225

FEB 05 1991

URFO:DCW
Docket No. 40-8943
04008943210E

MEMORANDUM FOR: Docket File No. 40-8943
FROM: Daña C. Ward, Project Manager
SUBJECT: AMENDMENT NO. 9, DOCUMENTATION OF TRAINING AND EMPLOYEE EXPOSURE PROCEDURE

By letter dated December 4, 1990, Ferret Exploration Company of Nebraska (Ferret) submitted an amendment request to Source Material License SUA-1534 for the Crow Butte in-situ facility. The request concerns License Condition Nos. 36 and 39. License Condition No. 36 requires submittal of a procedure for determining employee exposures 90 days prior to lixiviant injection. License Condition No. 39 requires submittal of training and educational documents 90 days prior to lixiviant injection for the Corporate Radiation Safety Officer (CRSO) and Health Physics Technician (HPT). The staff review of the request is discussed below.

DISCUSSION

License Condition No. 36 requires the licensee to submit for review and approval a written procedure for determining employee exposure. The licensee's procedure contained two areas of exposure control: External Radiation Exposure and Internal Radiation Exposure. The external exposure will be determined by thermoluminescent dosimeters exchanged quarterly. All readings will be in millirem and kept on file at the plant site.

The internal exposure will be determined through concentration of yellowcake and radon daughters in the air as determined by air sampling. Occupancy time for routine operations will be obtained from a time study or actual measure of time. Individual intake of yellowcake will be calculated by the intake method from Regulatory Guide 8.30.

Uranium at the Crow Butte facility will be considered soluble. The weekly uptake limit is therefore 0.0065 uCi. If any worker's Time Weighted Exposure exceeds an action level of 25 percent for one calendar week an investigation will be conducted.

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EFHawkins
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REHall
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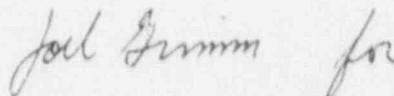
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The licensee in their submittal made no reference to a minimum time period for calculation of occupation exposures. The staff will require the licensee to perform exposure calculations within one week of the end of the regulatory compliance period. Urinalysis was not addressed in the licensee's procedure. A call was made to R. Grantham on January 15, 1991, of Ferret and it was explained by her that urinalysis is contained in another procedure, as required in Regulatory Guide 8.22.

Regarding CRSO and HPT nominations and assignments, Grantham currently is named the CRSO. Qualifications of this individual were previously approved, and continue to be up-to-date. The qualifications of L. Huffman as HPT have been reviewed, and meet the requirements of Regulatory Guide 8.31. All requirements will be subject to verification during upcoming NRC inspections. Ongoing requirements for CRSO and HPT qualifications in License Condition No. 18 will remain unchanged.

Therefore, pursuant to Title 10, Code of Federal Regulations, Part 40, the staff recommends that License Condition Nos. 36 and 39 of Source Material License SUA-1534 be amended to read as follows:

36. Occupational exposure calculations shall be performed and documented within one week of the end of each regulatory compliance period as specified in 10 CFR 20.103(a)(2) and 10 CFR 20.103(b)(2). Routine radon daughter and particulate samples shall be analyzed in a timely manner to allow exposure calculations to be performed in accordance with this condition. Nonroutine samples shall be analyzed and the results reviewed by the RSO within two working days after sample collection.
39. DELETED by Amendment No. 9.



Dana C. Ward
Project Manager

Case Closed: 04008943210E

bcc:
Docket File No. 40-8943
LFMB
PDR/DCS
URFO r/f
ABBeach, RIV
LLO Branch, LLWM
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HBorchert, RCPD, NE
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