



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION IV  
URANIUM RECOVERY FIELD OFFICE  
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DENVER, COLORADO 80225

SEP 20 1989

URFO:SRG  
Docket No. 40-8904  
SUA-1472  
04008904340E

MEMORANDUM FOR: Docket File No. 40-8904

FROM: Scott R. Grace  
Project Manager

SUBJECT: REVIEW OF THE REPORT "SEMIANNUAL ENVIRONMENTAL MONITORING  
REPORT, L-BAR URANIUM MINE, CIBOLA COUNTY, NEW MEXICO,"  
FOR THE FIRST HALF OF 1989

BACKGROUND

The subject report was submitted by Intera Technologies on behalf of BP America for the L-Bar site on August 31, 1989, and in response to License Condition Nos. 12, 29 and 30 of Source Material License SUA-1472.

License Condition No. 29 requires environmental monitoring for radium-226, thorium-230 and natural uranium in air, soil and vegetation. Air monitoring is required at one upwind and one downwind location (Moquino site and the north tailings site, respectively). License Condition No. 30 requires quarterly ground-water monitoring in several locations for various parameters. License Condition No. 12 requires the results of the environmental monitoring be reported in accordance with 10 CFR Part 40.65. Results from the second quarter were not available for submittal. The licensee was instructed to include these results in the next report.

DISCUSSION

Air Monitoring

1. Natural Uranium: The MPC for uranium in the unrestricted area is  $5E-12$   $\mu\text{Ci/ml}$ . At the Moquino location, the first quarter 1989 reading was  $3.5E-16$   $\mu\text{Ci/ml}$  or .002 percent of the MPC. The reading at the north tailings location was  $1.2E-15$   $\mu\text{Ci/ml}$  or .02 percent of the MPC.
2. Thorium-230: The MPC for thorium-230 in the unrestricted area is  $8E-14$   $\mu\text{Ci/ml}$ . At the Moquino location, the first quarter reading was

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1.7E-16  $\mu\text{Ci/ml}$  (.2 percent of the MPC). The reading at the north tailings location for the first quarter was 2.0-15  $\mu\text{Ci/ml}$  (2.5 percent of the MPC).

3. Radium-226: The MPC for radium-226 in the unrestricted area is 3E-12  $\mu\text{Ci/ml}$ . At the Moquino location, the first quarter reading was 3.0E-18  $\mu\text{Ci/ml}$  (.0001 percent of the MPC). The reading at the north tailings location for the first quarter was 4.9E-17  $\mu\text{Ci/ml}$  (.002 percent of the MPC).

#### Direct Radiation

Direct radiation is measured by thermoluminescent dosimeters (TLDs) at the Moquino and north tailings locations. The reported values for the first quarter were 24.6 mRem/quarter for the Moquino location and 35.8 mRem/quarter for the north tailings location. The limit for individuals in the restricted area is 1250 mRem/quarter. The measured exposure rates at these locations were 1.2 and 2.9 percent of the 10 CFR Part 20.101 limits, respectively.

#### Radon

Radon was measured using Track-Etch devices. The first quarterly results at the Moquino and north side locations were 2.5 pCi/l (.028 WL) and 3.3 pCi/l (.037 WL), respectively. These values were 8.5 and 10 percent of the one-third working level PMC for the restricted area.

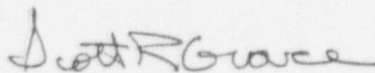
#### Ground-Water Monitoring

Included with this environmental monitoring report are the results of ground-water monitoring for the reporting period, as well as updated historical monitoring data.

Ground-water monitoring at the site is presently being evaluated under the requirements specified in 10 CFR Part 40, Appendix A.

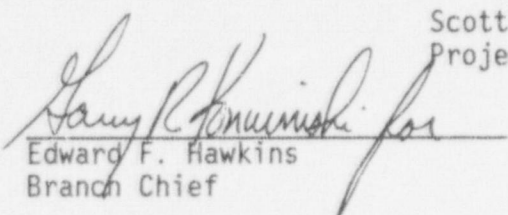
#### SUMMARY

The environmental monitoring report was submitted in accordance to the conditions of Source Material License SUA-1472. All values are well within regulatory limits with no significant trends noted. No further action is required at this time.



Scott R. Grace  
Project Manager

Approved by:



Edward F. Hawkins  
Branch Chief

Case Closed: 04008904340E

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