



UNITED STATES
NUCLEAR REGULATORY COMMISSION

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

FEB 15 1994

URFO:PJG
Docket No. 40-8905
X61062
X61147

MEMORANDUM FOR: Docket No. 40-8905
FROM: Pete J. Garcia, Jr., Project Manager
SUBJECT: ENVIRONMENTAL MONITORING DATA FOR THE AMBROSIA LAKE MILL

By letters dated February 26 and August 27, 1993, Quivira Mining Company submitted semiannual environmental monitoring reports for the Ambrosia Lake Mill. The combined reports cover the period from July 1, 1992, to June 30, 1993. The submittals were in accordance with License Condition No. 19 of Source Material License SUA-1473.

Environmental monitoring requirements for the Ambrosia Lake Mill are specified in Condition No. 10 of Source Material License SUA-1473. The staff review of the environmental monitoring program implemented by the licensee indicates that the program was conducted in accordance with license requirements. The staff review of the data is discussed below.

Airborne Particulates

All results were less than 10 percent of the maximum permissible concentration (MPC) for unrestricted areas, with the exception of a Th-230 reading for the second quarter of 1993. The Th-230 value at the Mill Diversion sampling station, which is located well within the restricted area boundary, was 22.5 percent of the MPC. Future data will be reviewed to determine whether this elevated value represents a trend.

Radon

Review of the data continues to indicate elevated concentrations of radon near the site. In addition to the tailings pile, other sources of radon in the vicinity of the mill include several mines as well as numerous mine vent shafts. It has been impractical to determine the specific contribution of radon from the tailings pond to the area concentrations due to the masking effects of the nonregulated sources. The licensee has completed covering all

9404280104 940215
PDR ADOCK 04008905
C PDR

DF03/10

FEB 15 1994

exposed tailings with an interim cover, and has begun placement of the radon barrier on Tailings Pond No. 1. These actions should significantly reduce the contribution of radon from NRC-regulated sources.

Direct Radiation

The highest net value reported (gross value minus background) was 65.2 mR/quarter at the Mill Diversion site. The results were comparable with past data.

Ground Water

Ground water results are reviewed separately by the staff to verify compliance with Criterion 5 of Appendix A to 10 CFR 40.

Surface Water

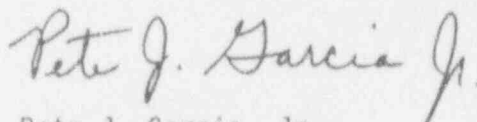
Surface water samples were collected during the first half of 1993. The results were comparable with past data, and all values were less than 10 percent of MPC.

Soil, Vegetation, and Sediment Samples

Vegetation samples were collected during each semiannual period, while soil and sediment samples were collected during the first half of 1993. A review of the data indicated that all results were comparable to past data. In addition, all concentrations of Ra-226 in soil were less than 5 pCi/g.

Conclusion

The staff concludes that Quivira has implemented an environmental monitoring program and submitted all data in accordance with license requirements. No areas of concern were noted during the staff review of the data provided, with the exception of the Th-230 air concentration at the Mill Diversion sampling station. Future data will be reviewed to determine whether this elevated reading constitutes a trend.



Pete J. Garcia, Jr.
Project Manager

Cases Closed: X61062
X61147

FEB 15 1994

bcc:
Docket No. 40-8905
PDR/DCS
URFO r/f
DDChamberlain, RIV
DBSpitzberg, RIV
LCamper, RIV
LLUR Branch, LLWM, 5E2
PJGarcia
O:\PJG\8905EMR.MEM

PM:URFO <i>PJG</i>	DD:URFO <i>EFH</i>	D:URFO:RIV <i>EFH</i>		
PJGarcia/lv	EFHawkins	REHattya		
02/14/94	02/15/94	02/15/94		