PDR

UNITED STATES

NUCLEAR REGULATORY COMMISSION

REGION IV

URANIUM RECOVERY FIELD OFFICE
BOX 25325
DENVER, COLORADO 80225

NOV 2 1 1989

URFO:PJG
Docket No. 40-8903
04008903280E

MEMORANDUM FOR: Docket File No. 40-8903

FROM: Pete J. Garcia, Project Manager

SUBJECT: REVIEW OF ENVIRONMENTAL MONITORING REPORT FOR FIRST HALF OF 1989 FOR THE MILAN MILL

By letter dated August 30, 1989, Homestake Mining Company (HMC) submitted environmental monitoring data for the Milan Mill for the period January - June, 1989. The data was submitted in accordance with 10 CFR 40.65 and License Condition No. 15 of Source Material License SUA-1471. The staff review of the data submitted by HMC is discussed below.

Stack Effluent

HMC performed quarterly sampling of three yellowcake area stacks and semiannual sampling of the ore crushing building stack. The yellowcake stacks were sampled isokinetically, while a representative grab sample was collected from the ore stack. The samples were analyzed for U-nat, Ra-226, and Th-230. The staff review of the data indicates that they were very consistent with past values reported by Homestake.

Air Particulate

HMC performs continuous sampling at five locations. These include three downwind sites, the nearest resident, and background. The background location is located about 2500 feet upwind of the nearest resident location. The filters are changed weekly, and composited and analyzed quarterly for U-nat, Ra-226, and Th-230.

The staff review of the data indicates that all U-nat and Ra-226 values were less than 10 percent of MPC. Several Th-230 values exceeded 10 percent, with the highest net value (gross value minus background) being 36 percent of MPC.

The values were consistent with data reported for the first half of previous years, which tend to be higher than second half values. The licensee attributes the higher levels to the higher wind speeds which occur during the spring.

Radon and External Radiation

HMC has performed continuous radon gas sampling at the five air sampling stations. The sampling is performed using track-etch passive radon monitors which are exchanged and read quarterly. A review of the data indicates that all net values were less than MPC, and were consistent with values previously reported.

The review also indicates that the background and nearest resident values were higher than the data from the three downwind locations. The adequacy of the background sampling location was identified as an open item during a previous NRC inspection. The licensee has therefore proposed relocating the background station. The adequacy of the proposed location will be evaluated by the staff.

External radiation measurements are performed continuously at the five locations using thermoluminescent dosimeters which are exchanged and read quarterly. A review of the data indicates that the highest net value was 2.1 mR/week, and the data were consistent with past results.

Ground Water

HMC has performed quarterly sampling of seven wells in the vicinity of the tailings pile. Three wells are located upgradient of the pile, three wells are downgradient, and one well is located near the nearest resident. The samples any analyzed quarterly for 12 chemical or physical parameters and semi-annually for U-nat and Ra-226. The wells are pumped for 20 minutes, or until conductivity measurements stabilize, to assure that representative samples are collected.

A review of the data indicates that all U-nat and Ra-226 were less than 10 percent of the unrestricted area MPC. A review of the chemical data indicates that the values are consistent with past results. The licensee also provided figures graphically showing Ra-226 and sulfate data for background wells P and R and downgradient wells F and I. The figures show that background and downgradient concentrations are very similar, providing evidence that the current ground water protection program is effectively minimizing the spread of contamination offsite. No areas of concern were noted.

Conclusion

The staff review of the environmental monitoring data provided in the August 30, 1989 submittal indicates that HMC has performed environmental monitoring in accordance with license requirements and has submitted all data.

No areas of concern were noted in the staff review of the data. No further action is therefore necessary at this time.

Pete J. Garcia Jr.

Pete J. Garcia
Project Manager

Approved by:

Ramon E. Hall
Director

Case Closed: 04008903280E

NOV 2 1 1989

8903/280E/PJG/89/11/21/M

DISTRIBUTION

Docket File No. 40-8903
PDR/DCS
URFO r/f
ABBeach, RIV
LLO Branch, LLWM

PGarcia
BGarcia, RCPD, NM
DSlifer, NM

CONCURRENCE:		DATE:
PGarcia/URFO/db	PJG	10/21/89
REHall/URFO		11/21/89