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40-8926/GRK/87/02/26/0

MAR 10 1987

URFO:GRK
Docket No. 40-8926
04008926120E

MEMORANDUM FOR: Docket File No. 40-8926

FROM: Gary R. Konwinski, Project Manager
Licensing Branch 1
Uranium Recovery Field Office, Region IV

SUBJECT: ALTAIR RESOURCES, INC., QUARTERLY ALARA AUDIT

BACKGROUND

By letter dated January 26, 1987, Altair Resources, Inc., submitted the first quarterly ALARA audit covering restoration activities at the Bison Basin site. Additional correspondence dated January 28, 1987, indicated that errors occurred on pages 3 and 5 of the original submittal. The two submittals contain the information required by License Condition No. 15 of Source Material License SUA-1492.

The ALARA audit contained a review of exposure records, bioassay results, summary reports of facility inspections, training programs, safety meetings, in-plant radiological monitoring, reports of overexposures, operating procedures, special work permits and ALARA objectives. The report was prepared by a consulting radiation safety officer.

Exposure Records

Exposures to employees were determined from time-card data and occupancy factors. External gamma radiation, at ten monitoring stations, averaged 0.08 mRem/hr, with a maximum reading of 0.25 mRem/hr. The defined action level for this site is 25 percent of the 10 CFR 20 dose rate of 1250 mRem/quarter (2.5 mRem/hr) or 0.62 mRem/hr. Therefore, the average external radiation exposure was 13 percent of the regulatory limit.

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Radon gas concentrations, at ten monitoring stations, were also utilized in determining employee exposures. They averaged 6.83 MPC hrs/month with a high of 18.15 MPC hrs/month. The defined action level for this site is 25 percent of the MPC limit of 166 MPC hrs/month or 41.5 MPC hrs/month. Therefore, the average radon gas exposure was 8.1 percent of MPC.

Airborne uranium was not utilized in the exposure calculations because it was consistently found to be present at less than 1 percent of MPC.

Bioassay Results

The bioassay program consists of urine sampling at the time of initial hiring and monthly thereafter. Ten employees were sampled on the above frequency. All updated U-nat results were less than 5 ug/l.

Summary Reports of Facility Inspections

Daily walk-through inspections were conducted for the site. These inspections indicated that the facility was in good operating condition. Weekly inspection of the solution storage ponds indicate similar results.

Training Programs

One employee was temporarily hired at the site during the months of November and December. Basic radiation training was administered to this employee. Additional instruction was supplied in the areas of operator training and maintenance, as well as emergency training.

Safety Meetings

Bimonthly safety meetings began in November. An additional meeting was held in December in conjunction with MSHA training. Topics of discussion were alpha meter utilization and respirator usage.

In-Plant Radiological Survey

Airborne uranium and radon gas within the facility averaged 4.34E-13 uCi/ml and 1.53E-9 uCi/ml, respectively. Uranium levels are essentially at background while radon gas averages 5.1 percent of MPC. Weekly contamination surveys in the change room, dormitory, dining hall and recreation room averaged 24.2 DPM/100 cm^2. Monthly contamination swipes at eight locations averaged 4.93 DPM/100 cm^2. Employee alpha

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monitoring averaged 350 times monthly with a total of 1051 measurements. Of the total measurements, one was found to exceed the action limits.

Reports of Overexposures

No overexposures occurred during the reporting period.

Review of Procedures

No review of procedures was required during this reporting period.

Review of Special Work Permits (SWP)

One SWP was issued during the reporting period. It was issued to enter the production tanks for maintenance work. Prior to allowing employees to enter the tanks, survey for radon indicated excessive levels. The tanks were ventilated overnight and resurveyed at below maximum levels the following morning. Workers were then allowed inside with proper protective clothing.

CONCLUSION

ALARA objectives were reviewed by the licensee's RSO consultant and no trends of concern were identified. Similarly, monitoring of the facility did not indicate any areas of radiological concern. The staff agrees with the conclusions and therefore, finds that no further action is necessary.

/s/

Gary R. Konwinski, Project Manager
Licensing Branch 1
Uranium Recovery Field Office
Region IV

Approved by: /s/

Edward F. Hawkins, Chief
Licensing Branch 1
Uranium Recovery Field Office, Region IV

Case Closed: 04008926120E

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