

40-3453/NMS/85/10/02/0

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Docket File 3453
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URFO:NMS
 Docket No. 40-3453
 04003453580E

MEMORANDUM FOR: Docket File No. 40-3453

FROM: Noah M. Shopenn, Project Manager
 Licensing Branch 2
 Uranium Recovery Field Office, RIV

SUBJECT: REVIEW OF FIRST HALF OF 1985 ENVIRONMENTAL
 MONITORING FOR THE MOAB MILL

By letter dated August 26, 1985, Atlas Minerals submitted the results of first and second quarter 1985 environmental monitoring in accordance with the requirements of 10 CFR 40.65 and Condition No. 34 of Source Material License SUA-917. My review of the data is discussed below.

I. Environmental Monitoring Data

Airborne Particulate Sampling

Atlas has performed quarterly sample collection and analysis for Th-230 and Ra-226. The frequency of quarterly and the five location areas are as specified in SUA-917. All of the required data was provided.

A review of the data provided indicates that the values were generally less than 10% of the maximum permissible concentration (MPC) specified in Appendix B to 10 CFR 20. Site S-3 had a month in the reporting period for July through December 1984 that was 48.7% of the MPC. This reporting period was 49.4% and 22.3% for the first and second quarter, respectively. The trend is toward a reduction of the Th-230 exposure. This indicates that the licensee's efforts to suppress blowing tailings appears to be effective.

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Radon Sampling

Atlas has performed continuous radon sampling at five locations where particulate sampling has been conducted. This was in accordance with the requirements of SUA-917. The highest gross reading obtained for Rn-222 was 93% of the unrestricted area MPC. The reviewer noted that two sampling stations located in the prevailing wind direction from the ore piles and tailings pond had a significant increase since the last 40.65 submittal. In a conversation on October 2, 1985 with the Regulatory Affairs Manager, Mr. Blubaugh, this condition was discussed. He stated that they were aware of the increase and had initiated corrective actions. This was to increase the water level in the tailings impoundment to reduce the beach size and controlling the emissions from the ore pile. In previous discussions between Mr. Blubaugh and members of the URFO staff, he had been informed that interim stabilization was the method to use to reduce the radon emissions. It was also stated that this requirement will become a condition of the renewed license. He also mentioned that these samples were in low areas near the impoundment and the ore piles. The other three sampling station results were consistent with past data. The results of subsequent monitoring reports will be compared to determine if an upward trend in radon emissions has developed.

Stack Sampling

Atlas is not required by license SUA-917 to conduct isokinetic stack sampling while the uranium mill is in long term shutdown status. The mill has been in this condition since April 1984.

Ground Water Sampling

Atlas has performed quarterly grab sampling at seven monitor wells specified in SUA-917. Sample analyses was for Gross Beta-Gamma, U-nat, Ra-226, Th-230, Pb-210, Po-210 and 9 chemical parameters. Sampling and analyses were as specified in SUA-917.

A review of the radionuclide data indicates that values for six of the eight wells exceeded ten percent of the unrestricted area MPC for U-nat and Ra-226. Well MW2R had no trend in U-nat results in the first quarter of 1985; however, it dropped significantly in the second quarter. There were no changes in ATP2S for U-nat which was above ten percent of MPC,

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ATP2D rose above ten percent in both quarters of 1985 and MW3 rose above 10 percent in the second quarter of 1985. Well ATP1S dropped significantly below ten percent for Ra-226 in the first two quarters of 1985 with no changes in Ra-226 values for Wells MW1R and MW2R. The following chart shows the values of the affected wells for the quarterly periods from July 1, 1984 to June 30, 1985:

| U-nat (% MPC) | | | | | Ra-226 (% MPC) | | | | |
|---------------|--------------------|--------------------|--------------------|--------------------|----------------|--------------------|--------------------|--------------------|--------------------|
| Well | 3rd Qtr 1984 | 4th Qtr 1984 | 1st Qtr 1985 | 2nd Qtr 1985 | Well | 3rd Qtr 1984 | 4th Qtr 1984 | 1st Qtr 1985 | 2nd Qtr 1985 |
| MW1R | - | - | - | - | MW1R | 13 | 15 | 19 | 13.7 |
| MW2R | 42 | 45 | 40 | 4.4 | MW2R | 27 | - | 10.3 | 28.3 |
| MW3 | - | - | - | 15.0 | MW3 | - | - | - | - |
| ATP1S | - | - | - | - | ATP1S | 13 | - | 4.0 | 0.6 |
| ATP2D | - | - | 11.7 | 20.3 | ATP2D | - | - | - | - |
| ATP2S | - | 27 | 26.6 | 29.3 | | | | | |

- Indicates values less than 10%

The staff will compare and evaluate the values in the next 40.65 report to determine if the trends continues or new trends develop.

The review of chemical data compared with past data showed no significant trends.

Colorado River Sampling

Atlas has conducted monthly sampling at two Colorado River locations and analyzed the samples for U-nat and conductivity quarterly. They analyzed for Ra-226, Th-230, Pb-210, Po-210 and seven chemical parameters semiannually. Parameters, frequencies and locations for sampling are in accordance with SUA-917. Data was submitted for all sampling performed.

A review of the radionuclide data indicates that all concentrations are very small percentages of MPC. In addition, the radionuclide and chemical data continues to indicate that there is not discernible

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difference between the sample taken upstream of the mill and the sample downstream of the mill.

Direct Radiation

Atlas has taken quarterly gamma readings at the five continuous air monitor sites and the guard house as specified in SUA-917. The readings do not indicate any significant variation from past data or cause for concern.

Vegetation and Soil Sampling

Atlas is required by SUA-917 to conduct annual soil and vegetation sampling. The results of the sampling will be reported in the 40.65 report for the second half of 1985.

II. Conclusion

My review of the data provided by Atlas Minerals in the August 25, 1985 submittal indicates that Atlas has provided all required environmental monitoring data for the first half of 1984. The items of concern noted, will be followed in future data submittals.

/s/

Noah M. Shopenn, Project Manager
Licensing Branch 2
Uranium Recovery Field Office, RIV

Approved by:

/s/

Harry J. Pettengill, Chief
Licensing Branch 2
Uranium Recovery Field Office, RIV

Case Closed 04003453580E

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