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Docket File 8697
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URFO r/f
WDEQ (2)
JHaes, RCPD, WY
LLW Branch

URFO:CCJ
Docket No. 40-8697
04008697300E

MEMORANDUM FOR: Docket File No. 40-8697

FROM: Candice C. Jierree, Project Manager
Licensing Branch 2
Uranium Recovery Field Office, RIV

SUBJECT: REVIEW OF ROCKY MOUNTAIN ENERGY COMPANY'S QUARTERLY
REPORT FOR THE RENO CREEK IN SITU R&D SOLUTION MINE

By letter dated November 22, 1985, Rocky Mountain Energy Company (RMEC) submitted environmental monitoring data for the third quarter of 1985 in partial compliance with License Condition No. 29 of Source Material License SUA-1338. Due to vendor laboratory usage, the turnaround time for air particulate analyses for radionuclides consistently lags by one quarter. Therefore, the air particulate analysis submitted by the licensee is for the second quarter of 1985. This memorandum presents the Uranium Recovery Field Office staff review of this data with respect to past data and applicable standards.

The RMEC sulfuric acid leaching circuits were discontinued from use in November of 1979. Restoration activities continued through June of 1981. The second well pattern using a radium carbonate leach began operation in September of 1980 and terminated in December of 1980. Restoration activities continued through April of 1981. This well pattern was successfully stabilized after two years. Since then, site activities have consisted of environmental surveillance and decommissioning activities. The licensee estimated that 1.0 to 1.5 million gallons of solution remain in the Reno Creek reservoir as of September 30, 1985. Pond solution removal to the Bear Creek tailings impoundment began shortly after the issuance of Amendment No. 8 to Source Material License SUA-1310 on November 2, 1985.

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Air Quality

Air particulate data from the second quarter of 1985 was reported for Ra-226, Th-230 and U-nat. Third quarter data was not yet available due to vendor laboratory turnaround time. This data will be submitted in the RMEC quarterly report for the fourth quarter of 1985. This delay of one quarter for the air particulate results has been a consistent occurrence in past reports.

Samples were collected from one upwind, one downwind and one onsite location. All results for Ra-226, Th-230 and U-nat were only small fractions of the applicable limits in 10 CFR 20. No trends were observed.

Radon gas grab samples were collected each month during the third quarter of 1985 at one upwind, one downwind and two locations inside the process building. No measurement exceeded 1% of the applicable limits listed in 10 CFR 20. This is typical of previous years' data.

Direct Radiation

Direct radiation levels were measured at eight locations and one background location using TLDs during the third quarter of 1985. The maximum exposure reported was 24 mrem/quarter which was measured near Well Pattern I. The background exposure measured 18 mrem/quarter. This level was not unlike results reported during previous quarters.

Water Quality

Monthly groundwater samples were collected from eight Pattern I production and monitoring wells. The final samples were collected by both the NRC and the WDEQ on September 17, 1985. A separate evaluation will be made by the NRC which will compare the results of the samples collected by the licensee, WDEQ and the NRC. The licensee analyzed the eight monthly samples for fifteen chemical and physical agents and for U-nat and Ra-226. All reported values were near or below the stabilization control limits. No unusual values were apparent. The data is similar to results reported during previous quarters.

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Conclusion

The licensee submitted all data required by Condition No. 29 to Source Material License SUA-1338 with the exception of the previously noted air particulate data. Lower limits of detection were not submitted because the license does not require their submittal.

No significant trends were observed in the data. Reported environmental measurements were indicative of background levels.

/s/

Candice C. Jierree, 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: 04008697300E

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