

Docket File 40-8380
 PDR/DCS
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 URFO r/f
 WDEQ
 JHaes, RCPD, WY

40-8380/RFB/85/09/12/0

- 1 -

SEP 16 1985

URFO:RFB
 Docket No. 40-8380
 04008380350E

MEMORANDUM FOR: Docket File No. 40-8380

FROM: Randall F. Brich, Project Manager
 Licensing Branch 1
 Uranium Recovery Field Office, Region IV

SUBJECT: REVIEW OF ROCKY MOUNTAIN ENERGY COMPANY'S
 SECOND QUARTERLY REPORT FOR THE NINE MILE LAKE
 IN SITU R&D SOLUTION MINE - DECOMMISSIONING PHASE

Background

By letter dated July 11, 1985, Rocky Mountain Energy Company (RMEC) submitted the second quarter 1985 environmental monitoring report for the Nine Mile Lake ISL R&D facility in accordance with License Condition No. 36 (SUA-1228). The report covers the period April 1, 1985 through June 30, 1985. This memorandum presents URFO staff review of this data with respect to past data and applicable standards.

Since February 1982, site activities have been primarily limited to routine environmental surveillance. Decommissioning activities commenced in May 1985, after receiving both URFO and WDEQ approval. Major achievements during this quarter include removal of most of the process equipment and transportation of evaporation pond sludge to the Bear Creek Uranium Mill for disposal in their tailings impoundment (SUA-1310). RMEC predicts that the remainder of the decommissioning tasks will be completed during the third quarter of 1985.

Ground-Water Quality

Pattern 3 and Pattern 4 were sampled only during April, since restoration adequacy was determined by both URFO and WDEQ in early May 1985. Review of the data indicates that it is consistent with the values and trends noted during the previous 4 years.

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SEP 16 1985

Air Quality

Radium-226, Th-230 and natural uranium environmental air particulate results for the first quarter of 1985, were performed at the required frequency and sensitivity. All values were less than one (1) percent of their respective MPCs. Although the downwind monitors exhibited a slight increase over the upwind monitors, it is likely due to blowing dust from the Nine Mile Lake evaporation ponds. Decommissioning surveys will be conducted over the entire site, and soil exceeding the approved criteria will be removed for disposal at the Bear Creek Uranium Mill. Restricted area values for these parameters indicated that all were less than one (1) percent of their respective MPCs.

Maximum radon-222 concentrations were about 78 percent of the MPC to the unrestricted area. Maximum restricted area radon-222 concentrations were less than 8 percent of the MPC.

Personnel Safety

Quarterly removable alpha surveys at selected areas indicated that all results were less than 3 percent of the removable limit (1000 dpm/100 cm²). Measurements of the "belly-dumps" used to transport the evaporation pond sludge reveals that the external gamma ray exposure rate is less than 0.03 percent of the limit in the approved decommissioning plan, while the removable alpha contamination is less than one (1) percent of the limit. All equipment released for unrestricted use met applicable limits, and results are documented and maintained onsite.

Conclusion

Reported radiation exposure data is within applicable limits, and the facility should be decommissioned by Fall 1985. Therefore, no further action is warranted.

151

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Approved by:

Edward F. Hawkins, Chief
Licensing Branch 1
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Case Closed: 04008380350E

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