



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION IV  
URANIUM RECOVERY FIELD OFFICE  
BOX 25325  
DENVER, COLORADO 80225

JUL 18 1990

URFO:DCW  
Docket NO. 40-8681  
SUA-1358, Amendment No. 22  
04008681290R

MEMORANDUM FOR: Docket File No. 40-8681  
FROM: Dana C. Ward, Project Manager  
SUBJECT: AMENDMENT NO. 22 TO SOURCE MATERIAL LICENSE SUA-1358 FOR THE WHITE MESA MILL

Introduction

By letters dated October 27, 1989, and April 3, 1990, Umetco Minerals Corporation (Umetco) submitted a request to amend Source Material License SUA-1358 for an option to either fill or place a synthetic liner in the mill area sedimentation pond. The submittal was in accordance with License Condition No. 48 of Source Material License SUA-1358 for the White Mesa Mill. The staff review of Umetco's proposed amendment is discussed below.

Discussion

In Part C of License Condition No. 48 of SUA-1358, Umetco is required to develop a procedure for determining whether increases in the Pond 2 leak detection system (LDS) are from tailings seepage or from the sedimentation pond as a barrier to the transmission of liquids. In Umetco's April 3, 1990, submittal, their request is for the option of placing the liner or filling the pond with earthen materials.

Lining the pond will require changes to the boiler fly ash handling system. Currently, fly ash is washed from the boiler into the sedimentation pond where Umetco believes that this liquid is the source for the liquid detected in the LDS for Pond 2. After liner installation, the boiler dry ash would be used as a road base and the lined sedimentation pond would continue to intercept storm runoff.

Umetco's alternate plan would fill the sedimentation pond with earthen materials and have runoff diverted directly to cell 1-I. Freeboard access in cell 1-I is sufficient to receive the diverted runoff. Fly ash from Umetco's boiler would still be used as road base.

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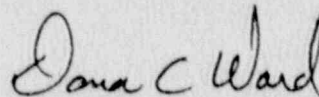
Umetco currently withdraws 1 to 2 gallons of liquid weekly from the LDS for cell 2. If, after modifications to the sedimentation pond and a stabilization time of six months, which Umetco feels is sufficient time based on site experience, the amount of liquid in the LDS is less than 1 liter per week, analysis will be terminated for chemical constituents. Weekly flow volumes will continue to be determined. If the amount of liquid is greater than 1 liter per week, but less than 5 gallons per minute, analyses will continue on a weekly basis for chloride, selenium, sulfate, and pH. If the flow in the LDS exceeds 5 gallons per minute, a pumpback system will be installed and further actions consistent with 10 CFR 40, Appendix A, will be proposed in the form of a license amendment. During the interim 6-month period, Umetco will continue to determine flow volumes and analyze for chemical constituents in accordance with current license requirements.

Umetco's changes to the sedimentation pond will be completed by April 1, 1991 rather than the original target date of December 31, 1990. This revised date was requested by Mr. John Hamrick, Environmental Engineer, during a phone conversation on June 12, 1990. Umetco requested this new date due to budgetary restraints that prevents them from completely funding all work in 1990.

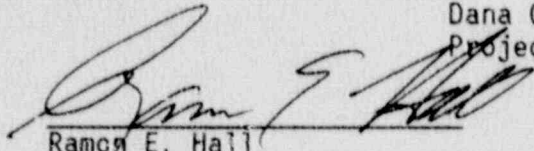
#### Conclusion

The staff review of the submittal by Umetco indicates the plan to be acceptable. The staff, however, will require that prior to construction, a series of soil samples be collected from the sedimentation pond sufficient to characterize that material for U-nat and Ra-226 prior to deposition on mill roads. The staff therefore recommends that Source Material License SUA-1358 be amended to incorporate the modifications contained in Umetco's submittals discussed above by revising License Condition No. 48(C) to read as follows:

48. C. To determine whether increases in the Pond 2 leak detection system are from tailings seepage or from sedimentation pond seepage, the licensee shall by April 1, 1991 implement the changes proposed in their submittal of April 3, 1990. In addition, the licensee shall collect a minimum of six samples characterizing the sedimentation pond material prior to construction and analyze for U-nat and Ra-226. A copy of the analysis shall be submitted to URFO by February 15, 1991.



Dana C. Ward  
Project Manager

Approved by: 

Ramon E. Hall  
Director

Case Closed: 04008681290R

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