March 31, 2008

Mr. Thomas Gieck, Remediation Manager
Umetco Minerals Corporation
PO Box 1029
Grand Junction, CO 81502

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION – LICENSE AMENDMENT TO REFLECT COMPLETION OF RECLAMATION, SOURCE MATERIAL LICENSE SUA-648, DOCKET 40-0299, UMETCO GAS HILLS, WYOMING, SITE (TAC J00531)

Dear Mr. Gieck:

By letter to the U.S. Nuclear Regulatory Commission (NRC) dated June 29, 2007, Umetco Minerals Corporation submitted a final Construction Completion Report for reclamation activities at its former uranium mill site located in Gas Hills, Wyoming. On February 13, 2008, NRC staff discussed with you the need for clarification on whether a license amendment request to reflect the review of the Construction Completion Report was being sought by Umetco Minerals Corporation. Consequently, by letter to the NRC dated February 19, 2008, Umetco Minerals Corporation formally asked for an amendment to its license reflecting the NRC's ongoing review of its final Construction Completion Report. NRC staff has reviewed the amendment request, using the submitted Construction Completion Report and finds that it needs additional information in order to complete its review. The information needed is identified in the enclosure.

If you have any questions concerning this letter, please contact me, either by telephone at (301) 415-7188, or by e-mail at rxc6@nrc.gov.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at: http://www.nrc.gov/reading-rm/adams.html.

Sincerely,

/RA/

Richard Chang, Project Manager
Special Projects Branch
Decommissioning and Uranium Recovery
Licensing Directorate
Division of Waste Management
and Environmental Protection
Office of Federal and State Materials
and Environmental Management Programs

Docket No.: 40-0299
License No.: SUA-648

Enclosure: Request for Additional Information

March 31, 2008

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Grand Junction, CO 81502

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Enclosure: Request for Additional Information

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Request for Additional Information
Umetco Minerals Corporation
Gas Hills, Wyoming Site

1. Geotechnical Engineering

Comment No. 1A. Provide additional information related to the hydraulic conductivity testing during construction of the radon barrier for the Heap Leach, Above Ground Tailings Impoundment (AGTI), A-9 repository, and Gas Hills Pond (GHP) No. 2 areas.

Basis: 10 Code of Federal Regulations (CFR) Part 40, Appendix A, Criterion (6) specifies that features necessary for the long term control of tailings must be completed in accordance with a Commission approved reclamation plan. The approved September 25, 1996 Reclamation Plan for the Heap Leach area requires a maximum hydraulic conductivity of $1x10^{-7}$ centimeters (cm)/second (sec) for the clay used to construct the radon barrier. These tests were required at a frequency of at least one test for every 5,000 cubic yards (CY) of radon barrier soil placed. The test results in Table B.3 of the Completion Report, Volume II, indicate that 11 hydraulic conductivity tests were performed on the radon barrier material; this corresponds to a testing frequency of approximately one test for every 7,714 CY of radon barrier placed. No hydraulic conductivity tests were performed during the construction of the AGTI, A-9 repository, or GHP No. 2 areas (note that the radon barrier in these areas was required to have a hydraulic conductivity of less than $1x10^{-7}$ cm/sec, but there does not appear to be a required quality control test frequency to verify this parameter). In the Completion Report, Section 4 of Volume 1 discusses the variability of the test results of the soil classification, gradation, Atterberg limits, and compaction. Variability of the hydraulic conductivity test results was not addressed in this section.

Discussion: Additional information should be provided as follows:

(1) A discussion of the hydraulic conductivity sampling locations and sample collection methodology within the stockpile should be included in the Completion Report. This discussion should identify the timeframe within which the samples were collected.
(2) The variability of the hydraulic conductivity test results and the impact of this variability on the ability to meet the required hydraulic conductivity value for all areas requiring a radon barrier should be discussed.
(3) The techniques used to add moisture to and maintain the moisture content of the radon barrier soil stockpile should be addressed. Any changes to these maintenance techniques should also be identified.
(4) A detailed description of the methods used to place and compact the radon barrier soils for each area and a discussion of any changes to these methods from area to area should be provided.

Comment No. 1B. Provide additional information on the soil classification test results used to construct the frost protection layers for the Heap Leach, AGTI, A-9 Repository, and GHP No. 2 areas.

Basis: 10 CFR Part 40, Appendix A, Criterion (6) specifies that features necessary for the long term control of tailings must be completed in accordance with a Commission approved

reclamation plan. The approved reclamation plans required that soils used to construct the frost protection layer be classified as clayey sands (SC) or silty sands (SM) material according to the Unified Soil Classification System. The quality control test results for the Heap Leach, AGTI, A-9 Repository, and GHP No. 2 areas indicate that a percentage of the soil used to construct the frost protection layer did not meet this material specification. The percentage of soil in nonconformance with the material specification ranged from 3 percent for GHP No. 2 to 14 percent for the Heap Leach.

Discussion: The Completion Report should address the impacts that the presence of non SC or SM material will have on the long term performance of the frost protection layer.

Comment No. 1C. Provide additional information on the Proctor test methods used to determine the maximum dry density and optimum moisture content for the radon barrier soils in the Heap Leach area.

Basis: 10 CFR Part 40, Appendix A, Criterion (6) specifies that features necessary for the long term control of tailings must be completed in accordance with a Commission approved reclamation plan. The reclamation plan for the Heap Leach area required both Standard Proctor testing and One-Point Proctor testing of the radon barrier soils. Standard Proctor tests were required at a frequency of one test for every 15,000 CY of radon barrier soil placed; One-Point Proctor tests were required at a frequency of one test for every 5,000 CY of radon barrier soil placed. The quality control test results presented in Appendix B of Volume II do not differentiate between the standard Proctor test results and the one-point proctor test results.

Discussion: Volume II of the Completion Report should provide a breakdown of the number of Standard Proctor and One-Point Proctor test results to verify that the required testing frequencies were met.

2. Reclamation of the North and South Evaporation Ponds

Comment No. 2A. Please provide a description or reference to the quality assurance procedures used for ensuring that the remaining clay pond liner was removed from the North and South Evaporation Ponds.

Basis: 10 CFR Part 40, Appendix A, Criterion (6) specifies that features necessary for the long term control of tailings must be completed in accordance with a Commission approved reclamation plan. In the approved October 27, 1998 Reclamation Plan, a commitment was made that the remaining clay liner would be removed and disposed of in the A-9 Repository.

Discussion: Volume IV of the Completion Report should provide detailed pictures and procedures used to ensure that the clay liner was removed in its entirety.

Comment No. 2B. Provide additional information documenting that the remaining unaffected waste rock in the North and South Evaporation Pond area was regraded in accordance with the site-wide grading plan.

Basis: 10 CFR Part 40, Appendix A, Criterion (6) specifies that features necessary for the long term control of tailings must be completed in accordance with a Commission approved reclamation plan. In the approved October 27, 1998 Reclamation Plan, a commitment was made that the North and South Evaporation Ponds would be regraded in accordance with the site-wide grading plan.

Discussion: Volume IV of the Completion Report should provide additional information to verify that the commitments made in the approved 1998 Reclamation Plan were met.

3. Decommissioning Report

Comment No. 3A. Please state whether the submitted June 29, 2007 Completion Report is also considered the decommissioning report.

Basis: 10 CFR Part 40.42 discusses the need for a decommissioning plan. In Umetco's approved May 2, 1990, and June 18, 1990, Mill Decommissioning Plan submittals, a commitment is made that a final decommissioning report will be submitted to the NRC after the completion of activities.

Discussion: Provide a statement clarifying whether the submitted Completion Report is also a decommissioning report.