September 10, 2001

Mr. John S. Hamrick
Umetco Minerals Corporation
2754 Compass Drive, Suite 280
Grand Junction, Colorado 81506-8741

SUBJECT: NRC INSPECTION REPORT 40-0299/01-02

Dear Mr. Hamrick:

On July 11, 2001, the U.S. Nuclear Regulatory Commission (NRC) completed an onsite construction inspection of your former Gas Hills Uranium Project in Natrona County, Wyoming. The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations of activities in progress. The inspection findings were presented to members of your staff at the conclusion of the onsite inspection. The enclosed report presents the results of that inspection. The inspection determined that you have continued to make progress in remediating the site and that activities have been conducted in a safe and effective manner in accordance with the NRC-approved reclamation plan, the license, and NRC regulations.

No violations or deviations were identified; therefore, no response to this letter is required.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available **electronically** for public inspection in the NRC Public Document Room (PDR) **or** from the Publicly Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/NRC/ADAMS/index.html (the Public Electronic Reading Room).

Should you have any questions concerning this inspection, please contact Mr. John H. Lusher at (301) 415-7694.

Sincerely,

/**RA**/

Melvyn N. Leach, Chief
Fuel Cycle Licensing Branch
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

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

Enclosure:

NRC Inspection Report 40-0299/01-02

cc w/enclosure:
Mr. Edward Ley
Site Superintendent
Umetco Minerals Corporation
P.O. Box 151
Riverton, Wyoming 82501

Mr. David Finley
Wyoming Department of Environmental Quality
Solid and Hazardous Waste Division
122 W. 25th Street
Cheyenne, Wyoming 82002

Mr. Mark Moxley
District II Supervisor
Wyoming Department of Environmental Quality
Land Quality Division
250 Lincoln Street
Lander, Wyoming 82520

Art Kleinrath, Long-Term Surveillance Project Manager
U.S. Department of Energy
Grand Junction Project Office
2597 B ¾ Road
Grand Junction, Colorado 81503

bcc w/enclosure (via ADAMS distrib):
EWMerschoff
MNLeach, NMSS/FCSS/FCLB
GSJanosko, NMSS/FCSS/FCLB
RMWeller, NMSS/FCSS/FCLB
TLJohnson, NMSS/FCSS/FCLB
DSRom, NMSS/FCSS/FCLB
DDChamberlain
LLHowell
CLCain
NMLB
MIS System
RIV Nuclear Materials File - 5th Floor

DOCUMENT NAME: Draft: G:\FCLB\UraniumRecoverySection\UMETCO\1029902.wpd
Final; Accession No.:

FCLB		FCLB		FCLB	
JLusher		GSJanosko		MNLeach	
09/06/01		09/10/01		09/10/01	

OFFICIAL RECORD COPY

ENCLOSURE

U. S. NUCLEAR REGULATORY COMMISSION

Docket No.:	40-0299
License No.:	SUA-648
Report No.:	40-0299/01-02
Licensee:	Umetco Minerals Corporation
Facility:	Former Gas Hills Uranium Project
Location:	Gas Hills Mining District, Natrona County, Wyoming
Inspection Date:	July 11, 2001
Inspector:	John H. Lusher, Health Physicist Division of Fuel Cycle Safety and Safeguards Fuel Cycle Licensing Branch Uranium Recovery Section
Accompanied by:	Terry Johnson, Surface Hydrologist Division of Fuel Cycle Safety and Safeguards Fuel Cycle Licensing Branch Uranium Recovery Section Dan Rom, Geotechnical Engineer Division of Fuel Cycle Safety and Safeguards Fuel Cycle Licensing Branch Uranium Recovery Section Carl Jacobson, Project Manager DOE, Grand Junction Office
Approved By:	Melvyn N. Leach, Chief Fuel Cycle Licensing Branch Division Fuel Cycle Safety and Safeguards Office of Nuclear Material Safety and Safeguards
Attachments:	Supplemental Information Photographs

EXECUTIVE SUMMARY

Site of Former Gas Hills Uranium Project
NRC Inspection Report 40-0299/01-02

This inspection included a review of site status and decommissioning, and onsite construction.

Site Decommissioning Status

- Site activities and decommissioning, and onsite construction programs, were being conducted in accordance with the reclamation plan, the license, and applicable NRC regulations.

Report Details

1 Site Status and Decommissioning for Uranium Mill Sites (87654)

1.1 Inspection Scope

The site status and decommissioning activities were reviewed to determine if licensee activities were being conducted in accordance with the approved reclamation plan, NRC regulations and the license.

1.2 Observations and Findings

a. Site Status

The Former Gas Hills Uranium Mill operated from 1960 to 1979. The mill buildings have been dismantled, and site activities included the reclamation of three disposal areas and continuation of the groundwater corrective action program. In 1980, Umetco submitted a reclamation plan for the above-grade tailings impoundment (AGTI), incorporating the adjacent experimental heap leach area. Umetco completed tailings regrading and construction of the cover and addition of topsoil and seed in 1992. Several years after construction, erosion of the cover was noted and concerns were expressed for erosion along the east toe of the AGTI, the north toe drain, and additional contamination found near the north edge of the AGTI. Additional radon barrier and frost protection cover had been placed on both the AGTI and the area connecting to the heap leach impoundment. Frost protection covering has been completed. Final rock installation was ongoing.

The A-9 pit and a below-grade solid waste disposal area had been capped with an interim layer of soil. However, the A-9 pit is still an active disposal area. The radon barrier for the heap leach impoundment was complete, and the erosion protection was scheduled to be completed by the end of 2001. The one lined pond, GHP-2, continues to receive water from the groundwater corrective action program. Pond GHP-1 had been taken out-of-service since the previous inspection, and contaminated materials had been removed from the north and south evaporation ponds.

Reclamation activities in progress during this inspection included: (1) maintenance of impoundments and A-9 disposal cell, (2) the continuation of a groundwater corrective action program, (3) placing cover material on the C-18 pit, and (4) placing the radon barrier on the A-9 disposal cell.

1.3 Conclusions

Site decommissioning activities were reviewed and found to have been conducted in accordance with the approved reclamation plan, applicable license conditions, and regulatory requirements.

2 On-site Construction (88001)

2.1 Inspection Scope

The NRC conducted an erosion control and geotechnical review to determine whether problems to the tailings impoundment construction or erosion controls existed such that damage or deterioration needed repair. The geotechnical engineering evaluation included both physical observations of the reclaimed impoundment and dam and a review of testing and inspection records.

In accordance with NRC Inspection Procedure 88001, "On-Site Construction," the inspector reviewed records associated with the testing of riprap and filter zone quality, gradation, and placement. The inspector toured the site with licensee representatives and discussed the production, placement, and testing of the erosion protection materials.

2.2 Observations

a. Erosion Protection

The review indicated that all required tests were performed, as required. The review also indicated that all specifications were met.

The evaluation indicated that the rock had been placed in a manner such that the minimum rock layer thickness requirements were met.

UMETCO indicated that changes may be made to the riprap testing requirements and to the design of the evaporation pond area. No commitments were made regarding schedules for design changes during these discussions.

Erosion protection was being placed in accordance with the reclamation plan.

b. Geotechnical Engineering

There was no apparent cover cracking or distress observed. The earthen cover was free of undulation, consistent with the quality of the work. The sideslopes were stable on July 11, 2001.

The records appeared to be complete, and indicated that those areas which initially failed to meet required compaction criteria were re-worked until satisfactory density could be attained. Density test frequencies met the requirements of the reclamation plan.

Records of the potentiometric surface within the tailings indicated that the potentiometric surface was well below levels of concern. For this reason, the tailings are considered to be unsaturated, thus the reclaimed embankment would no longer be considered a dam. The unsaturated nature of the tailings are consistent with the flatness of the surface.

2.3 Conclusions

The inspector determined that the reclamation was accomplished in accordance with the requirements of the approved reclamation plan.

4 Exit Meeting Summary

The inspector presented the inspection results to licensee representatives at the conclusion of the inspection on July 11, 2001. The licensee representative acknowledged the findings as presented. The licensee did not identify as proprietary any information provided to, or reviewed by, the inspectors.

ATTACHMENT 1

PARTIAL LIST OF PERSONS CONTACTED

Licensee

J. Hamrick, Manager, Health, Safety & Environmental Affairs
E. Ley, Site Superintendent
S. Schierman, Radiation Safety Officer

ITEMS OPENED, CLOSED AND DISCUSSED

Opened

None

Closed

None

Discussed

None

INSPECTION PROCEDURES USED

87654	Decommissioning of Uranium Mills
88001	On-site Construction

LIST OF ACRONYMS USED

AGTI	above-grade tailings impoundment
DOE	Department of Energy

ATTACHMENT 2

Looking South West at UMETCO Above Grade Tailings Impoundment Rock Placement

Six inch rock placement on UMETCO Above Grade Tailings Impoundment

Test Location on Six Inch Rock area

Twelve Inch Rock Placement on UMETCO Above Grade Tailings Impoundment

Dumping and Placement of Twelve Inch Rock

Compaction of Three inch Rock on the Top of the Above Grade Tailings Impoundment

Placement of Cover Material on C-18 Pit

Prep for Compaction Test on C-18 Pit Cover

Rock crushing and Segregation Area