



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
612 EAST LAMAR BLVD, SUITE 400
ARLINGTON, TEXAS 76011-4125

June 30, 2008

Mr. Thomas E. Gieck
Remediation Leader
Umetco Minerals Corporation
P.O. Box 1029
Grand Junction, CO 81502

SUBJECT: NRC INSPECTION REPORT 040-00299/08-001

Dear Mr. Gieck:

This refers to the announced inspection conducted on June 3, 2008, at the Umetco-Gas Hills site in Natrona County, Wyoming. The inspection was an examination of activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of examination of selected procedures and representative records, observations of activities, and interviews with personnel. The inspection findings were discussed with you and members of your staff during the exit briefing conducted at the conclusion of the onsite inspection. The enclosed report presents the scope and results of the inspection. The inspection determined that you have conducted licensed activities at your former uranium mill in a safe and effective manner and in compliance with regulatory and license requirements.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

Should you have any questions concerning this inspection, please contact Ms. Linda Gersey at (817) 860-8299, or the undersigned at (817) 860-8197.

Sincerely,

/RA/

Jack E. Whitten, Chief
Nuclear Materials Safety Branch B
Division of Nuclear Materials Safety

Docket No.: 040-00299
License No.: SUA-648

Umetco Minerals Corporation

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Enclosure:

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U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket No.: 040-00299
License No.: SUA-648
Report No.: 040-00299/08-001
Licensee: Umetco Minerals Corp.
Facility: Former Gas Hills Facility
Location: Natrona County, Wyoming
Date: June 3, 2008
Inspector: Linda M. Gersey, Health Physicist
Nuclear Materials Safety Branch B
Accompanied by: Richard Chang, General Scientist
Douglas T. Mandeville, PE, Geotechnical Engineer
Ted Johnson, NRC Consultant
Decommissioning and Uranium Recovery Licensing Directorate
Division of Waste Management and Environmental Protection
Office of Federal and State Materials and Environmental
Management Programs
Approved by: Jack E. Whitten, Chief
Nuclear Materials Safety Branch B
Attachment: Supplemental Inspection Information

EXECUTIVE SUMMARY

Umetco Minerals Corporation – Gas Hills Facility
NRC Inspection Report 040-00299/08-001

This inspection included a review of site status, management organization and controls, radiation protection, operator training, maintenance and surveillance testing, environmental protection, transportation, radioactive waste management, and on-site construction. Site activities were conducted in compliance with the regulations and license conditions.

Management Organization and Controls

- The organizational structure and staffing levels met license requirements and were sufficient for the work in progress. Site procedures were established and were being maintained up-to-date. Audit activities were being conducted in accordance with license requirements (Section 1).

Radiation Protection and Operator Training/Retraining

- The licensee implemented a radiation protection and training program that met the requirements of 10 CFR Part 20 and the license (Section 2).

On-site Construction

- The geotechnical construction and the erosion protection construction activities were consistent with the information presented in the Construction Completion Report and were performed in accordance with the approved reclamation plans (Section 3).

Environmental Protection and Maintenance and Surveillance Testing

- The groundwater monitoring program was being performed and documented as required. The survey instruments were calibrated in accordance with license conditions. The dose limit to members of the public was not being exceeded (Section 4).

Transportation of Radioactive Materials, Radioactive Waste Management, and Emergency Preparedness

- The licensee had not transported radioactive material or handled radioactive waste since the previous inspection (Section 5).

Report Details

Site Status

At the time of the inspection, the Umetco Minerals Corporation – Gas Hills Facility site had completed reclamation activities. License amendment Number 59, dated March 16, 2007, approved the discontinuation of environmental and gamma monitoring at the site. The licensee submitted a Construction Completion Report (CCR) to the Nuclear Regulatory Commission (NRC) on June 29, 2007, that documents construction activities for the reclamation of the Heap Leach, Above-Grade Tailings Impoundment, A-9 Repository and C-18 Pit, and the Gas Hills Pond 2 (GHP-2). Additionally, the licensee submitted an overview of all reclamation activities on site and requested that the NRC license be updated to reflect the CCR. This action to amend the license is pending the issuance of this inspection report. The primary focus areas of this inspection were to verify that construction activities were completed as submitted in the CCR and to ensure that the radiation safety program was conducted as required by NRC regulations and the license.

1 Management Organization and Controls (88005)

1.1 Inspection Scope

Ensure that the licensee had established an organization to administer the technical programs as well as programs to perform internal reviews, self-assessments, and audits.

1.2 Observations and Findings

License Condition 10.B provides, in part, the organizational requirements. The license also specifies that the licensee's organizational chart is to be submitted annually to the NRC. The inspectors compared the current organizational structure to the structure provided in the annual report. At the time of the inspection, site staffing consisted of three individuals including one full-time employee and two contractors. The full-time employee was the site superintendent who reported to the remediation leader located at the main office in Grand Junction, Colorado. Two additional contractors had recently been hired to collect ground water samples. The inspectors concluded that the licensee had sufficient staff to conduct the work in progress and to ensure compliance with license conditions and regulatory requirements.

License Condition 10.C requires, in part, the licensee conduct semi-annual, documented, visual inspections of GHP-2. The licensee had discontinued these inspections because reclamation of GHP-2 had been completed. The CCR is currently undergoing NRC staff review.

License Condition 15 states, in part, that the radiation safety officer (RSO) shall perform an annual documented review of site procedures. The inspectors noted that the RSO had performed this review within the required timeframe. The only remaining procedures applicable to the site are: E10-Groundwater Sampling; R8-Radiation Instrument Calibration; R12-ALARA Policy; R14-Radiation Work Permits; and R15-Fence Inspection. While the procedures are no longer maintained on site, when work is performed on site procedures are kept within the work area.

License Condition 16 states, in part, that the licensee shall conduct an annual as low as reasonably achievable (ALARA) audit. In addition, the licensee shall review the environmental monitoring program at least annually. The inspectors reviewed the calendar year (CY) 2006 and CY 2007 ALARA audits conducted by a contractor. No significant issues were identified by the contractor.

License Condition 32 requires, in part, that the licensee conduct an annual survey of land use in the area within 5 miles of any portion of the restricted area. The most recent land use survey was included in the annual report dated September 28, 2007. The annual survey report indicates that the nearest resident is located 5 miles from the permit boundary. Accordingly, the inspectors concluded that licensed activities had little or no impact on members of the public.

1.3 Conclusions

The organizational structure and staffing levels met license requirements and were sufficient for the work in progress. Site procedures were established and were being maintained up-to-date. Audit activities were being conducted in accordance with license requirements.

2 Radiation Protection (83822) and Operator Training/Retraining (88010)

2.1 Inspection Scope

Determine if the licensee's radiation protection program was in compliance with license and 10 CFR Part 20 requirements and to ensure all required training was conducted.

2.2 Observations and Findings

The inspectors noted that the licensee had discontinued occupational dose monitoring in CY 2007, which coincided with completion of the site construction.

License Condition 10.A states, in part, that radiation work permits are required for non-routine work activities which may result in significant exposures to radioactive material. Based on discussions with the licensee's staff and through a records review, the inspectors noted that the licensee had not issued any radiation work permits since the previous inspection.

License Condition 22 specifies, in part, the release requirements for equipment or packages being free-released from the restricted area. The inspectors reviewed the equipment release records for CYs 2005-2006. No equipment was released in CY 2007 or to the date of this inspection in CY 2008. Based on the licensee's records, all equipment appeared to have been adequately surveyed before being released from the restricted area.

During the site tour, the inspectors conducted radiation surveys using a Ludlum Model 19 microR survey meter (NRC Number 015540, calibration due date of February 14, 2009). The background ambient gamma exposure rate was approximately 40 microRoentgens

per hour ($\mu\text{R/hr}$). On the areas of the site where a cover was installed, ambient gamma exposure results were observed to be 10-15 $\mu\text{R/hr}$.

License Condition 10.D states, in part, the requirements to conduct annual refresher training for all employees and initial training for new hires. Since the previous inspection, two new contractors were hired to collect water samples and were trained appropriately. The inspectors verified that annual refresher training had been conducted in CY2007 and to the date of this inspection in CY2008.

2.3 Conclusions

The licensee implemented a radiation protection and training program that met the requirements of 10 CFR Part 20 and the license.

3 **On-site Construction (88001)**

3.1 Inspection Scope

Determine if the geotechnical engineering and erosion protection features were constructed as approved by the NRC in the licensee's reclamation plans, as outlined in License Conditions 54, 58, 59, 61, and as documented in the licensee's CCR dated June 2007.

3.2 Observations and Findings

a. Geotechnical Engineering

NRC staff reviewed geotechnical engineering records related to the CCR. The records reviewed included moisture content test laboratory data sheets, proctor test laboratory data sheets, equipment calibration checks, gradation test laboratory data sheets, and daily construction logs. The NRC staff found that the geotechnical engineering records related to the CCR demonstrated compliance with the NRC approved reclamation plan.

As construction activities were completed in late CY 2006, there was not an opportunity for the NRC staff to inspect soil placement activities. However, the NRC staff was able to review construction photos and videos covering the history of the project. Photos and videos reviewed included clay stockpile maintenance, radon barrier placement, frost protection placement, in-place depth checks, in-place density checks, and site grading.

b. Erosion Protection

NRC staff reviewed erosion protection related records that were included in the CCR. The data reviewed included gradation test results, rock quality test results, and daily construction logs. The NRC staff found that the erosion protection records related to the CCR demonstrated compliance with the NRC approved reclamation plan.

The staff performed a site tour to verify the in-place conditions of the erosion protection aspects of the CCR. The NRC staff was able to verify the consistency and quality of rock placement. The NRC staff also was able to verify that the appropriate rock sizes were

placed in the correct locations. Finally, a series of verification depth checks indicated that the rock was placed to the required thickness.

3.3 Conclusions

The NRC staff review indicated that the geotechnical construction and the erosion protection construction activities were consistent with the information presented in the CCR and were performed in accordance with the approved reclamation plans.

4 **Environmental Protection (88045) and Maintenance and Surveillance Testing (88025)**

4.1 Inspection Scope

Determine if the environmental program was being performed as required by the regulations and the license. Also, instrument calibrations were reviewed to ensure compliance with license conditions.

4.2 Observations and Findings

In March 2007, the requirements for environmental air particulate, ambient gamma, and radon-222 monitoring were discontinued. The inspectors reviewed radon and direct gamma monitoring results obtained by the licensee in CY 2006 through early CY 2007. The inspectors found that monitoring was conducted as required by the license, prior to March 2007, and the results were comparable to background levels.

License Condition 35 provides, in part, the requirements for the groundwater compliance monitoring program. The inspectors reviewed the well sample results provided in the September 28, 2007, annual report. Sample results were within the specified limits in the license.

The inspectors also verified that the CY 2007 annual report that was submitted in accordance with License Conditions 32 and 39. The most recent report was submitted to the NRC in a timely manner and contained the required information.

Radiation dose to the public is addressed in the licensee's annual reports and determined to be less than the regulatory limits. The inspectors concluded that the 100-millirem dose limit to members of the public, as required in 10 CFR 20.1301(a), had not been exceeded.

License Conditions 20 and 27 require, in part, annual calibrations of survey instruments. A review of the licensee's records indicated that the instruments were being calibrated at the required frequency. The instruments when examined by the inspectors appeared to be in good working order with up-to-date calibration sticker.

4.3 Conclusions

The groundwater monitoring program was being performed and documented as required. The survey instruments were calibrated in accordance with license conditions. The dose limit to members of the public was not being exceeded.

5 Transportation of Radioactive Materials, Radioactive Waste Management, and Emergency Preparedness (86740/88035/88050)

5.1 Inspection Scope

Determine if transportation, waste disposal activities, and emergency preparedness activities were being conducted in compliance with the regulations and license requirements.

5.2 Observations and Findings

With regards to shipping and transportation activities, the licensee stated that it had not shipped any radioactive material off site or received a shipment on site since the previous inspection. Further, the licensee had not received any wastes for disposal since it no longer had an open area for disposal of this type of material. There was also no release of equipment since the previous inspection.

The inspectors did not address the requirements for emergency preparedness, since there are no structures in the restricted area and no employees are assigned to work full-time at the site.

5.3 Conclusions

The licensee had not transported radioactive material or handled radioactive waste since the previous inspection.

6 Exit Meeting Summary

The inspectors presented the inspection results to the licensee's representatives at the conclusion of the onsite inspection on June 3, 2008. Representatives of the licensee acknowledged the findings as presented. During the inspection, the licensee did not identify any information reviewed by the inspectors as propriety.

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

T.Geick	Remediation Leader
S.Schierman	Radiation Safety Officer
E.Ley	Site Superintendent

INSPECTION PROCEDURES USED

IP 88005	Management Organization and Control
IP 83822	Radiation Protection
IP 88010	Operator Training/Retraining
IP 88025	Maintenance and Surveillance Testing
IP 88045	Environmental Protection
IP 86740	Transportation of Radioactive Material
IP 88035	Radioactive Waste Management
IP 88050	Emergency Preparedness
IP 88001	On-Site Construction

ITEMS OPENED, CLOSED, AND DISCUSSED

Open

None

Closed

None

Discussed

None

LIST OF ACRONYMS USED

ALARA	as low as reasonably achievable
CCR	Construction Completion Report
CY	calendar year
IP	inspection procedures
µR/hr	microRoentgens per hour
RSO	Radiation Safety Officer