



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

September 25, 2007

Docket No. 04008778

License No. SMB-1393

Mark R. Lafferty  
Deputy Project Owner  
Chevron Environmental Management Company  
6001 Bollinger Canyon Road  
Room K2088  
San Ramon, CA 94583-2324

SUBJECT: INSPECTION 04008778/2007001, CHEVRON ENVIRONMENTAL  
MANAGEMENT COMPANY, MOLYCORP WASHINGTON REMEDIATION  
PROJECT, WASHINGTON, PENNSYLVANIA

Dear Mr. Lafferty:

On June 13-14, 2007, John Nicholson and Joseph Furia of this office conducted a safety inspection at the Molycorp Washington Remediation Project, 1217 West Wayne Street, Washington, Pennsylvania, of activities associated with the shipping of environmental soil samples and the decommissioning of the Molycorp Washington site. The inspection was an examination of your licensed activities as they relate to radiation safety and compliance with the Commission's regulations and license conditions. The inspectors observed field activities, interviewed personnel, and examined selected records. Following the on-site portion of the inspection, the inspectors reviewed additional documents related to the decommissioning project in the Region I office. The inspection results were discussed with Mr. Jack Wright and other members of your organization by teleconference on August 6, 2007. The enclosed report presents the results of this inspection.

Within the scope of this inspection, no violations were identified.

Current NRC regulations are included on the NRC's website at [www.nrc.gov](http://www.nrc.gov) ; select **Nuclear Materials; Medical, Academic, and Industrial Uses of Nuclear Material**; then **Regulations, Guidance, and Communications**. The current NRC Enforcement Policy is included on the NRC's website at [www.nrc.gov](http://www.nrc.gov) ; select **About NRC; Organization & Functions; Office of Enforcement; About Enforcement**; then **Enforcement Policy**. You may also obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-866-512-1800. The GPO is open from 7:00 a.m. to 8:00 p.m. EST, Monday through Friday (except Federal holidays).

M. Lafferty

2

No reply to this letter is required. Please contact John Nicholson at 610-337-5236 if you have any questions regarding this matter.

Sincerely,

*/RA/*

Raymond K. Lorson, Chief  
Decommissioning Branch  
Division of Nuclear Materials Safety

Enclosure:  
Inspection Report No. 04008778/2007001

cc:  
Jack C. Wright, Project Manager  
Commonwealth of Pennsylvania

M. Lafferty

2

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Raymond K. Lorson, Chief  
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Division of Nuclear Materials Safety

Enclosure:  
Inspection Report No. 04008778/2007001

cc:  
Jack C. Wright, Project Manager  
Commonwealth of Pennsylvania

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**SUNSI Review Complete: JNicholson**

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DATE	09/25/2007		09/25/2007		09/25/2007		

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U.S. NUCLEAR REGULATORY COMMISSION  
REGION I

INSPECTION REPORT

Inspection No. 04008778/2007001  
Docket No. 04008778  
License No. SMB-1393  
Licensee: Molycorp Corporation  
Location: Washington Remediation Project  
1217 West Wayne Street  
Washington, PA 15301  
Inspection Dates: June 13 -14, 2007 (on-site inspection)  
August 6, 2007 (in-office review)  
Inspector: John Nicholson, Health Physicist  
Joseph Furia, Senior Health Physicist  
Approved By: Raymond Lorson, Branch Chief  
Decommissioning Branch  
Division of Nuclear Materials Safety

## **EXECUTIVE SUMMARY**

Molycorp Corporation  
NRC Inspection Report No. 04008778/2007001

This was an announced inspection by two regional radiation specialist inspectors to review the licensee's controls over the transportation of environmental soil samples from the Molycorp Washington PA site to an off-site analytical laboratory. The inspectors reviewed shipment data, procedures, training, and selected records related to transportation of samples.

The inspectors determined that the licensee had implemented adequate controls for the shipping of soil samples and also that personnel had been provided appropriate training for handling this material. The inspectors observed during field activities that workers were implementing adequate radiological work practices, including measures to limit the spread of contamination. Within the scope of this inspection no findings of significance were identified.

## REPORT DETAILS

### **I. Facilities Management and Control**

#### a. Inspection Scope

The inspectors observed field activities, interviewed site personnel, and reviewed selected records to assess the oversight and control of the site decommissioning activities. Specifically, the inspectors attended a meeting designed to inform local first responders regarding potential hazards to be considered during the response to a site event; observed rail car loading and soil excavation activities; and, discussed the licensee's plans to control the excavation of soil near a pressurized gas line. Additionally, the inspectors reviewed the licensee's organization to determine whether the Decommissioning Plan requirement to have a certified health physicist (CHP) provide oversight for radiological work activities had been met.

#### b. Observations and Findings

The inspectors determined there was a brief period in July 2006 when the CHP position was not filled. The inspectors reviewed the licensee's staffing and noted that a health physicist (who was not a CHP) was on-site during this period. The inspectors reviewed selected radiological records from this period and determined that appropriate radiological controls appeared to have been maintained. Additionally, the inspectors noted that the licensee acted promptly to fill the CHP position. The inspectors determined that not maintaining the CHP position filled as required by the Decommissioning Plan constituted a violation of minor significance and is not subject to formal enforcement action.

#### c. Conclusions

No findings of significance were identified.

### **II. Decommissioning Performance and Status Review**

#### a. Inspection Scope

The inspectors reviewed records and procedures for conducting radiological surveys. Additionally, the inspectors reviewed personnel badging and dosimetry records, and interviewed the assistant radiation safety officer (RSO) regarding radiation surveys conducted to support the transportation of samples to an off-site laboratory for analysis.

#### b. Observations and Findings

The inspectors determined that radiation surveys were performed in accordance with procedures and also that actions to prevent the spread of contamination were adequate. The inspectors observed that individuals and vehicles were properly surveyed for contamination before being permitted to exit from the restricted area. Air sampling records were reviewed and no airborne radioactivity levels above background were

Enclosure

detected. The licensee implemented appropriate measures to control dust to limit the potential spread of contamination.

The inspectors reviewed the daily survey results that were conducted in the tar pond area to ensure no slag was going out for disposal with the tar. The inspectors noted that surveys were comprehensive and the data was properly maintained for analysis.

c. Conclusions

No findings of significance were identified. All radiological work appeared to be adequately controlled and conducted in accordance with the site Decommissioning Plan.

### III. Training of Workers

a. Inspection Scope

The inspectors attended or reviewed safety briefings, safety procedures, and personnel training files to review the scope of training provided to radiation workers. The inspectors observed field activities and interviewed site personnel to assess the effectiveness of the training provided. The inspectors also reviewed training records to determine whether any personnel had been trained on Department of Transportation (DOT) requirements associated with the shipping of soil samples.

b. Observations and Findings

The inspectors observed that personnel properly entered and exited the work zone. Specifically, workers donned and removed personal protective equipment and performed personal contamination surveys as required.

The inspectors noted that the Malcolm Pirnie, Inc. Field Manager had received training on the DOT requirements associated with the shipping of soil samples in November 2005, and this individual had been employed at the site since the start of the project. Additionally, the inspectors noted that the Molycorp site RSO had received DOT training in May 2007.

c. Conclusions

No findings of significance were identified.

### IV. Radioactive Waste Management

a. Inspection Scope

The inspectors observed the rail car loading operations to ensure that proper contamination control practices were being utilized.

b. Observations and Findings

Rail car shipments started on March 13, 2007. A representative from US Ecology has been on-site since the rail shipments commenced. The inspectors noted that as of June 13, 2007, a total of 268 rail cars containing approximately 29,400 tons of soil had been removed from the site. The inspectors observed plastic sheeting in place on the pad in the trans-shipment tent area. This sheeting was being replaced daily to limit the spread of contamination. In addition, the inspectors observed a misting system in operation over the rail cars to control dust. Molycorp personnel stated that the rail cars are monitored at the waste disposal facility to ensure that radiological requirements are met.

c. Conclusions

No findings of significance were identified.

**V. Transportation of Radioactive Material**

a. Inspection Scope

The inspectors reviewed selected records and interviewed workers involved with the preparation of soil samples for transport to ensure that activities were performed in compliance with applicable NRC and DOT regulations. In addition, the inspectors reviewed a letter from the licensee dated April 5, 2007 (ML072680565), that had been submitted in response to a request from the NRC to provide additional information on the shipping of environmental samples.

b. Observations and Findings

The inspectors reviewed records that indicated soil sample shipments to an off-site laboratory for analysis began in March 2006. The inspectors reviewed records of radiation dose rate surveys and contamination surveys performed prior to these shipments. In August 2006, the licensee developed procedure M-10, "Environmental Sample Shipping," revision 0, to control the shipping of soil samples.

In the April 5, 2007, letter to the NRC, the licensee indicated that their soil samples were exempt from control under DOT regulations as described in 49 CFR 173.401(b)(4) provided the activity concentration of the material did not exceed a factor of ten greater than the values specified in 10 CFR 173.436. The inspectors reviewed the licensee's position as described in the letter and determined that it appeared consistent with DOT requirements.

The inspectors also noted that the licensee's April 5, 2007, letter identified four examples where soil samples had been shipped off-site without meeting the guidance contained in the M-10 site procedure. The inspectors reviewed these instances and noted that the M-10 procedural requirements were conservative relative to the DOT requirements and also that the M-10 procedure was not a required procedure in the

Enclosure

Decommissioning Plan. The inspectors concluded that the four examples where the M-10 procedural requirements were not met did not involve a failure to meet a regulatory requirement. The inspectors noted that the licensee implemented corrective actions in response to these occurrences.

c. Conclusions

No findings of significance were identified.

**VI. Exit Meeting Summary**

An exit meeting was held with the MolyCorp Project Manager and other licensee and contractor personnel by telephone on August 6, 2007. The licensee acknowledged the inspectors' observations.

**SUPPLEMENTAL INFORMATION**

**KEY POINTS OF CONTACT**

Licensee

Chuck Beatty	Field Manager, Malcolm Pirnie, Inc.
Shane Brightwell	Certified Health Physicist, Environmental Restoration Group, Inc.
George Dawes	Radiation Safety Officer, Chevron Environmental Management Company
Andy Lombardo	Certified Health Physicist, Civil & Environmental Consultants, Inc.
Robert Massengill	Assistant RSO, Environmental Restoration Group, Inc.
Alan Shuckrow	Project Manager, Malcolm Pirnie, Inc.
Jack Wright	Project Manager, Chevron Environmental Management Company

**LIST OF ITEMS OPENED, CLOSED AND DISCUSSED**

Opened/Closed/Discussed - None

**LIST OF DOCUMENTS REVIEWED**

Federal Register, Monday January 26, 2004, DOT, Hazardous Materials Regulations (HMR), Final Rule

M-10, Environmental Sample Shipping, Rev. 0, dated August 2006

Washington, PA Facility Decommissioning Plan, Part 1 revision, June 30, 1999

Letter from Molycorp to John Nicholson dated April 5, 2007

**LIST OF ACRONYMS**

CHP	Certified Health Physicist
DOT	Department of Transportation
HMR	Hazardous Materials Regulations
RSO	Radiation Safety Officer
TLD	ThermoLuminescent Dosimeter