



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

June 28, 1995

MEMORANDUM TO: Robert A. Nelson, Section Leader  
FROM: LeRoy S. Person, Project Manager *LM Person* *Sa*  
Low-Level Waste and Regulatory Issues Section  
SUBJECT: TRIP REPORT FOR APRIL 28TH MOLYCORP SITE VISIT

PURPOSE:

The purpose of this visit to the Molycorp, Inc. Washington, Pennsylvania site was to give the project manager and the site assessment team a first hand view of the Molycorp site environmental characteristics, to examine the physical details of ongoing site characterization activities, and to discuss Molycorp's response to NRC's questions regarding their site characterization report.

ATTENDEES:

See attached list of meeting attendees. This open meeting was noticed on NRC's electronic bulletin board and the lone person in attendance in the audience was a current Molycorp employee who attended on his own time as an independent member of the public.

After attendees were introduced, the NRC project manager explained the purpose of the meeting, discussed procedures for hearing comments from members of the public, and read a copy of the tentative agenda which NRC hoped to complete by the end of the day. Following discussions about the order of items on the agenda, Molycorp gave a comprehensive discussion of plant history including: 1) information on the types of ore originally processed by the plant; 2) an indication of the periods where processing operations involved thorium containing ores and; 3) a description of the buildings that have occupied the site with a discussion about their past and present use and location (several buildings have been moved or were demolished prior to licensing).

In keeping with the next agenda item, Molycorp personnel conducted a tour that started with the processing buildings and operations and ended with a focus on the environmental characteristics at the plant site. Following the tour, members of the assessment team and Molycorp personnel met and discussed important details of the tour, responded to questions that developed about the site during the tour, and discussed the questions that were developed during review of the site characterization report.

DISCUSSIONS REGARDING AREAS OF THE PLANT THAT WERE TOURED

The tour commenced at the impoundment area which contained 8 lagoons used as settling basins for baghouse waste from previous process operations. These

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ponds have not been used since 1972 and may contain some of the thorium associated with the earlier processed ferro-columbium (niobium) ores processed before acquisition of molybdenum sulphide supplies which do not contain thorium. These impoundments are also being examined by the Pennsylvania Department of Environmental Resources (PADER) to assure that any hazardous constituents are removed before decontamination of the site is complete. Molycorp has submitted an impoundment removal and closure plan that has been approved by PADER and is also subject to NRC review and approval in order to determine the disposition of any radioactive material associated with the lagoons. During discussions following the tour, Molycorp was informed that NRC had already provided comments on the impoundment closure plan in a letter (dated 5/27/93) from Chad Glenn of NRC to Barbara Dankmyer of Molycorp. NRC has not completed a detailed review of the revised impoundment closure plan but will probably not object to removal of the sludges in the lagoons as long as any material from the lagoons is properly screened for radioactivity. If radioactive materials are present, they must be handled in accordance with the current license. This might necessitate storage until Molycorp obtains an approved site decommissioning plan (SDP). Molycorp wants to move quickly to remove these ponds in an effort to assure the State of Pennsylvania that none of this material will be solubilized and transported to other areas of the plant or offsite. Molycorp was informed that they should be certain to include in their impoundment closure plan elements which are responsive to NRC comments contained in the May 27, 1993 letter. Also, the final survey will need to consider the land area that is in close proximity to these ponds.

The next area examined on the tour was an area of off site contamination located near and just to the north of the common border adjoining the Molycorp and Findlay properties. Molycorp has recently submitted to NRC a work plan to remove this off site contamination. This area is believed to have been contaminated during the excavation of a ditch to install a sewer pipe. Examination of the area with a scintillation counter indicated that the suspected area of contamination may not be completely defined due to contributions to the background from refractory materials located on the Findlay property. This situation will probably require additional borings and Molycorp will need to provide assurance that soil concentrations limits are met through soil sampling and analysis. This could also necessitate involvement by Region I to confirm that the final surveys of this area meet acceptance criteria. Prior to final approval of a remediation plan, the licensee should obtain documentation that owners of the Findlay property are satisfied with the work done to decontaminate their land.

The tour continued along a fenced area south of Caldwell Avenue that is the location, of the thorium slag pile that resulted from an earlier attempt by the licensee to gather for storage, on site, a large portion of contaminated soil that had been used as fill material throughout the site. This pile was located immediately adjacent to Chartiers' Creek and gamma shine from the

pile, along the creek bed, at times measured close to 50 to 60 micro R per hour.

The last areas visited to complete the tour included an area just west of the Route 70 road bed which was referred to as a "tar pit" and an elevated ridge that emerges out of bedrock in the southern portion of the site.

The tar pit area is believed to have been created by a now defunct company which occupied land on the eastern side of Route 70. This tar has a tendency to move toward the north west portion of the site during warmer weather and is monitored and contained as much as possible by the licensee when it seems to be spreading.

The tour came to an end on a high ridge that overlooks the entire site and is the location that Molycorp may use as a permanent disposal area for the thoriated slag pile which is now located on the southwestern corner of the site. Access to this area is by way of a very steep dirt road. To the south of this area is a small community of houses lying approximately 1/2 mile from the edge of the ridge that is located on Molycorp property. This area is apparently part of a railroad right of way. Molycorp no longer uses the railroad for receiving raw materials. NRC staff commented that the ridge appeared to be a location that would easily contain an engineered facility for disposing of waste slag and that no flood studies would probably be needed for Chartiers Creek if the top of this ridge is used for disposal of the slag. However, an analysis would be needed to describe any ongoing geomorphic processes.

NRC has agreed to send a copy of the current guidance on flood plain analysis.

#### REVIEW OF RESRAD ANALYSIS

Review of the licensee's approach to assessment of the long term dose associated with the onsite disposal alternative indicated that the licensee needs to provide additional support for input parameters used in modeling and dose assessment. The licensee has agreed to consider input concentrations for thoriated slag that differ at various locations and depths. The staff did not consider conservative the licensee's original approach of taking an average of the known concentrations and spreading this average concentration over the site at a two foot depth. In addition, the licensee has agreed to provide a basis for, what should be, site specific Kds used in the RESRAD analysis. Obtaining site specific Kds that can be justified may mean the licensee must perform column tests.

U.S. Nuclear Regulatory Commission  
 Public Hearing  
 Molybdenum  
 4/28/95

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R. A. Nelson

ADMINISTRATIVE MATTERS

Two attendees from the Pennsylvania Department of Environmental Resources (Mr. Jim Yusko and Mr. Ed Andresky) asked to receive copies of any Molycorp documents that are sent to NRC in connection with site decommissioning. The licensee has agreed to provide PADER those documents.

The following types of documents will be provided to Molycorp per their request:

- 1) Guidance on flood plain analysis;
- 2) Guidance on environmental justice;
- 3) NRC Regulatory Guide 4.14 (guidance on preparing an environmental report); and
- 4) Guidance on preparing a site decommissioning plan.

Molycorp will provide written responses to NRC review questions on their SCR when the SDP is submitted.

Attachment: As stated

- cc. J. Kinneman, NRC Region I
- B. Dankmyer, Molycorp
- G. Dawes, Molycorp
- J. Yusko
- F. Andresky, PA-DER-SW
- Y. Matviya, PA-DER-SW

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