



Pennsylvania Department of Environmental Protection

Rachel Carson State Office Building

P.O. Box 8469

Harrisburg, PA 17105-8469

July 14, 2000

Bureau of Radiation Protection

717-787-2480

Fax: 717-783-8965

Larry W. Camper, Chief
U.S. Nuclear Regulatory Commission
Decommissioning Branch
Division of Waste Management
Office of Nuclear Material Safety and Safeguards
Washington, DC 20555-0001

40-8778

Dear Mr. Camper:

Thank you for the opportunity to review and comment on the draft environmental assessment (EA) for the Molycorp, Incorporated, ferrocolumbian alloy production facility located in Washington, Pennsylvania. I would like to request that in the future, we are allowed a more reasonable amount of time in which to review and comment on a document of this nature. Our Memorandum of Understanding (MOU) with the Nuclear Regulatory Commission (NRC) indicates the review and comments should be completed in "a reasonable time (or approximately 30 days)." In regards to our exceeding your request for a thirty day turn-around for review and comments on the Molycorp, Washington EA, I would like to make the following points. NRC did not provide us with any of the key documents upon which the EA is largely based, in particular, the Decommissioning Plan (DP) – Part 1, dated June 30, 1999; subsequent correspondence that responded to NRC questions on the DP; nor the January 1995 Site Characterization Report (SCR). Furthermore, we recently had to wait approximately two weeks after our request on June 1, 2000 for the licensee to provide us with the DP and SCR. Under the terms of Section 10.A.i. of our MOU, these documents should have been provided to us when originally received by NRC in the past.

I believe the Bureau of Radiation Protection has made a good faith effort to cooperate with the spirit and the terms of our MOU with the NRC. As you will recall, we met your request for a ten-day turn-around for review and comment on the Molycorp, York EA only to wait approximately six months for NRC's response to our comments.

The Molycorp, Washington decommissioning plan has extraordinary significance to the Commonwealth of Pennsylvania due to the licensee's stated goal of using onsite disposal as the means to terminate their license with the NRC. While onsite disposal may not be included in the part one DP that the draft EA addresses, we believe this must be considered during our



review. Accordingly, we are reviewing Molycorp's DP, Part-1, which we recently received, and will provide our comments to NRC. Our goal is to provide these comments by July 21. We also will be reviewing Molycorp's DP - Part-2, which is scheduled for submission on July 16.

In addition, we note that Molycorp recently received a letter from the PA Bureau of Land Recycling & Waste Management, Department of Environmental Protection (DEP), dated June 30, 2000 from the Bureau Director, James Snyder. In this letter Molycorp was informed that their characterization of the waste for non-radiological hazards is inadequate and until this deficiency is corrected, DEP will oppose any proposal before the NRC to permanently dispose of this material in Pennsylvania. A copy of this letter is attached for your information.

Comments on the NRC's draft EA of the Molycorp, Inc. DP for the cleanup of radiologic contamination of the Washington, PA site from the ferrocolumbian alloy production facility are attached.

Finally, if you or your staff need further clarification on these comments or have any questions, please contact Mr. Robert Maiers at 717-783-8979 or me at the above telephone number. We are prepared to meet with the NRC staff to discuss these comments and NRC's responses, at your convenience. In addition to possible discussion in a meeting, we would appreciate receiving your written responses to our comments. Please contact Robert Maiers if you want to arrange a meeting.

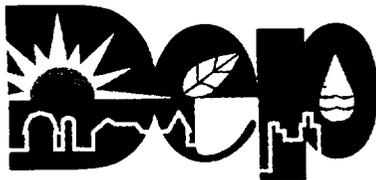
Sincerely,



David J. Allard, CHP
Director
Bureau of Radiation Protection

Attachment

cc: Denise Chamberlain
James Snyder
Robert Maiers
Roy Person, NRC



Pennsylvania Department of Environmental Protection

Rachel Carson State Office Building
P.O. Box 8471
Harrisburg, PA 17105-8471
June 30, 2000

Bureau of Land Recycling & Waste Management

717-783-2388

George W. Dawes, Supervisor
Technical Services
Molycorp, Inc.
300 Caldwell Avenue
Washington, PA 15301-2321

Dear Mr. Dawes:

On April 20, 2000, the Department of Environmental Protection (DEP) requested that Molycorp, Inc. provide DEP with representative chemical analyses for the radioactive waste in the roll-off containers and beneath structures at Molycorp's Washington County facility, for which Molycorp is seeking permanent disposal approval from the U.S. Nuclear Regulatory Commission (NRC). DEP has reviewed Molycorp's chemical analytical data report of March 27, 2000, and noted serious deficiencies in Molycorp's response to the DEP's request.

Molycorp analyzed only five composite core samples, and just one of these samples correlates with the material accumulated in the roll-off boxes. None of the samples represented the material under the buildings in question. Thus, the data does not adequately represent the material that Molycorp seeks to dispose of onsite.

Moreover, the analyses were based upon sampling events conducted in 1994. Sub samples of the cores taken in 1994 were composited and analyzed in January and February of this year, nearly six years later. These procedures violate all of the U.S. Environmental Protection Agency (EPA) holding times for data extraction and analysis (the most liberal of which is six months).

The analyses requested were for determination of waste classification, for both RCRA Hazardous Waste and for Residual Waste classification of Pennsylvania. Without valid and representative data, DEP must assume that the material Molycorp proposes to permanently bury onsite is chemically contaminated and potentially hazardous in nature.

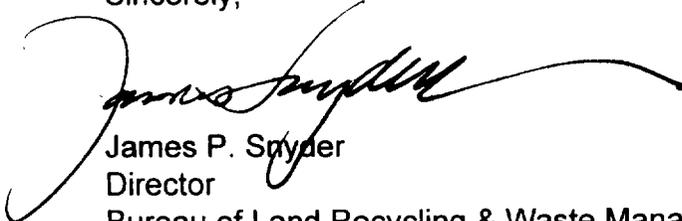
In order to properly characterize the material for non-radiological hazards, DEP requests that Molycorp:

1. Submit to DEP a sampling plan that will address adequate characterization of all wastes destined for permanent disposal in Pennsylvania, including the roll-off boxes, current onsite burials, and any under-structure materials.
2. Address representative sampling of all waste materials, as well as preparatory and analytical methods and analytes that will adequately characterize the materials for Hazardous Characteristics and Residual Waste Classification. The sampling must include statistically representative numbers of samples as well as accurately representative media samples.
3. Utilize the latest edition of USEPA guidelines for sampling included in SW-846.

Please be advised that unless and until Molycorp properly characterizes the non-radiological chemical concerns associated with this material, DEP will oppose any proposal by Molycorp before the NRC to permanently dispose of such material in Pennsylvania.

Should you have any questions regarding sampling or analytical procedures, please contact Robert Popichak at 412-442-4160.

Sincerely,



James P. Snyder
Director
Bureau of Land Recycling & Waste Management

cc: Chamberlain, DEP, ARRP, 16th FI, RCSOB
Allard, DEP, BRP, 13th FI, RCSOB
Snyder, DEP, BLRWM, 14th FI, RCSOB
Maiers, DEP, BRP, DS, 13th FI, RCSOB
Person, NRC

**PADEP/BRP COMMENTS ON NRC's EA FOR MOLYCORP
WASHINGTON, PA SITE**

1. Molycorp's proposal for onsite disposal of radioactive waste will be the subject of future review by the Commonwealth and action by NRC. However, BRP is concerned that a comprehensive environmental assessment process is not being conducted now for the complete remediation of this site. Instead, the environmental assessment is being segmented into two parts, and the assessment of remediation actions proposed to be taken in the first step (waste consolidation) has not explicitly addressed the need to keep all feasible options open for the second step (waste disposal).
2. This EA for Part 1 of the site remediation does not reflect Molycorp's proposed plan to dispose of waste in an onsite impoundment, as clearly stated in their Decommissioning Plan (DP)-Part 1. In fact, statements in the EA such as: "(T)he objective of the decommissioning of (the site) ...is to remediate radiological constituents to the extent required to allow the NRC to release the property for unrestricted use and terminate the ...license for the facility" are disingenuous. If the Molycorp proposal for waste disposal were to be approved, part of the site would, in fact, be restricted from access and use, and long-term institutional controls maintained, contrary to the statements in the EA.
3. BRP is concerned that different sets of remediation criteria for each of the two remediation steps will be applied to this site, and future questions regarding any residual radioactivity may be very difficult to resolve unambiguously. Applying more than one set of criteria to a remediated site is, with one exception, unique among the current 29 SDMP licensees nationwide, and PA will probably be inheriting this potentially ambiguous situation when the Commonwealth becomes an NRC Agreement State.
4. Discussion of the decommissioning alternatives considered in Section 6.3 is incomplete, since the option of offsite disposal of the radioactive waste materials is not included. In spite of the fact that the EA excludes the offsite disposal option, the EA does include in Section 8.2.3 an assessment of the impacts of shipping all 105,000 cu. yd. of the contaminated material for offsite disposal. Since the EA demonstrates in Section 8.2.3 that the impacts from offsite disposal are insignificant, the EA certainly should address, in some detail, the alternative of offsite disposal for all material contaminated above NRC limits. (See also Comment 5, below).

5. Based on a 7/13/00 telephone conversation between BRP (R. Maiers) and Molycorp (G. Dawes), it is understood that because of the relatively high specific activity levels of materials in the slag pile, it will all be removed from its present location and shipped from the Washington, PA site for disposal offsite at an NRC approved disposal facility. It is also understood from this conversation that this offsite disposal will be conducted as an activity under the Part 1 Decommissioning Plan, independent of the final plans for other contaminated materials during Part 2. However, the NRC EA makes no mention of this planned activity and therefore NRC has not provided any environmental assessment of this plan. In spite of this deficiency in the NRC EA, and based on the insignificant impacts from offsite transportation of all 105,000 cu. yd. of contaminated material (discussed in Comment 4, above), BRP is convinced that offsite disposal of the 10,000 cu. yd. of contaminated slag pile materials is clearly the most environmentally sound option.
6. As noted in the EA, NRC is requiring additional information from Molycorp, including:
 - Plans for surveys beyond the fence line (also see Comment 17, below),
 - A supplemental characterization plan for determining uranium contamination,
 - A supplemental groundwater characterization and monitoring plan that includes additional radium measurements.

In accordance with the NRC-PA MOU, the above information should also be provided for the Commonwealth's review and comment. BRP's concurrence with the subject EA is contingent upon satisfactory resolution of any comments that may be provided upon review of this additional information, as well as the comments provided here.

7. The EA does not address any oil or gas wells, or coal mines in the area. The potential impacts from these local features should be assessed and included in the EA, especially in light of the coal deposits discussed in Section 2.3.2, and the observations from pumping tests discussed in Section 2.3.4 of the EA. It is noted in the latter section, that high water conductivity pathways were found at several test locations. There are indications that the clay layer may not be continuous, or is locally breached allowing for contaminants to move deeper into the ground. The conclusion of this section, that the hydraulic conductivity of the bedrock is comparable to the overlying units implying a potential transport pathway, is of significant concern to BRP.
8. The EA states that the Molycorp License SMB-1393 is currently under timely renewal and authorizes only the possession of a maximum of 11,000 kg of uranium, with no mention of thorium possession limits. However, Molycorp's renewal application for License SMB-1393, transmitted in a 7/30/97 letter from G. Dawes to R. Bellamy, is for 120,000 kg thorium and no licensable uranium. This discrepancy should be corrected. In addition, Molycorp (G. Dawes) has stated in their 4/3/00 letter to NRC (L. Camber) that the estimated site inventory of uranium is significant,

with about 11.9 curies of total uranium present. NRC should determine if the quantities of uranium now estimated to be present requires that the SMB-1393 license be amended to include this uranium.

9. The EA states that based on data obtained in 1997, there are no registered wells within 2 km. of the site. Since residential expansion is occurring in the area, NRC should obtain more current data. Also, since only municipal or industrial wells are usually registered (or permitted), there is the possibility that unregistered wells exist at some residences in the area. NRC should determine whether any private wells exist, or confirm that every residence or any other facility in the area receive all their drinking water from a municipal system.
10. The EA discusses surveys of the potentially contaminated buildings, indicating that walls and floors will be investigated for contamination. Floor drains, sumps, and similar locations should also be surveyed. The EA states that Molycorp has not identified any tanks that may be contaminated, whereas the April 3, 2000 letter from Molycorp does identify several tanks that are "affected". This discrepancy should be resolved.
11. Results of equipment surveys prior to removal from the site are stated in the EA to be available for NRC inspection. BRP may decide to audit some of these surveys and also may perform some independent measurements prior to removal of equipment. It is requested that NRC keep BRP informed of progress in this area.
12. As stated in the EA, contamination from radium may pose a significant problem in remediation of the site. Specifically, the EA states: "(S)ignificant radium activities measured in many leachates suggests that radium may be the key radioelement of concern at the Molycorp site." The EA cites data, which indicates that radium in the slag is 30 times more leachable, and therefore more mobile than the thorium. However, there is no discussion of the options for remediation of the radium or environmental impact of these options. Furthermore, there is no mention of precautions to be taken because of the presence of radium, such as radon monitoring to be included in the airborne radiation monitoring program.
13. Also, the EA does not discuss any attempts by Molycorp to determine whether the radium contamination of onsite groundwater is from the decay of the uranium, from natural background, or both. In the 4/3/2000 Molycorp letter, they commit to submit by October 2000 for NRC review detailed data and statistical analyses to define the equilibrium status of the uranium daughters. BRP is concerned about the radium contamination being found at the site and requests that this Molycorp submission be provided for our review also.
14. BRP agrees with the NRC conclusion that with only one test well bored into bedrock, Molycorp has inadequate information to characterize the radiologic status of the site. We agree that additional wells that penetrate the bedrock are required. In addition to the expanded groundwater monitoring program being required by NRC, a

comprehensive program should be carried out by Molycorp to determine the radionuclide makeup of the local background, including any naturally occurring radium.

15. Although mention is made in the EA of erosion control practices, further emphasis needs to be placed on the need to preclude inadvertent contamination of clean soils as the remediation proceeds. In addition, the NRC should specify the procedures and oversight that need to be in place to ensure that deliberate mixing with clean soils to reduce the concentrations of contaminated volumes of soils or other materials does not occur.
16. The EA list of measures to be taken to ensure contamination control should be expanded to satisfy Comment 15, above. In addition, measures to be taken to control contamination in the case of inclement weather should also be included in this list.
17. The scan surveys beyond the fence line prior to, and following excavation should be expanded to include soil sampling for areas found by the scans to have elevated activity levels. In addition, to ensure contamination has not migrated beyond the fence line, scan surveys should extend outward until background levels are observed.
18. Prior to finalization of the EA, we recommend that NRC make a careful review for numerous editorial errors that detract from the quality of the document. Some examples are:
 - a. Pagination in the Table of Contents does not agree with the text, and
 - b. A sampling density of $1/25 \text{ m}^3$ should be $1/25 \text{ m}^2$.