

ALG-24-1599 15:34

RADIATION PROTECTION

717 783 8965

**Pennsylvania Department of Environmental Protection****Rachel Carson State Office Building****P.O. Box 8469****Harrisburg, PA 17105-8469****August 24, 1999****Bureau of Radiation Protection**

717-787-2480

Fax 717-783-8965

Mr. 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

Dear Mr. Camper:

Thank you for the opportunity to review and comment on the draft environmental assessment (EA) of the Molycorp, Incorporated, decommissioning plan (DP) for the cleanup of the York, PA rare earth metals processing facility site. I understand there are time constraints that required a seven to ten day review and turn-around time for the Pennsylvania Department of Environmental Protection's (PADEP) review and comment on this draft EA. In the future, it would be greatly appreciated if a longer time period was allocated for PADEP's review of EA's and other documents of this nature.

Comments on the draft EA of the Molycorp, Inc. (Molycorp), DP for the cleanup of the York, PA and rare earth metals processing facility site are listed below.

GENERAL COMMENTS

A review of Nuclear Regulatory Commission (NRC) Public Document Room (PDR) files for Molycorp identified a potential environmental assessment concern related to the York site. A letter (copy attached) dated September 22, 1981, from Warren Warhol of Molycorp, to James Allan, NRC Region I, concerned Past Residue Disposal from the York, PA Chemical Plant. Specifically, the letter indicates approximately 900 cubic yards of York residues were placed in a quarry adjacent to the York property and approximately 2,225 cubic yards of waste material was disposed of at other landfills in Pennsylvania and Maryland. The draft EA does not reference this historical disposal practice in Section 2.0 Facility Description/Operating History, nor is the environmental impact of this disposal practice assessed.

ENCLOSURE 1



Mr. Larry W. Camper

-2-

August 24, 1999

SECTION 2.0

The last sentence in the first paragraph states "Between 1965 and 1992 the thorium concentrations were sufficient to require Molycorp, Inc. to acquire a source material license on June 18, 1981." This implies that Molycorp operated between 1965 and 1981 unlicensed and without regulatory oversight. Some background explanation is needed, as well as an assessment of whether waste disposal operations during this period resulted in adverse environmental impacts.

SECTION 3.2

The second paragraph discusses a contaminated pile of residue stored on the southeast portion of the site. Table 1 Key Survey Results for Hole 8 located in the pile indicates radionuclide concentrations for Th-232: 1240 pCi/g, Th-228: 1310 pCi/g, U-238: 460 pCi/g, Ra-226: 120 pCi/g. It is stated that the residue pile and associated contamination adjacent to the perimeter fence were removed by the licensee following investigation (Boener, 1985). What was the final disposition of this contaminated residue?

SECTION 6.1 and 6.2

We fully agree with the EA conclusion in Section 6.1 that a "no-action" or postponement alternative to the decommissioning of Molycorp York would not be in the public interest. However, it is not clear from the last sentence of Section 6.2 what "licensed waste disposal facility" is being proposed as the ultimate disposal site for the estimated 5,000 cubic yards of soil. It should be stated which "existing licensed waste disposal facilities" will be receiving the soil, building debris, and other radioactive waste from this site remediation. Additionally, if the proposal is to "store" the waste versus "disposal" of the waste, this proposed action should be justified in the EA. That is, what will be the impact on the environment at the "storage" site?

SECTION 8.1

It is noted that the "principal radiological constituents identified during site characterization are Th-232, Th-228, U-238, and Ra-226." A report to Molycorp York on June 10, 1981, by Eberline Laboratory noted Th-230 at a concentration above Ra-226 in a composite plant effluent wastewater sample. Additionally, it is clear from the data presented in Table 1 of the EA that the U-238 series is not in equilibrium. The EA should be amended to reflect this fact. The EA should also outline which radionuclides will be analyzed in clean soil left onsite, and any assumptions that will be made for comparison to the release criteria noted in Table 8.1 of the EA (e.g., will U-234 activity equal U-238?). Section 8.1 states that "Molycorp, Inc. will remediate any surface contamination (on equipment and structures) within NRC limits specified for unrestricted release (Nuclear Regulatory Commission,

AUG-24-1999 15:54

RADIATION PROTECTION

11 123 8888

Mr. Larry W. Camper

-3-

August 24, 1999

1983)." The EA should be revised to include the relevant criteria as in Table 8.1 and specifically state the separate surface contamination limits for U-238 and Th-232 series. Further, the EA should state the method(s) to be used for surface alpha contamination monitoring, and if a gross alpha measurement used, the EA should require the more restrictive surface contamination limit.

SECTION 8.2.1 and 8.2.3

The radiological impact associated with transportation of the York waste assumes transporting the York waste to and storing it at the Molycorp Washington, PA site. Section 1.3 of the draft EA states that "soil and other radioactively contaminated materials will be transported to a NRC-approved interim storage or disposal facility." It is our understanding that the Molycorp Washington, PA site is not an "NRC-approved location" until a pending license amendment for the Washington site is approved. Therefore, the transportation risk should be based on travel to a current "NRC-approved location" and references to the Washington site should be deleted.

Radiological impacts and dose calculations appear to be considered for direct radiation, inhalation of dusts, and ingestion of soil. However, an August 14, 1981, Eberline report to Molycorp York notes on page 14, "The concentrations of Th-232 and Ra-226 are great enough at both areas to cause a health hazard during construction activities, and generate hazardous levels of Rn-222 and Rn-220 gas inside a building constructed over the contaminated area." The EA does not appear to address potential radon exposure to workers or the public during soil excavation (i.e., higher potential diffusion). More importantly, if the material is to be "stored" versus "disposal," has a radon exposure scenario been evaluated?

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.

Sincerely,



David J. Allard
Director
Bureau of Radiation Protection

Attachment

REQUEST FOR ADDITIONAL INFORMATION

The following comments correspond to comments provided to the U.S. Nuclear Regulatory Commission (NRC) staff by the Commonwealth of Pennsylvania, Department of Environmental Protection (PADEP) in a letter dated August 24, 1999 (Enclosure 2). PADEP comments address the draft environmental assessment (EA) prepared by NRC staff for the Molycorp York, PA decommissioning plan.

A. PADEP GENERAL COMMENT

Molycorp should provide information regarding its September 21, 1981, letter to NRC Region I concerning "Past Residue Disposal from the York, PA Chemical Plant." In particular, if Molycorp has information or knows of information that exists, regarding the historical disposal practice for the 900 cubic yards and 2,225 cubic yards of thorium residues mentioned in the September 21, 1981 letter, please provide this information, including dates, amounts, locations and the assessed or calculated environmental impacts of any such disposals.

B. PADEP COMMENTS BY SECTION OF THE EA

1. Section 2.0 - Molycorp should provide information about its operations between 1965 and 1981. Specifically, Molycorp should determine the extent to which it possessed licensable quantities of source material prior to receiving its NRC license, and the associated environmental impacts.
2. Section 3.2 - In 1985, an investigation by Oak Ridge Associated Universities indicated that the residue pile, on the southeast portion of the site, and associated contamination adjacent to the perimeter fence were removed by Molycorp. Please identify the final disposition of this contaminated residue and any associated environmental impacts.
3. Sections 8.1 - Molycorp should address the state of equilibrium of the U-238 series contaminants. Specifically, Molycorp should explain the Eberline Laboratory report which noted that Th-230 was at a concentration in a composite waste water sample that exceeded the concentration of Ra-226 in the sample. If the radionuclides are not in equilibrium, Molycorp should identify the impact such dis-equilibrium will have on the proposed cleanup criteria.

ENCLOSURE 2