

September 2, 2004

Mr. Ray Cherniske
Remediation Manager
Molycorp, Inc.
P.O. Box 469
Questa, NM 87556-0469

SUBJECT: RELEASE OF MOLYCORP YORK PENNSYLVANIA PROPERTY AND
TERMINATION OF LICENSE (LICENSE NO. SMB-1408)

Dear Mr. Cherniske:

This letter is to inform Molycorp, Inc., (hereafter Molycorp) that the U.S. Nuclear Regulatory Commission (NRC) is terminating NRC License SMB-1408 and is authorizing the release of land at the Molycorp facility in York, Pennsylvania for unrestricted use.

Molycorp has completed site decommissioning and the post decommissioning groundwater monitoring of the site in accordance with the approved Decommissioning Plan. Based on the remedial actions taken by Molycorp, the NRC's review of Molycorp's Final Status Surveys, and the results of the NRC confirmatory surveys, NRC concludes that the decommissioning activities are complete and the site is suitable for unrestricted use. A Safety Evaluation Report which supports this conclusion is attached.

NRC does not plan to take any further actions regarding the Molycorp York facility and will not require additional decommissioning in response to future NRC criteria or standards, unless additional contamination is found that is a significant threat to public health.

We have discussed this action with the staff of the Pennsylvania Department of Environmental Protection (PADEP), and they have no objections. However, our determination for release of the Molycorp facility for unrestricted use does not relieve Molycorp from complying with other local, state, and federal requirements.

R. Cherniske

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If you have any questions on this matter, please contact Tom McLaughlin, who is the Project Manager for this site, at (301) 415-5869.

Sincerely,

/RA/

Daniel M. Gillen, Deputy Director
Decommissioning Directorate
Division of Waste Management
and Environmental Protection
Office of Nuclear Material Safety
and Safeguards

Docket No.: 040-08794

License No.: SMB-1408

cc: Molycorp, York Distribution List

Enclosures:

1. Terminated License
2. Safety Evaluation Report

R. Cherniske

-2-

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DISTRIBUTION: File Center DD r/f NMSS r/f C.Gordon

ML042310150

*See previous concurrence

OFC	DWMEP*	DWMEP*	Region I*	OGC*	DWMEP
NAME	T.McLaughlin	K.Gruss	R.Bellamy	S.Treby	D.Gillen
DATE	08/20/04	08/20/04	08/24/04	09/01/04	09/02/04

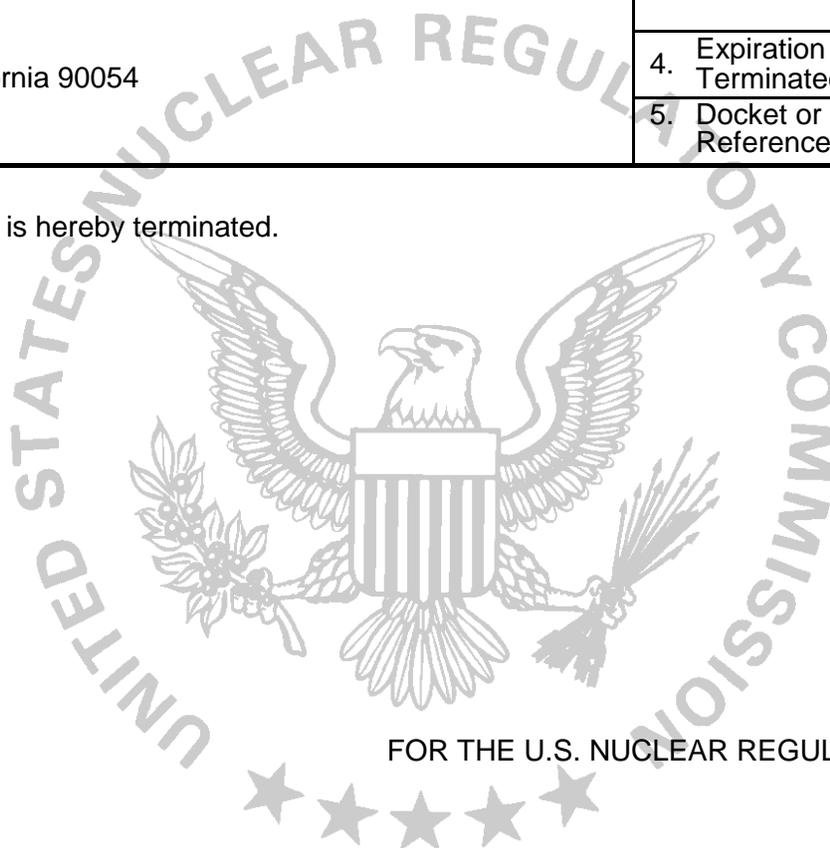
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MATERIALS LICENSE

Amendment No. 13

Licensee			
1 Molycorp, Inc. .		3. License Number	
2 P.O. Box 54945 . Los Angeles, California 90054		4. Expiration Date Terminated	
		5. Docket or Reference	Not Applicable

License SMB-1408 is hereby terminated.



Dated: _____

 Daniel M. Gillen, Deputy Director
 Decommissioning Directorate
 Division of Waste Management
 and Environmental Protection
 Office of Nuclear Material Safety
 and Safeguards

DOCKET NO. 040-08794

LICENSE NO. SMB-1408

LICENSEE: MOLYCORP, INC., YORK FACILITY, YORK
PENNSYLVANIA

SUBJECT: SAFETY EVALUATION REPORT ON
COMPLETION OF SITE DECOMMISSIONING
PLAN (DP) ACTIVITIES, FINAL STATUS
SURVEY, AND THE LICENSE TERMINATION
FOR THE MOLYCORP, INC. SITE, YORK,
PENNSYLVANIA

1.0 Executive Summary

This Safety Evaluation Report (SER) has been prepared as part of the U.S. Nuclear Regulatory Commission (NRC) staff review of the completed decommissioning activities, the post decommissioning groundwater monitoring, and Molycorp, Inc.'s (hereafter Molycorp or licensee) request for license termination. Molycorp has requested that NRC terminate the radioactive materials license for the Molycorp facility in York, Pennsylvania, and release the site for unrestricted use. All buildings on the site have been decontaminated and removed, and surface and subsurface soils have been remediated. The NRC staff conducted inspections and confirmatory surveys of the decommissioning activities assisted by the NRC's contractor the Oak Ridge Institute for Science and Education (ORISE).

Based on this safety evaluation and review of the licensee's completed decommissioning activities, the NRC has determined that the licensee has provided sufficient information to allow release of the site for unrestricted use. The NRC concludes that the site meets the NRC's public dose limits, effluent release limits, and residual radioactive material limits.

2.0 Introduction

Molycorp holds NRC License SMB-1408, authorizing possession only of radioactive materials at its facility in York, Pennsylvania. Chemical manufacturing at the York facility resulted in radiologically contaminated buildings, as well as surface and subsurface soil contamination. In the mid 1990s, Molycorp began onsite decommissioning activities for the York facility, including site characterization and building decontamination. Molycorp completed initial site characterization in 1995, and submitted a Decommissioning Plan (DP) to NRC for review in August 1995. Molycorp submitted a supplement to the DP in June 1999 and the NRC staff approved the DP in June 2000. The York facility buildings and equipment were decontaminated, demolished, and removed from the site. In June 2004, the licensee completed all surface and subsurface soil radiological remediation through a series of site area clean-up actions. The licensee conducted a series of final status area surveys upon completing remediation of each area. In July 2004, the licensee completed its groundwater and artesian spring monitoring activities.

3.0 Facility Description

The Molycorp site is located in Spring Garden Township immediately outside of the York, Pennsylvania city limits. The site occupies approximately 6.1 acres bounded by North Sherman Street to the east, Olive Street to the north, Hudson Street to the west and the active Norfolk and Southern Railroad line to the south. An abandoned water-filled limestone quarry and commercial areas exist north of the site. Commercial properties lie east of the site. The area to

the south is composed of railroad property, and commercial and multi-family dwellings. Single-family residences predominate west of the site. The property slopes to the northeast. Shallow groundwater flows in a generally northerly direction towards the quarry. An artesian spring is located near the center of the site.

4.0 Radiological Status of the Facility

The Molycorp York site release criteria are based on the former Site Decommissioning Management Plan (SDMP) Action Plan found in NRC's "Action Plan to Ensure Timely Cleanup of Site Decommissioning Management Plan Sites." The former SDMP Action Plan was published in the *Federal Register* on April 16, 1992 (57 FR 13389). The criteria for the cleanup of soil for unrestricted release are 10 pCi/g average total thorium (Th-232 + Th-228), 10 pCi/g average natural uranium (U-238 + U-234, assuming all progeny in equilibrium and includes 5 pCi/g Ra-226), and 5 pCi/g average Ra-226.

As part of the decommissioning process, Molycorp divided the site into survey units and excavated areas with soil contamination above the release criteria. Soil that had concentrations of residual radioactivity greater than the release criteria was packaged and shipped to a licensed low level waste facility. A final status survey was performed for the bottom of the excavated areas. A final status survey report (FSSR) was generated for each excavated and remediated area. NRC staff reviewed each FSSR to ensure that each survey unit met the cleanup criteria. In addition, confirmatory surveys were performed by NRC staff and ORISE on selected survey units. Any discrepancies between ORISE's survey results and Molycorp's survey results were resolved, sometimes with Molycorp performing additional remediation. Review of final survey results and independent NRC inspections indicated that all survey units were below release guidelines.

The final survey results were compared to the trigger levels in the NRC and the U.S. Environmental Protection Agency (EPA) "Memorandum of Understanding (MOU) on Consultation and Finality on Decommissioning and Decontamination of Contaminated Sites." Based on site-wide average, the residual radioactivity is well below the NRC-EPA MOU trigger levels. The residential soil contamination values listed in MOU Table 1 for uranium, thorium, and radium that would trigger a consultation with EPA were used in the evaluation.

Molycorp has also completed pre- and post-remediation groundwater monitoring. The groundwater is flowing directly into the nearby quarry and has no impact on human health or the environment. An artesian spring is located near the middle of the site. Radiological analysis of the artesian spring shows radionuclide concentrations of uranium, thorium, and radium at or near background. The artesian spring analysis results are also well below the NRC-EPA MOU trigger values.

5.0 Evaluations

Molycorp provided a dose assessment to confirm that the residual radioactivity remaining at the site poses very little risk to any future users of the land. The site has three major radionuclide components - uranium, thorium, and radium. The licensee's assessment assumed residential farmer use as a reasonable future land use. The maximum dose calculated by the licensee for the residual radioactivity was 0.03 mSv (3 mrem/yr). The NRC staff's independent calculation resulted in a value of about 0.14 mSv (14 mrem/yr). The NRC staff's evaluation also was based on a conservative residential farmer scenario using more conservative parameters than those used by Molycorp. Therefore, the actual dose, to any future user of the land, is likely to be less than the NRC calculated value. The radiological criteria for unrestricted use under 10 CFR 20.1402 is 0.25 mSv (25 mrem/yr).

6.0 Summary and Conclusion of Safety Evaluation

Staff finds that the licensee has completed decommissioning in accordance with its approved DP. Site cleanup meets the SDMP Action Plan Cleanup Criteria, as well as meets the dose limitation requirements of the License Termination Rule (10 CFR 20.1402). Therefore, the staff concludes that the site is acceptable for unrestricted use with no further action, and the license can be terminated.

7.0 Principle Contributors:

Tom McLaughlin, York Facility Project Manager
Craig Gordon, Senior Health Physicist and Project Inspector
Jon Peckenpough, Hydrogeologist

8.0 References

ADAMS docket number 04008794.

U.S. Nuclear Regulatory Commission, "Action Plan to Ensure Timely Cleanup of Site Decommissioning Management Plan Sites." U.S. Federal Register, Washington, DC, 57 FR 13389, April 16, 1992.

U.S. Nuclear Regulatory Commission, "Timeliness in Decommissioning of Material Facilities," U.S. Federal Register, Washington, DC, 59 FR 36026 - 36040, July 15, 1994.

U.S. Nuclear Regulatory Commission, "Generic Environmental Impact Statement in Support of Rulemaking on Radiological Criteria for License Termination of NRC-Licensed Nuclear Facilities, NUREG-1496," Washington, DC, July 1997.

U.S. Nuclear Regulatory Commission, "Radiological Criteria for License Termination; Final Rule," Washington, DC, 10 CFR Part 20, Subpart E, July 1997.

U.S. Nuclear Regulatory Commission, "Probabilistic Dose Analysis Using Parameter Distributions Developed for RESRAD Code, NUREG/CR-6676," Washington, DC, July, 2000.

U.S. Nuclear Regulatory Commission, "Probabilistic Modules for the RESRAD Computer Code-User Guide, NUREG/CR-6692," Washington, DC, November 2000.

U.S. Nuclear Regulatory Commission, U.S. Environmental Protection Agency, "Memorandum of Understanding Between the Environmental Protection Agency and the Nuclear Regulatory Commission: Consultation and Finality on Decommissioning and Decontamination of Contaminated Sites" (OSWER No. 9295.8-06, signed by EPA on September 30 and NRC on October 9, 2002), this MOU was distributed through a transmittal memo entitled "Distribution of Memorandum of Understanding Between EPA and the Nuclear Regulatory Commission" (OSWER No. 9295.8-06a, October 9, 2002).

U.S. Nuclear Regulatory Commission, "Consolidated NMSS Decommissioning Guidance: Decommissioning Process for Materials Licensees, NUREG-1757," Washington, DC, September 2003.

Yu, C., et al., "Manual for Implementing Residual Radioactive Material Guidelines Using RESRAD, Version 5.0, ANL/EAD/LD-2," Argonne National Laboratory, Argonne, IL, September 1993.