ENVIRONMENTAL REVIEW
FOR
CATEGORICAL EXCLUSION
FOR THE
MOLYCORP WASHINGTON FACILITY
WASHINGTON,PA DECOMMISSIONING PROJECT
Docket No. 040-08778
License No. SMB-1393

Introduction

Molycorp, Inc. is the current holder of NRC radioactive source materials license SMB-1393 (NRC Docket 040-08778) for the possession of radioactive material resulting from operations at its facility located at 300 Caldwell Avenue, Washington, PA. License SMB-1393 has been extended until the license is terminated. The license authorizes Molycorp Inc. to possess at any time a maximum of up to 120,000 kg (264,554 lb) of thorium and 11,000 kg (24,251 lb) of natural uranium in the form of slags and contaminated soils. The license authorize storage, transfer, and decommissioning in accordance with an approved decommissioning plan (DP). The DP for the Molycorp, Inc., Washington facility was approved in August 2000. The approval of the decommissioning plan prior to August 20, 1999 exempts Molycorp Inc. from the critieria of 10 CFR 20 Subpart E, Radiological Criteria for License Termination". Molycorp Inc. has requested an alternate decommissioning schedule which extends the cleanup period from 2005 unit the end of 2007 (Ref. 1). Molycorp Inc. requested an amendment to change the alternative schedule in a letter dated October 11, 2206 from the end of 2007 to the end of 2008.(Ref 2)

Molycorp Inc. submitted a letter on October 11, 2006 requesting to amend and update the Washington, PA Facility Decommissioning Plan, Part 1 Revision, dated June 30, 1999 (Ref 3). Molycorp Inc. provided an addendum letter on November 22, 2006 addressing the disposition of concrete and asphalt debris (Ref. 4). Below are the proposed amendments, in bold, requested by Molycorp Inc. and the responses.

Proposed Amendment No. 1

**An amendment to proposed to allow Molycorp Inc. to manage asphalt and concrete debris based on volumetric activity concentration limits in lieu of surface activity limits. The proposed wording is as follows:**

***"Asphalt will be pulverized and the concrete will be crushed to manageable size. The pulverized/crushed materials will be stockpiled. A minimum of 20 samples (as described in the TBD for soil stockpiles) will be collected of the crushed material for laboratory analysis as it is stockpiled. These samples will be analyzed to establish the average concentrations of uranium, thorium, and radium for each pile. Depending on the analytical results, the stockpiled materials will be (1) reused as excavation backfill if concentrations are below the AAR 0-2 feet soil release criteria and all of the AAR release criteria for the backfilled excavation can be attained; or (2) dispositioned at an approved off-site facility."***

A conference call between the NRC staff and Molycorp Inc. was held on November 16, 2006 to obtain clarification on several issues pertaining to this proposed amendment. Molycorp Inc. provided an addendum on November 22, 2006.

Molycorp Inc. states that approximately 2500 tons of concrete debris and 9500 tons of asphalt debris is not conducive to surface scanning. Molycorp Inc. is requesting to treat this material as volumetric activity concentrations in lieu of surface activity levels. Materials that exceed the concentration criteria in Table 4-2 for 0-2 feet layer will be managed as LLRW. The site specific subsurface soil averaging limit for 0-2 feet layer are the lowest concentrations relative to the other layers for this criteria. This is consistent with the criteria used for soils and slag at 0-2 feet layer. Materials that do not exceed the concentration criteria in Table 4-2 will be used as backfill material. Areas that are backfilled are capped with clean topsoil, seed, and mulch to prevent erosion. A minimum of 20 samples will be taken for each stockpile. Although this material is not specifically addressed in the DP, Molycorp Inc. personnel considers this material to be consistent with their waste projections. The crushed concrete and pulverized asphalt that is below the concentration criteria in Table 4-2 for 0-2 feet layer will be used as backfill. These changes are administrative, procedural, and process operation and equipment, and they are consistent with 10 CFR 51.22(c)(11). The changes do not adversely affect any effluents, individual or cumulative occupational radiation exposure, construction impact, or potential for or consequences from a radiological accident. This proposed change meets the requirements for a categorical exclusion.

Proposed Amendment No. 2

**An amendment is proposed to update Figure 2-9 in its entirety. The proposed updated Figure 2-9 is included as Attachment 2.**

Molycorp Inc. was acquired by Chevron in 2005. The revised organization chart (Figure 2-9) reflects that change. The description of the responsibilities of personnel in the organization are also provided in this change. These changes are administrative and organizational and they are consistent with 10 CFR 51.22(c)(11). The changes do not adversely affect any effluents, individual or cumulative occupational radiation exposure, construction impact, or potential for or consequences from a radiological accident. This proposed change meets the requirements for a categorical exclusion.

Proposed Amendment No. 3

**The proposed wording is as follows:**

***"The external and internal exposures received by workers will be measured and evaluated for all personnel who require access to Radiologically Controlled Areas (RCAs). The primary whole body dosimeter to be employed is the optically-stimulated luminescent dosimeter (OSLD). OSLDs will be processed quarterly by a laboratory accredited under the National Voluntary Laboratory Accreditation Program (NVLAP)."***

The proposed change request to employ optical stimulated luminescent dosimeters (OSLD) in place of thermoluminescent dosimeters (TLD) and to process quarterly in lieu of monthly. These devices are used to monitor personnel and the environment for radiation exposure. The proposed changes will provide higher sensitivity and ability to detect measurable radiation levels. These changes are administrative, procedural, and process operation and equipment, and they are consistent with 10 CFR 51.22(c)(11). The changes do not adversely affect any

effluents, individual or cumulative occupational radiation exposure, construction impact, or potential for or consequences from a radiological accident. This proposed change meets the requirements for a categorical exclusion.

Proposed Amendment No. 4

**Change the requirement from semi-annual to annual calibration of all portable radiological instrumentation. Molycorp Inc. submitted a letter to NRC dated June 28, 2006 explaining this request (Attachment 4).**

The proposed change request to calibrate portable radiological instrumentation from a semi-annual (twice a year) to an annual (once a year) frequency. Portable radiological instrumentation are used to measure particles and exposures in a rate mode and/or an integral mode. These devices are used to make surveys. In a letter to NRC staff, dated June 28, 2006, it states that all portable survey instruments are response tested daily or prior to use if the instrument is used intermittently. Procedures require that any instrument that does not pass the response test criteria be removed from service. The purpose of the calibration is to ensure that each portable survey instrument is operating within its prescribed limits of the true value. According to ANSI N323A, the minimum performance test is at least annually. The proposed change is consistent with industry practices. This change is administrative, procedural, and process operation and equipment, and they are consistent with the requirements of 10 CFR 51.22(c)(11). The changes do not adversely affect any effluents, individual or cumulative occupational radiation exposure, construction impact, or potential for or consequences from a radiological accident. This proposed change meets the requirement for a categorical exclusion.

Proposed Amendment No. 5

**Proposed amendment wording:**

**"During initial excavation activities while a transshipment area is being constructed, disposal material will be stockpiled temporarily on plastic in areas of the site scheduled for later remediation. When the transshipment area is completed, all disposal material will be transported directly from excavations to the transshipment area for subsequent loading onto to rail cars. Stockpiles on the transshipment area will be placed on a concrete pad and will be covered when inactive. Provisions will be made to collect and treat runoff water from the transshipment stockpile areas. HDPE and VLDPE will not be used beneath stockpiles. Overburden and intermediate materials will be stockpiled on plastic in areas proximate to excavation areas."**

The proposed change request to improve and clarify the wording for temporary stockpiling of material during the construction of the transshipment area and after the transshipment area is completed. In lieu of the HDPE and VLDPE liners under the stockpiles, provisions will be made to collect and treat runoff water. This applies to stockpiles on the concrete pad. The proposed changes do not alter or increase the volume of waste projected for this site. The proposed change is a reconfiguration of the stockpiles on site and it is considered routine and minor. This change is administrative, procedural, and process operation and equipment, and they are consistent with the requirements of 10 CFR 51.22(c)(11). The changes do not adversely affect any effluents, individual or cumulative occupational radiation exposure, construction impact, or potential for or consequences from a radiological accident. This proposed change meets the requirement for a categorical exclusion.

References

1) Environmental Assessment For Issuance of Amendment No. 8 to Materials License No. SMB-1393, Molycorp, Inc. Metal Alloy Facility, Washington, PA (ML070250014)

2) Letter from Jack Wright, Project Manager, Molycorp, Inc., to James Webb, Project Manager, NRC, dated October 11, 2006, RE: Request to Amend Materials License SMB-1393 Molycorp Washington, PA Decommissioning Project (ML062970401)

3) Letter from Jack Wright, Project Manager, Molycorp, Inc., to James Webb, Project Manager, NRC, dated October 11, 2006, RE: Decommissioning Plan Amendments and Updates Molycorp Washington, PA Decommissioning Project License Number SMB-1393 (ML062970400)

4) Letter from Jack Wright, Project Manager, Molycorp, Inc., to James Webb, Project Manager, NRC, dated November 22, 2006, RE: Addendum to Decommissioning Plan Amendment Request Molycorp Washington, PA Decommissioning Project License Number SMB-1393 (ML070510470)