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## **Permit Modification Request**

### **1 Proposed Modifications**

The following submittal has been prepared to request four Class 2 modifications to the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit #NM0890010515-1. These requested modifications do not require any changes to the capacity of the storage units or changes to the Environmental Protection Agency (EPA) waste codes stored each of the units. The proposed modifications are as follows.

- Storage of containers within modular buildings or transportainers on Pad 9 at Technical Area (TA) 54, Area G.
- Storage of containers that potentially contain free liquids at TA-54, Area G within dome 231.
- Change the footprint of the outside of a permitted container storage unit at TA-54, Building 38 (TA-54-38) and allow for storage within modular buildings or transportainers and temporarily in payload configurations and within loaded waste trucks prior to transport.
- Movement of modular buildings and a canopy from the north side of TA-54, Area L to the south side.

#### **1.1 Storage on TA-54 Area G Pad 9**

Domes TA-54-229, TA-54-230, TA-54-231, and TA-54-232 are permitted units at TA-54, Area G that are used to stored hazardous waste in support of the transuranic (TRU) waste characterization program at LANL. This PMR requests that the asphalt pad (Pad 9) that surrounds the permitted container storage unit at TA-54-229, TA-54-230, TA-54-231, and TA-54-232 be used to store waste containers in heated buildings or transportainers in the support of the characterization activities performed by the TRU waste characterization program.

Domes TA-54-229, TA-54-230, TA-54-231, and TA-54-232 are unheated and some of the characterization processes conducted within the vicinity of these domes require that the drums be at room temperature. This permit modification requests authorization to place modular buildings or transportainers on the asphalt area outside the domes on Pad 9 to ensure that waste containers are at appropriate temperatures prior to characterization. Waste containers potentially containing free liquids will be placed in the heated transportainers prior to undergoing real-time radiography, headspace gas sampling, or other characterization methods associated with the TRU waste characterization program. Specific container management practices will follow requirements as outlined in the permit for container storage in modular buildings and transportainers at permitted unit TA-54, Area G, Pad 10. These changes to the LANL Hazardous Facility Waste Permit are necessary to aid and further the efficiency of the TRU waste characterization program at LANL. Waste management changes associated with this PMR have been presented in LANL permit renewal application documentation since 1999. Throughput for the TRU

waste characterization program is increasing and has therefore raised the priority of the need for this change.

## **1.2 Liquid Storage within TA-54 Area G, Dome 231**

As part of the TRU waste characterization program, drums are identified as containing prohibited items/conditions which would prevent their shipment to the Waste Isolation Pilot Plant without remediating the prohibited item. Remediation of prohibited items occurs in the Perma-con® located in TA-54-231. Containers identified as containing free liquids are stored in an interim status location some distance away from TA-54-231. These containers must be moved from their storage location and placed in a staging area outside the Perma-con® in TA-54-231 on the day of operations. Any of the drums which can't be remediated during that shift must be replaced on the secondary containment pallet, removed from TA-54-231, and returned to an authorized storage location located across the site. This additional drum transport requires resources (forklift/flatbed truck and crew) and creates inefficiency in the prohibited item disposition process.

The change requested in this PMR is to allow for the storage of containers that potentially contain free liquids at TA-54, Area G within dome 231. These containers will be stored on secondary containment pallets within TA-54-231. Proposed changes to the permit will increase the efficiency and safety of the TRU waste characterization program at LANL. The inability to store free liquids on secondary containment pallets in TA-54-231 requires operations personnel to handle and transport containers more frequently creating increased risk of releases and to operations personnel.

## **1.3 Changes to Storage at TA-54-38**

Currently, the outdoor storage unit at TA-54-38 is limited to a 1600 square foot area located on the north side of the building. Due to recent National Nuclear Security Administration (NNSA) authorization basis requirements at the building, LANL would like to move outside waste storage further away from the building. This modification package requests that the outdoor storage area at TA-54-38 be expanded to include the entire asphalt area behind the building. It is important to the facility to maintain use of the outdoor storage at TA-54-38 operationally; therefore, LANL is requesting approval of a permit modification that would allow for storage within the entire fenced area on the north, east, and south sides of the building. This would allow containers to be stored on the asphalt further away from the building as well as accommodate storage in modular buildings or transportainers and in loaded waste trucks or payload configurations that cannot be put into transport immediately due to weather or other extenuating circumstances.

The changes represented in this modification have been a part of LANL's permit renewal application documentation since 1999; however, because of the authorization basis requirements for the building by the NNSA, it has become necessary for this modification to be approved on an accelerated schedule. Container management practices will not change for items already cover in the permit and will incorporate the requirements as

outlined in the permit for container storage in modular buildings and transportainers at permitted unit TA-54, Area G, Pad 10. The changes to the LANL Hazardous Facility Waste Permit are essential to address safety concerns and resolve transport issues for which failure scenarios have been identified. The changes do not require an increase in the capacity of the TA-54-38 outdoor container storage unit and will increase the opportunity for covered storage at the unit.

#### **1.4 Movement of Structures at TA-54 Area L**

This modification requests that modular buildings TA-54-68, TA-54-69, the temporary modular containment structure constructed on pad TA-54-36, and a canopy (TA-54-216) currently used for the storage of gas cylinders be moved from the north side to the south side of TA-54, Area L. In addition, modular building TA-54-70 may also have to be moved a small amount to accommodate the placement of TA-54-68 and TA-54-69. All of these structures are currently permitted for container storage at TA-54 Area L.

In order to facilitate the closure of the land disposal units at TA-54 Area L, LANL requests that movement of the structures TA-54-68, TA-54-69, TA-54-216, and the modular containment structure on pad TA-54-36 be allowed to occur before closure for the northern portion of TA-54, Area L begins. The Perma-con® currently located at TA-54-36 will be moved to the concrete containment structure TA-54-32. Container storage in the northern portion of TA-54, Area L is scheduled to begin closure in late 2008. The closure of this part of container storage at TA-54, Area L must take place before the closure and corrective action activities are conducted at the subsurface units located at TA-54, Area L.

These changes to the LANL Hazardous Facility Waste Permit are necessary to facilitate the closure of the northern portion of the container storage unit at TA-54, Area L and enable the closure and corrective action activities for the land disposal units at TA-54, Area L. Additionally, the movement of these structures will allow more options for covered container storage on the permitted southern portion of the container storage unit at TA-54, Area L. LANL requests that the change associated with this modification be applied to LANL's permit renewal application documentation for consideration as part of the LANL draft renewal permit scheduled for issuance in August 2007.

## **2 Proposed Permit Changes**

In this modification request, text has been changed or added within Module III, Attachment E.3, Attachment E.10, Attachment E.12, Attachment F, and Attachment G to represent the proposed permit modifications and correct typographical errors and organization references that are no longer valid. Figures 6, 11, 13, E.3.2, E.10-1, and E.12-1 have also been updated to reflect the proposed changes at the storage units. This requested revision of the permit incorporates changes made by "Class 1 Permit Modification to Module 3, Attachment F, and Attachment G of the Los Alamos National Laboratory Hazardous Waste Facility Permit," May 2006; and "Class 1 Permit Modification for Transfer of Permit Co-operator to the Los Alamos National Laboratory

Hazardous Waste Permit, April 2006,” LA-UR-06-2555, which compiled all approved and self-implementing modifications previously made to permit #NM0890010515-1. With the exception of the movement of storage structures at TA-54, Area L, the changes associated with this PMR have been incorporated in the LANL permit renewal application documentation that has been submitted to the New Mexico Environment Department’s Hazardous Waste Bureau. LANL requests that the information associated with the modification for the movement of modular structures at TA-54, Area L be applied to LANL’s permit renewal application documentation for consideration as part of the LANL draft renewal permit.

### **3 Transmittal Information**

This permit modification package consists of this PMR; changes made to Module III, Attachment E.3, Attachment E.10, Attachment E.12, Attachment F, and Attachment G with text changes in redline/strikeout format; a clean format version of all of the edited text for insertion into the permit; and replacement Figures 6, 11, and 13 for insertion into permit. Because of the length of Attachment G, only the section that is undergoing change has been included in this permit modification package. LANL requests four Class 2 permit modifications for the changes presented within this submittal in accordance with New Mexico Administrative Code, Title 20, Chapter 4, Part 1, Subpart IX (20.4.1.900 NMAC) (incorporating Code of Federal Regulations [CFR], Title 40 § 270.42(b)), revised October 1, 2003. It is LANL’s position that each of these modifications falls under 20.4.1.900 NMAC (incorporating 40 CFR §270.42 Appendix I.F(2)(a)), as “modifications of a container storage unit without increasing the capacity of the unit.”