



ESHID-601954

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*Date:* NOV 08 2016  
*Symbol:* EPC-DO-16-330  
*LA-UR:* 16-28117  
*Locates Action No.:* Not Applicable

Mr. John E. Kieling, Chief  
Hazardous Waste Bureau  
New Mexico Environment Department  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, NM 87505

Dear Mr. Kieling:

**Subject: Notification of Alternative Inspection Requirements for Shed 1028 at Technical Area 54, Area G, Pad 5**

The purpose of this letter is to request alternative inspections and document previous communications between the U.S. Department of Energy (DOE) and Los Alamos National Security, LLC, or Permittees, and the New Mexico Environment Department-Hazardous Waste Bureau (NMED-HWB) regarding alternative container storage inspections being conducted at Los Alamos National Laboratory (LANL). On September 16, 2016, the Permittees notified NMED-HWB by phone and electronic mail (email) of the need for alternative inspection requirements for waste containers stored within a portion of a permitted unit at Technical Area (TA) 54. Approval for alternative inspections from the NMED-HWB was received via email on September 16, 2016. Subsequently, on October 13, 2016, the Permittees requested an additional 60-day extension regarding existing alternative inspection requirements for the same waste containers. On October 19, 2016, NMED-HWB granted the 60-day extension request via email.

The change to regularly conducted visual inspection is necessary due to a potential safety concern regarding four mixed low level waste Flanged Tritium Waste Containers (FTWCs) containing tritium that are stored within TA-54, Building 1028 (TA-54-1028). The FTWCs contain mixed low-level waste (lead residues in spent gas valves), and tritiated wastewater, which is regulated by the Atomic Energy Act. Over time, radiolysis of tritiated water in the containers produces hydrogen and oxygen gas, derived entirely from the tritium low-level waste within the FTWCs. The Permittees have assessed whether the contained gases could possibly reach levels posing a potential hazard to workers in the near future. This waste is currently covered under the Site Treatment Plan (STP) (containers C09203611, C09203612, C09203613, and C09203614).

The Permittees have completed a safety analysis of the situation and have recommended controlled access to the waste containers within TA-54-1028 that will allow for complete visual inspection of the waste containers in accordance with LANL Hazardous Waste Facility Permit Section 2.6. Upon approval by the DOE of this controlled access, visual inspections as required in Permit Section 2.6 will resume.

Pending the outcome of the safety analysis approval, a 50-foot distance access restriction has been placed on TA-54-1028 and personnel are not allowed to enter into the shed. This safety measure is being implemented for radioactive material safety purposes and has been in place since September 16, 2016. A figure depicting the access restriction has been provided as Enclosure 1.

During this access restriction period, inspectors are unable to complete certain requirements of their normal container inspections for containers stored within TA-54-1028. The requirements of Permit Attachment E, *Inspection Plan* include Items 18-22 of the Inspection Record Form requirements. The direct inspection of containers, container lids, labels, compatibility, integrity, and aisle spacing are examples of inspection requirements that cannot be completed at this time. Although the containers themselves cannot be inspected, the following alternative inspection requirements were proposed and were put in place in order to meet the intent of the Permit requirements:

1. The integrity of the storage shed is inspected.
2. An inspection for evidence of liquids around or under the structure is performed, to the extent possible.
3. A comment is added to the Inspection Record Form to include the date of the last full inspection and to document the integrity of the containers.

These alternative inspection requirements are intended to be temporary and are anticipated to be in place from September 16, 2016 to December 8, 2016. The last inspection of TA-54-1028 and the FTWCs was conducted on September 8, 2016 and there were no issues identified within TA-54-1028 or with the integrity of the containers. TA-54-1028 is the only structure within the restricted area that contains waste. All other hazardous waste within the restricted area were moved to other locations. Additionally, the only hazardous waste constituent within the FTWC waste containers is lead, which is a minor component of the waste. The lead is contained within the FTWCs. The lead is unlikely to be dispersed from the shed should a release occur. In the event of a fire, explosion, or release of hazardous waste, the Permit Attachment D, *Contingency Plan*, will be implemented pursuant to Permit Section 2.11.1.


In addition to documenting these alternative inspections on the Inspection Record Form, the Permittees will include this information as an anticipated noncompliance pursuant to Permit Section 1.9.11 in the annual noncompliance report required by Permit Section 1.9.14. Upon approval of the safety analysis, implementation of corrective measures, and resumption of normal or alternate inspections, the Permittees will notify the NMED-HWB.

Mr. John Kieling  
EPC-DO-16-330

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If you have comments/questions or would like to meet regarding this submittal, please contact Mark P. Haagenstad at (505) 665-2014 or Karen Armijo at (505) 665-7314.

Sincerely,



John C. Bretzke  
Division Leader  
Environmental Protection & Compliance Division  
Los Alamos National Security, LLC

Sincerely,



Karen E. Armijo  
Permitting and Compliance Program Manager  
National Nuclear Security Administration  
Los Alamos Field Office  
U.S. Department of Energy

JCB:KEA:MPH:LVH/lm

Enclosure: (1) TA-54, Area G, Pad 5 – 50-foot Radius from TA-54-1028

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# **ENCLOSURE 1**

TA-54, Area G, Pad 5 – 50-foot Radius from TA-54-1028

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