



ESHID-602497

***Environmental Protection & Compliance Division
Los Alamos National Laboratory***
PO Box 1663, K491
Los Alamos, New Mexico 87545
(505) 667-2211

***National Nuclear Security Administration
Los Alamos Field Office***
3747 West Jemez Road, A316
Los Alamos, New Mexico 87544
(505) 665-7314/Fax (505) 667-5948

Date: JUL 06 2017

Symbol: EPC-DO: 17-254

LA-UR: 17-25153

Locates Action No.:

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

Subject: July 2017 Quarterly Report--Alternative Inspections of Building 1028 at Technical Area 54, Area G, Pad 5 (TA-54-1028)

Dear Mr. Kieling:

The letter transmits the July 2017 quarterly report regarding alternative inspections for waste containers stored at a permitted unit at Technical Area (TA) 54 at the Los Alamos National Laboratory (LANL). This report is being submitted by the U.S. Department of Energy (DOE) and Los Alamos National Security, LLC (the Permittees) to the New Mexico Environment Department-Hazardous Waste Bureau (NMED-HWB), as required by NMED-HWB in its March 8, 2017 approval of a 365-day extension for alternative inspections at TA-54, Building 1028 (TA-54-1028). This report describes actions and analyses undertaken between April 1 and June 30, 2017 regarding the referenced containers.

With personnel safety as the priority, the Permittees will continue the alternative inspections described previously as a recovery plan is developed and finalized for the waste containers within TA-54-1028. In addition, as required by NMED-HWB in its March 8, 2017 letter, the Permittees will submit subsequent quarterly updates to this report by October 6, 2017; and January 8, 2018.

As described in the enclosed quarterly report, the Permittees are continuing to evaluate options for long-term safe storage and/or pressure mitigation of four containers within TA-54-1028 and are in the process of updating the safety evaluation of the current situation.

Mr. John E. Kieling
EPC-DO: 17-254

- 2 -

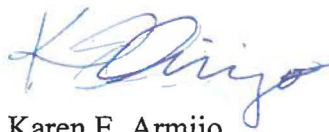
If you have comments/questions or would like to meet regarding this submittal, please contact Mark P. Haagenstad at (505) 665-2014 or Karen Armijo at (505) 665-7314.

Sincerely,



John C. Bretzke
Division Leader

Sincerely,



Karen E. Armijo
Permitting and Compliance Program Manager

JCB/KEA/MPH/TAD:am

Enclosure: Quarterly Report: Alternative Inspections of Building 1028 at Technical Area 54, Area G, Pad 5 (TA-54-1028)

Copy: Neelam Dhawan, NMED/HWB, Santa Fe, NM, (E-File)

Siona Briley, NMED/HWB, Santa Fe, NM, (E-File)

Douglas E. Hintze, EM-LA, (E-File)

Kimberly Davis Lebak, NA-LA, (E-File)

David J. Nickless, EM-WM, (E-File)

Peter Maggiore, NA-LA, (E-File)

Jody M. Pugh, NA-LA, (E-File)

Karen E. Armijo, NA-LA, (E-File)

Jordan Arnsward, NA-LA, (E-File)

Darlene S. Rodriguez, NA-LA, (E-File)

Craig S. Leasure, PADOPS, (E-File)

William R. Mairson, PADOPS, (E-File)

Michael T. Brandt, ADESH, (E-File)

Randall M. Erickson, ADEM, (E-File)

Cheryl D. Cabbil, ADNHHO, (E-File)

Raeanna Sharp-Geiger, ADESH, (E-File)

Enrique Torres, ADEM, (E-File)

David J. Funk, ADEM, (E-File)

Leslie K. Sonnenberg, EWMO-DO, (E-File)

Susan McMichael, LC-LESH, (E-File)

Brian L. Watkins, WFO-DO, (E-File)

Stephanie Q. Griego, EWMO-DO, (E-File)

Mark P. Haagenstad, EPC-CP, (E-File)

Tammy A. Diaz, EPC-CP, (E-File)

Ellena I. Martinez, EPC-CP, (E-File)

Mr. John E. Kieling
EPC-DO: 17-254

- 3 -

Copy (cont):

lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)
adesh-records@lanl.gov, (E-File)
rcra-prr@lanl.gov, (E-File)



COPY



Environmental Protection & Compliance Division
Los Alamos National Laboratory
PO Box 1663, K491
Los Alamos, New Mexico 87545
(505) 667-2211

National Nuclear Security Administration
Los Alamos Field Office
3747 West Jemez Road, A316
Los Alamos, New Mexico 87544
(505) 665-7314/Fax (505) 667-5948

JUL 06 2017

Date:

Symbol: EPC-DO: 17-254

LA-UR: 17-25153

Locates Action No.:



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

Subject: July 2017 Quarterly Report--Alternative Inspections of Building 1028 at Technical Area 54, Area G, Pad 5 (TA-54-1028)

Dear Mr. Kieling:

The letter transmits the July 2017 quarterly report regarding alternative inspections for waste containers stored at a permitted unit at Technical Area (TA) 54 at the Los Alamos National Laboratory (LANL). This report is being submitted by the U.S. Department of Energy (DOE) and Los Alamos National Security, LLC (the Permittees) to the New Mexico Environment Department-Hazardous Waste Bureau (NMED-HWB), as required by NMED-HWB in its March 8, 2017 approval of a 365-day extension for alternative inspections at TA-54, Building 1028 (TA-54-1028). This report describes actions and analyses undertaken between April 1 and June 30, 2017 regarding the referenced containers.

With personnel safety as the priority, the Permittees will continue the alternative inspections described previously as a recovery plan is developed and finalized for the waste containers within TA-54-1028. In addition, as required by NMED-HWB in its March 8, 2017 letter, the Permittees will submit subsequent quarterly updates to this report by October 6, 2017; and January 8, 2018.

As described in the enclosed quarterly report, the Permittees are continuing to evaluate options for long-term safe storage and/or pressure mitigation of four containers within TA-54-1028 and are in the process of updating the safety evaluation of the current situation.



ENCLOSURE 1

July 2017 Quarterly Report: Alternative Inspections of Building 1028 at
Technical Area 54, Area G, Pad 5 (TA-54-1028)

EPC-DO: 17-254

LA-UR-17-25153

Date: JUL 06 2017

Enclosure 1

July 2017 Quarterly Report

Alternative Inspections of Building 1028 at Technical Area 54, Area G, Pad 5 (TA-54-1028)

Introduction

As required by the New Mexico Environment Department-Hazardous Waste Bureau (NMED-HWB) in its March 8, 2017 approval letter, the purpose of this quarterly report is to describe actions and analyses undertaken by the U.S. Department of Energy (DOE) and Los Alamos National Security, LLC (the Permittees) between April 1 and June 30, 2017 regarding four Flanged Tritium Waste Containers (FTWCs) stored in the permitted unit at TA-54, Building 1028 (TA-54-1028). These waste containers hold tritium waste with trace amounts of lead, making the contents Resource Conservation and Recovery Act (RCRA) regulated mixed low-level waste (MLLW).

This quarterly report describes the following activities:

1. The Permittees' efforts during the previous reporting quarter to develop and finalize a plan for the long-term safe storage of the four MLLW FTWCs.
2. The Permittees' efforts during the previous reporting quarter to develop and evaluate options for pressure mitigation that will enable off-site RCRA treatment and disposal of the four MLLW FTWCs.
3. Current and planned future activities during the upcoming reporting quarter.

The current controls in place, as well as the recovery plan being prepared, have been and will be developed in accordance with the nuclear facility safety requirements mandated by DOE for management of nuclear facilities such as TA-54, Area G.

1. Planning for Long-term Safe Storage

As detailed in the April 6, 2017 baseline report (EPC-DO 17-142), the LANL Integrated Project Team (IPT) initially identified and rejected several options such as individual container venting, segregation, and treatment strategies that were deemed to pose essentially the same or greater hazards as compared to a more comprehensive solution. This resulted in two options identified in the baseline report.

The first option proposed consisted of the construction of a barrier enclosing TA-54-1028 to provide worker protection in the event one or more FTWCs experienced an initiation event. Barrier options still being considered include an earth-filled barrier surrounding TA-54-1028 or a welded steel plate enclosure designed to be lowered by crane over TA-54-1028. These approaches provide some level of immediate hazard mitigation, but provide no long term solution for disposition. Further, they would not comply with the normal RCRA permit container inspection requirements, necessitating NMED-HWB approval of a long-term alternate

monitoring/inspection method. This option, however, is the most viable for long term safe storage on site.

The second option identified in the baseline report consisted of placing the FTWCs into a Dynasafe® (or similar) containment system that would provide worker protection from any unanticipated release while affording protection of the FTWCs from external events. Upon further evaluation of this approach, technical and logistical issues are making this option less likely.

2. Options for Pressure Mitigation and Final Disposition

The IPT continues to work to identify and evaluate options to safely mitigate the pressure in the FTWCs in order to enable the containers to be handled, transported and otherwise managed safely with the goal of shipment off-site to an approved RCRA-compliant treatment and disposal facility.

3. Current and Planned Future Activities

As detailed in the baseline report, the current safety basis standing order remains in effect at Area G that establishes an exclusion zone of 50 feet from the FTWCs. This will be maintained until the recovery plan is finalized, approved, and implemented. Additionally, all materials located in the access-controlled area are in long-term storage and there are no active waste-processing activities occurring in the area. No wastes are being added to or removed from the area. Weekly alternative RCRA inspections continue as approved in the March 8, 2017 letter from the NMED-HWB. The Permittees continue to seek viable options for remote gas monitoring, cameras, etc. that could enhance the alternative inspections of TA-54-1028.

During the previous quarter, a team of subject matter experts worked to develop preliminary hazard analyses to identify what type of activities (if any), if allowed to occur within the 50-ft exclusion zone, could be performed safely without impacting or disturbing the FTWCs or otherwise triggering an initiation event. The purpose of these analyses was twofold: (1) to determine the likelihood of being able to safely resume normal visual inspections of the containers inside the shed; and (2) to identify the extent (if any) to which the containers could safely be handled, moved, or (potentially) opened to remove, manage, transport or repackage their contents. These analyses are currently being finalized and will culminate in issuance of an updated Evaluation of the Safety of the Situation (ESS) report, which must be approved by DOE.

The Permittees continue to explore the treatment and disposal paths that would become available if the pressure hazard can be mitigated. Candidate facilities have been identified and preliminary discussions have been initiated with them. Waste acceptance documents are currently being drafted for preliminary review by the likely candidate facilities.

Actions during the upcoming quarter will focus on (1) further development and review of potential pressure-mitigation options and (2) the imminent approval and issuance of the ESS report, which may redefine the level of access to the MLLW FTWCs and may allow for resumption of visual inspections and full Permit compliance.