



Environmental Protection & Compliance Division

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National Nuclear Security Administration

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Date: **MAR 08 2018**

Symbol: EPC-DO: 18-091

LA-UR: 18-21533

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: March 2018 Quarterly/Final Report-Alternative Inspections of Waste within Building 1028 at Technical Area 54, Area G, Pad 5 (TA-54-1028)


Dear Mr. Kieling:

The U.S. Department of Energy (DOE) and Los Alamos National Security, LLC (LANS), collectively the Permittees, submit the enclosed final March 2018 quarterly report for four waste containers at Technical Area (TA) 54, Area G, Building 1028 (TA-54-1028) at the Los Alamos National Laboratory (LANL). This report is being submitted as required by the NMED-HWB in its March 8, 2017 approval of a 365-day extension for alternative inspections of the waste within TA-54, Building 1028 (TA-54-1028).

As discussed in the enclosed report, LANL has resumed normal RCRA inspections of the containers per LANL's Hazardous Waste Permit Attachment E based on a revised safety analysis. The Permittees will continue to develop the selected option for long-term safe storage and/or pressure mitigation with the goal of eventual treatment and disposal of the four containers currently being stored at TA-54-1028.

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,



Ben Roberts
Division Leader

Sincerely,



Karen E. Armijo
Permitting and Compliance Program Manager

BBR/KEA/MPH:am

Enclosure: March 2018 Quarterly Report: Alternative Inspections of Building 1028 at Technical Area 54, Area G, Pad 5 (TA-54-1028)

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Mr. John E. Kieling
EPC-DO: 18-091

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The U.S. Department of Energy (DOE) and Los Alamos National Security, LLC (LANS), collectively the Permittees, submit the enclosed final March 2018 quarterly report for four waste containers at Technical Area (TA) 54, Area G, Building 1028 (TA-54-1028) at the Los Alamos National Laboratory (LANL). This report is being submitted as required by the NMED-HWB in its March 8, 2017 approval of a 365-day extension for alternative inspections of the waste within TA-54, Building 1028 (TA-54-1028).

As discussed in the enclosed report, LANL has resumed normal RCRA inspections of the containers per LANL's Hazardous Waste Permit Attachment E based on a revised safety analysis. The Permittees will continue to develop the selected option for long-term safe storage and/or pressure mitigation with the goal of eventual treatment and disposal of the four containers currently being stored at TA-54-1028.

ENCLOSURE 1

March 2018, Final Quarterly Report:
Alternative Inspections of Building 1028 at
Technical Area 54, Area G, Pad 5 (TA-54-1028)

EPC-DO: 18-091

LA-UR-18-21533

MAR 08 2018

Date: _____

Enclosure 1

March 2018 Final 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 December 31, 2017 and March 1, 2018 regarding four Flanged Tritium Waste Containers (FTWCs) stored in the Resource Conservation and Recovery Act (RCRA) permitted unit at TA-54, Building 1028 (TA-54-1028). These waste containers hold tritium waste with trace amounts of lead, making the contents RCRA-regulated mixed low-level waste (MLLW), subject to the RCRA Hazardous Waste Facility Permit (HWFP) (EPA ID No. NM0890010515). The schedules for evaluations, options and final disposition of the four MLLW FTWCs are discussed as appropriate in this report.

This final quarterly report includes the following:

1. Status of progress on the potential remediation options discussed in the January 2018 quarterly report for the mitigation and/or long-term safe storage of the four MLLW FTWCs and the one option still under consideration during this reporting quarter.
2. The report of DOE's approval of the revised safety evaluation for near and long-term management of the MLLW FTWCs at TA-54-1028, which was approved on March 5, 2018. The approved safety evaluation authorized the Permittees to resume visual inspections of the containers that are fully compliant with the RCRA HWFP requirements.
3. Current and planned future activities.

Because normal inspections have been resumed, the Permittees submit this as their final quarterly report in fulfillment of the requirements presented in the March 8, 2017 letter from the NMED-HWB. The alternative inspection requirements approved by NMED-HWB have been documented in the Inspection Record Forms for the TA-54-1028 permitted unit and are available for review.

1. Planning for Remediation and/or Long-term Management and Safe Storage

As detailed in the April 6, 2017 baseline report (EPC-DO 17-142), the LANL Integrated Project Team (IPT) initially identified a variety of options for remediation and/or long-term management and safe storage. In order to identify and compare options, the IPT utilized criteria of applicability, technical feasibility, effectiveness, the ability to be implemented, impacts to human health and the environment, and cost. This resulted in consideration of seven potential options described in the October 2017 Quarterly report. Two potential options survived the screening process and were still under consideration as of the submittal of the January 6, 2018 quarterly report. Since that submittal, one option has been selected for further development and implementation as of the date of this report, that being the flange manifold.

The development and fabrication of the manifold, which would attach to the flange on the MLLW FTWCs, will allow for the venting and safe removal of the contained gases. This will facilitate safe handling, segregation and, ultimately, off-site transport of the FTWCs to an approved RCRA-compliant treatment and disposal facility, in accordance with the STP.

As of the date of this report, manifold components have been designed and fabricated on-site and are undergoing inspection, assembly and testing. The manifold will first be used on low level waste (LLW) FTWCs at the Weapons Engineering Tritium Facility (WETF), under controlled facility conditions. Procedures for application and use at TA-54 Area G building 1028 are in development and will require facility review and approval, and the overall operation will require DOE approval.

2. Approval of Safety Evaluation

During the alternative inspection period, no activities were allowed within 50ft of the FTWCs located in TA-54 building 1028. The MLLW FTWC safety evaluation that defined the 50-foot standoff distance was approved by the DOE. During the previous quarter, LANS worked with DOE to resolve questions and comments on the revised draft safety evaluation that had been submitted to DOE for approval in December 2017. The review and revision efforts followed the formal DOE process for analyzing safety hazards codified in 10 CFR 830.203, in order to identify whether and to what extent the containers may be safely handled, moved, or potentially vented or opened in order to remove, manage, transport or repackage their contents. Prior to removing any controls, such as the 50-foot exclusion zone, it was necessary for DOE and LANS to verify that it was possible and safe to return to routine container inspection requirements in compliance with the RCRA HWFP at this time.

DOE's approval of the revised safety evaluation on March 5, 2018, re-defined the level of access to the MLLW FTWCs, and authorized the Permittees to resume visual inspections of the containers that are fully compliant with the RCRA HWFP requirements. Therefore, via this final quarterly progress report, DOE/LANS is notifying NMED that normal visual inspections in compliance with the RCRA HWFP have resumed and that alternative inspections are no longer necessary. As objective evidence of the resumption of normal inspections, the Permittees submit the inspection record form from the inspection performed on March 7, 2018 as Attachment 1.

3. Current and Planned Future Activities

The Permittees will continue the resumption of normal visual inspections per the requirements of the RCRA HWFP. With the resumption of normal RCRA HWFP inspections, future activities include the final review, testing and approval process for the use of the flange manifold which should progress over the next two quarters. Planning and safety requirements for venting the TA-54 Area G FTWCs will follow with a tentative execution of venting the second or third quarter of FY 2019.

ATTACHMENT 1

March 7, 2018 Inspection Record Form

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

HAZARDOUS WASTE FACILITY INSPECTION RECORD FORM

¹ FACILITY: : TA 54 - 1027, 1028, 1030, 1041 Pad 5, 7, & 8 CSU	² Site ID #: 2101, 2100, 2099, 2098	TREATMENT, STORAGE, OR DISPOSAL UNIT (TSD)	³ START DATE: 3/5/18	⁴ END DATE: 3/11/18
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⁵ Containers Landfill Chemical Treatment Tank Miscellaneous Unit (OB/OD, Cementation)

PART I- Enter condition of the item inspected (i.e. OK, NA [Not Applicable], or AR [Action Required]) in column for day inspected.

ITEM	INSPECTED FOR:	MON	TUE	WED	THU	FRI	SAT	SUN
⁶ NO UNIT USE	No waste stored			NA				
⁷ NO WASTE HANDLING	No waste handled (see instructions)			ok				
All TSDs								
⁸ COMMUNICATIONS EQUIPMENT	Availability and proper operating condition	NA	NA	NA	NA	NA	NA	NA
⁹ WARNING SIGNS	Posted, legible, and bilingual	NA	NA	NA	NA	NA	NA	NA
¹⁰ SECURITY	Good condition of fences, gates, locks, and other access control equipment	NA	NA	NA	NA	NA	NA	NA
¹¹ WORK SURFACES/ FLOORS/ROADS	Absence of conditions that could lead to an accident or spill			ok				
¹² SPILL/FIRE EQUIPMENT	Present, appropriate, and in proper operating condition			ok				
¹³ EYEWASHES/ SAFETY SHOWERS	Proper operating condition	NA	NA	NA	NA	NA	NA	NA
¹⁴ WIND SOGK	Proper operating condition and functional	NA	NA	NA	NA	NA	NA	NA
¹⁵ SECONDARY CONTAINMENT	Integrity- No standing water/waste, erosion, or signs of a spill			ok				
¹⁶ (UN)LOADING AREA	No spills or deterioration			ok				
¹⁷ RUN-ON/OFF CONTROL	Integrity- no ponding, erosion, or damage	NA	NA	NA	NA	NA	NA	NA
Container Storage Units and/or Tanks (see instructions)								
¹⁸ COVERS/LIDS OF CONTAINERS	Closed and secured properly			ok				
¹⁹ LABELS	Proper with start date, present & legible			ok				
²⁰ COMPATIBILITY	Separated according to compatibility			ok				
²¹ INTEGRITY	No leakage, corrosion, or damage			ok				
²² AISLE SPACE/STACKING	Appropriateness and adequacy			ok				

HAZARDOUS WASTE FACILITY INSPECTION RECORD FORM

FACILITY: TA 54 - 1027, 1028, 1030, 1041 Pad 5, 7, & 8	Site ID #:#: 2101, 2100, 2099, 2098	START DATE: 3/5/18	END DATE: 3/11/18
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ITEM	INSPECTED FOR:	MON	TUE	WED	THU	FRI	SAT	SUN
²³ PALLETS AND RAISED CONTAINERS	Absence of conditions that could result in failure			ok				
²⁴ TANK SYSTEMS	Discharge controls and fill level and no corrosion or leakage	NA	NA	NA	NA	NA	NA	NA
Other TSDs								
²⁵ SHAFTS/LANDFILL COVERS	Presence and condition of cover	NA	NA	NA	NA	NA	NA	NA
²⁶ OPEN BURNING UNITS	Condition of cover, and no erosion, leakage, or damage	NA	NA	NA	NA	NA	NA	NA
²⁷ OPEN DETONATION UNITS	Unit and vegetation condition and no erosion	NA	NA	NA	NA	NA	NA	NA
²⁸ CEMENTATION UNITS	Structural integrity and condition of equipment and systems	NA	NA	NA	NA	NA	NA	NA
		MON	TUE	WED	THU	FRI	SAT	SUN
	²⁹ DATE			3/7/18				
	³⁰ TIME			1621				
	³¹ INSPECTOR(S)			Jeremy Vignati				

Part II- For any AR (Action Required) in PART I, describe below: action required, action taken, status, date, and time of action. Attach additional sheets if necessary. If more than one action is required, number each AR.

³² 3/7/18: No New Issues.

RCRA inspections for Building 1028 resumed on March 7, 2018. Entry into TA-54-1028 requires EWMO Facility Operations Director approval per Standing Order EP-AREAG-30-1449, Restrictions and Requirements associated with MLLW Flanged Tritium Waste Containers stored at TA-54 Area G. This Standing Order implements compensatory measures that address posting requirements and access restrictions. JV 3/8/18

(NOTE) Inspection completed per the NMED approved alternative inspection method (EPC-DO-17-117). Marked "OK" based on historical inspections. JV 3/7/18

(Note RCRA inspection performed)

HAZARDOUS WASTE FACILITY INSPECTION RECORD FORM

Part II- Continued.

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Part III- Comments

33.

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Tritium sheds Open AR's

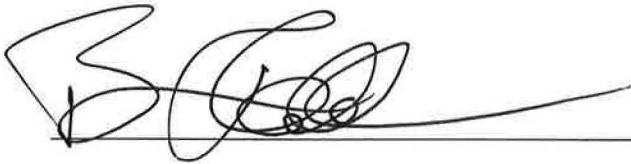
<i>AR</i>	<i>Date opened</i>	<i>Date Closed</i>	<i>Description</i>
2018-01			

Tritium sheds Open NRC's

<i>NRC</i>	<i>Date opened</i>	<i>Date Closed</i>	<i>Description</i>
2018-01			

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Ben Roberts
Division Leader
Environmental Protection and Compliance Division
Los Alamos National Laboratory

3/15/2018

Date Signed



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

3/16/2018

Date Signed