



ESHID-602018

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Date:

NOV 29 2016

Symbol:

EPC-DO-16-343

LA-UR:

16-28570

Action Item No.:

N/A

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

Dear Mr. Kieling:

Subject:

Los Alamos National Laboratory Hazardous Waste Facility Permit Instances of Noncompliance and Releases for Fiscal Year 2016 (NA-LA)

The purpose of this letter is to transmit to the New Mexico Environment Department-Hazardous Waste Bureau a report required by Section 1.9.14 of the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit (the Permit). The report, included as Enclosure 1, lists instances of noncompliance with the Permit and any releases at or from a permitted unit that did not pose a threat to human health or the environment. From October 1, 2015 through September 30, 2016 there were no releases within or from a permitted unit.

If you have questions regarding this report or would like to discuss in further detail, please contact Mark Haagenstad (LANS) at (505) 665-2014, or Karen Armijo (DOE) at (505) 665-7314.

Sincerely,

Sincerely,

John C. Bretzke Division Leader

Environmental Protection and Compliance Division

Los Alamos National Security, LLC

Karen E. Armijo

Permitting and Compliance Program Manager National Nuclear Security Administration

Los Alamos Field Office

U.S. Department of Energy

#### JCB:KEA:MPH:FDN/lm

Enclosure: (1) Fiscal Year 2016 Reporting of Instances of Noncompliance and Releases with the Los Alamos National Laboratory Hazardous Waste Facility Permit

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John C. Bretzke Division Leader

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# **ENCLOSURE 1**

Fiscal Year 2016 Reporting of Instances of Noncompliance and Releases Los Alamos National Laboratory Hazardous Waste Facility Permit

EPC-DO-16-343

LA-UR-16-28570

## Fiscal Year 2016 Reporting of Instances of Noncompliance and Releases

### Los Alamos National Laboratory Hazardous Waste Facility Permit

#### Introduction

This report has been prepared by the US Department of Energy and Los Alamos National Security, LLC (DOE/LANS), collectively the Permittees, to meet a reporting requirement of the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit (the Permit). Permit Sections 1.9.13 and 1.9.14 require reporting of any non-threatening release of hazardous waste or constituents from or at a permitted unit, and all instances of noncompliance with the Permit. This report must be submitted by December 1 of each year.

This report addresses releases and instances of noncompliance information from October 1, 2015 through September 30, 2016. None of the releases or incidents of noncompliance detailed within this report posed a potential threat to human health or the environment.

#### **Facility Information**

Owner and Operator: United States Department of Energy 3747 West Jemez Road, MS A316 Los Alamos, NM 87544

Co-Operator: Los Alamos National Security, LLC. PO Box 1663 Los Alamos, NM 87545

Facility: Los Alamos National Laboratory Bikini Atoll Road, SM-30 Los Alamos, NM 87545

#### Releases from or at a Permitted Unit

During the reporting time frame (October 1, 2015 through September 30, 2016), there were no releases at or from a permitted unit.

#### Instances of Noncompliance with the Permit

From October 1, 2015 through September 30, 2016, there were 107 instances of noncompliance with the Permit; these occurrences are listed in Table 1. The majority of the occurrences are associated with inconsistencies in the operating record and container labeling issues.

Additional instances of noncompliance for this time frame and from past activities at the facility were communicated to the New Mexico Environment Department-Hazardous Waste Bureau (NMED-HWB) in:

- A letter dated February 25, 2016, Los Alamos National Laboratory Notification of Regulatory Noncompliance at TA-54, AREA G, Pit 38, ADESH-16-021.
- The response to the Settlement Agreement and Stipulated Final Order HWB-14-20, which included an extent of condition review. The associated corrective action plans and progress of those plans were provided in response to Ordered Action 1.15 (*Response to Ordered Action 1, Attachment A to Settlement Agreement and Stipulated Final Order HWB-14-20, ADESH-16-040*).
- The LANL Nitrate Salt-Bearing Waste Container Isolation Plan, and revisions to the plan, which
  documents how the Permittees continue to secure and isolate remediated nitrate salt-bearing waste
  containers.
- A letter dated November 8, 2016, *Notification of Alternative Inspection Requirements for Shed 1028 at Technical Area 54, Area G, Pad 5*, describes inspections currently conducted at the permitted unit. Per Permit Attachment E, the inspection schedules or methods may differ at certain waste management units based upon worker safety issues or the nature of the safety and emergency equipment.

Extent of condition assessments were conducted to identify noncompliance with the LANL Hazardous Waste Facility Permit and to ensure the identification of discrepant waste items/containers so that an accurate operating record exists. Corrective actions for some of these noncompliance issues are ongoing and include re-characterization studies of the waste. Re-characterization of the waste includes, but is not limited to: real time radiography, radiological assays and surveys, weighing, sampling and analysis and visual inspection. This re-characterization information is used to create waste stream profiles to represent each potential waste stream. Existing, active waste stream profiles are used to generate labels, which are printed and applied to the waste containers, and waste inventory reports, which include the waste containers that are in the waste inventory for each of the appropriate units. If necessary, the location where the individual containers are stored will be adjusted to ensure compliance with Permit (and nuclear safety) requirements. Documentation in the facility operating record will be kept as appropriate. Once these steps are complete, all of the instances of noncompliance will be documented in the inventory of waste containers in storage at TA-54, Area G and resolutions will be communicated to the NMED-HWB.

The Permittees are currently working towards a resumption of full operations at the TA-54, Area G facility. This includes resolving outstanding nuclear safety issues as well as the development of additional qualifications and training requirements for waste management personnel to improve understanding and knowledge of requirements of the Permit. Furthermore, the Laboratory has developed improved waste management tools to ensure operating record compliance with the Permit, and is working to develop additional tools where more information is needed. The Laboratory continues to work with waste workers and waste management personnel to identify and remediate instances of noncompliance with the Permit, and to prevent recurrence.

Table 1: Fiscal Year 2016 Noncompliance Report

Date of Discovery	Permitted Unit Location	Noncompliance	Quantity of Material	Instances	Period of Noncompliance	Steps Taken to Resolve
12/9/2015 10/21/2015 10/13/2015 10/26/2015 6/28/2016	TA-54, Area L (x1) TA-54, Area G Building 412 (x3) Dome 224 (x1) Dome 229 (x1) Dome 230 (x8) Dome 232 (x2)	During a routine inspection, containers were found to have inaccurate labeling and operating record information regarding Environmental Protection Agency (EPA) Hazardous Waste Numbers. This is a noncompliance of Permit Sections 3.6(1) and 2.12.2.	16 Containers	16	Various	The containers have been appropriately labeled, and the operating record has been updated.
10/29/2015 3/21/2016 4/11/2016 6/14/2016 11/30/2015 2/16/2016	TA-54, Area G Dome 232 (x4) TA-54, Area L (x1) TA-54, RANT (x1)	During a routine inspection, several containers were identified to have labels that indicate they contained free liquids but were not stored on secondary containment. This is a noncompliance of Permit Section 3.7.1(1).	6 Containers	6	10/29/2015 - 11/20/2015 3/21/2016 - 3/24/2016 4/11/2016 - 4/18/2016 6/14/2016 - 6/20-2016 11/30/2015 - 12/2/2015 2/16/2016 - 2/24/2016	Waste containers requiring secondary containment were either moved to Dome 230 (a permitted secondary containment unit) or placed on adequate secondary containment.
10/21/2016 10/13/2015 10/29/2015 10/26/2015 10/28/2015 10/14/2015 3/11/2016 4/8/2016 7/19/2016	TA-54, Area G Dome 224 (x1) Dome 229 (x1) Dome 232 (x4) Dome 33 (x1) Dome 49 (x3) Dome 230 (x3) TA-55, Outdoor Pad (x1)	Several containers were found to have inaccurate label information. This is a noncompliance with Permit Section 3.6(1).	14 Containers	14	10/21/2015 - 3/9/2016 10/13/2015 - 3/9/2016 10/29/2015 - 3/9/2016 10/26/2015 - 3/9/2016 10/28/2015 - 3/9/2016 10/14/2015 - 11/19/2015 3/11/2016 - 3/14/2016 4/8/2016 - 5/9/2016 7/19/2016 - 7/19/2016	All conflicting labels have been removed. New hazardous waste labels, with information consistent with the operating record, were applied.
10/27/2015 10/13/2015 10/29/2015 11/03/2015	TA-54, Area G Dome 153 (x1) Dome 230 (x1) Dome 232 (x1) Pad 10 (x1)	Four containers of mixed waste were missing a "Radioactive" label. This is a noncompliance of Permit Section 3.6(1).	4 Containers	4	10/27/2015 - 10/3/2016 10/13/2015 - 10/3/2016 10/29/2015 - 03/01/2016 11/03/2015 - 9/13/2016	"Radioactive" labels were applied to the containers.
10/29/2015 11/03/2015 10/28/2015	TA-54, Area G Dome 232 (x1) Building 8 (x1) Pad 10 (x1) Dome 49 (x1)	During a routine inspection, it was discovered that the physical location of several containers was not consistent with the operating record's inventory report. This is a noncompliance of Permit Section 2.12.2.	4 Containers	4	10/29/2015 - 4/20/2016 11/03/2015 - 1/11/2016 11/03/2015 - 9/13/2016 10/28/2015 - 6/1/2016	The operating record was subsequently updated and/or the containers were moved to ensure consistency between the physical location and the operating record.

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Date of Discovery	Permitted Unit Location	Noncompliance	Quantity of Material	Instances	Period of Noncompliance	Steps Taken to Resolve
10/27/2015	TA-54, Area G Dome 153	A single container was found to be inadequately characterized. This is a noncompliance of Permit Section 2.4.1.	1 Container	1	10/27/2015 - 8/3/2016	Upon investigation, it was found that the container had been issued a duplicate number. The waste was characterized appropriately and the container has been assigned to a new waste stream profile and relabeled. The operating record reflects this correction.
10/27/2015	TA-54, Area G Pad 6	Lines of demarcation have not been established to identify boundaries. This is a noncompliance of Permit Section 3.5.	N/A	1	10/27/2015 - 6/1/2016	Signs were placed throughout the Pad to identify the boundaries.
10/26/2015 10/28/2015 10/29/2015 6/29/2016 12/1/2015 4/6/2016 7/19/2016	TA-54, Area G Dome 33 (x1) Dome 49 (x1) Dome 232 (x1) Dome 230 (x1) TA-55 Building 4 (x2) Outdoor Pad (x17)	Containers were found to be labeled with storage start dates that were inconsistent with those of the operating record. This is a noncompliance of Permit Section 3.6(1).	23 Containers	23	10/26/2015 - 7/1/2016 10/28/2015 - 4/20/2016 10/29/2015 - 1/25/2016 6/29/2016 - 7/12/2016 12/1/2015 - 12/1/2015 4/6/2016 - 4/6/2016 7/19/2016 - 7/19/2016	New hazardous waste labels, with information consistent with the operating record, were applied.
6/15/2016	TA-50, Building 69	Weekly inspection record form was not completed. This is a noncompliance of Permit Section 2.6.1.	N/A	1	6/15/2016 - 6/15/2016	A memo to file was prepared and added to the operating record to address the missing information on the inspection record form. A Lessons Learned was developed and presented to individuals who conduct the inspections.
11/3/2015	TA-54, Area G, Pad 10	During a routine inspection, it was discovered that Building 484 and two white transportainers were moved inside the boundary of the demarcation lines on the south end of Pad 10. Permit figures were not updated to reflect the addition of these structures on Pad 10. This is a noncompliance with Permit Section 3.1(3).	N/A	1	11/3/2015 - 3/9/2016	A permit modification request to add Building 484 and the two transportainers to the Pad 10 figures in the Permit was submitted to NMED in March 2016 and incorporated in May 2016.
1/11/2016 1/21/2016	TA-54, Area L	During a routine inspection, it was discovered that three eyewash units were either missing inspection tags, or were not inspected in accordance with the Inspection Plan schedule. This is a noncompliance of Permit Section 2.10.2.	N/A	3	1/11/2016 - 3/1/2016 1/21/2016 - 3/1/2016	Inspection tags were replaced and inspections were updated and recorded.

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Date of Discovery	Permitted Unit Location	Noncompliance	Quantity of Material	Instances	Period of Noncompliance	Steps Taken to Resolve
6/16/2016 7/18/2016 8/10/2016 8/9/2016	TA-54, Area L (x1) TA-54, Area G, Building 33 (x1) Dome 232 (x1) TA-50, Building 69, WCRRF (x1)	During routine inspections, it was discovered that emergency eye wash units were not functioning properly and the Permittees did not provide substitute equipment and required training. This is a noncompliance of Permit Section 2.10.2.	N/A	4	6/16/2016 - 6/27/2016 7/18/2016 - 7/21/2016 8/10/2016 - 8/18/2016 8/9/2016 - 8/18/2016	All eye wash units were repaired. Training of appropriate personnel was conducted to ensure that a substitute will be provided for equipment that cannot be promptly repaired and documented in the operating record.
10/28/2015 5/26/2015 12/1/2015	TA-54, Area G, Building 8 (x1) Dome 153 (x1) Dome 230 (x1) TA-55, Building 4 (x1)	Four containers were found to be missing a "Free Liquid" label. This is a noncompliance of Permit Section 3.6(2).	4 Containers	4	10/28/2015 - 11/4/2015 5/26/2016 - 6/16/2016 10/28/2015 - 11/4/2015 12/1/2015 - 12/1/2015	"Free Liquid" labels were applied to the containers.
3/22/2016	TA-54, Area G Building 8	A secondary containment pallet was discovered to have standing liquid, which was not removed in a timely manner, monitored, or measured. This is a noncompliance of Permit Section 3.7.1(2).	N/A	1	3/22/2016 - 3/29/2016	The small amount of liquid was cleaned up with absorbent and disposed of. Additional training was provided on the appropriate monitoring for secondary containment systems.
10/22/2015 11/10/2015 11/16/2015 12/14/2015 1/12/2016 2/29/2016 5/16/2016 6/29/2016	TA-54, Area G Dome 230	During routine inspections, waste containers were found to have water on the lids. This is a noncompliance with Permit Section 3.5.1(5).	8 Containers	8	10/22/2015 - 10/29/2015 11/10/2015 - 11/12/2015 11/16/2015 - 11/19/2015 12/14/2015 - 12/21/2015 1/12/2016 - 2/18/2016 2/29/2016 - 3/7/2016 5/16/2016 - 6/2/2016 6/29/2016 - 7/11/2016	The water was removed from the lids of the containers.
12/7/2015 5 2/9/2016 3/21/2016	TA-54, Area G Dome 232 (x3)	Container labels were not visible for inspection. This is a noncompliance of Permit Section 3.8(2).	3 Containers	3	12/7/2015 - 12/14/2015 2/9/2016 - 3/2/2016 3/21/2016 - 3/24/2016	Containers were moved or labeled in a manner that ensured visibility during inspections.
1/19/2016 2/8/2016 10/5/2015 12/21/2015 2/3/2016 2/9/2016 11/23/2015 2/8/2016 3/2/2016	TA-54, Area G Building 412 (x2) Dome 232 (x4) Pad 10 (x3)	During several routine inspections, it was discovered that the 24 inches aisle spacing requirement was not maintained. This is a noncompliance with Permit Section 3.5.1(1).	N/A	9	1/19/2016 - 1/25/2016 2/8/2016 - 2/29/2016 10/5/2015 - 10/13/2015 12/21/2015 - 1/5/2016 2/3/2016 - 2/8/2016 2/9/2016 - 2/24/2016 11/23/2015 - 1/19/2016 2/8/2016 - 2/29/2016 3/2/2016 - 3/31/2016	The aisle spacing in the area was restored to meet the 24 inches aisle space requirement.

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Date of Discovery	Permitted Unit Location	Noncompliance	Quantity of Material	Instances	Period of Noncompliance	Steps Taken to Resolve
8/1/2016	TA-03, Building 29	Personnel supporting operations at the permitted unit allowed training to expire. This is a noncompliance of Permit Section 2.7.	N/A	1	8/1/2016 - 8/3/2016	Training was completed.
04/06/2016	TA-55, Building 4	Personnel failed to observe/record a missing start date on a container when conducting a hazardous waste inspection. This is a noncompliance of Permit Section 2.6.3(3).	1 Container	1	4/6/2016 - 4/6/2016	An inventory spreadsheet was created and is now updated weekly, or when drum movement occurs. A spreadsheet drum label correlation is conducted as part of the daily or weekly inspections that occur at each of the TA-55 permitted units.
8/8/2016	TA-55, Building 4	Unable to conduct the required daily hazardous waste inspections in Room 401 (Hazardous Waste Tank System) due to the room being radiologically contaminated from non-waste handling equipment. This is a noncompliance of Permit Section 2.6.	N/A	1	8/8/2016 - 8/16/2016	Inspections resumed after the source of the radiological contamination was identified and the room was decontaminated.
12/3/2015	TA-54, Area L	A waste container was stored at the facility for longer than one year. This is a noncompliance of Permit Section 2.3.1.	1	1	12/3/2015 - 1/14/2016	The container was shipped offsite for disposal.

Document: LANL Noncompliance Report FY16

November 2016

#### **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.

John **()**. Bretzke Division Leader

Environmental Protection and Compliance Division Los Alamos National Security, LLC Date Signed

11-17-16

Karen E. Armijo

Permitting and Compliance Program Manager National Nuclear Security Administration Los Alamos Field Office

U.S. Department of Energy

Date Signed

21 Nov 2016