



**Environmental Protection Division**  
**Environmental Compliance Programs (ENV-CP)**  
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General



MAY - 6 2015

**Environmental Management**  
**Los Alamos Field Office, A316**  
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Date: **MAY 06 2015**  
Symbol: ENV-DO-15-0076  
LA-UR: 15-21758  
Locates Action No.: Not Applicable

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: Transmittal of Nonconformance Report and Path Forward Approval for Duplicate Drum Number**

The purpose of this letter is to transmit information requested by the New Mexico Environment Department- Hazardous Waste Bureau (NMED-HWB) via the twice weekly technical phone calls held between the NMED-HWB and the Los Alamos National Security, LLC (LANS) and the U.S. Department of Energy (DOE), the Permittees. On December 4, 2014 the NMED-HWB requested information on a waste container that was found to have a number the same as a drum that was already shipped to the Waste Isolation Pilot Plant (WIPP). NMED-HWB was made aware of the issue by the Permittees earlier that week.

The documentation in Enclosure 1 includes the nonconformance report (NCR-2014-477) and the documentation attached to the report that describes the history and identification of the container and actions taken to address the issue. The nonconformance report additionally details the path forward to identify other potential container identification numbers that may be duplicated. Reporting associated with Los Alamos National Laboratory Hazardous Waste Facility Permit requirements will be included in the annual report required by Permit Section 1.9.14.



Mr. John E. Kieling  
ENV-DO-15-0076

- 2 -

If you have comments or questions regarding this submittal, please contact Mark P. Haagenstad at (505) 665-2014 or David Nickless at (505) 665-6448.

Sincerely,



Alison M. Dorries  
Division Leader  
Environmental Protection Division  
Los Alamos National Security LLC

Sincerely,



David J. Nickless  
Legacy Waste Manager  
Environmental Management  
Los Alamos Field Office  
U.S. Department of Energy

AMD/GET/MPH/LVH:lbm

Enclosures: (1) Waste Drum Not Adequately Documented in Facility Operating Record

Cy:

Ryan Flynn, NMED, Santa Fe, NM, (E-File)  
Kathryn M. Roberts, NMED, Santa Fe, NM, (E-File)  
Steve Pullen, NMED/HWB, Santa Fe, NM, (E-File)  
Timothy Hall, NMED/HWB, Santa Fe, NM, (E-File)  
Peter Maggiore, NA-LA, (E-File)  
Lisa Cummings, NA-LA, (E-File)  
Gene E. Turner, NA-LA, (E-File)  
Kirsten M. Laskey, NA-LA, (E-File)  
Michael A. Lansing, PADOPS, (E-File)  
Amy E. De Palma, PADOPS, (E-File)  
Randall M. Erickson, ADEP, (E-File)  
Enrique Torres, ADEP, (E-File)  
Cheryl D. Cabbil, ADNHHO, (E-File)  
Michael T. Brandt, ADESH, (E-File)  
Raeanna R. Sharp-Geiger, ADESH, (E-File)

James S. Clemmons, LTP, (E-File)  
Rick A. Alexander, EWMO-DO, (E-File)  
Andrew R. Baumer, EWMO-DO, (E-File)  
Donald L. Allen, LTP, (E-File)  
Scott A. Miller, LTP-SSS, (E-File)  
David E. Frederici, LTP-SSS, (E-File)  
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Mark P. Haagenstad, ENV-CP, (E-File)  
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# **ENCLOSURE 1**

**Waste Drum Not Adequately Documented in Facility Operating  
Record**

**ENV-DO-15-0076**

**LA-UR-15-21758**

**Date: MAY 06 2015**



Form 2082  
Nonconformance Report (NCR)

**WARNING!** This system is on the LANL Yellow network. NO CLASSIFIED or UCNI information should be entered in any field. As a user, you are responsible to ensure that all information entered in this system is UNCLASSIFIED and UCNI Free.

NCR-2014-477

Is this an Official Use Only Document (OUO)? ☐ Yes ☒ No  
(This may be changed at any time and does not require new signatures.)

Email Courtesy Copy

1. Nonconformance Identification

Provide the date and time of discovery of the nonconforming conditions.

1.1 NCR Number: NCR-2014-477

1.2 Local Tracking Number: EP-DIR-NCR-14-0005

N/A

1.3 Short Title: Waste drum not adequately documented in facility operating record

1.4 Date and Time of Identification: 2014-11-24 12:00:00

1.5 Identifier Name or Z#: 116274

Sean French

LTP-SSS: SHIPPING AND SAFE STORAGE PROJECT

+1 505 667 5953

1.6 NCR Coordinator (NCRC): Robert A Trujillo

Z#: 119642

Org: QPA-IQ: INSTITUTIONAL QUALITY

Phone: +1 505 667 3723

1.7 Owning Manager Name or Z#: 233890

Dave Frederici

LTP-SSS: SHIPPING AND SAFE STORAGE PROJECT

+1 505 665 6539

1.8 Additional Information (may be entered until Closure)

2. Nonconforming Item with in/associated with:

2.1 Select Nonconforming Item Location(s):

☒ Nuclear Facility ☐ Radiological Facility ☐ Non-Nuclear Facility ☐ Greenfield Project ☐ Accelerator  
☐ High Explosives ☒ Other

2.2 Describe Other Location(s):

RCRA Permitted Storage Unit

2.3 Nonconforming Item is Associated with:

☐ SSC ☐ R&D ☐ Weapons (Stop see MAP-005) ☐ Low-Level or Mixed Low-Level Waste ☐ Receipt Inspection ☒ Other

2.4 Describe Other:

Legacy TRU Waste

2.5 System and Process: Level 1: Facility Management and Operations Level 2: Conduct of Operations

3. Nonconformance Description

Complete all information in this block to the extent possible upon identification of the nonconformance

3.1 Requirement Reference (drawings, procedures, specifications, inspection documents, supplier/vendor name, etc.)

Los Alamos National Laboratory Hazardous Waste Permit; Basis for Interim Operations for Technical Area 54, Area G

Attach Documentation:

[ORPS 2014-3241-1 - Initial Extent of Condition](#)

[ORPS 2014-3241-1 - Initial Extent of Condition](#)

[Actions Taken to Address Duplicate TRU Waste Container at Area G - NCR-2014-477](#)

Document Title

Document Upload

Dave Frederici  
LTP-SSS: SHIPPING AND SAFE STORAGE PROJECT  
+1 505 665 6539

Assign Dispositioner Name or Z#: 116274  
Sean French  
LTP-SSS: SHIPPING AND SAFE STORAGE PROJECT  
+1 505 667 5953

**6. Reportability Screening**

Perform reportability screenings and document applicability of ORPS and PAAA

6.1 ORPS (Determined by FOD): ☒ Reportable ☐ Non-reportable ☐ N/A

6.1.1 Person that completed ORPS Screening: Name or Z#: 198450 Alicia Romero

6.2 PAAA (Determined by PAAA POC): ☐ Reportable ☒ Non-reportable ☐ N/A

6.2.1 Person that completed PAAA/WSH Screening: Name or Z#: 198450 Alicia Romero

**7. Investigation**

Provide information about the extent of condition and select up to four cause codes that apply to this nonconformance

**7.1 Extent of condition (activities performed and results):**

Initial extent of condition review described in attached MS Outlook message entitled, "ORPS 2014-3241-1 - Initial Extent of Condition". Final EOC determination TBD pending completion of wall-to-wall inventory at TA-54 Area G scheduled to begin week of Mar 2, 2015.

7.2 PFITS Number 2014-3241

7.3 Cause Codes: [M Cause Code Definitions](#)

**Cause Code M****Cause Code MB**

M2 Method

MB3 Process inadequate

[Add Cause Code](#)

[Remove Last](#)

**8. Conditional Release** [Edit Conditional Release Section](#) [Notify OM of Changes](#)

Complete this section as appropriate to release a nonconformance for further operations/processing. NOTE: Upon expiration of the Conditional Release this section must be duplicated and re-authorizations must be included in the NCR package

8.1 ☒ CR N/A ☐ CR Appropriate (Complete balance of section)

8.2 Conditions of Release (Controls):

8.3 Technical Justification:

8.4 Temp Mod Ref #:

8.5 USQ Ref #:

8.6 USI Ref #:

8.7 CR Tags Applied ☐ N/A

Tag Quantity:

CR Expiration Date (not to exceed 6 months):

Tag Locations:

Other

8.7.1 If Other, Describe:

**9. Disposition**

Determine, specify, and approve disposition and actions for closure ☒ Internal ☐ External

9.0.1 If Internal, identify the Dispositioner:

9.0.2 If External, identify LANL POC:

Name or Z#: 116274

Sean French LTP-SSS: SHIPPING AND SAFE STORAGE PROJECT

Name or Z#:

9.1 Disposition ☐ Use As-Is ☐ Repair ☒ Rework ☐ Reject

9.2 If disposition is "Use As-Is" or "Repair", then complete this section as applicable:

USQD N/A Ref #: USI N/A Ref #:

### **Actions Taken to Address Duplicate TRU Waste Container S803881**

- An NCR initiated in Nov 2014 because of the discovery of discrepant information in WCATS for container S803881 located in 54-232. The issue stemmed from the fact that WCATS showed this container being shipped to and received at WIPP in 2006.
- Subsequent review of records indicated that a container with number S803881 did ship to WIPP on June 8, 2006. Verification of receipt from WIPP personnel was received by LANL on June 9, 2006.
- A review of generator records was undertaken during week of Nov 24, 2014 to verify that the container that was shipped to WIPP in 2006 was the *correct* container. Based on container weights and inner seal numbers provided in generator documentation it was determined that the container that was shipped to WIPP in 2006 was the drum that was intended to be shipped. It was further determined that the container shipped to WIPP was correctly identified as S803881.

The container (with the same number) that remained onsite had inadvertently (and incorrectly) been assigned the S803881 container number before 2007 when it was first identified as a duplicate container during a wall-to-wall inventory. This duplicate container was retrieved from earthen covered storage by the TWISP project in 1998. TWISP project documentation appears to indicate this container may have had the S803881 container number when it was retrieved.

- Because it had been verified to the extent possible that the *correct* S803881 had shipped to WIPP in 2006, efforts to characterize the container discovered in Area G (with the same number) were initiated during the week of Nov 24, 2014. In-situ assay confirmed the container was TRU waste. RTR and container weight confirmed the waste was MIN03 sludge as indicated by RTR performed in 2007 when the duplicate container was originally identified.
- Using RTR, weight and assay information, a new container number (W822501) was created in WCATS for the duplicate drum in Dec 2014. Radioactive isotopes and activities assigned to the container in WCATS are based on in-situ assay performed in Nov 2014. EPA waste codes assigned in WCATS are based on CCP Acceptable Knowledge documentation for the MIN03 waste stream. Container weight in WCATS is based on measurement in the field in Dec 2014.
- The duplicate container was re-labeled with its new container number in Dec 2014.

NA--LASO-LANL-WASTEMGT-2014-0018

UPDATE

## Occurrence Report

### After 2003 Redesign

Waste Management

(Name of Facility)

Nuclear Waste Operations/Disposal

(Facility Function)

Los Alamos National Laboratory

Los Alamos National Laboratory

(Site)

(Contractor)

**Name:** Rick Alexander**Title:** EWMO Acting Facility Operations Director**Telephone No.:** (505) 665-7020

(Facility Manager/Designee)

**Name:** GARCIA, CELINA H**Title:** OCCURRENCE INVESTIGATOR**Telephone No.:** (505) 606-1815

(Originator/Transmitter)

**Name:** Linda Collier**Date:** 03/04/2015

(Authorized Classifier (AC))

**1. Occurrence Report Number:** NA--LASO-LANL-WASTEMGT-2014-0018

TSR Violation: Quarterly Surveillance for TRU Waste Inventory Storage Area Noncompliance

**2. Report Type and Date:** UPDATE

	Date	Time
<b>Notification:</b>	12/02/2014	20:23 (ETZ)
<b>Initial Update:</b>	01/16/2015	14:41 (ETZ)
<b>Latest Update:</b>	03/04/2015	16:59 (ETZ)
<b>Final:</b>		(ETZ)

**3. Significance Category:** 2**4. Division or Project:** Environmental Waste Management Operations**5. Secretarial Office:** NA - National Nuclear Security Administration

personnel isolated the drum in the Dome via a shift order pending its disposition.

At 0900, operations personnel notified the Environmental Waste Management Operations (EWMO) Acting Facility Operations Director (FOD). The EWMO Acting FOD categorized the event as sub-threshold reportable pending further review.

At 1100 on December 1, 2014, the EWMO Acting FOD held a fact finding to review the event. Information collected at the fact finding revealed that this is a duplicate drum from a previous potential container labeling issue/data tracking error. Further, information collected found that the subject drum is not being tracked in the TA-54 Area G material-at-risk (MAR). Per the TA-54, Area G Operating Limits and Surveillance Requirements (SR), the TRU waste inventory in a storage area must be verified on a quarterly surveillance. Therefore, because the MAR for the subject drum is not being tracked in the TA-54, Area G MAR, the previous quarterly surveillances for the TRU waste inventory storage area may not have been met. At 1235 on December 1, 2014, based on this discrepancy, the EWMO Acting FOD re-categorized the event as a Technical Safety Requirement (TSR) violation under Group 3A(2), Significance Category 2.

## BACKGROUND

During the TRU Waste Inspectable Storage Project (TWISP), which operated from 1995-2000, over 16,000 containers were removed from earthen-covered storage, cleaned, inspected, labeled, and placed into storage domes. These containers were originally fitted with a small tag on the ring bolt that served as their identification tag. Based on this tag, drums were labeled and their generator information assigned. At the conclusion of the TWISP, container inventories were conducted on each storage structure. In 2006, it was recognized that several issues existed in the database relative to labeling and container tracking. Related to this drum was an issue where two drums were labeled with the same number. There were eight (8) duplicate drums (four [4] pair) identified in the 2007 wall-to-wall inventory.

Upon discovery in 2007, these drums were analyzed to determine if the correct generator data could be assigned to each container based on available characterization data. For drum S803881, the duplicate drums had locations of TA-54, Area G and WIPP. With the assistance of CCP personnel, it was determined that the acceptable knowledge (AK) documentation matched the container that was located at WIPP. The duplicate container at Area G was weighed, characterized for radiological content and the dose rate measured to determine if the drum could be properly assigned to the right generator AK document. It was determined that no drum in the above ground inventory matched this container's characteristics, so the drum was tracked as an orphan container. During the subsequent wall-to-wall inventories, this drum was re-identified and the condition of the container tracked. A nonconformance record (NCR) was also generated to document the discrepancy as an Area G non-location.

In August of 2013, the TRU database was migrated to the WCATs database. During this migration, the duplicate locations for S803881 were not carried forward, only the location of the container at WIPP was carried forward in the WCATs database. Then on November 25, 2014, when the drum located at Area G and scanned for movement, the issue was identified that container S803881 located at Area G was not in the database.

UPDATE (03/04/2015): This report is being extended to allow for additional time to complete the causal analysis and to prepare the final report. The new due date is April 17, 2015. The DOE/NNSA Facility Representatives have been notified.

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## 16. Is Subcontractor Involved? No

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**25. Corrective Actions**

(\* = Date added/revised since final report was approved.)

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**26. Lessons Learned:**

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**27. Similar Occurrence Report Numbers:**

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**28. User-defined Field #1:**

amy

**29. User-defined Field #2:**

PFITS Record No. 2014-3241

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**30. HQ Keyword(s):**

01B--Inadequate Conduct of Operations - Loss of Configuration Management/Control  
01C--Inadequate Conduct of Operations - Violation of Authorization Basis Elements  
11N--Other - Waste Handling Operations  
12A--EH Categories - Authorization Basis  
14D--Quality Assurance - Documents and Records Deficiency  
14E--Quality Assurance - Work Process Deficiency

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**31. HQ Summary:**

On November 25, 2014, while performing housekeeping activities to re-locate Transuranic (TRU) waste drums at Technical Area (TA) 54, Dome 232, operations personnel found a 55-gallon drum that had been decommissioned. The Waste Compliance and Tracking System database showed that the subject drum had the same container number as a drum that had been shipped to the Waste Isolation Pilot Plant in 2006. Following notification, operations personnel isolated the drum for further evaluation. A fact finding was held and it was determined that this is a duplicate drum from a previous potential container labeling issue/data tracking error. The drum was not being tracked in the TA-54 Area G material at-risk system. The Environmental Waste Management Operations quality assurance representative generated a non-conformance record to disposition the duplicate drum and operations personnel created a new drum label. An extent of condition review will be conducted.

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**32. DOE Facility Representative Input:**

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**33. DOE Program Manager Input:**