



Environmental Protection Division Environmental Compliance Programs (ENV-CP) PO Box 1663, K490 Los Alamos, New Mexico 87545 (505) 667-0666 National Nuclear Security Administration Los Alamos Field Office, A316 3747 West Jemez Road Los Alamos, New Mexico, 87545 (505) 667-5794/Fax (505) 667-5948

Date: DEC 0 1 2014 Symbol: ENV-DO-14-0361

LA-UR: 14-28955

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 Revised Procedure for Nitrate Salt-Bearing TRU Waste Container Monitoring

The purpose of this letter is to transmit a procedure that has been updated from the previous submission to the New Mexico Environment Department (NMED). The Los Alamos National Security, LLC (LANS) and the U.S. Department of Energy (DOE), the Permittees, sent the enclosed procedure (EP-AREAG-FO-DOP-1246, R.0) to the NMED originally on May 29, 2014, as Attachment 5 of the Revised LANL Nitrate Salt-Bearing Waste Container Isolation Plan. The isolation plan requires that all procedures and plans attached to the isolation plan be submitted to the NMED upon revision.

Revisions of EP-AREAG-FO-DOP-1246, were submitted to the NMED on July 23, 2014 and August 25, 2014. Additionally, the procedure name changed to EWMO-AREAG-FO-DOP-1246, R.4: Nitrate Salt-Bearing TRU Waste Container Monitoring and was submitted as Attachment 7 of the LANL Nitrate Salt-Bearing Waste Container Isolation Plan, Revision 2 on September 19, 2014 and as a stand-alone update on September 30, 2014. EWMO-AREAG-FO-DOP-1246, R.5: Nitrate Salt-Bearing TRU Waste Container Monitoring, was submitted to the NMED on November 12, 2014.

The procedure included as Enclosure 1 has been updated with an "immediate procedure change" to correct a container numbering error in Attachment 3 to the procedure.



If you have comments or questions regarding this submittal, please contact Mark P. Haagenstad at (505) 665-2014 or Gene E. Turner at (505) 667-5794.

Sincerely,

Alison M. Dorries Division Leader

Environmental Protection Division Los Alamos National Security LLC Sincerely,

Gene E. Turner

Environmental Permitting Manager Environmental Projects Office Los Alamos Field Office U.S. Department of Energy

& Turney

AMD:GET:MPH:LVH/lm

Enclosures: (1) EWMO-AREAG-FO-DOP-1246, R.5, IPC.1: Nitrate Salt-Bearing TRU Waste

Container Monitoring

Cy: Ryan Flynn, NMED, Santa Fe, NM, (E-File)

Tom Blaine, NMED, Santa Fe, NM, (E-File)

Steve Pullen, NMED/HWB, Santa Fe, NM, (E-File)

Timothy Hall, NMED/HWB, Santa Fe, NM, (E-File)

Trais Kliphuis, NMED, 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)

Carl A. Beard, PADOPS, (E-File to aosburn@lanl.gov)

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

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

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

Alison M. Dorries, ENV-DO, (E-File)

Enrique Torres, ADEP, (E-File)

James S. Clemmons, LTP, (E-File)

Donald L. Allen, LTP, (E-File)

Scott A. Miller, LTP-SSS, (E-File)

David E. Frederici, LTP-SSS, (E-File)

Selena Z. Sauer, LC-ESH, (E-File)

Kenneth M. Hargis, LTP-PTS, (E-File)

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

Luciana Vigil-Holterman, ENV-CP, (E-File)

lasomailbox@nnsa.doe.gov, (E-File)

locatesteam@lanl.gov, (E-File)

env-correspondence@lanl.gov, (E-File)









Los Alamos Field Office, A316

Los Alamos, New Mexico, 87545

(505) 667-5794/Fax (505) 667-5948

3747 West Jemez Road

National Nuclear Security Administration

Environmental Protection Division Environmental Compliance Programs (ENV-CP) PO Box 1663, K490 Los Alamos, New Mexico 87545 (505) 667-0666

Hazardous Waste Bureau

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Revisions of EP-AREAG-FO-DOP-1246, were submitted to the NMED on July 23, 2014 and August 25, 2014. Additionally, the procedure name changed to EWMO-AREAG-FO-DOP-1246, R.4: *Nitrate Salt-Bearing TRU Waste Container Monitoring* and was submitted as Attachment 7 of the *LANL Nitrate Salt-Bearing Waste Container Isolation Plan, Revision 2* on September 19, 2014 and as a stand-alone update on September 30, 2014. EWMO-AREAG-FO-DOP-1246, R.5: *Nitrate Salt-Bearing TRU Waste Container Monitoring*, was submitted to the NMED on November 12, 2014.

The procedure included as Enclosure 1 has been updated with an "immediate procedure change" to correct a container numbering error in Attachment 3 to the procedure.



ENCLOSURE 1

EWMO-AREAG-FO-DOP-1246, R.5 IPC-1: Nitrate Salt-Bearing TRU Waste Container Monitoring

ENV-DO-14-0361

LA-UR-14-28955

Date: _____ DEC 0 1 2014

	Immedia	te Procedure	Change (IPC) Co	ver	14
	Sec	tion 1 - Orig	ginator Request		
Document No.: EWI	MO-AREAG-FO-	DOP-1246	Revision 1	IPC No.: 1	
Title: Nitrate Salt Be	aring TRU Waste	Container M	lonitoring		W.
Description of need and re					2,
and 68553". This rev	rision does not int	roduce any no	ew hazards.		
Originator Name (print) Ron Smart):		Organization: Procedures	Z#: 200480	Date: 11/11/14
		Section 2	-Reviews		
Discipline:	Na	me:	Signa	Signature:	
EWMO SME	Joshua Lopez		/s/ Joshua Lopez	/s/ Joshua Lopez	
ΓA-54 SOM	P. O'Grady / I	R. Harder	/s/ Pat O'Grady	11/12/14	
Engineering	Val Rhodes		/s/ Val Rhodes	11/12/14	
QA	Robert Trujille	0	/s/ Robert Trujillo	11/13/14	
ENV-CP	Luciana Vigil-	-Holterman	/s/ Luciana Vigil-Holterman		11/12/14
Safety Basis	R. Selvage / S	. Walker	/s/ Sharon Walker		11/12/14
LTP-SSS Lead	Gen Fernande	z	/s/ Gen Fernandez	2	11/12/14
			*		T
USQ/USI Number:	AREAG-14-470-	C, R.0			N/A
	Se	ection 3– Fin	al Approvals	THE SEC	
FOD Concurrence: /s/ Pat O'Grady	1 -	Print Name and Title: Pat O'Grady, EWMO SOM		Z#: 15135	Date: 8 11/12/1
Permanent Limited Use	I	Effective Date: Expiration Date	11/17/14	1	
Comments:		6			
				T	
Responsible Line Mana	ger Signature: Pri	int Name and	Title:	Z#:	Date:

LANL

P315, Rev. 4

Effective Date: 07/17/14

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EWMO-AREAG-FO-DOP-1246, R.5

IPC-1

Nitrate Salt-Bearing TRU Waste Container Monitoring

				Effective Dat	æ:	1	1/03/14
azard Class:		Low	\boxtimes	Moderate		High/Compl	ex
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WMO Shift Operation WMO Waste Manage cility Operations Dire TP EWMO Engineering	ment Coector (FC	ordinator DD)					
ΓP EWMO Operation afety Basis	s Suppoi	·					
bject-Matter Expert							
esponsible Manager	, EWM	O - Operations	Managei				
Gail M. Welsh		/ 114849	/ /s/	Gail Welsh			/ 10/29/14
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This document fully satisfies the requirements of P300, Integrated Work Management, in order to systematically describe the work activity, the associated hazards, and the controls that MUST be employed to mitigate the risks.

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REVISION HISTORY

Document No./Revision No.	Issue Date	Action	Description
EP-AREAG-FO-DOP-1246, R.0	May 29, 2014	Major	Generated to incorporate EP-AREAG-SO-1237, TA-54 Area G Temperature Readings of Remediated Nitrate Salt Containers, EP-AREAG-SO-1244, TA-54 Area G Nitrate Waste Container Inspection. A Job hazard analysis was developed and controls incorporated into the procedure through precautions, limitations, warnings, cautions and notes.
EP-AREAG-FO-DOP-1246, R.1	Approved for Training	Major Revision	Revise procedure to incorporate container numbers into the procedure, checks, and actions for HVAC Low D/P and make editorial corrections as necessary. Section 6, added note to clarify Attachment 2 lists the container numbers. Correct step 5.[6] to revise word from smoking to smoke. Added Step 6.[8] to address container number discrepancies. This revision does not introduce any new hazards.
EP-AREAG-FO-DOP-1246, R.2	July 15, 2014	Major Revision	Revise procedure to incorporate ENV-CP comments and make editorial corrections as necessary. This revision does not introduce any new hazards.
EP-AREAG-FO-DOP-1246, R.3	August 1, 2014	Major Revision	Revise procedure to allow for performing the temperature measurements in TA-54-231 and TA-54-375 independent of each other. Allow for multiple infrared thermometers to be used. Delete control drum temperature readings throughout. Revise attachments to include a separate attachment for recording daily temperatures in each cell in TA-54-375. Make process improvement changes. Make editorial corrections as necessary. This revision does not introduce any new hazards. This revision is a total rewrite and revision bars have been omitted.

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REVISION HISTORY (continued)

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EWMO-AREAG-FO-DOP-1246, R.4	September 11, 2014	Major	Revised procedure to change Procedure number from EP to EWMO. Deleted Step 6.[19] and the associated SOM initials for the daily review on Attachments 2 through 6. Moved Step 8.1[1] Operator signoff to the end of Sections 5 and 6. Deleted Step 8.1[1]. Delete SOM initials on attachments 2 through 6. Rev bars is in the left column display location of changes. No additional hazards were identified during this revision.
EWMO-AREAG-FO-DOP-1246, R.5	November 03, 2014	Major Revision	Revise procedure to incorporate the ability to use remote temperature indication from thermocouples and to update waste container numbers. This revision is a total rewrite and revisions bars have been omitted. This revision does not introduce any new hazards.
EWMO-AREAG-FO-DOP-1246, R.5 IPC-1	November 17, 2014	IPC	Revise procedure to change the drums in SWB LA0000070503 from "68553 and 69445" to "68540 and 68553". This revision does not introduce any new hazards.

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1. PURPOSE

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This procedure provides the instructions and directions for performing nitrate salt-bearing Transuranic (TRU) WASTE container monitoring (i.e., temperature readings of nitrate salt, nitrate salt waste container inspections).

2. SCOPE

This procedure applies to Los Alamos National Laboratory (LANL) Transuranic Programs (LTP) and Environmental and Waste Management Operations (EWMO) personnel who will be monitoring the nitrate salt TRU WASTE containers. Activities associated with the nitrate salt-bearing TRU WASTE containers and the associated storage locations other than identified in this procedure will require prior approval from the EWMO-Facility Operations Director (EWMO FOD) and the Associate Director of Environmental Programs.

Inspections required by Attachment E, Inspection Plan, of the LANL Hazardous Waste Permit are performed in accordance with EWMO-DOP-20215, EWMO RCRA Inspections and Notifications.

3. PRECAUTIONS AND LIMITATIONS

- Activities, items, and containers SHALL satisfy approved design specifications, regulatory requirements, process-specific parameters, and procedural requirements.
 Activities, items, or containers that do <u>not</u> conform to the approved specifications and requirements are considered nonconforming and Nonconformance Reports (NCRs)
 SHALL be generated in accordance with P330-6, Nonconformance Reporting, as required.
- When a worker observes an unsafe condition or act that may pose an imminent danger or other safety concern/hazard, the worker has the authority and responsibility to inform the worker engaged in the work and request that the work activity be paused and/or stopped based on the risk posed to the individual, the employees, the environment, or the facility in accordance with P101-18, Procedure for Pause/Stop Work.
- Not Applicable (N/A) is documented on the attachments during the performance of this
 procedure indicating information that is <u>not</u> required to be recorded.
- Personnel associated with this procedure SHALL review and understand the requirements of the Radiological Work Permit (RWP).

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3. PRECAUTIONS AND LIMITATIONS (continued)

Personal protective equipment (PPE) SHALL be worn as required by the RWP and Industrial Hygiene personnel.

- To comply with the intent of the As Low As Reasonably Achievable (ALARA) Program, all personnel SHALL apply the principles of time, distance, and shielding when working with radiological materials.
- Infrared thermometer is equipped with a laser. Care should be taken to prevent pointing beam to eyes. Do not allow eyes of user or observers to become exposed to the beam.
- Waste containers with liquids (any amount or configuration) that have not been solidified (absorbed) and are stored or staged for a period longer than 24 hours SHALL be labeled "Free Liquids" and managed on secondary containment pallets or in structures designed to satisfy the secondary containment requirements (e.g., Sheds, Bldg. TA-54-1027, 1028, 1030, 1041, 144, 145, 146, and 177, and Dome 230).
- Support Services Subcontractors executing this procedure SHALL comply with the safety and health requirements documented in contractual agreements with the LANL.

4. PREREQUISITE ACTIONS

NOTE The listed prerequisite actions may be completed in any order.

4.1 Planning and Coordination

PIC/Designee

- ENSURE that the performance of this procedure has been scheduled on the TA-54 [1] Area G schedule.
- **ENSURE** that a pre-job briefing is conducted for all personnel involved in the performance of this procedure in accordance with EP-DIV-AP-0112, EWMO Pre-Job Briefings.
- [3] **ENSURE** that the procedure is the latest revision, and **IDENTIFY** this document as Working Copy or Information Only on the Title Page.

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4.1 Planning and Coordination (continued)

- [4] **ENSURE** that, as a minimum, the following personnel trained to the use of this procedure are available for the performance of this procedure, as required:
 - Two Operators
 - One Radiological Control Technician (RCT) [when performing operations in Contamination Area (CA)]

Operator/Designee

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[5] IF performing Section 6, TA-54 Area G Temperature Readings of Nitrate Salt TRU Waste Containers,

THEN:

- [A] **ENSURE** that the applicable PermaCon round sheet (i.e., Dome TA-54-231, Dome TA-54-375) was completed.
- [B] ENSURE that an RWP has been issued for the planned activity, as applicable.

4.2 Materials and Equipment

4.2.1 Measuring and Test Equipment (M&TE)

Operator/Designee

- [1] IF performing Section 6,

 AND an infrared thermometer is to be used to obtain the waste container temperatures,

 THEN:
 - [A] ENSURE that a calibrated infrared thermometer is available.
 - [B] **RECORD** the following infrared calibration information on Attachment 2 through 6, as applicable:
 - Brand name
 - Model number
 - Calibration due date
 - File number
 - [C] IF the infrared thermometer has exceeded the calibration due date, THEN:
 - [a] **NOTIFY** the TA-54 Operations Center of the discrepancy.

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OBTAIN another infrared thermometer that is within the calibration due date.

[c] GO to Step 4.2.1[1][A].

Measuring and Test Equipment (M&TE) (continued)

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5. INSTRUCTIONS—NITRATE SALT TRU WASTE CONTAINER VISUAL INSPECTIONS

This section is a stand-alone section and may be performed independently of, or in conjunction with other Instructions sections.

This activity will be performed at a minimum of once an hour.

NOTE Multiple nitrate salt TRU WASTE container storage locations may be visually inspected concurrently.

Operator/Designee

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- **ENSURE** that the prerequisite actions have been completed.
- NOTE Waste containers that are stored in a PermaCon (e.g., TA-54-231 or TA-54-375) will be visually inspected from a point outside of the PermaCon without entering the CA.
- IF assuming nitrate drum observation (NDO) duties,

THEN DOCUMENT the following in the Comments section of Attachment 1, Nitrate Salt TRU Waste Container Visual Inspection Data Sheet:

- Time and assumption of duties
- Signature and Z number
- [3] IF turning over NDO duties,

THEN DOCUMENT the following in the Comments section of Attachment 1:

- Time and turnover of duties
- Printed name of relief
- Signature
- PROVIDE a description of any unsatisfactory conditions, notifications, and corrective actions in the Comments section of Attachment 1.
- [5] **RECORD** the following information on Attachment 1:
 - Date range and time (24 hours)
 - Location (e.g., Storage Areas: TA-54-231 PermaCon or TA-54-375 PermaCon)

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5. INSTRUCTIONS—NITRATE SALT TRU WASTE CONTAINER VISUAL INSPECTIONS (continued)

[6] **DETERMINE** whether the following applicable PermaCon HVAC system components (TA-54-231 or TA-54-375) are operational, and **CHECK** (√) YES or NO on Attachment 1:

TA-54-231

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- FE-1000, ON and operating
- FE-2000, ON and operating
- FE-3000, ON and operating
- FE-4000, ON and operating
- PDI-1000 and PDI-2000 alarm light are not illuminated (panel outside cell)

TA-54-375

- FE-001, VFD-001 is ON and set to HAND, 30 to 60 Hz, and
- FE-002, VFD-002 is ON and set to HAND, 30 to 60 Hz, and
- PDA-001, PDA-002, and PDA-003 alarm light are <u>not</u> illuminated (panel outside cell)
- [7] IF NO was checked ($\sqrt{}$) in the previous step, **THEN:**
 - [A] GO TO EP-AREAG-RM-ARP-1123, 231 PermaCon Low Cell D/P Alarm, or EP-AREAG-RM-ARP-1150, 375 PermaCon Low Cell D/P Alarm, as applicable.
 - [B] NOTIFY the TA-54 Operations Center and Shift Operation Manager (SOM) for applicable actions.
- [8] VISUALLY INSPECT nitrate salt waste containers for indications of an abnormal condition including an internal reaction (e.g., chemical/thermal) and/or loss of container integrity:
 - Evidence of deterioration such as signs of discoloration, paint peeling or yellowing
 - Loss of container integrity such as evidence of leakage, or lid compromised
 - Bulging such as pressurized, expansion of side walls, or round bottom
 - · Chemical reaction such as smoke or release of internal contents to atmosphere
 - Signs of smoke and fire from a container

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5. INSTRUCTIONS—NITRATE SALT TRU WASTE CONTAINER VISUAL INSPECTIONS (continued)

NOTE 1 During back-shifts or off-shifts, or if the TA-54 Operations Center is <u>not</u> available, the SOM can be notified directly at 505-231-8289. Additional notifications to the Emergency Operations Support Center (EOSC), 505-667-6211, or 911, are performed based upon the severity of the situation or in accordance with direction from the SOM.

NOTE 2 Any follow-up calls to 911 should be conducted at a safe location from the incident after the activation of a manual pull.

[9] IF a chemical reaction such as smoke, fire, or release of internal contents to the atmosphere are discovered, THEN:

- [A] ACTIVATE the manual pull station in the general area of the incident if safe to do so.
- [B] **PERFORM** an Emergency response in accordance with EP-DIV-BEP-20048, EWMO Division Building Emergency Plan (BEP), to include:
 - SUSPEND work.
 - WARN others.
 - ISOLATE immediate area.
 - EVACUATE to an upwind Assembly/Muster area from the incident.
 - MAKE notifications [e.g., TA-54 Operations Center, EOSC, 911].
- [C] **CHECK** ($\sqrt{}$) UNSAT for the inspection location, and **DOCUMENT** the condition in the Comments section of Attachment 1 when in a safe area and at a time when operationally convenient.

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INSTRUCTIONS—NITRATE SALT TRU WASTE CONTAINER VISUAL 5. **INSPECTIONS** (continued)

- [10] IF evidence of deterioration is discovered, such as signs of discoloration, paint peeling or yellowing, loss of container integrity such as evidence of leakage or a compromised lid, bulging, pressurization (expansion of side walls, or round bottom) are discovered, THEN:
 - [A] **PERFORM** an off-normal response in accordance with EP-DIV-BEP-20048, to include:
 - SUSPEND work.
 - WARN others.
 - ISOLATE the immediate area.
 - MOVE-AWAY upwind from the area of concern.
 - MAKE Notifications (e.g., TA-54 Operations Center).
 - **CHECK** ($\sqrt{}$) UNSAT for the status of the inspection location, and **DOCUMENT** the condition in the Comments section of Attachment 1 when in a safe area and at a time when operationally convenient.
- [11] **CHECK** ($\sqrt{}$) SAT for the status of the affected inspection location on Attachment 1.
- [12] **RECORD** initials and Z number on Attachment 1.
- [13] **REPEAT** Steps 5.[2] through 5.[12] until each nitrate salt TRU WASTE container storage location has been visually inspected.
- [14] PRINT name, SIGN, and RECORD Z#, initials, and date on the Attachment 1.

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6. INSTRUCTIONS—TA-54 AREA G TEMPERATURE READINGS OF NITRATE SALT TRU WASTE CONTAINERS

This section is a stand-alone section and may be performed independently of, or in conjunction with other Instructions sections.

This section provides the instructions for performing hourly or daily temperature readings.

- NOTE 1 Waste container temperature measurements are obtained by entering the applicable PermaCon (e.g., TA-54-231 or TA-54-375) Contamination Area and individually measuring and recording the waste container temperatures or by observing the waste container temperature on the computer located in the TA-54-375 PermaCon Control Room.
- NOTE 2 The temperature indications for each waste container with an input to the TA-54-375 PermaCon Control Room computer are labeled with the waste container number except for the ambient temperature thermocouple which is labeled AMBIENT.
- NOTE 3 Separate attachments are provided to allow for recording daily waste container temperatures independently as listed below:
 - Attachment 2, TA-54 Area G TA-54-231 Nitrate Salt TRU Waste Container Daily Temperature Data Sheet
 - Attachment 3, TA-54 Area G TA-54-375 Cell 1 Nitrate Salt TRU Waste Container Daily Temperature Data Sheet
 - Attachment 4, TA-54 Area G TA-54-375 Cell 2 Nitrate Salt TRU Waste Container Daily Temperature Data Sheet
 - Attachment 5, TA-54 Area G TA-54-375 Cell 3 Nitrate Salt TRU Waste Container Daily Temperature Data Sheet
- NOTE 4 Attachment 6, TA-54 Area G Nitrate Salt TRU Waste Container Hourly Temperature Data Sheet, is set up for documenting hourly readings of one or more containers as directed by the LTP-SSS management.

Operator/Designee

ENSURE that all prerequisite actions have been completed.

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- PROVIDE a description of any unsatisfactory conditions, notifications, and corrective [2] actions in the Comments section of Attachment 2 through 6, as applicable.
- [3] IF at any time during the performance of this section a chemical reaction such as smoke, fire, or release of internal contents to the atmosphere is discovered, THEN:
 - [A] ACTIVATE the manual pull station in the general area of the incident if safe to do SO.
 - PERFORM an Emergency response in accordance with EP-DIV-BEP-20048, to include:
 - SUSPEND work.
 - WARN others.
 - ISOLATE the immediate area.
 - **EVACUATE** to an upwind Assembly/Muster Area from the incident.
 - MAKE Notifications (e.g., TA-54 Operations Center, EOSC, 911).
 - [C] **DOCUMENT** the condition in the Comments section of the applicable attachment when in a safe area and at a time when operationally convenient.
- [4] IF at any time during the performance of this section evidence of deterioration is discovered, such as signs of discoloration, paint peeling or yellowing, loss of container integrity such as evidence of leakage or a compromised lid, bulging, pressurization (expansion of side walls, or round bottom) are discovered, THEN:
 - [A] **PERFORM** an off-normal response in accordance with EP-DIV-BEP-20048, to include:
 - SUSPEND work.
 - WARN others.
 - ISOLATE the immediate area.
 - **MOVE-AWAY** upwind from the area of concern.
 - MAKE Notifications (e.g., TA-54 Operations Center).
 - [B] **DOCUMENT** the condition in the Comments section of the applicable attachment when in a safe area and at a time when operationally convenient.

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- **DETERMINE** whether the daily or hourly temperature readings are to be conducted as [5] directed by the SOM.
- [6] **RECORD** the location, date range, and start time on the applicable attachment.
- [7] **DETERMINE** the ambient temperature (e.g., the wall of the contamination control enclosure or designated location using an infrared thermometer or the AMBIENT temperature indication on the TA-54-375 PermaCon Control Room computer), and **RECORD** the ambient temperature (in °F) on the applicable attachment.

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- NOTE 1 Attachments 2 through 5 are pre-populated with the container numbers for TA-54-231 PermaCon and for Cells 1, 2, and 3 of TA-54-375 PermaCon.
- NOTE 2 Standard waste boxes (SWBs) that were not packaged for Waste Isolation Pilot Plant (WIPP) shipment (without a LASBxxxxx number) identify the location of the nitrate salt-bearing drum inside by the location of the container label on the outside of the SWB.
- NOTE 3 SWBs that were packaged for WIPP shipment (with a LASBxxxxx number) do not have the location of the nitrate salt-bearing drum identified on the outside of the SWB.
- NOTE 4 The temperature indications for each waste container with an input to the TA-54-375 PermaCon Control Room computer are labeled with the waste container number except for the ambient temperature thermocouple which is labeled AMBIENT.
- [8] IF the nitrate salt-bearing drum location within the SWB is known, THEN OBTAIN the nitrate salt-bearing drum temperature using one or both of the following methods and **RECORD** the container number, as applicable, and temperature on the applicable attachment:
 - MEASURE the temperature (in °F) on the top approximate center of each nitrate salt drum, through the SWB lid, using an infrared thermometer
 - READ the SWB temperature (°F) indication on the TA-54-375 PermaCon Control Room computer
- [9] IF the nitrate salt-bearing drum location within the SWB is **NOT** known, THEN MEASURE the temperature (in °F) on the top approximate center of each drum in the SWB, through the SWB lid, using an infrared thermometer, and RECORD the container number, as applicable, and the highest temperature measurement on the applicable attachment.

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6. INSTRUCTIONS—TA-54 AREA G TEMPERATURE READINGS OF NITRATE SALT TRU WASTE CONTAINERS (continued)

- [10] IF a container's temperature is greater than 10 °F higher than the ambient temperature, THEN:
 - [A] EXIT the PermaCon.
 - **NOTIFY** the TA-54 Operations Center of the discrepancy, **REPORT** the container's temperature and amount greater than ambient, and REQUEST direction.

TA-54 Operations Center

- **NOTIFY** the Operations Manager and EOSC at 505-667-6211 of the discrepancy.
- [D] IF a container's temperature is greater than 15 °F higher than the ambient temperature,

THEN REQUEST support from EOSC at 505-667-6211 and NOTIFY the Operations Manager of the discrepancy.

Operator/Designee

- [11] IF a deficiency with a container number pre-populated on the attachment is discovered, THEN:
 - [A]**SUSPEND** operations.
 - [B]**NOTIFY** the TA-54 Operations Center and SOM for guidance and direction.
- NOTE The ambient temperature of the contamination control enclosure will be measured a second time after measuring the temperature of the last nitrate salt waste container.
- [12] **DETERMINE** the ambient temperature [e.g., of the contamination control enclosure using an infrared thermometer or the AMBIENT temperature indication on the TA-54-375 PermaCon Control Room computer], and **RECORD** the ambient temperature (in °F) on the applicable attachment.
- [13] **RECORD** the end time and **INITIAL** on the applicable attachment.

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- [14] **RECORD** "N/A" (not applicable) for temperature readings that were <u>not</u> recorded and **DOCUMENT** an explanation in the Comments section of the applicable attachment.
- [15] **IF** a temperature is recorded incorrectly, THEN RECONCILE the discrepancy and INITIAL on the applicable attachment.
- [16] **REPEAT** Steps 6.[2] through 6.[15] for TA-54-231 and TA-54-375 until all of the nitrate salt drum temperatures to be measured have been recorded.
- [17] PRINT name, SIGN, and RECORD Z#, initials, and date on the applicable attachments (Attachments 2 through 6).

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7. INSTRUCTIONS—TA-54 AREA G EAST ENTRANCE/ROAD INTO AREA G **MONITORING**

This section is a stand-alone section and may be performed independently of, or in conjunction with other Instructions sections.

This section is performed in response to significant precipitation (rain fall greater than 0.25 inches within 30 minutes or greater than a 0.5 inches in 24 hours of rain fall) that may cause damage or road deterioration of east entrance/road into TA-54 Area G. Weather information may be obtained from TA-54 Meteorological Station or National Oceanic and Atmospheric Administration (NOAA).

Shift Operations Manager

- VISUALLY INSPECT the TA-54 Area G East entrance/road for deterioration [1](e.g., washout).
- [2] IF deterioration is observed, THEN:
 - [A] **NOTIFY** Maintenance and Site Services.
 - [B] **GENERATE** a Facility Service Request (FSR) to repair roadway as applicable.
 - NOTIFY the Los Alamos Fire Department (LFPD) of road condition. [C]

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Nitrate Salt-Bearing TRU Waste **Container Monitoring**

8. POST-PERFORMANCE ACTIVITY

8.1 Disposition

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SOM or designee

- **REVIEW** the applicable attachments (Attachments 1 through 6) for accuracy and completeness.
- [2] PRINT name, SIGN, and RECORD Z#, initials, and date on the applicable attachments (Attachments 1 through 6).
- NOTE Completing a Post-Job Review may be accomplished using the applicable P300 form or online (the preferred method since the institution has access to feedback and lessons learned http://int.lanl.gov/safety/iwmc/ [Click on the Submit IWD Part 4 Post-Job Review]).
- IF any of the following occur: [3]
 - A new activity was completed for the first time
 - A request was made by anyone involved with the performance of this procedure to perform a post-job review
 - An abnormal event occurred
 - A revision to an existing procedure was issued and it has been determined by the procedure owner or designee that a Post-Job Review is required

THEN PERFORM a Post-Job Review in accordance with P300.

IF the Post-Job Review identified any necessary changes to this procedure, [4] THEN INITIATE a revision to this procedure.

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8.2 **Records Processing**

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Operator/Designee

Ensure that documents generated by the performance of this procedure are processed as [1]

Record Identification	Record Type Determination	Protection/Storage Methods	Processing Instructions
Attachment 1, Nitrate Salt TRU Waste Container Visual Inspection Data Sheet Attachment 2, TA-54 Area G TA-54-231 Nitrate Salt TRU Waste Container Daily Temperature Data Sheet Attachment 3, TA-54 Area G TA-54-375 Cell 1 Nitrate Salt TRU Waste Container Daily Temperature Data Sheet Attachment 4, TA-54 Area G TA-54-375 Cell 2 Nitrate Salt TRU Waste Container Daily Temperature Data Sheet Attachment 5, TA-54 Area G TA-54-375 Cell 3 Nitrate Salt TRU Waste Container Daily Temperature Data Sheet Attachment 5, TA-54 Area G TA-54-375 Cell 3 Nitrate Salt TRU Waste Container Daily Temperature Data	QA Record	Supervision SHALL implement a reasonable level of protection to prevent loss and degradation. Records should be maintained in a one-hour fire rated metal file cabinet when not in use.	When the records are ready for final disposition, the record is transferred to Records Management in accordance with EP-DIR-AP-10003, Records Management Procedure For ADEP Employees.
Sheet Attachment 6, TA-54 Area G Nitrate Salt TRU Waste Container Hourly Temperature Data Sheet			

9. REFERENCES

EP-AREAG-RM-ARP-1123, 231 PermaCon Low Cell D/P Alarm

EP-AREAG-RM-ARP-1150, 375 PermaCon Low Cell D/P Alarm

EP-DIR-AP-10003, Records Management Procedure For ADEP Employees

EP-DIV-AP-0112, EWMO Pre-Job Briefings

EP-DIV-BEP-20048, EWMO Division Building Emergency Plan (BEP)

EWMO-DOP-20215, EWMO RCRA Inspections and Notifications

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9. REFERENCES (continued)

LANL Hazardous Waste Facility Permit

P101-18, Procedure for Pause/Stop Work

P300, Integrated Work Management

P330-6, Nonconformance Reporting

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ATTACHMENT 1

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NITRATE SALT TRU WASTE CONTAINER VISUAL INSPECTION DATA SHEET

5.[5] Date: From		Date: From	to		
	Time (24 hrs) (5.[5])	Storage Area (e.g., 231, 375) (5.[5])	HVAC Operational (5.[6])	Visual Inspection (5.[9][C]/5.[10][B]/ 5.[11])	Operator Initials and Z# (5.[12])
			☐ YES ☐ NO	☐ SAT ☐ UNSAT	
			☐ YES ☐ NO	☐ SAT ☐ UNSAT	
		1	☐ YES ☐ NO	☐ SAT ☐ UNSAT	
			☐ YES ☐ NO	☐ SAT ☐ UNSAT	
			☐ YES ☐ NO	☐ SAT ☐ UNSAT	
			☐ YES ☐ NO	☐ SAT ☐ UNSAT	
			☐ YES ☐ NO	☐ SAT ☐ UNSAT	
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			☐ YES ☐ NO	☐ SAT ☐ UNSAT	
			☐ YES ☐ NO	☐ SAT ☐ UNSAT	
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			☐ YES ☐ NO	☐ SAT ☐ UNSAT	
			☐ YES ☐ NO	☐ SAT ☐ UNSAT	
			☐ YES ☐ NO	☐ SAT ☐ UNSAT	
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			☐ YES ☐ NO	☐ SAT ☐ UNSAT	
			☐ YES ☐ NO	☐ SAT ☐ UNSAT	

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5.[5] Date: From	to				
5.[2]/[3]/[4] Comment	s:				
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5.[14] Performed by:		/	/	/	/
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	Operator (print)	Signature	Z #	Initials	Date
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	Operator (print)	Signature	Z #	Initials	Date
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	Operator (print)	Signature	Z #	Initials	Date
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	Operator (print)	Signature	Z#	Initials	Date
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	Operator (print)	Signature	Z #	Initials	Date
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	Operator (print)	Signature	Z#	Initials	Date
8.1[2] Reviewed By:		1	1	/	1
	SOM or designee (print)	Signature	Z#	Initials	Date

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TA-54 AREA G TA-54-231 NITRATE SALT TRU WASTE CONTAINER DAILY TEMPERATURE DATA SHEET

6.[6] Date: From to									
	Monday 6.[6] Start Time:	Tuesday 6.[6] Start Time:	Wednesday 6.[6] Start Time:	Thursday 6.[6] Start Time:	Friday 6.[6] Start Time:	Saturday 6.[6] Start Time:	Sunday 6.[6] Start Time:		
TA-54-231									
Calibrated Infrared Thermometer (4.2.1[1][B])	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number		
Ambient Temperature (6.[7])	°F	°F	°F	°F	°F	°F	°F		
Container ID #	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])		
S818435									
S802833									
S801676									
S816810									
70069	Ψ.								
S822844									
S825879									
\$793724		TV.							
S813545									
S822713		,		1					
S802739									
69907									
S804995									
\$816434									

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6.[6]	Date:	From	to

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Container ID #	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])
TA-54-231 (continued)							
S805289							
S862888							
70072							9
S823184							
S822599							
69904							
S805051		1					
S864213	A						4
S853714				(8)			
S803078							
S825878							
S823124							
S804948							
S813385					,		
S842446							
Ambient Temperature (6.[12])	°F	°F	°F	°F	°F	°F	°F
End Time (6.[13])						 -	
6.[13]	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:

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6.[6] Date: From	to									
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Operator (print)	Signature	Z#	Initials	Date	Operator (print)	Signature		Z #	Initials	Date /
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TA-54 AREA G TA-54-375 CELL 1 NITRATE SALT TRU WASTE CONTAINER DAILY TEMPERATURE DATA SHEET

6.[6] Date: F	rom	to						
		Monday 6.[6] Start Time:	Tuesday 6.[6] Start Time:	Wednesday 6.[6] Start Time:	Thursday 6.[6] Start Time:	Friday 6.[6] Start Time:	Saturday 6.[6] Start Time:	Sunday 6.[6] Start Time:
TA-54-375 Cell 1								
Calibrated Infrare Thermometer (4.2.1[1][B])	d	Brand: Model: Cal. Due Date: File Number	Brand:	Model:	Model:	Model:	Model:	Model:
Ambient Tempera (6.[7])	nture	°F	°F	°F	°F	°F	°F	°F
Container ID #		Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])
68685	-							
LA0000070503	68540 68553							
69445 69618	TYME .							
69013			 					
LASB5052	22							
LASB5045	52							
LASB5043	31							
LASB5006	59							
LASB5007	73							
69636								
69616								
69417						1	× 1	

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	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Container ID #	Temp (°F) (6.[8]/6.[9])						
TA-54-375 Cell 1 (con	tinued)						
69620							
69520					*	30.00	
69641		a.					
69298						8	in the second
LASB02203					*	(6)	
Ambient Temperature (6.[12])	°F						
End Time (6.[13])							
6.[13]	Operator:						
	Operator:						
6.[2] Comments:					100	17	
							*

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6.[6] Date: From

to

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.[17] Performed by:						į		1	,
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ATTACHMENT 4

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TA-54 AREA G TA-54-375 CELL 2 NITRATE SALT TRU WASTE CONTAINER DAILY TEMPERATURE DATA SHEET

6.[6] Date: From	to						
	Monday 6.[6] Start Time:	Tuesday 6.[6] Start Time:	Wednesday 6.[6] Start Time:	Thursday 6.[6] Start Time:	Friday 6.[6] Start Time:	Saturday 6.[6] Start Time:	Sunday 6.[6] Start Time:
TA-54-375 Cell 2							
Calibrated Infrared Thermometer (4.2.1[1][B])	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Model:	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Model:	
Ambient Temperature (6.[7])	°F	°F	°F	°F	°F	°F	°F
Container ID#	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])
LASB02198							
68638							
69615							
69635							
69642							
69630			н				
69633			-				
68430					9		
68631							
69634							
68567							
94227				<u> </u>			
LASB50442							
69644							
LASB50443							
69638					<u> </u>		

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•	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Container ID #	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9]
A-54-375 Cell 2 (con	tinued)						
68624							
68507							
69568							
69553							
69598				¥.			
LASB50559							
69015							
69639							
69637							
Ambient Temperature 6.[12])	°F	°F	°F	°F	°F	°F	°F
End Time (6.[13])							
6.[13]	Operator:	Operator:	Operator:		Operator:	Operator:	Operator:
	Operator:	Operator:	_ Operator:	Operator:	Operator:	Operator:	_ Operator:
5.[2] Comments:							
	 						

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Operator (print)	Signature	Z#	Initials	Date	Operator (print)	/	/	/	/
Operator (print)	Signature	Z#	Initials	Date	Operator (print)	Signature	Z#	Initials	Date
Operator (print)	/ Signature	/ Z#	/ Initials	/ Date	Operator (print)	Signature	/	Initials	Date
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Operator (print)	Signature	Z#	Initials	Date	Operator (print)	Signature /	Z # /	Initials /	Date
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Operator (print)	Signature	Z#	/ Initials	Date	Operator (print)	Signature	Z#	Initials	Date

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ATTACHMENT 5

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TA-54 AREA G TA-54-375 CELL 3 NITRATE SALT TRU WASTE CONTAINER DAILY TEMPERATURE DATA SHEET

6.[6] Date: From	to		<u> </u>				
	Monday 6.[6] Start Time:	Tuesday 6.[6] Start Time:	Wednesday 6.[6] Start Time:	Thursday 6.[6] Start Time:	Friday 6.[6] Start Time:	Saturday 6.[6] Start Time:	Sunday 6.[6] Start Time:
TA-54-375 Cell 3	(4) 图						
Calibrated Infrared Thermometer (4.2.1[1][B])	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number
Ambient Temperature (6.[7])	°F	°F	°F	°F	°F	°F	°F
Container ID #	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])
69519			41				
69645							
94068							
93605					#		
69548				į.		Jr.	
69604							
LASB50529							
LASB50418							
69036					'		
LASB50451							
69559							
LASB50448							
Ambient Temperature (6.[12])	°F	°F	°F	°F	°F	°F	°F
End Time (6.[13])							
6.[13]	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:

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6.[6	Date: From	to								
6.[2	?] Comments:									
		54								
				ie				1,2		
6.[1	[7] Performed by:						,	,	,	
_	<u> </u>	/		/	1	Operator (print)	/ Signature	/ Z#	/ Initials	Date
(Operator (print)	Signature	Z #	Initials	Date	Primer (Francy	/		/	/
-	Operator (print)	Signature	Z#	Initials	Date	Operator (print)	Signature /	Z #	Initials	Date /
-	Operator (print)	Signature	Z#	Initials	Date	Operator (print)	Signature	Z#	Initials	Date /
-	Operator (print)	/ Signature	/ Z#	/ Initials	/ Date	Operator (print)	Signature	Z#	Initials	Date
- (Operator (print)	/ Signature	/ Z#	/ Initials	/ Date	Operator (print)	Signature	Z#	/ Initials	Date
-	Operator (print)	/ Signature	/ 	/ Initials	/ Date	Operator (print)	Signature	/ Z#	Initials	Date
-	Operator (print)	/ Signature	/ Z#	/ Initials	/ Date	Operator (print)	Signature	Z#	/ Initials	Date
8.1	[2] Reviewed by:	6								
_	9	1			1	=				
	SOM or designee (print)	Signature	Z#	Initials	Date					

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TA-54 AREA G NITRATE SALT TRU WASTE CONTAINER HOURLY TEMPERATURE DATA SHEET

6.[6] Date: 1	From	to	*	Location:										
	Start Time: 6.[6]													
Calibrated Infrared	Brand:	Brand												
Thermometer (4.2.1[1][B])	Model:	Model												
(4.2.1[1][D])	Cal. Due Date:	Cal Due Date:												
	File Number													
Ambient Temperature (6.[7])	°F													
Container ID # (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])													
<u></u>														
														-
,														
						-								-
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						1 - 3								
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LA-UR-14-28955

6.[6] Date: From _____ to ____ Location: _____

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Container ID # (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])
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	4													
													11	
			- 12						3,0		12			
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		,,,,,,,,,												
						100		,		****				
Ambient Temperature (6.[12])	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F

Operator:

6.[13] Operator:

End Time (6.[13])

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6.[6] Date: From	to	Loca	tion:									77
											e e	
6.[2] Comments:				_							-	
				W-W								
	* -	_			7.61		-					
		7-11		-					-			
. , , , , , , , , , , , , , , , , , , ,	,a.v.a.									+		- F
							-				**	
	19							-				
6.[17] Performed by:					W-8/15	***			-			
o.[17] 1 crioinica by.	/	/	,	1			1	1				
Operator (print)	Signature	Z#	Initials	Date	Operator (print)	Signature	Z#	Initials	Date			
6			/	/	Operator (print)	/ Signature	/	/Initials	Date			
Operator (print)	Signature	Z#	Initials	Date	()	/	/	/	/			
Operator (print)	Signature	Z#	Initials	Date	Operator (print)	Signature	Z#	Initials	Date			
	1	/	1		Operator (print)	/ Signature	/ 	/ Initials	Date			
Operator (print)	Signature	Z#	Initials	Date	Орегию (рим)	/	/	/	/			
Operator (print)	Signature	Z#	Initials	Date	Operator (print)	Signature	Z#	Initials	Date			
	/		1	/	Operator (print)	Signature	/ 	/ Initials	Date.			
Operator (print)	Signature	Z#	Initials	Date	Operator (print)	/	/	/	/			
Operator (print)	Signature	/ Z#	/ Initials	Date	Operator (print)	Signature	Z#	Initials	Date			
500 a 300000, Jones Sto. 1 a 300000000												
8.1[2] Reviewed by:												
	1		1	1								
SOM or designee (print)	Signature	Z#	Initials	Date								

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