From: Haagenstad, Mark P Sent: Tuesday, February 03, 2015 7:54 AM

To: <u>Ryan.Flynn@state.nm.us</u>; <u>Jeff.Kendall@state.nm.us</u>; John Kieling; <u>steve.pullen@state.nm.us</u>; <u>Timothy.Hall@state.nm.us</u>; <u>siona.briley@state.nm.us</u>; <u>ricardo.maestas@state.nm.us</u>; <u>Gregory.Lauer@state.nm.us</u>; <u>steve.holmes@state.nm.us</u>; <u>coleman.smith@state.nm.us</u>; <u>butch.tongate@state.nm.us</u>; Cobrain, Dave, NMENV; <u>kathryn.roberts@state.nm.us</u>

Cc: Pete Maggiore; Silas DeRoma; Cummings, Lisa K; Nickless, David J; Bishop, M. Lee; Turner, Gene E; Armijo, Karen (CONTR); Wallace, Terry C; Torres, Enrique; Woitte, Deborah Kay; Clemmons, Steve; Allen, Don; Brandt, Michael Thomas; Sharp-Geiger, Raeanna Racine; Dorries, Alison Marie; Grieggs, Tony; Bacigalupa, Gian A; Vigil-Holterman, Luciana R; Alexander, Rick A; Baumer, Andy; Martinez, Saundra; Sauer, Selena Z; Wood, Yvonne Barbara; Schreiber, Arleen Thorn; Maestas, Pamela Therese; Hargis, Kenneth Marshall; Diaz, Tammy; Juarez, Catherine L; Cabbil, Cheryl Denise; Young, Steven L; Erickson, Randy; Funk, David John; Alexander, Rick A; Frederici, Dave; Diaz, Tammy; Juarez, Catherine L; Robinson, Bruce Alan; Lansing, Michael Alan; Tymkowych, John M; Haagenstad, Mark P **Subject:** RE: Daily Technical Submission - February 2, 2015

Due to technical difficulties, the Daily Written Submission for February 2, 2015 was delayed. We apologize for this delay.

Attached is the written daily technical submission for yesterday (February 2, 2015). The Permittees are submitting the attached information pursuant to: Section 19 of the May 19, 2014, *Administrative Order;* the July 10, 2014 letter from NMED regarding *Modification to May 19, 2014, Administrative Order;* and Section IX of the September 19, 2014, *LANL Nitrate Salt-Bearing Waste Container Isolation Plan, Revision 2*.

Please contact me if additional information would be helpful.

Mark Haagenstad Environmental Protection Division Compliance and Permitting Group Los Alamos National Laboratory Office: (505) 665-2014 Mobile: (505) 699-1733

NMED / LANL Technical Summary

February 2, 2015

LANL Technical Update:

- Location of Nitrate Salt-Bearing Wastes
 - Remediated nitrate salt-bearing waste containers.
 - All containers remain in the 375 Permacon.
 - Unremediated nitrate salt-bearing waste containers.
 - All containers remain in the 231 Permacon.
- Monitoring Daily Temperature
 - Temperatures remain below 90°F.
 - Previous 3 days' temperature data attached.

• Monitoring – Visual Inspections

- No abnormal conditions were observed.
 - Required hourly visual inspections were impacted by inclement weather conditions from the morning of Friday, January 30, 2015 until early afternoon on Saturday, January 31, 2015.

• Monitoring – headspace gas (HSG)

- o Containers (SWBs) 68685 and SB50522.
 - Continue daily head space gas (HSG) sample collection.
 - January 31, 2015 February 2, 2015 HSG data attached.
 - H₂, CO, CO₂ and N₂O
- Other containers:
 - A minimum of once per month HSG sampling will be conducted.
 - To date in February, LANL has conducted HSG sampling on 7 SWBs.

• Additional measures currently underway

- As a conservative measure, LANL is currently conducting additional monitoring. This additional monitoring includes:
 - Containers (SWB) 68685 and SB50522.
 - LANL continuing *solid phase micro-extraction*.
 - Hourly temperature measurements are currently being performed on SWB 68685 and SB50522.
 - Hourly temperature measurements were impacted by inclement weather from the morning of Friday, January 30, 2015 until early afternoon on Saturday, January 31, 2015.
 - Five (5) other SWB overpacks (containing 55-gallon drums of remediated nitrate salt-bearing waste).

- Continue twice-weekly HSG sample collection.
- February 2, 2015 HSG data attached.
- Anticipated Changes to Nitrate Salt-Bearing Waste Containers (e.g. movement, repackaging)
 - Currently, no further movements or re-packaging are occurring.

Other:

- The Laboratory was closed Friday January 30, 2015. Monitoring activities were impacted from Friday, January 30, 2015 until early afternoon on Saturday, January 31, 2015.
- Repairs of the fire suppression system at Dome 231 were completed Thursday, January 29, 2015 evening. As a result, all fire protection and notification systems are currently operational within the Permacons in Domes 231 and 375.

Next Call: Tuesday, February 3, 2015

Summary Chart - Requested Information / Pending Issues:

	Requested Information	Actionee	Status	Completion Date
1.	NMED contact / process for LANL to notify NMED under the Revised Isolation Plan (e.g., 24 hour potions)	NMED		Complete
2.	24 hour notices). Keep NMED informed on the status of on- going chemistry / analytical work.	LANL		June 5, 2014 Complete June 9, 2014
3.	On upcoming daily call, provide additional discussion on the potential for liquids in the 350 post-1991 cemented containers (including a discussion of the review of RTR tapes).	LANL		Complete July 6, 2014 (Discussion on call) July 18, 2014 (Meeting held)
4.	On upcoming call, provide additional discussion on why 231 and 375 Permacon fire suppression systems are not part of the LANL RCRA Hazardous Waste Facility Permit Contingency Plan.	LANL		Complete June 5, 2014
5.	Send copy of June 4, 2014 written daily submission to Trais Kliphuis. Also, include her on future daily submissions.	LANL		Complete June 5, 2014
6.	Provide LANL procedures and example records associated with post-1991 TA-55 cementation process discussed on June 6.	LANL		Complete July 3, 2014
7.	Provide information on numbers of containers in the post-1991 cemented waste streams from the TA-55 process discussed on June 6. This should include numbers regarding RTR status (RTR'd, meet WIPP criteria, requiring remediation).	LANL		Complete June 17, 2014 (Supplemental Info provided July 3)
8.	Provide RTR video and pre-screening information associated with those containers requiring remediation from the post-1991 cemented waste streams from the TA-55 process discussed on June 6.	LANL		Complete July 3, 2014
9.	Provide copy of CCP/LANL Interface Document.	LANL		Complete June 9, 2014
10.	Provide a list of the analytes for which LANL is sampling HSG (CO_2 and LFL analytes).	LANL		Complete June 11, 2014
11.	Discuss potential sampling of HSG for NO _x .	LANL		Complete June 16, 2014

	Requested Information	Actionee	Status	Completion Date
12.	Follow-up with Tim Hall regarding LANL Hazardous Waste Facility Permit and procedures that LANL is developing for possible future sampling of empty parent containers and unremediated nitrate salt- bearing containers at LANL.	LANL		Complete Empty Parent June 16, 2014 Unremediated August 14, 2014 (Supplemental information discussed on sampling of parent containers) August 26, 2014 (Letter on applicability of LANL HWFP for opening waste containers)

	Requested Information	Actionee	Status	Completion Date
13.	Respond to NMED email request for information associated with the nitrate salt- bearing parent and daughter waste containers. WIPP Recovery Daily Meeting Action List item #84 – NMED requested a copy of the LANL remediation records for waste stored in Panel 6 (Trais Kliphuis) – is a subset of the information in item 5 of this action.	Actionee	Status	
				response to item 5)
				October 27, 2014 (Fifteenth submittal in response to item 5) October 28, 2014 (Sixteenth submittal in response to item 5)
				November 3, 2014 (Seventeenth submittal in response to item 5)

	Requested Information	Actionee	Status	Completion Date
14.	NMED will review the Round Sheets (provided in June 11 summary) and inform LANL if these should be attachments to the Revised Plan, or if they fall under the provision in Section I of the Revised Isolation Plan and their identification during this technical call is sufficient.	NMED	NMED has reviewed Round Sheets – no comments / direction at this time. NMED will address any comments in their formal response to Revised Container Isolation Plan.	Complete June 23, 2014
15.	NMED has requested 'copies of any waste processing, treatment, characterization stop orders issued since Feb 14, 2014.'	LANL		Complete June 13, 2014 (Included w/ daily summary) June 16, 2014 (Discussed current TA-54 & WCRRF operations)
16.	NMED requested information on the location of drums 68327 and 68328. Request made June 14.	LANL		Complete June 14, 2014
17.	Update on LANL efforts – including LANL teams. (On June 20 call, LANL offered to schedule an update meeting).	LANL / NMED		Complete July 2, 2014
18.	Neutralizer use in association with container S855793 (parent of 68660 and 68685).	LANL		Complete June 25, 2014
19.	List of nitrate salt-bearing waste containers that LANL records indicate contain absorbed liquids with the same neutralizer, as discussed during June 25 technical call.	LANL		Complete September 30, 2014 (with August 26, 2014 response)
20.	Schedule follow-on update on LANL efforts – including teams.	LANL / NMED		Complete August 14, 2014 (Meeting held)
21.	NMED requested information on document approval / review (as discussed on July 3 call).	LANL		Complete July 29, 2014
22.	What analyses will be conducted on samples taken from empty drums that previously contained nitrate salt-bearing waste.	LANL		Complete July 7, 2014
23.	NMED requested the following information on cemented waste containers generated from TA-55, that are currently stored above-ground at Area G: container id number; location; form (cans or monoliths); and type of concrete. Additionally, NMED requested information on pH adjustment during waste generation process, and information on anticipated pH of free liquids (and rationale).	LANL		Complete July 17, 2014 (Letter sent w/ information) July 18, 2014 (Meeting held)

	Requested Information	Actionee	Status	Completion Date
24.	NMED requested the procedure for sampling empty parent drums that previously contained nitrate salt-bearing waste.	LANL	EP-AREAG-WO-DOP- 1245 is included in Enclosure 1 to LANL's July 3, 2014 Response to Request for Information on Management of Waste at LANL.	Complete July 8, 2014
25.	NMED requested an additional discussion on a future technical call regarding CO ₂ , including data.	LANL		Complete August 14, 2014 (Meeting held)
26.	NMED requested additional discussion on CIN-01 waste containers and absorbent, including confirmation and extent of use.	LANL		Complete July 18, 2014 (Meeting held)
27.	NMED requested historic analytical information on pH of liquids associated with gypsum cemented waste.	LANL		Complete August 7, 2014
28.	NMED requested link to pdf of Actinide Quarterly edition (3 rd Q 2008).	LANL		Complete July 21, 2014
29.	NMED requested a copy of lessons learned	LANL		Complete August 11, 2014
30.	NMED request regarding empty drum sampling presentation.	LANL	Presentation is a pre- decisional draft/working document not for external release	August 25, 2014
31.	Respond to NMED email request dated 8/12/2014 for information associated with the nitrate salt-bearing waste containers.	LANL		Complete September 11, 2014
32.	NMED request regarding technical presentation.	t regarding technical LANL Presentation decisional draft document restriction		August 25, 2014
33.	NMED request regarding literature review of catalytic reactions.	LANL	Literature review is a pre-decisional draft/working document not for external release	August 25, 2014
34.	LANL requested to schedule a meeting with NMED on remediation planning and schedules.	LANL / NMED		Complete September 29, 2014 (meeting held)
35.	Schedule a third update on LANL efforts – including teams.	LANL / NMED		Complete October 20, 2014

	Requested Information	Actionee	Status	Completion Date
36.	NMED request regarding LANL Causal Analysis associated with processing of nitrate salt-bearing waste at WCRRF – when document is Final.	LANL	Document is currently Draft.	
37.	NMED requested a diagram illustrating the current locations within the 375 Permacon of the 55 SWBs that contain the 57 remediated nitrate salt-bearing waste containers. NMED also requested a list of these 55 SWBs and the waste drums within each SWB (including the container numbers and waste stream type).	LANL		Complete October 27, 2014 (Diagram submitted) November 3, 2014 (Table submitted) November 20, 2014 (Revised table submitted)

	Requested Information	Actionee	Status	Completion Date
38.	NMED requested documentation regarding CIN01.001 waste containers that are not part of the September 19, 2014 Nitrate Salts- Bearing Waste Container Isolation Plan, Revision 2.	LANL	In Progress LANL will submit this documentation in batches as it is becomes available.	Submitted 100 out of 586 RTRs and documentation on October 3, 2014. Submitted documentation for 101-200 containers on October 10, 2014. Submitted documentation for 201-300 containers on October 16, 2014. Submitted documentation for 301-400 containers on October 23, 2014. Submitted documentation for 401-500 containers on October 27, 2014. Submitted documentation for 501-586 containers on November 12, 2014. Submitted RTR Videos 101-150 on November 12, 2014. Submitted RTR Videos 151-200 on November 20, 2014. Submitted RTR Videos 251-300 on December 1, 2014. Submitted RTR Videos 301-312 on January 15, 2015.
39.	NMED requested a diagram of the location of the thermocouples on 68685 and SB50522.	LANL		Complete October 27, 2014
40.	NMED requested a copy of the safety basis document for remediation planning when it is finalized.	LANL	Document is currently in Draft.	
41.	Trending and correlation of temperature and HSG monitoring data.	LANL	In progress	
42.	Schedule a fourth update on LANL efforts – including teams.	LANL/ NMED		Complete November 3, 2014

	Requested Information	Actionee	Status	Completion Date
43.	Schedule a fifth update on LANL efforts – including teams.	LANL/ NMED		Complete November 20, 2014
44.	Schedule a sixth update on LANL efforts – including teams.	LANL/ NMED		Complete December 9, 2014
45.	NMED requested documentation regarding CIN01 drums.	LANL	In Progress Additions to original questions added during technical phone call December 9, 2014.	
46.	NMED requested documentation regarding duplicate drum number.	LANL	In Progress	
47.	NMED requested the ESS plan for temperature control and sampling once finalized.	LANL	Document is currently in Draft.	
48.	Schedule a seventh update on LANL efforts – including teams.	LANL/ NMED	Meeting is scheduled for January 29, 2015.	
49.	Fire suppression repair plan for Dome 231	LANL		This repair plan is no longer necessary because drum movement will not occur during the repair process.
50.	NMED requested information regarding solution packages 36, 37, 57 and 78.	LANL	In Progress	

	68685					69!	553		69615			
Date	H ₂ ppm	CO ppm	CO₂ ppm	N₂O ppm	H ₂ ppm	CO ppm	CO ₂ ppm	N₂O ppm	H ₂ ppm	CO ppm	CO ₂ ppm	N ₂ O ppm
01/31/15	135	403	9843	2480								
02/01/15	127	268	7811	2019								
02/02/15	141	375	10046	2657	195	482	13877	1868	109	249	6383	278

	69616				SB5	0069		SB50452				
Date	H ₂ ppm	CO ppm	CO ₂ ppm	N ₂ O ppm	H ₂ ppm	CO ppm	CO ₂ ppm	N ₂ O ppm	H ₂ ppm	CO ppm	CO₂ ppm	N ₂ O ppm
01/31/15												
02/01/15												
02/02/15	350	765	19472	3905	465	870	19027	2439	711	648	14712	2710

Remediated Nitrate Salt Container Headspace Gas Analysis

	SB50522								
Date	H ₂ ppm	CO ppm	CO₂ ppm	N ₂ O ppm					
01/31/15	1632	430	36921	1026					
02/01/15	1450	393	31354	958					
02/02/15	1759	423	36243	989					



Page: 25 of 38

Revision:

ATTACHMENT 2 Page 1 of 3

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

6.[6] Date: From 1-26-15 to 2-1-15

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]
	Start Time: 1022	Start Time: <u>D910</u>	Start Time: 1113	Start Time: <u>0923</u>	Start Time 2750	Start Time: <u>1258</u>	Start Time: 0802
TA-54-231							
Calibrated Infrared Thermometer (4.2.1[1][B])	Brand: $f/U/-e$ Model: $5/6/$ Cal. Due Date: $2/78/15$	Brand: <u>flut</u> Model: <u>Cal. Due Date:</u> <u>Difali</u>	Brand: Fluit Model: Sul Cal. Due Date: Digg 5	Brand: <u>Fluke</u> Model: <u>Stel</u> Cal. Due Date: <u>Olpa</u>			Brand: <u>Floke</u> Model: <u>561</u> Cal. Due Date: 7-2.9 -1
	File Number 1019 74	File Number <u>101974</u>	File Number 101974	File Number <u>101914</u>	File Number 101914	File Number <u>/01974</u>	File Number 101974
Ambient Temperature (6.[7])	<u>56.9</u> °F	<u>56.0</u> °F	55.1°F	50.5 °F	49.5°F	53.8 °F	4 <u>6.0</u> ∘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	54.6	51.6	54.4	52.8	52.8	54.3	49.3
S802833	54.1	52.0	54.	51.4	51.6	54.0	48.2
S801676	52.9	51.8	54.8	524	52.3	54.6	49.3
S816810	59.1	54.9	54.3	53.9	56.1	59.4	52.8
70069	58.1	55.9	55.1	53.9	57.6	59.2	53.1
S822844	58.4	57.7	56.1	53.9	57.8	59.9	53.0
S825879	58.2	56.3	55.9	53.7	56.8	59.2	52.9
S793724	57.9	55.4	558	54.7	56.8	59.3	52.6
S813545	56.4	54.7	20.2	55.0	56.0	57.9	51.8
S822713	56.4	54.3	56.0	54.	55.2	57.4	51.5
S802739	55.5	53.3	55.8	58.3	53.9	55.8	50.1
69907	54.8	52.8	55.3	52.5	53.5	55.8	49.2
S804995	55.3	52.9	53.9	52.0	53.9	55.5	50.1
S816434	55.7	53.5	55.8	52.7	54.2	56.4	50.2

WORKING COPY	
Z# 114188	
INITIAL EC	DATE 1-26-15

UET

ATTACHMENT 2

Page 2 of 3

6.[6] Date: From <u>1.26.15</u> to <u>2.1.15</u>

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Container ID #	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])					
TA-54-231 (continued	d)						
S805289	55.8	53.3	54.3	527	53.3	55.9	503
S862888	55.0	53.5	55.7	52.2	53,9	55,5	50.2
70072	54.8	53.4	55.4	53.4	53.8	55.9	49.8
S823184	54.8	54.7	55.4	52.4	54.7	56.6	51.0
S822599	56.7	55.5	54.5	52.4	55.2	58.2	51.7
69904	56.5	55.2	54.7	54.5	55.9	57.4	52.2
S805051	57.0	54.3	56.6	54.4	5672	58.1	52,3
S864213	57.9	55.8	56.9	54.2	56.1	58,1	52.4
S853714	57.4	57.1	54.	53-8	57.1	58.7	53.7
S803078	58.0	56.3	54.	53.0	56.0	57.9	51.9
S825878	57.9	55.8	50.7	54.5	56.2	56.6	51.3
S823124	57.4	55.6	54.8	54.2	55.5	55.8	51.5
S804948	56.9	53.4	54.5	53.5	53.8	55.3	50.3
S813385	55.5	53.0	56.3	57.8	53.5	55.3	49.8
S842446	55.2	54.0	57.2	527	53.9	55.3	509
Ambient Temperature (6.[12])	<u>54.9</u> °F	53.5 °F	<u>54.5</u> °F	50.6 °F	50.0°F	52,4 °F	<u>46.9</u> °F
End Time (6.[13])	1625	0916	1119 .	0927	0902	1303	0807
6.[13]	Operator: Operator:	Operator:	Operator:	Operator: Operator:	Operator:	Operator: 2C Operator: Lm	Operator: <u>\$C</u> Operator: <u></u> Lm

UET	Nitrate Salt-Bearing TRU Waste Contain	er Montoring	Revision: 5 Effective Date: 11/0	MO-AREAG-FO1246)3/14)f 38
		ATTACHMENT 2 Page 3 of 3		
6.[6] Date: From	1.26.15 to 2.1.15			
6.[2] Comments:		·		
		-		
,				
6.[17] Performed by <u>Alfredo</u> Anii Operator (print) <u>Operator (print)</u> <u>Operator (print)</u> <u>Operator (print)</u> <u>Operator (print)</u> <u>Operator (print)</u> <u>Operator (print)</u> <u>Operator (print)</u> <u>Operator (print)</u> <u>Operator (print)</u>	M 1 Aprila 1 743/28 / Aprila Signature Z# Initials Signature Z# Initials MAN Image: Signature Z# Initials MAN Image: Signature Z# Initials Signature Z# Initials MAN Image: Signature Z# Initials	Date $(1,1,1,1)$ (1,26,15) $(1,26,15)$ $(1,16,16)$	VA / ED Signature VA / ED Signature Signature Signature Signature Signature Signature Signature Signature	////////////////////////////////////
opolator (print)				
8.1[2] Reviewed by	:			

	/	/	/	/
SOM or designee (print)	Signature	Z#	Initials	Date



ATTACHMENT 3 Page 1 of 3

TA-54 AREA G TA-54-375 CELL 1 NITRATE SALT TRU WASTE CONTAINER DAILY TEMPERATURE DATA SHEET

6.[6] Date: From <u>1.26.15</u> to <u>2.1.15</u>

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]
	Start Time: 1436	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:
	14	1-27150 12-1139	1430	1141	0813	1322	0732
TA-54-375 Cell 1							
Calibrated Infrared	Brand: Tuke	Brand: Fluke	Brand: FTuke	Brand: Fluke	Brand:	Brand: Fluke	Brand: Floke
Thermometer	Model: 5611	Model: 56	Model: S()	Model: 5(,)	Model: 561	Model: 561	Model: 561
(4.2.1[1][B])	Cal. Due Date: 6 12 15	Cal. Due Date: 61215	Cal. Due Date: 6 12 15	Cal. Due Date: G 12/15	Cal. Due Date: 61215	Cal. Due Date: 6 1215	Cal. Due Date: <u>6 ·i2·i5</u>
	File Number <u>101915</u>	File Number	File Number	File Number	File Number	File Number	File Number
		101915	101915	101915	<u>CIFIN</u>	101915	10/915
Ambient Temperature	55.9°F	C Gree	51.0 °F	51.2°F	57.0 °F	49.2 oF	4 US.6F
(6.[7])		151.15			······································	*	*
Container ID #	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)
Container 1D #	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])
68685	57.3	50-6551	58.2	53.8	52.5	52.0	48.9
68540	57.0	54.7	58.0	53.5	52.7	52.0 52.3	49.0
LA0000070503 68553	57.3	ACT 55.2	55.4	53.5	52,3	52.2	48.4
69445	57.3	550 545	58.5	53.3	51.8	52.1	48.6
69618	568	35.8 54.2	57.9	52.9	51.5	51.2	47.6
69013	57.2	155.0	58.3	52.7	52.8	52.6	49.6
LASB50522	57.4	5.4 55.6	58.6	54.4	54.1	53.3	51.5
LASB50452	57.3	5.7 55.5	58.2	54.5	54.4	57.6	51.3
LASB50431	57.5	155.8	58.1	54.5	54.4	54.0	51.1
LASB50069	57.0	357 55.3	57.8	543	52.8	53.3	49.7
LASB50073	56.8	55.3	57.5	54.0	53.8	53.4	50.6
69636	57.3	55.7	57.9	54.6	54.7	53.7	51.4
69616	57.)	55.2	51.8	527	55.1	53.9	51.6
69417	57.4	510.7	57.9	54.5	53.6	53,4	50.7

WORKING COPY	
Z# _114188	
INITIAL <u>2</u> C	DATE 1.26.15

UET

IPC-1



Page 2 of 3

6.[6] Date: From <u>1.26.15</u> to <u>2.1.15</u>

	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-54-375 Cell 1 (con	TA-54-375 Cell 1 (continued)											
69620	51.4	55.5	57.9	543	53.4	53.5	50.4					
69520	576	55.8	58.2	54.7	53.6	53.2	50.2					
69641	57.9	54.0	58.2	54.9	54.1	54.0	50.8					
69298	87.7	510.0	58.0	55.2	54.5	54.4	51.5					
LASB02203	57.6	56.1	58.2	54.9	54.1	53.9	50.9					
Ambient Temperature (6.[12])	<u>58.2°F</u>	53.9 °F	<u>57.2</u> °F	518°F	51.3 °F	49.4 °F	<u>45.7</u> °F					
End Time (6.[13])	1435	4341142	1435		0816	1325	0735					
6.[13]	Operator:	Operator: Operator:	Operator:	Operator:	Operator: 8 Operator:	Operator: EL Operator: LAM	Operator: <u>EC</u> Operator: <u>Lm</u>					

6.[2] Comments:

	Nitrate Salt-Bearing TRU Waste Container Monitoring		Document No.: Revision: Effective Date:	EWMO-AREAG-F 5 11/03/14	FO'-1246
UET			Page:	30 of 38	
	ATTACHMEN Page 3 of 3				
6.[6] Date: From <u>1</u>	· 26.15 to 2.1.15				
6.[17] Performed by: Gres Vient Operator (print) Operator (print)	Image: Signature Image: Signature <td>Operator (print) Arry Brit Operator (print) <math>Lain briterie Operator (print) <math>Elor S. Corlor ~ Operator (print) <math>Elor Marrie Operator (print) <math>Lain marrie Operator (print) <math>Lain marrie Operator (print) $Lain marrie Operator (print)$</math></math></math></math></math></math></math></math></td> <td>Signature / ED J G Signature / ED M Signature / ED M Signature</td> <td>Z#</td> <td>Initials Date</td>	Operator (print) Arry Brit Operator (print) $Lain briterie Operator (print) Elor S. Corlor ~ Operator (print) Elor Marrie Operator (print) Lain marrie Operator (print) Lain marrie Operator (print) Lain marrie Operator (print)$	Signature / ED J G Signature / ED M Signature / ED M Signature	Z#	Initials Date

8.1[2] Reviewed by:

SOM or designee (print) Signature Z# Initials Date



Page 1 of 3

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

6.[6] Date: From <u>1.26.15</u> to <u>2.1.15</u>

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]
	Start Time: 1435	Start Time: <u>1143</u>	Start Time: 1436	Start Time: 1148	Start Time: 0818		Start Time: 0736
TA-54-375 Cell 2							
Calibrated Infrared Thermometer (4.2.1[1][B])	Brand: Flake Model: 56 Cal. Due Date: 61215 File Number 161912	Brand: $F[uk]$ Model: $\mathfrak{S}(a)$ Cal. Due Date: $(a)[12] \mathfrak{D}$ File Number 101912	Brand: $Fluke$ Model: SG Cal. Due Date: $Gluz IS$ File Number $Ib 19 I2$	Brand: 56 Model: 56 Cal. Due Date: 612)S File Number 10912	Brand: Sal Model: Sal Cal. Due Date: 611-15 File Number 1019 /2	Brand: $F_{1,k,c}$ Model: 561 Cal. Due Date: 61215 File Number $10/912$	Brand: Floke Model: 561 Cal. Due Date: 6-12-15 File Number / 01912
Ambient Temperature (6.[7])	°F	<u>55.2</u> °F	<u>9.0</u> °F	SS.Y.ºF	<u>53.8</u> °F	53.0 °F	<u>4/8.6</u> °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]) g	Tcmp (°F) 2: 1-15 (6.[8]/6.[9])
LASB02198	57.0	56.7	58.1	56.3	53.5	53.2	48.6 48.7
68638	58.2	JU.7	58.9	56.5	54.7	54.4	48.7
69615	58.5	57.3	59.3	56.7	55.3	54.5	50.9
69635	58.1	57.6	59.6	57.2	55.8	55.1	51.8
69642	58.6	57.2	59.4	5 <u>5</u> . 8	54.9	54.0	50.6
69630	58.9	51.0	59.1		55.2	53.9	50.5
69633	58.7	57.3	59.3	56.)	55.3	54.3	51.7
68430	58.8	51.1	60.0	56.3	55.2	53.7	50.4
68631	58.3	The. 4	58.9	56.2	54.8	54.3	49.7
69634	57.2	34.7	59.)	564	54.4	53.3	49.8
68567	56.3	05.1	51.0	561	53.6	53.5	50.0
94227	57.6	de.y	58.0	56.0	55.2	54.8	50.4
LASB50442	57.8	510.4	58.5	56.8	56.0	54.7	51.7
69644	58.6	54.5	58.4	56.4	55.5	54.8	51.4
LASB50443	58.1	157.545	58.)	56.3	53.5	54.0	50.9
69638	59.2	57.2	58.6	57.4	55.2	55.0	57.6



Page 2 of 3

6.[6] Date: From <u>1.26.15</u> to <u>2.1.15</u>

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Container 1D #	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])					
FA-54-375 Cell 2 (con	tinued)						
68624	59.0	58.9	59.4	57.1	55.1	54.9	51.4
68507	58.7	58.2	58.7	56.7	55.2	55.4	50.9
69568	57, Z	56.2	58.6	56.3	54.0	54.3	49.6
69553	57.3	55.1	56.2	56.1	54.1	53.6	49.7
69598	56.3	54.9	56.0	55.8	53.9	53.6	49.5
LASB50559	57.8	Flort	57. S	56.4	55.1	54.4	50.0
69015	59.0	57.7	58.8	57.4	55.8	55.7	51.5
69639	59.3	38.0	59.2	57.0	55.8	55.9	52.2
69637	59.4	58.	59.0	57.8	55.6	55.5	51.3
Ambient Temperature 6.[12])	57.9 oF	55.9°F	<u>58.6</u> °F	<u></u> 55.5°F	<u>54.5</u> °F	<u>533</u> °F	49.2 °F
End Time (6.[13])	1442	1151	1441	153	0820	1329	0739
6.[13]	Operator: Operator:	Operator:	Operator:	Operator:	Operator: NS Operator:	Operator: <u>EL</u> Operator: <u>Lm</u>	Operator: 2C Operator: 2

6.[2] Comments:

	Nitrate Salt-Bearing TRU Waste Container Moniform	Document No.: Revision:	EWMO-AREAG-FO- 5
	5	Effective Date:	11/03/14
UET		Page:	33 of 38

Page 3 of 3

6.[6] Date: From 1.26.15 to 2.1.15 6.[17] Performed by: 111699-101010 236XZ/ Jos dee TGT TV Initials Date Z# Operator (print) Signature Initials Date Operator (print) Z# Signature <u>//878/8/ 345</u> ///30/15 Z# Initials Date 16578,521 Kilorman Norman 05 1.0 Operator (print) Signature Operator (print) -Signature Initials, <u>|/9/52-6 | @ |//5-/15</u> Z# Initials Date been mont osephiae Durant 1579711 Operator (print) Signature Operator (print) 7# Initials Signatur 120 R Elard, Giduna 116518/Den 111408X/EC /1.31.15 16Seca 01 BOP Operator (print) Initials Date Signature Z# Operator (print) Signature 2# Iditials Date Leon montor 1915261 6km 1 1-31 13/38-1 tv / 1/28 Howas Operator (print) Initials Date Signature Ż# Initials Date Operator (print) Z# Signature 12DUL 1114188126 12.1.15 Elord. Lordon the 10178 Avalse Operator (print) Initials Date Signature Z# 2# Initials Date Operator (print) Signature //9/526/ C / 2-1-15-Z# Initials Date un 1236387 1 THOMAS オレノ 12915 Operator (print) Signature Date Operator (print) Signature Z# Initials

Initials Date

8.1[2] Reviewed by:

SOM or designee (print) Signature Z#



UET

ATTACHMENT 5

Page 1 of 2

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

6.[6] Date: From <u>1.26.15</u> to <u>2.1.15</u>

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	
	Start Time: 1425	Start Time: 1129	Start Time: 1443	Start Time: 135	Start Time: <u>0809</u>	Start Time: 1318	Start Time: 0727	
TA-54-375 Cell 3								
Calibrated Infrared	Brand: Flute	Brand: Full	Brand: Fluk	Brand: Fluke	Brand: Sull	Brand: Fluke	Brand: Floke	
Thermometer	Model: Sal	Model: Stal	Model: 561	Model: 56)	Model: 56	Model: 561	Model: 561	
(4.2.1[1][B])	Cal. Due Date: 611 15	Cal. Due Date: 6/12/15	Cal. Due Date: GIR IS	Cal. Due Date: GIZIS	Cal. Due Date: 6. 12/15	Cal. Due Date: 6-12-15	Cal. Due Date: 6-12-15	
	File Number 101916	File Number 101914	File Number 101916	File Number 101916	File Number 19 416	File Number / 0 1916	File Number 101916	
Ambient Temperature (6.[7])	<u>58.0</u> °F	55.4 °F	59.6°F	<u>34.0</u> °F	526 °F	54.4 °F	49.5 °F	
Container ID #	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	
Container ID #	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	
69519	- (8.7	56.6	60.0	56.0	54.5	55.2	51.8	
69645	59.0	567	60.1	55.8	54.4	55.2	52.0	
94068	590	50.3	59.5	563	54.3	55.5	51.8	
93605	58.1	55.8	59.5	55.0	53.3	54.6	50.5	
69548	58.1	55.8	59.6	55.4	53.5	54.6	50.8	
69604	58.4	55.1	59.2	55.8	53.7	54.6	51.2	
LASB50529	58.7	55.4	59.7	55.9	54.0	55.0	51.5	
LASB50418	58.9	554	60.3	55.5	54-2	55.2	51.6	
69036	58.7	50.0	39.9	55.5	53.8	54.9	57.0	
LASB50451	58.2	55.6	59.4	54.7	53.8	51.0	50.2	
69559	58.2	554	59.3	54.0	53.5	54.2	50.6	
LASB50448	S1.8	51.9	58.6	54.4	52.7	54.0	50.1	
Ambient Temperature (6.[12])	583 °F	552°F	59.5 °F	54.3 °F	52.7°F	<u>54,4</u> °F	49.7 °F	
End Time (6.[13])	1429,	U34.	1448	1140	0811	1321	0731	
6.[13]	Operator:	Operator:	Operator:	Operator:	Operator: 2B	Operator: &C	Operator: EC	
	Operator:	Operator:	Operator:	Operator:	Operator:	Operator: 6m	Operator: Um	

C	Nitrate Salt-Bearing TRU Waste Container Monitoring	Revision:	EWMO-AREAG-FO
UET		Effective Date: Page:	11/03/14 35 of 38
	ATTACHMENT 5 Page 2 of 2		
6.[6] Date: From	1.26.15 to 2.1.15		
6.[2] Comments:			

6.[17] Performed by: In ONAS (2014) Operator (print) Signature Operator (print) Operator (print) Signature Operator (print) Signature Operator (print) Signature Operator (print) Signature Operator (print) Signature Operator (print) Signature Operator (print) Signature	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c} \hline \\ \hline $	Signature / Signature / Signature / Signature / Signature / Signature / Signature / Signature / Signature	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

8.1[2] Reviewed by:

 /
 /
 /
 /

 SOM or designee (print)
 Signature
 Z#
 Initials
 Date

Т	Nitrate Salt-Bearing TRU Waste Container Monitoring	Document No.: Revision: Effective Date: Page:	EWMO-AREAG-FO-DOP-1246 5 11/03/14 36 of 38

ATTACHMENT 6 Page 1 of 3

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

6.[6] Date: From 1.30.15 to 1.30.15 Location: Done 375 C111

	Start Time: 6.[6] 0632	Start Time: 6.[6] 0726	Start Time: 6.[6]	Start Time: 6.[6]	Start Time: 6.[6]	Start Time: 6.[6]	Start Time: 6.[6]	Start Time: 6.[6]	Start Time: 6.[6]	Start Time: 6.[6]				
Calibrated Infrared	Brand:	Brand:	Brand:	Brand	Brand:	Brand:	Brand:	Brand:	Brand	Brand:	Brand:	Brand:	Brand:	Brand:
Thermometer	Model:	Model:	Model:	Model:	Model:	Model:	Model:	Model:	Model	Model:	Model:	Model:	Model:	Model:
(4.2.1[1][B])	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:
	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number
Ambient Temperature (6.[7])	50.910F	50,91F	°F	°F	°F	°F	°F		°F	°F	of:	eE		°F
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 (°I) (6,8%[6.[7])	Temp (°F)	Temp (°F) (6.[8]/6.[9])								
68685 Tr							,							
50522 54		52.12							7					
50522 T5	51.84	51.82												
	1													
$ = \mathbb{N} $														
	NK										 			

WORKING COPY Z# 187066 INITIAL JR DATE 1-30-15

UE

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

Document No.:EWMO-AREAG-FO-DOP-1246Revision:5Effective Date:11/03/14Page:37 of 38

ATTACHMENT 6 Page 2 of 3

6.[6] Date: From 1.30.15 to 1.30.15 Location: Done 375 G111

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])					
			· · · · · · · · · · · · · · · · · · ·											
		<u>-</u>												
				1		\square	Λ					22		
							$ ^{>}$			i 				
Ambient														
Temperature (6.[12])	50.91F	50,92	oF	°F	°F	°F	°F	•F	°F		°F	•F	°F	°F
End Time (6.[13])	0633	0727												
6 [13]	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:
	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:

UET

1

Document No.: EWMO-AREAG-FO-DOP-1246 Nitrate Salt-Bearing TRU Waste Container Monitoring Revision: 5 Effective Date: 11/03/14 UÉT Page: 38 of 38 **ATTACHMENT 6** Page 3 of 3 6.[6] Date: From 1.30.15 to 1.30.15 Location: Drme 375 call 1 30 247 87 6.[2] Comments: C SOM (RH) Du for NDO 15 1.30.15 Snow S use Su realo DAT SLIFT 6.[17] Performed by 457 Operator (print) Signature Z# Initials Date laitials Da GidyA ES 114180 2 C / 1-3015 E = 1.3. Silgature Operator (print) Signature Z# Initials Date Operator (print) Z# Initials Date Operator (print) Simature Z# Initials Date Operator (print) Signature Z# Initials Date Operator (print) Signature Z# Initials Date Operator (print) Signature Z# Initials Date Operator (print) Z# Signature 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 Operator (print) Z# Signature Initials Date

8.1[2] Reviewed by:

SOM or designee (print) Signature Z# Initials Date

Nitrate Salt-Bearing TRU Waste Container Monitoring	Revision:	EWMO-AREAG-FO-DOP-1246 5 11/03/14
	Page:	36 of 38

ATTACHMENT 6 Page 1 of 3

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

6.[6] Date: From 01-31-15 to 01-31-15 Location: 375

UET

	Start Time: 6.[6] 1242	Start Time: 6.[6] 1.3.30	Start Time: 6.[6] <u>/424</u>	Start Time: 6.[6]	Start Time: 6.[6] 1630	Start Time: 6.[6]								
Calibrated	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:
Infrared Thermometer (4.2.1[1][B])	Model:	ModelinA	Model	Model	Modelin A	Model	Model:	Model	Model:	Model:	Model	Model:	Model:	Model:
(4.2.1[1][D])	Cal. Due Date:	Cal. Due Date:	Cal. Dur Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:
	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number
Ambient Temperature (6.[7])	51.26 °F	50.74F	<u>51.11</u> °F	57.09°F	<u>51.23</u> °F	51.26°F	°F	°F		°F	°F	oF		oŁ
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]/0.[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])
71168688-	52.64	52,19	52.57	52.46	57.56	52.55								
TL2)68685-	51.96	51.44	51.77	51.70	51.77	51.76								
TCH 50522	52.22	51.98	52.19	52.17	52.21	52.20								
T(S) 50522	51.50	51.69	1	51.90	51.85	51,90								
			1										<u> </u>	1

WORKING COPY Z# 1/2907 INITIAL 29C DATE 01-31-15

Nitrate Salt-Bearing TRU Waste Container Monitoring

Document No.:EWMO-AREAG-FO-DOP-1246Revision:5Effective Date:11/03/14Page:37 of 38

ATTACHMENT 6 Page 2 of 3

6.[6] Date: From 01-31-15 to 01-31-15 Location: 375

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])							
										(0,[0])0.(7])	(0.[0]/0.[2])		(0.[0](0.[7])	(0.[8]/0.[9])
				<u> </u>			_							
					<u> </u>									
								`		<u> </u>				
							ALA							
				<u> </u>			·	<u> </u>						
										MA				
										\searrow		<u> </u>	[
-														
Ambient														
Temperature (6.[12])	51.26 °F	50.74°F	<u>57.08</u> °F	<u>51.09</u> °F	<u>51.23</u> °F	<u>51.26</u> °F		AF	op		°F	eF	°F	eF
End Time (6.[13])	1242	1.330	1425	15-26	1630	1725-								
	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:
	Operator:	Operator:	Operator:	Operator: <u>67C</u> Operator: <u>6</u> C	Operator:	Operator:	Operator:	Operator:	Operator:	Operator;	Operator:	Operator:	Operator:	Operator:
	26	EL	26	22	22	<u>Ec</u>								

UET		Nitrate Salt-Bearing TRU Was	te Container Monitor	ing		Document No.: Revision: Effective Date: Page:	EWMO-AREAG-FO-DOP-1246 5 11/03/14 38 of 38
			ATTACHM				
			Page 3	of 3			
6.[6] Date: From	01-31-15 to 01-31-1	5 Location: 375					
6.[2] Comments: from from enter	Did not ente. 375 control Due to ment	- Dome 375 Permin Room usin, data 1	on per Star logger. did not sh	it it 1243	1247 Rev EC 114188	2. Tempra	fuers talen
			no C H	,			
			wither EM	Mas 1-34-5-			
				121			
Operator (print)	Signature Signature Signature Signature	Z# Initials Date III41887 C / 1.31-15 Z# Initials Date	Operator (print) Operator (print)	/ Signature / Signature	//	/ ials Date / ials Date	
Jackie Rom Operator (print)	Angnature	- 1/870641 JH 1/-31-15 Z# Initials Date	Operator (print)	Signature 1/A	/ / Z# Init	ials Date	
Operator (print)	/ Signature / MA	/ / / Z# Initials Date	Operator (print)	/ Signature /	/ / Z# Init	ials Date	
Operator (print)	Signature	Z# Initials Date	Operator (print)	Signature	Z# 11114	ials Date	
Operator (print)	Signature	Z# Initials Date	Operator (print)	Signature	/ / Z# Initi	ials Date	
Operator (print)	/ Signature	Z# Initials Date	Operator (print)	Signature	/ Z# Initi	ials Date	

8.1[2] Reviewed by:

/ SOM or designee (print) Signature Initials Date Z#

	Document No.:	EWMO-AREAG-FO-DOP-1246
Nitrate Salt-Bearing TRU Waste Container Monitoring	Revision:	5
	Effective Date:	11/03/14
	Page:	36 of 38

ATTACHMENT 6 Page 1 of 3

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

6.[6] Date: From 1-31-15 to 2-01-15 Location: 325

	Start Time:	Canad Times	Start Time:	Charle Times	Charles The second	C	G1 1 T'	0	Q. 17	Q				a
	6.[6]	Start Time: 6.[6]	6.[6]	Start Time: 6.[6]	Start Time: 6.[6]	Start Time: 6 [6]	Start Time: 6.[6]	Start Time: 6.[6]	Start Time: 6.[6]	Start Time: 6.[6]	Start Time: 6.[6]	Start Time: 6.[6]	Start Time: 6.[6]	Start Time: 6.[6]
	1830	1929	2028	2129	2230	2329	0027	0130	0228		AU29	USal		0.[0]
Calibrated	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:	Brand:	Brand
Infrared Thermometer	Model:	Model	Model	Model:	Model	Model	Model	Model	Model	Model:	Model	Model	Model	Model
						1 D					A	A	IVIOCIDI.	Model
(Cal Die Offic	Cal Pur Paret	Cal. PU Date	Cal Ale Daic	Cal Due Date.	Cal Die Date	Cal Die Date.	Cala Due Une	Cal Due Dates	Ca Due Date:	Cal Due Date:	Cal Die Date:	Cal. Due Date:	Cal Due Date
	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number	File Number
Ambient							· · · · · · · · · · · · · · · · · · ·			11001			k	
Temperature (6.[7])	50.66F	20.74	50.88	50.74F	50.6t	50.27F	49.54	49.14°F	49.0%	48.76	48.46	48.25	PF	°F
Container ID #	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)
(6.[8]/6.[9])	(6,[8]/6,[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	(6.[8]/6.[9])	
58695 11	52.13	52.39	52.55	52.55	52.47	52,19	51.79	5417	51.03	50.81	50,49	50.25	/	\mathcal{V}
6865572	51.36	51,66	51.82	51.28	51.66	51.37	51.00	50.33	50.27	50.06	49.29	50.08		Xa
50522 74		52.06		52.07	52.01	51.82	51.54	51.03	50,96	50.22	54.7	50.62		X
5052215		51.69	SIN	51.7	51.63	51.43	5417	50.61	50.53	50.37	54.14	50.28		Y
				4	0									
							1							
							/							
						<i>[</i> -	D							
							-1]							
]

WORKING COPY Z# 114188 INITIAL EL DATE 1.31.15

UET			Nit	rate Salt-Bear	ing TRU Wa	ste Container	Monitoring				Revision: Effective I Page:	5 Date: 11/03/ 37 of 3		
						A	FTACHMEN Page 2 of 3	<u>T 6</u>						
6.[6] Date:	From <u>Dt-3(-</u>	15 to 02.	01-15	Location:	325		5							
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])						
													<u>\</u>	
						HA								
	· ····					HA							X	1/
														n
														*
Ambient Temperature (6.[12])	50.66	50.79	50.85	50.24	50.61	50.27	<u>49.8</u> 4	49.14	49.06	48.76	<u>18.16</u>	48.25	•°F	°F
End Time (6.[13])	1831	1930	2029	2130	2231	2330	0027	0131	6229	0329	0430	Sto:	521	
6.[13]	Operator: Operator	Operator: Operator	Operator:	Operator: Operator:	Operator Operator	Operator: Ober (1997)	Operator: Operator:	Operator: Operator:	Operator:	Operator: Operator:	Operator: Operator:	Operator: Offerator:	Operator: Operator:	Operator:

....

Document No.: EWMO-AREAG-FO-DOP-1246

Nitrate Salt-Bearing TRU Waste Container Monitoring	Document No.: Revision: Effective Date: Page:	EWMO-AREAG-FO-DOP-1246 5 11/03/14 38 of 38
ATTACHMENT 6 Page 3 of 3		
6.[6] Date: From $0(-3(-15)to 02-0(-15)to 2)$ Location: 375		
6.[2] Comments: Did not enter Permacon due to Standing Order temps were taken Data Logger Computor in Dome 395.	24	R.2 all
MA		
6.[17] Performed by:	/ Date /	
Operator (print) Signature Z# Initials Date Operator (print) Signature Z# Initials	Date	
Operator (print) Signature TH 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 Operator (print) Signature Z# Initials	Date	

8.1[2] Reviewed by:

 /
 /
 /
 /

 SOM or designee (print)
 Signature
 Z#
 Initials
 Date

UET			Nit	rate Salt-Bea	ring TRU Wa	ste Containei	[•] Monitoring				Revision: Effective Page:	5 Date: 11/03/ 36 of 3		
						A	TTACHMEN Page 1 of 3	<u>T 6</u>						
6.[6] Date: 1	From 2-01-1	5 02-		AREA G NIT		TRU WAST	E CONTAIN	ER HOURLY	' TEMPERA'	FURE DATA	SHEET			
of of Bure,	Start Time: 6.[6]	Start Time: 6.[6] 0725	Start Time: 6.[6] 0723	Start Time: 6.[6]	Start Time: 6.[6] 1027	Start Time: 6.[6]	Start Time: 6.[6] /2.25	Start Time: 6.[6]	Start Time: 6.[6]	Start Time: 6.[6]	Start Time: 6.[6] 16 25	Start Time: 6.[6] 1725	Start Time: 6.[6]	Start Time: 6.[6]
Calibrated Infrared Thermometer (4.2.1[1][B])	Brand: Moor!: Cal Duc Unite: File Number	Brand: Model: Cal. Dur. Date File Number	Deand: Model A Cal. Due Due. File Number	Brand: Model: Cal Dire Nate File Number	Rrand: Model: A Cal. Due Date. File Number	Brand: Motei Cal Due Brite. File Number	Brand: Molel: A Cal Du Date: File Number	Brand: Movel: 4 Cal. Due Date. File Number	Brand Model of Cal. Due Date File Number	Nrand Model A Cal Due Date File Number	Brand: Model: Model: Cal Due Date: File Number	Arand: Moliel V Cal. Die Date. File Number	Brand: Model Cal. Due Date File Number	Brand Model Cal Due Date File Number
Ambient Temperature (6.[7])	4.7.92 °F	46.88°F	47.56°F	4727 °F	<u>51.44</u> °F	<u>51.21</u> °F	5217 °F	<u>53.57</u> °F	5252 °F	51.88°F	53.22°F	52.07 °F	°F	
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])
68695 TI 68685 TZ	50.19	49.29	49.54	50.85	53.07		53,12	54.09	52.73	51.83	53.60	52.77		
5052274		48.45	48.79	50.21	52.39	51.24 51.9		53.41		51.01	52.99	52.07		-
2052275	49.83	49.12	49.27		51.85	51.65	52.52 52.34	53.07 53.07	52.53 52.39	51.87 51.73	53.07 52.96	52.30 52.07		
					N	1								

WORKING COPY

Z# ______ DATE _____

WORKING COPY Z# 174977 INITIAL DATE 2-01-15

Document No.: EWMO-AREAG-FO-DOP-1246

		Document No .:	EWMO-AREAG-FO-DOP-1246
Nitrate Salt-Bearing TRU Waste Container Monitoring		Revision:	5
		Effective Date:	11/03/14
	14 C	Page:	37 of 38

Page	2	0	ſ	3	
------	---	---	---	---	--

6.[6] Date: From 2-01-15 to 2-01-15 Location: 37.5

Container 1D # (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])													
														ļ
											,			1
					- P									
														<u> </u>
											<u> </u>			
Ambient											•		<u></u>	
Temperature (6.[12])	47.9 °F	4 <u>6.88</u> °F	47.54°F	<u>49.1</u> °F	<u>51.47</u> °F	57.16 °F	5213 °F	5354 °F	52,52 °F	<u>51.85</u> °F	<u>53.19</u> °F	52.07 °F	•F	°F
(6.[12]) End Time (6.[13])	0625	0726	0823	0923	1028	1122	1226	1328	1426	1527	1626	1726		
6.[13]	Operator:													
I	Operator:													
	<u> </u>				20									

Т	1	Nitrate Salt-Bearing TRU Was	ste Container Monitori	ng	9		Document No.: Revision: Effective Date: Page:	EWMO-AREAG-FO-DOP-1246 5 11/03/14 38 of 38
		Location: <u>325</u>		of 3				
] Comments: Did not	en for Don	= 375 perman due	to standing rul	1247 Temps	une 7	Tc Ken	using Dut	a lager Comptance, Ech
	Are_	1191326 (m 12/1/15 74 Initial Data	Operator (print)	/ Signature	/ Z#	/ Initials	/ Date	
erator (print) Signatur		 1152C [441 2/]/15 Z# Initials Date 11418X/16c 2-1-15	Operator (print)	/ Signature /	/ Z# /	/ Initials /	/ Date /	
erator (print) Signatu lerator (print) Signatu lerator (print) Signatu		VÍIŠEG (m. 12/1/15) Z# Initials Date //(4/18)//Ec /2-1-15 Z# Initials Date	Operator (print) Operator (print)	/ Signature / Signature	/ Z# 	/ Initials / Initials	/	
erator (print) Signatur lor D. Cordor 4 / S) erator (print) Signatur Quice Romeno / Jac		///4/88/ EC /2-1-15 Z# Initials Date	Operator (print)	/ Signature	/ Z# /	/ Initials /	/ Date /	
erator (print) Signatur lor W, Corder / St erator (print) Signatur Quille Romeno / Grae		11141881 EC 12-1-15			1	/	/ Date /	
erator (print) Signatur lerator (print) Signatur erator (print) Signatur actuce Romeno / Gau erator (print) Signatur /	N	////////////////////////////////////	Operator (print) Operator (print)	/ Signature Signature	/ Z# Z# /	/ Initials / Initials /	/ Date / Date /	
erator (print) Signatur actue Romeno / Jac erator (print) Signatur actue Romeno / Jac erator (print) Signatur / erator (print) Signatur	Ne Romus	///4/88/ EC /2-1-15 Z# Initials Date	Operator (print)	/ Signature	/ Z# /	/ Initials /	/ Date / Date /	
erator (print) Signatur acture Romeno / Jac erator (print) Signatur acture Romeno / Jac erator (print) Signatur / erator (print) Signatur /	ne hui Romus re	////////////////////////////////////	Operator (print) Operator (print)	/ Signature Signature	/ Z# Z# /	/ Initials / Initials /	/ Date / Date / Date /	
erator (print) Signatur acture Romeno I Gau berator (print) Signatur acture Romeno I Gau berator (print) Signatur I berator (print) Signatur	ne hui Romus re	///////// Ec /2-1-15 Z# Initials Date //87064/ JP- /2-1-15 Z# Initials Date / /	Operator (print) Operator (print) Operator (print) Operator (print)	/ Signature Signature / Signature / Signature /	/ Z# / Z# / Z# / Z#	/ Initials / Initials / Initials / Initials	/ Date / / Date / /	
erator (print) Signatu lerator (print) Signatu actue Romeno / Gal erator (print) Signatu reator (print) Signatur / erator (print) Signatur / erator (print) Signatur /	ne hui Romus re	///////// Ec /2-1-15 Z# Initials Date //87064/ JP- /2-1-15 Z# Initials Date / /	Operator (print) Operator (print) Operator (print)	/ Signature / Signature /	/ Z# / Z# / Z# /	/ Initials / Initials / Initials /	/ Date / / Date / /	
actile Romeno I Grae secator (print) Signatur perator (print) / Signatur perator (print) Signatur / J	ne hei Romus re re	///////// Ec /2-1-15 Z# Initials Date //87064/ JP /2-1-15 Z# Initials Date // / / Z# Initials Date // / /	Operator (print) Operator (print) Operator (print) Operator (print)	/ Signature Signature / Signature / Signature /	/ Z# / Z# / Z# / Z#	/ Initials / Initials / Initials / Initials	/ Date / Date / Date / Date / Date / Date	

 /
 /
 /
 /

 SOM or designee (print)
 Signature
 Z#
 Initials
 Date



Nitrate Salt-Bearing TRU Waste Container Monitoring

Document No.EWMO-AREAG-FO-DOP-1246Revision:5Effective Date:11/03/14Page:36 of 38

ATTACHMENT 6 Page 1 of 3

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

6.[6] Date: From 2-1-15 to 2-2-15 Location: 375

	Start Time: 6.[6] /830	Start Time: 6.[6] 1930	Start Time: 6.[6] 2029	Start Time: 6.[6] 2\27	Start Time: 6.[6] 2230	Start Time: 6.[6] 2325	Start Time: 6.[6] 0030	Start Time: 6.[6] 0/28	Start Time: 6.[6] O.2.28	Start Time: 6.[6] 0330	Start Time: 6.[6] 0429	Start Time: 6.[6] 0.528	Start Time: 6.[6]	Start Time: 6.[6]
Calibrated Infrared Thermometer	Urand	Brand Model	Brand' Motor	Brand: Mood:	Brand Movel A	Brand Mula-I	Brand: Model:	Brand. Moorl A	Mort Q	Brand. Model: A	Brand' Mgall A	Mox! A	Erand [.] Madel:	Bland: Midel.
(4.2.1[1][B])	Cal Due Date File Number	Cal. Due Date File Number	Cal. Dut Date File Number	Cal Due Date File Number	Cal. Due Nate File Number	Cal Due Date: File Number	Cal. Due Date File Number	Cal Due Oate File Number	Cal Due Date File Number	Cal. Due Date File Number	Cal Due Date File Number	Cal DueDate File Number	Cal Due Date	Call Due Date File Number
Ambient Temperature (6.[7])	50.(3 °F	50.42°F	49.92 °F	49,63 · F	4 8.81 °F	48.37°F	<u>47.68</u> °F	47.53°F	47.28°F	47.08°F	46.81 °F	46.71 °г		
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])	Tem; (°F) (6.[8]/6.[9])	Temp (°F) (6.[8/6;[9])
T(1) 68685-	51.90	52.07	51.80	51.55	50.81	50.41	49.71	49.56	49.30	49.11	48.91	48.80	- HA-	-AA
T12)68685	51.15	51.31	50,98	50.73	49.95	49.53	48.89	48.81	48.50	48.32	48,10	48.09	NA	NA
T(4)50522	51.67	51.69	51.54	51.28	50.73	50.37	49.82	49.72	49.45	49.28	49.14	48.99		
15)50522	51.37	51.35	51.14	50.90	50.13	50.03	49.49	49,40	49,17	48.98	48,77	48.72		
							1							
						N	H							

WORKING COPY Z# 1/4/88 INITIAL 2 DATE 2-1-15

UET			Ni	trate Salt-Be:	uring TRU W	aste Containe	r Monitoring				Revision:	nt No.: EWM 5 Date: 11/03 37 of	/14	'O-DOP-124
6.[6] Date: 1	From <u><i>Z-1-1.</i></u>	5 to <u>2-</u> 2	2-15	Location.	Jone 3		TTACHME Page 2 of 3							
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 (°I (6.[8]/6.[9
х						NI								
													NA	NA
nbient mperature	50.63 °F	50.42 °F	49,94 r	49.63 ·F	<u>48.81</u> °F	<u>48.37</u> F	47.68°F	4753°F	477.28°F	47.06°F	4681°F	46.73		
12]) 1 Time 13])	1830	19.31	2029	2127	2250	2325	0030	OLS	0228	033/	0429	0529		
6.[13]	Operator: Operator: TR	Operator: UDC Operator:	Operator Operator 6)C	Operator: Operator:	Operator: Operator:	Operator: Operator:	Operator: USC Operator:	Operator: Log(Operator:	Operator: <u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> Operator: <u> </u> <u> </u></u>	Operator: Operator:	Operator:	Operator: Operator:	Operator: Operator:	Operator: Operator:

JET		Nitrate S	Salt-Bearing TRU W	aste Container Monito	ing		Documen Revision: Effective Page:	5	G-FO-DOP-12
				ATTACIII Page 3					
[6] Date: From	2-1-15 to 2-2-15	Loc	ation: <u>375</u>						
		/						, ,	0
[2] Comments: /	Dick not entre Control Room	<u>dome</u>	375 Perma	con Per Stan	day Order 1.	247 Rev. 2	. Tempeat	ues takan	from
0m2 375	Control ROOM	Using C	data logsa						
			· · · · · · · · · · · · · · · · · · ·	······································					
						· · · · · · · · · · · · · · · · · · ·			
					1 1A				
					MA				
					MA				
					NA		-		
· · · · · · · · · · · · · · · · · · ·					MA		-		
Willics.Co	now 20 Cel	L VIGOT	-1 con 2115		Signature	/	/ / Initials Date		
Willics.Co	now 20 Cel	2#	Initials Date	Operator (print)	N Signature	/ Z.# /	/ / / Initials Date / /		
Dillics.	now 20 Cel	2#	-/ <u>com</u> / 2.7.45 Initials Date 37 R / 2-2-15 Initials Date	Operator (print)	I Signature Signature	/ Z# / Z#	/ / Initials Date / / Initials Date		
Dillics.	Signature Signature	Z# 23425	Initials Date 31R / 2-2-15	Operator (print) Operator (print)	/ Signature	/ Z.ii /	/ / Initials Date / /		
Operator (print)	Signature Signature	Z# 23425	Initials Date 31R / 2-2-15	Operator (princ)		/	//		
Operator (print) Operator (print) Operator (print)	Signature Signature / Signature	Z# 23425 Z# / ZII /	Initials Date Date Initials Date / / Initials Date / / Initials Date / /	Operator (print) Operator (print) Operator (print)	/ Signature	/ Z.ii /	/ / Initials Date / /		
Operator (print) Operator (print) Operator (print)		Z# <u>23425</u> Z# /	Initials Date 3/R/2-2-15 Initials Date / /	Operator (print) Operator (print)	/ Signature / Signature	/ Z.ii / Z.ii /	/ / Initials Date / / Initials Date / /		
Operator (print) Operator (print) Operator (print)	Signature Signature / Signature	Z# 23425 Z# / ZII /	Initials Date Date Initials Date / / Initials Date / / Initials Date / /	Operator (print) Operator (print) Operator (print)	/ Signature / Signature	/ Z.ii / Z.ii /	/ / Initials Date / / Initials Date / /		2
Operator (print) Operator (print) Operator (print) Operator (print) Operator (print)	Signature Signature Signature Signature	Z# D3425 Z# / Z# / Z# / Z# / Z# / / Z#	Initials Date Initials Date / 2-2-15 Initials Date / / Initials Date / / Initials Date / / Initials Date / / Initials Date	Operator (print) Operator (print) Operator (print) Operator (print) Operator (print)	/ Signature / Signature / Signature /	/ Z# / Z# Z# Z#	/ / Initials Date / / Initials Date / / Initials Date / / Initials Date / /		2
Operator (print) Operator (print) Operator (print) Operator (print)	Signature Signature J Signature Signature	Z# Z# / Z# / Z# /	Initials Date Date Initials Date / / 2-2-15 Date / / Initials Date / / Initials Date / / Initials Date / /	Operator (print) Operator (print) Operator (print) Operator (print)	/ Signature / Signature / Signature /	/ Z.ii / Z.ii /	/ / Initials Date / / Initials Date / / Initials Date / /		

SOM or designee (print) Signature 24 Initials Date