From: Haagenstad, Mark P Sent: Friday, October 31, 2014 2:24 PM

To: Ryan.Flynn@state.nm.us; Jeff.Kendall@state.nm.us; tom.blaine@state.nm.us; John Kieling; steve.pullen@state.nm.us; Kliphuis, Trais, NMENV; Timothy.Hall@state.nm.us; siona.briley@state.nm.us; ricardo.maestas@state.nm.us; Gregory.Lauer@state.nm.us; steve.holmes@state.nm.us; coleman.smith@state.nm.us 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; Roberts, Kathryn Margaret; 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; Beard, Carl Allen; Cabbil, Cheryl Denise; Young, Steven L; Erickson, Randy; Funk, David John; Alexander, Rick A; Frederici, Dave; Diaz, Tammy; Juarez, Catherine L Subject: Daily Technical Submission - October 31, 2014

Attached is the written daily technical submission for today. 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.

Thank you and Happy Halloween!!!!

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

October 31, 2014

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 days' daily temperature data attached.

• Monitoring – Visual Inspections

• No abnormal conditions were observed.

• Monitoring – headspace gas (HSG)

- o Containers (SWBs) 68685 and SB50522.
 - Continue daily head space gas (HSG) sample collection.
 - October 30, 2014 HSG data attached.
 - $\circ \quad H_2, \, CO, \, CO_2 \text{ and } N_2O$
- o Other containers
 - A minimum of once per month HSG sampling will be conducted.
 - To date in October, LANL has conducted HSG sampling on 55 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.
 - Five (5) other SWB overpacks (containing 55-gallon drums of remediated nitrate salt-bearing waste).
 - Continue twice-weekly HSG sample collection.
- Anticipated Changes to Nitrate Salt-Bearing Waste Containers (e.g. movement, repackaging).
 - Currently, no further movements or re-packaging are planned.

• Other:

Next Call: Tuesday, November 4, 2014

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 notices).	NMED		Complete June 5, 2014
2.	Keep NMED informed on the status of on- going chemistry / analytical work.	LANL		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
 Respond to NMED email request for information associated with the nitrate saltbearing parent and daughter waste container. WIPP Recovery Daily Meeting Action List item #84 – NMED requested a copy of the LANL remediation records for waste stored Panel 6 (Trais Kliphuis) – is a subset of the information in item 5 of this action. 		In progress – remaining are portions of 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.	LANL	Presentation is a pre- decisional draft/working document not for external release	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	In Progress Meeting scheduled for Monday September 29th	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	Partially complete.	October 27, 2014 Diagram submitted.
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.
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	In progress	

Remediated Nitrate Salt Container Headspace Gas Analysis

		680	685		SB50522			
Date	H ₂ ppm	CO ppm	CO₂ ppm	N ₂ O ppm	H₂ ppm	CO ppm	CO ₂ ppm	N₂O ppm
10/31/14	125	601	15788	4701	4047	445	48930	933



ATTACHMENT 2

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

6.[6] Date: From 10-27-14 to 11-2-14

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	6.[6] Start Time: <u>080/</u>	6.[6] Start Time: ()93()	6.[6] Start Time: <u>0909</u>	6.[6] Start Time:	6.[6] Start Time:	6.[6] Start Time:	6.[6] Start Time:
TA-54-231							
Calibrated Infrared Thermometer (6.[7])	Brand: <u>F</u> [w[cl_ Model: <u>56</u>] Cal. Due Date: 7/29]5 File Number 101974	Brand: Mult Model: Stel Cal. Due Date: Malt5 File Number 1019	Brand: <u>Fluide</u> Model: <u>50</u> Cal. Due Date: <u>712</u> File Number <u>101774</u>	Brand:	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number
Ambient Temperature (6.[9])	55.8 °F	50.9 °F	45.6°F	<u>48.1</u> °F	°F	°F	oF
Container ID #	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])
S818435	57.2	51.2	48.3	50.2			
S802833	57.1	50.4	47.0	48.6			
S801676	56.7	50.3	46.7	48.5			
S816810	55.2	48.0	44.9	46.9			
70069	55.3	48.8	44.8	46.2			
S822844	55.2	484	44.9	46.8			
S825879	54.9	48.2	44.6	46.7			
\$793724	55.4	48.2	44.7	40.9			
S813545	55.5	47.7	45.	46.8			
S822713	56.6	49.4	46.4	U8.4			
S802739	56.7	49.6	46.7	49.3			
69907	56.7	49.8	47.0	48.4			
S804995	57.0	50.4	47.1	48.7			
S816434	58.1	50.8	47.9	49.9			

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6.[6] Date: From <u>10.27.14</u> to <u>11.2.14</u>

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Container ID #	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])
TA-54-231 (continued	i)						
S805289	57.8	57.3	48.1	50.1			
S862888	57.5	58 50.8	47.8	49.3			
70072	57.2	50.3	47.2	48.7			_
S823184	57.0	50.4	46.9	48.8			
S822599	56.6	L19.9	46.4	48.1			
69904	55.7	48.1	45.3	47.Z			
S805051	55.4	481	45.1	46.7			
S864213	55.5	48.2	45.0	47.1			
S853714	55.0	47.7	45.	46.9			
S803078	55.0	47.6	45.0	47.0			
S825878	55.4	485	45,8	47.2			
S823124	55.6	489	46.1	47.7			
S804948	57.1	49.6	U7.8	48.9			
S813385	57.4	505	48.5	49.3			
S842446	58.7	51.5	50.4	J1.Z			
Ambient Temperature (6.[14])	<u>56.5</u> °F	52.0°F	<u>46.8</u> °F	<u>48.2</u> °F	o£	°F	°F
End Time (6.[15])	0808	0937	0914	0929.			
6.[15]	Operator: <u>JR</u> Operator: <u>EC</u>	Operator:	Operator:	Operator: Operator:	Operator: Operator:	Operator: Operator:	Operator: Operator:

Nitrate Salt-	-Bearing TRU Waste Container Monitoring	Document No.: Revision:	EWMO-AREAG-FO 4
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ATTACHMENT 3

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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: From <u>10.2714</u> to <u>11.2-14</u>

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]
2432	Start Time: 1109	Start Time: 1108	Start Time: 0955	Start Time: 0954	Start Time:	Start Time:	Start Time:
TA-54-375 Cell 1							
Calibrated Infrared	Brand: Fluil	Brand: Fluce	Brand: Flyke	Brand: Flyke	Brand:	Brand:	Brand:
Thermometer	Model: 50	Model: 561	Model: 56)	Model: <u>SC</u>	Model:	Model:	Model:
(6.[7])	Cal. Due Date 6 12 15	Cal. Due Date 01215	Cal. Due Date: <u>6)12 15</u>	Cal. Due Date: 6 1215	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:
	File Number 01915	File Number <u>10/9/15</u>	File Number 161915	File Number 10)915	File Number	File Number	File Number
Ambient Temperature (6.[9])	63.4 °F	<u>55,]</u> °F	<u>53.J</u> °F	<u>54,2</u> °F	°F	°F	oF
Container ID #	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])
68685	629	55.3	53.4	SU. 9			
68540	626	55.3	53.4	54.9			
68553	102.8	55.3	53.5	54.6			
69445	(03.0	54.2	53.8	35.2			
69618	63.0	55.6	54.5	55.0			_
69013	Lez.7	56.3	55.0	55.6			
LASB50522	62.8	56.6	54.8	23.8			
LASB50452	102.0	56.3 56.1	54.5	55.6			
LASB50431	62.5	56.1	54.5	35.6			
LASB50069	62.4	54.5	55.2	55.3			
LASB50073	62.9	54.3	55.)	56,1			
69636	62.3	56.3	25.1	22.8	-		
69616	62.5	56.4	55.1	55.5			
69417	102.4	54.5	55.6	36.0			

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6.[6] Date: From <u>10.27.14</u> to <u>11.2.14</u>

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Container 1D #	Temp (°F) (6.[10]/6.[11])						
TA-54-375 Cell 1 (con	tinued)						
69620	62.10	5Le.7	55.2	56.0			
69520	102.10	56.7	55.3	56.3			
69641	(ez.le	54.7	55.5	57.1		8	
69298	62.6	R128457.857.0	55.7	JC.C			
LASB02203	62.3	56.4	55.]	56.1			
Ambient Temperature (6.[14])	635°F	55.9 °F	<u>53.6</u> °F	<u>57.0</u> °F	°F	°F	°F
End Time (6.[15])	11130	113	1000	1002			
6.[15]	Operator:	Operator:	Operator:	Operator:	Operator: Operator:	Operator: Operator:	Operator: Operator:

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	Nitrate Salt-Bearing TRU Waste Container Monitoring	Revision:	4	
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6.[6] Date: From <u>10.27.14</u> to <u>11.2.14</u>

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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 10-27.14 to 11-7-14

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]
	Start Time: 113	Start Time: 113	Start Time: _ool	Start Time: 10CS	Start Time:	Start Time:	Start Time:
TA-54-375 Cell 2							
Calibrated Infrared Thermometer (6.[7])	Brand: $PIWLl$ Model: $S(c)$ Cal. Due Date: $GI/Z/S$ File Number IO 912	Brand: <u>Fluitt</u> Model: <u>Sto</u> Cal. Due Date: <u>lo. 11.11</u> S File Number <u>10.19/2</u>	Brand: $F u < e$ Model: S_{0} Cal. Due Date: G h 15 File Number w 92	Brand: Fluke Model: SL Cal. Due Date: $C 12 15$ File Number $(0) 9 2$	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number
Ambient Temperature (6.[9])	(02-7 °F	51.3°F	<u>56.1</u> °F		°F	°F	°F
Container ID #	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])
LASB02198	61.9	51.	57.3	56.7			
68638	LeZ. 1	56.7	36.1	56.7			
69615	(025)	56.9	56.2	56.6			
69635	627	57.1	56.6	57.0			
69642	107,0	56.8	55.0	56.5			
69630	102.9	54.5	56.1	26.4			
69633	62.0	57.1	56.7	58.3			
68430	62.3	57.1	56.0	56.2			
68631	102.0	56.9	55.9	56.3			
69634	61.10	50.6	56.5	56.9			
68567	101.4	56.0	56.4	56.5			
94227	(02.2	56.7	56.5	SG.7			
LASB50442	42.0	56.7	56.6	9.90			
69644	(02.0	57.1	36.7	57.0			
LASB50443	61.8	56.10	56.7	57.0			
69638	61.8	50.le	56.9	57.1			

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6.[6] Date: From 10.27.14 to 11.2.14

••	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Container ID #	Temp (°F) (6.[10]/6.[11])						
TA-54-375 Cell 2 (con	tinued)						
68624	61.9	56.8	57.0	58.5			
68507	61.7	56.8	56.5	57.1			
69568	61.8	Se. 1	56.5	57.4			
69553	60.8	56.6	56.2	56.7			
69598	60.9	56.3	56.5	56.8			
LASB50559	(11.6	56.6	56.8	57.1			
69015	61.9	51.2	57.0	57.3			
69639	(01.7	57.3	57.7	58.0			
69637	61.7	569	57.4	57.8			
Ambient Temperature (6.[14])	61.9 °F	5(0,7°F	<u>55.9</u> °F	<u>56.9</u> °F	°F	°F	°F
End Time (6.[15])	119	1119	1005	1009			
6.[15]	Operator:	Operator:	Operator:	Operator:	Operator: Operator:	Operator: Operator:	Operator: Operator:

6.[2] Comments:

\cap	\bigcirc	Document No .:	EWMO-AREAG-FO-! -1246
	Nitrate Salt-Bearing TRU Waste Container Monitoring	Revision:	4
		Effective Date:	9-11-2014
UET		Page:	32 of 37

ATTACHMENT 4 Page 3 of 3

6.[6] Date:	From <u>/</u>	2.27.14	_ to _	11.2.14
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6.[19] Performed by: Derator (print) Operator (print) Signature Operator (print)	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Operator (print) Operator (print) Operator (print) Operator (print) Operator (print) Operator (print) Operator (print)	/ J J J Signature / Signature / Signature / Signature / Signature / Signature / Signature / Signature	/ 2503562 Z# / 14657 Z# / Z# / Z# / Z# / Z# / Z# / Z# / Z#	Initials /	/ 10/30/4 Date //030/4 Date // Date // Date // Date // Date // Date
Operator (print)	Z# Initials Date	Operator (print)	Signature	Z#	Initials	Date

8.1[2] Reviewed by:

SOM or designee (print) Signature

Initials Date

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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 10.27.14 to 11.2.14

	Ville						
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]
	Start Time: 1100	Start Time: 1103	Start Time: 0950	Start Time: 0946	Start Time:	Start Time:	Start Time:
TA-54-375 Cell 3							
Calibrated Infrared	Brand: Flate	Brand: Full	Brand: Fluke	Brand: Fluke	Brand:	Brand:	Brand:
Thermometer	Model: Sel	Model:	Model: So)	Model: <u>\$6</u>)	Model:	Model:	Model:
(6.[7])	Cal. Due Date Celluls	Cal. Due Date:	Cal. Due Date: 412		Cal. Due Date:	Cal. Due Date:	Cal. Due Date:
	File Number 101914	File Number 101910	File Number 101916	File Number 10)916	File Number	File Number	File Number
Ambient Temperature (6.[9])	(03.0 °F	<u>51.8</u> °F	75.] °F	55.7 °F	°F	°F	°F
Container ID #	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)
Container ID #	(6.[10]/6.[11])	(6.[10]/6.[11])	(6.[10]/6.[11])	(6.[10]/6.[11])	(6.[10]/6.[11])	(6.[10]/6.[11])	(6.[10]/6.[11])
69519	(02.6	57.8	56.6	51.1			
69645	67.8	58,2	56.3	57.3			
94068	62.8	58.6	56.3	54.4			
93605	63.7.	58.4	56.0	57.1			
69548	63.3	58.2	56.1	57.0			
69604	63.2	58.Z	56.4	57.1			
LASB50529	63.3	58.5	56.4	57.2			
LASB50418	63.3	58.Q	56.0	57.0			
69036	(43.3	57.9	\$3.5	56.7	*		
LASB50451	62.7	58.2	55.7	55.7			
69559	63.3	58.4	56.6	56.1			
LASB50448	633	58.4	56.1	56.6			
Ambient Temperature	63.5°F	57.8°F	<u>56.3</u> °F	56.2°F	°F	oŁ	°F
(6.[14])							
End Time (6.[15])	1109.	1107	O95L]	0952			
6.[15]	Operator:	Operator:	Operator: 4/	Operator:	Operator:	Operator:	Operator:
	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:

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UET	Nitrate Salt-Bearing TI	RU Waste Container Monitoring		Document No.: Revision: Effective Date: Page:	EWMO-AREAG-FO- 4 9-11-2014 34 of 37	-1246
		ATTACHME Page 2 of 2				
6.[6] Date: From	10.27.14 to 11.2-14					
6.[2] Comments:						
6.[19] Performed I		UMAZIA I UNIZZIU	Tostura Loop	Juliea	ha -1163981	Str 11030
perator (print)	Signature	1157971 0 110/27/14 2# Initials Date	Dostura Logs Operator (print)	Signature	1000-11(6598/ Z#	XV /10301 nitials Date /
Josephile D operator (print) Josephile D operator (print)	Signature Signature	Z# Initials Date / 1658/ July / 10/714 Z# Initials Date	Operator (print)	Signature Signature	/	Nitials Date nitials Date
Josephille D perator (print)	Signature Signature	$\begin{array}{cccc} $		/ Ŭ	Z# 1 Z# 1 / /	/
Operator (print) USEDNULD Operator (print) USEDNULD Operator (print)	NUAN Signature r Signature Way Signature Way Signature Signature Signature	$\begin{array}{cccc} $	Operator (print)	/ U Signature	Z# //// Z# /// Z# ////	/ nitials Date /
Operator (print) Destudor Operator (print) Usephice Operator (print) Operator (print) Operator (print) Operator (print) Thurs for	NUM Signature Signature MAN Signature Signature Signature Signature T	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Operator (print) Operator (print) Operator (print)	/ / Signature / Signature / Signature /	Z# //// Z# //// Z# //// Z# ////	/ nitials Date / nitials Date / nitials Date /
Operator (print) Operator (print) USEDNINED Operator (print) Operator (print) Operator (print) Operator (print)	Signature Signature Way Signature Signature Signature Signature	Z# Initials Date / $UG578/ J/4/ / D37/ 4$ Z# Initials Date / $I57971 / I/ / I 20/14$ Z# Initials Date / $IUG58/ J/ / I 0 38/ 4$ Z# Initials Date / Z # Initials Date / Z # Initials Date / Z # Initials Date	Operator (print) Operator (print)	/ / Signature / Signature /	Z# //// Z# //// Z# //// Z# ////	/ nitials Date / nitials Date /
Operator (print) Description	NUM Signature Signature MAN Signature Signature Signature Signature T	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Operator (print) Operator (print) Operator (print)	/ / Signature / Signature / Signature /	Z# //// Z# //// Z# //// Z# //// Z# ////	/ nitials Date / nitials Date / nitials Date /

8.1[2] Reviewed by:

SOM or designee (print) Signature

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Initials Date

UET			INIT	rate Salt-Bear	ing I RU was	ste Container	Monitoring				Revision: Effective D Page:	4 Date: 9-11-2 35 of 3		
	ATTACHMENT 6 Page 1 of 3													
TA-54 AREA G NITRATE SALT TRU WASTE CONTAINER HOURLY TEMPERATURE DATA SHEET														
6.[6] Date:	From 10-30	>-14to 10-	-30-Ly	Location:	375									
	Start Time: 6.[6]	Start Time: 6.[6] 0126	Start Time: 6.[6]	Start Time: 6.[6]	Start Time: 6.[6]	Start Time: 6.[6]	Start Time: 6.[6] 1226	Start Time: 6.[6]	Start Time: 6.[6]	Start Time: 6.[6]	Start Time: 6.[6] (62.7)	Start Time: 6.[6] 17.2.5	Start Time: 6.[6]	Start Time: 6.[6]
Calibrated Infrared Thermometer (6.[7])	Brand: Model: Cal>DueDate: File Number	Brand: Model: Cul. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: A Gal. Due Date: File Number	Brand: Model A Al Due Date: File Number	Brand: Model: A Gal. Due Date: File Number	Brand: Model: A Cal Due Date: File Number	Brand: Model: A dal)Due Date: File Number	Brand: Model dal. Due Date: File Number	Brand: Model: Gul. Due Date: File Number	Brand: Model: Chipue Date: File Number	Brand: Mobel: A Cal. DueDate: File Number	Brand: Model: Cal Due Date: File Number	Brand Model Cal. Due Date File Number
Ambient Temperature (6.[9])	52.42F	51.1ºF	52.74	53,17F	55.74	57.685	60,99F	63.07	62.86°F	63:43F	63.09	6(-68F		°F
Container ID # (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) _(6.[10]/6.[11])	Temp (°P) (6.[10]/6.[11])	7emp (°F) ~(6[10]\6,(11])
68685 TI	53.67	51.68	53.44	53.63	55.17	57.3	60.16	62.64	63.11	63.83	63.6	62.19		
08685 72		51.26	52.99		54.75	56.86		61.89	62.41	63.09	63.03	61.85	1 -	1-1-1
50522-14		52.9	5413	54.2	55.74	57.0		60.97	60.89	61.42	61.4	60.52		<u> </u>
5051255	53.82	52.87	54.18	54.14	55.52	57,19	59.33	61.17	6118	61.66	61.6	60.79		

Nitrate Salt Deaning TDU Waste Contain . n.e. 14 - 1

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

UET			Niti	rate Salt-Bear	ing TRU Was	ste Container	Monitoring				Document Revision: Effective D Page:	4		-DOP-1246
6.[6] Date:	From <u>10-30</u> -	-14 to [0-	30-14	Location:	325	<u>A1</u>	TACHMEN Page 2 of 3	<u>Г 6</u>						
Container 1D # (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11										
								λ						\wedge
				_										\square
					a									
Ambient Temperature (6.[14])	52.4 °F	51.1ºF	52.74	53.251	<u>55.3</u> k	57.7+	60.9\$	<u>63.08</u> F	62.84	63,495	<u>63</u> •F	61.69	°F	°F
End Time (6.[15])	0631	oran	0828	0928	1024	1127	1226	1326	1426	1626	1623	126		
6.[15]	Operator: Operator: UW	Operator: Operator:	Operator:	Operator: Operator:	Operator: Operator:	Operator: Operator:								

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Nitrate Salt-Bearing TRU Waste G	Container Monitoring			Document No.: Revision: Effective Date: Page:	EWMO-AREAG-FO-DOP-1246 4 9-11-2014 37 of 37
	ATTACHMEN Page 3 of 3	<u>Г 6</u>			
6.[6] Date: From 10-30-14 Location: 325	1 460 5 01 5				
6.[2] Comments: Did 407 Ender Perman All times are taken From Dod	2 Logger	Standing Congretest	Order Din co	Area	G-1247 R.2 room.
	A				
6.[19] Performed by: Writight Deck, Audifford Dol 158, w, 10:30-14 Operator (print) Signature Z# Initials Date / Operator (print) Signature Z# Initials Date	Operator (print) Operator (print) Operator (print) Operator (print) Operator (print)	/ Signature / Signature / Signature / Signature	/ / Z# Initials / / Z# Initials / / Z# Initials / / Z# Initials / / Z# Initials / / Z# Initials	/ Date / Date / Late	
Operator (print) Date / / <	Operator (print) Operator (print)	/ Signature / Signature	/ / Z# Initials / / Z# Initials	/ Date / Date	
8.1[2] Reviewed by: Mc Le & Uhardee Mult March, 2.249,35 March to SOM or designee (print) Signature Z# Initials Date	0-20-14				

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Nitrate Salt-Bearing TRU Waste Container Monitoring	Document No.: Revision: Effective Date:	
	Page:	35 of 37

ATTACHMENT_6 Page 1 of 3

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

6.[6] Date: From <u>103014</u> to <u>103114</u> Location: <u>375</u>

UET

	Start Time: 6.[6]	Start Time; 6.[6] 1927	Start Time: 6.[6] 2029	Start Time: 6.[6]	Start Time: 6.[6] 22277	Start Time: 6.[6] 2379	Start Time: 6.[6]	Start Time: 6.[6]	Start Time: 6.[6]	Start Time: 6.[6] 0.329	Start Time: 6.[6] 0 42C	Start Time: 6.[6] 052.9	Start Time: 6.[6]	Start Time: 6.[6]
Calibrated Infrared Thermometer (6.[7])	Brand: Model Cal Due Date: File Number	Brand: MudelfX Call Due Date: File Number	Brand: Model: X Call Due Date: File Number	Brand: Model: X Cal. pue Date: File Number	Brand: Model: Call Due Date: File Number	Brand: Model: K Cal. Due Date: File Number	Brand: Model: M Call Due Date: File Number	Brand: Model: Cal Dae Date: File Number	Brand: Model: X Cal. Due Oate: File Number	Brand: Motel: K Cal. Dut Date: File Number	Model: Model: Cal. Due Date: File Number		Brand: Model: A Cal Die Date: File Number	Brand Model A Cal Dae Date File Number
Ambient Temperature (6.[9])	<u>59.37</u> .F	57.8 °F	58.99.F	5757FF	5615 °F	<u>55,5</u> . _F	<u>54.64</u> F	54.06 °F	53.C °F	53/5 F	52-14 52-14	52.28 °F	PF	°F
Container ID # (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[1]/	Temp (°F) A6.[10]/6.[11])
TI 68685	59.79	59.73	38.78	57.3	56.21	55.32	54.52	53.94	53.49	53.06	52.62	52.27		
7268685	59.45	52.21	58,29	56.8	55.79	54.89	54.13	53.59	53,15	52.74	52.3	51.96		
14 505-22	59.05	59,17	58,59		56,67	55.94	55.28	54.82	54.41	54.1	53.72	53,41		
1550522	57.18	59.21	58.55	57.39	56.56	55.82	55.24	54.74	54.38	54.06	53.67	53,38		
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UET			Nitr	ate Salt-Bear	ing TRU Was	te Container	Monitoring				Document Revision: Effective D Page:	4		-DOP-1246
6.[6] Date:	From <u>1030</u>	14_ to 105	<u>3114</u>	Location:	375	<u>A</u>]	TACHMENT Page 2 of 3	<u>Г 6</u>						
Container ID # (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])					
						1								
						A								
										·				
Ambient Temperature (6.[14])	57.3 6 °F	59.8°F	5 <u>8,95</u> •F	<u>5757</u> F	56.17°F	55.5°F	54.66 °F	54.04 °F	5356.F	53.15 F	52.65-F	52.28 °F	°F	oE
End Time (6.[15])	1834	1928	2030	2130	2228	2330	0022	C/26	0232	0325	0427	0530	A	
6.[15]	Operator: Operator:	Operator: Operator:	Operator: Operator:	Operator: Operator:	Operator: Operator:	Operator: Operator: Lege	Operator: Operator:	Operator: Operator:	Operator: Operator:	Operator: Operator:	Operator: Operator:	Operator: Operator:	Operator:	Operator: Operator:

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		Nitrate Salt-Bearing TRU W	aste Container Monitor	ing		Rev	ument No.: sion: ctive Date:	EWMO-AREAG-FO-DOP- 4 9-11-2014
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			ATTACHM Page 3 (
		Location: 375						
[2] Comments: Dio	I not enter	Permacon Per St	tunding Order	- ALEA . G 129	17 A.2. 7	Emps ta	ken fro.	in Data Logger
n control roc	un Down 375.		J					
·····								
				, , <u>, , , , , , , , , , , , , , , , , </u>				
19] Performed by:)						
		211120716721630-14		1	/	11		
Dillic 3. Control	Signature L	Z# Initials Date	i Operator (print)	/ Signature	/ Z#	/ / Initials Date		
Operator (print)		Z# Initials Date 1637/67/10-30-14 2.# Initials Date 1637/61/103/14		/	1	/ /		
Derator (print) Pole Abertary Projator (print)		Z# Initials Date	Operator (print) Operator (print)	/ Signature	/ / / /	/ / Initials Date / / Initials Date / /		
Dillie 5. Color Operator (print) Rule Mostary Comme Date C		Z# Initials Date <i>IMANY Constraints</i> <i>IMANY</i> <i>Z#</i> Initials Date <i>IMANY</i> <i>Z#</i> Initials Date <i>IMANY</i> <i>Z#</i> Initials Date		/ Signature	1	/ /		
Dillie 5. Color Operator (print) Alle Mostaya Contator (print) Damme Date k	Signature Sugarure Diman Raul	Z# Initials Date - / 14474 / 1030-14	Operator (print)	/ Signature	/ Z# / Z# /	/ / Initials Date / / Initials Date / /		
Dillie 3. Color Operator (print) Alle Abertaya Corrator (print) Darmy Date k Operator (print)	Signature Sugarure Diman Raul	Z# Initials Date - / 14474 / 1030-14	Operator (print)	/ Signature	/ /	/ / Initials Date / /		
Dilliz 3. Color Operator (print) All Abstays Operator (print) Operator (print)	Signature Steapule Signature Signature	IG37/6 I/III I/O3/1/Y Z# Initials Date / IIIIIIIS Date Z# Initials Date I / I Z# Initials Date I / I Z# Initials Date I / I Z# Initials Date	Operator (print) Operator (print) Operator (print)	/ Signature Signature /	/ Z# / Z# / Z# /	/ / Initials Date / / Initials Date / / Initials Date / /		
Dilliz 3. Color Operator (print) All Abstays Operator (print) Operator (print)	Signature Signature Signature	Z# Initials Date 	Operator (print)	/ Signature	/ Z# / Z# /	/ / Initials Date / / Initials Date / /		
Dittice 3. Conference Operator (print) Departor (print) Operator (print) Operator (print)	Signature Signature Signature Signature	IG37/6 I/III I/O3/1/Y Z# Initials Date / IIIIIIIIS Date Z# Initials Date I / OF Z# Initials Date I / / Z# Initials Date I / /	Operator (print) Operator (print) Operator (print)	/ Signature Signature /	/ Z# / Z# / Z# /	/ / Initials Date / / Initials Date / / Initials Date / /	-	
Operator (print)	Signature Steapule Signature Signature	IG37/6 I/III I/O3/1/Y Z# Initials Date / IIIIIIIS Date Z# Initials Date I / I Z# Initials Date I / I Z# Initials Date I / I Z# Initials Date	Operator (print) Operator (print) Operator (print) Operator (print)	/ Signature Signature / Signature /	/ Z# / Z# / Z# / Z# /	/ / Initials Date / / Initials Date / / Initials Date / / Initials Date / /	-	

SOM or designee (print) Signature Z# Initials Date

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