From: Haagenstad, Mark P

Sent: Friday, September 26, 2014 3:22 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

Cc: Pete Maggiore; Silas DeRoma; Cummings, Lisa K; Nickless, David J; Bishop, M. Lee; Turner, Gene E; Armijo, Karen (CONTR); Wallace, Terry C; Mousseau, Jeffrey David; Cox, Daniel Ray; Torres, Enrique; Woitte, Deborah Kay; Johns-Hughes, Kathryn W; Clemmons, Steve; Allen, Don; George, Victoria A; 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

Subject: Daily Technical Submission - September 26, 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.

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

September 26, 2014

LANL Technical Update:

- Location of Nitrate Salt-Bearing Wastes
 - o Remediated nitrate salt-bearing waste containers.
 - All containers remain in the 375 Permacon.
 - o Unremediated nitrate salt-bearing waste containers.
 - All containers remain in the 231 Permacon.

• Monitoring - Daily Temperature

- o Temperatures remain below 90°F.
 - Previous day's daily temperature data attached.

• Monitoring – Visual Inspections

- o No abnormal conditions.
- Monitoring headspace gas (HSG)
 - o Containers (SWBs) 68685 and SB50522.
 - Continue daily head space gas (HSG) sample collection.
 - September 26, 2014 HSG data attached
 - o H₂, CO, CO₂ and N₂O
 - Other containers
 - Will initiate monthly minimum of once per month HSG sampling in October.
 - To date in September, LANL has conducted HSG sampling on 31 SWBs. HSG sampling was conducted on 8 additional SWBs today.
 - Note: LANL previously conducted HSG sampling on each of the 55 SWBs that contain 55-gallon drums of remediated nitrate salt-bearing waste (under Section I of the Isolation Plan).

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.
 - Continue hourly temperature measurements.
 - o Previous day's hourly temperature data attached.

Temperatures remain below 90°F.

- 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).
 - o Currently, no further movements or re-packaging are planned.
- Other:
 - o No new items.

${\bf Summary\ Chart\ -\ Requested\ Information\ /\ Pending\ Issues:}$

	Requested Information	Actionee	Status	Completion Date
1.	NMED contact / process for LANL to notify NMED under the Revised Isolation Plan (e.g.,	NMED		Complete
2.	24 hour notices). Keep NMED informed on the status of ongoing chemistry / analytical work.	LANL		June 5, 2014 Complete
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		June 9, 2014 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.	LANL	In progress – remaining are portions of item 5	Partially Complete July 9, 2014 (Letter sent addressing items 1-4 and 6-9 of the email request) July 17, 2014 (Letter sent with updated spreadsheet) August 7, 2014 (First submittal in response to item 5) August 14, 2014 (Letter addressing items 2 & 8 - Second submittal in response to item 5) August 18, 2014 (Third submittal in response to item 5) August 21, 2014 (Fourth submittal in response to item 5) August 27, 2014 (Fifth submittal in response to item 5) September 4, 2014 (Sixth submittal in response to item 5) September 9, 2014 (Seventh submittal in response to item 5) September 11, 2014 (Eighth submittal in response to item 5) September 22, 2014 (Ninth submittal in response to item 5) September 23, 2014 (Tenth submittal in response to item 5)
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

	Requested Information	Actionee	Status	Completion Date
15.	NMED has requested 'copies of any waste	LANL		Complete
	processing, treatment, characterization stop orders issued since Feb 14, 2014.'			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	LANL /		Complete
17.	teams. (On June 20 call, LANL offered to schedule an update meeting).	NMED		July 2, 2014
18.	Neutralizer use in association with container	LANL		Complete
	S855793 (parent of 68660 and 68685).	22.2. (2		June 25, 2014
19.	List of nitrate salt-bearing waste containers	LANL		Information will
	that LANL records indicate contain absorbed			be included in
	liquids with the same neutralizer, as discussed			LANL response to
	during June 25 technical call.			NMED's August 26, 2014 letter.
20.	Schedule follow-on update on LANL efforts – including teams.	LANL / NMED		Complete
	merading comis.	TVILLE		August 14, 2014 (Meeting held)
21.	NMED requested information on document	LANL		Complete
	approval / review (as discussed on July 3 call).			July 20, 2014
22.	What analyses will be conducted on samples	LANL		July 29, 2014 Complete
22.	taken from empty drums that previously			Comprete
	contained nitrate salt-bearing waste.			July 7, 2014
23.	NMED requested the following information	LANL		Complete
	on cemented waste containers generated from TA-55, that are currently stored above-ground			July 17, 2014
	at Area G: container id number; location;			(Letter sent w/
	form (cans or monoliths); and type of			information)
	concrete. Additionally, NMED requested information on pH adjustment during waste			July 18, 2014
	generation process, and information on			(Meeting held)
	anticipated pH of free liquids (and rationale).			
24.	NMED requested the procedure for sampling	LANL	EP-AREAG-WO-DOP-	Complete
	empty parent drums that previously contained nitrate salt-bearing waste.		1245 is included in Enclosure 1 to LANL's	July 8, 2014
	made sait souring waste.		July 3, 2014 Response	Uaij 0, 2017
			to Request for	
			Information on	
			Management of Waste at LANL.	
		<u> </u>	W LIII.	

	Requested Information	Actionee	Status	Completion Date
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	
35.	Schedule a third update on LANL efforts – including teams.	LANL / NMED	In progress	
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	In progress	

Next Call: Tuesday, September 30, 2014

Remediated Nitrate Salt Container Headspace Gas Analysis

		680	68685 SB50522				68567				69568				69598					
Date	H ₂ ppm	CO ppm	CO ₂ ppm	N₂O ppm	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	CO ₂ ppm	N ₂ O ppm	H ₂ ppm	CO ppm	CO ₂ ppm	N ₂ O ppm
09/26/14	111	901	19367	6019	6621	446	53632	922	22	0	929	51	94	126	692	659	29	0	2531	86

Remediated Nitrate Salt Container Headspace Gas Analysis

	69634 94227				SB02198				SB50073				SB50559							
Date	H ₂ ppm	CO ppm	CO ₂ ppm	N₂O ppm	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	CO ₂ ppm	N ₂ O ppm	H ₂ ppm	CO ppm	CO ₂ ppm	N ₂ O ppm
09/26/14	90	0	1238	598	31	0	228	571	2943	216	1186	332	831	915	7883	1916	1081	241	3738	268

Document No.:

EWMO-AREAG-FO-

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Revision:

9-11-2014

Effective Date: Page:

24 of 37

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 9.22.19 to 9.28.19

	Monday	Tuesday	Wednesday	T1 1			
	6.[6]	6.[6]	6.[6]	Thursday	Friday	Saturday	Sunday
	Start Time: 0833	Start Time: 1025	Start Time: <u>0947</u>	6.[6]	6.[6]	6.[6]	6.[6]
TA-54-231	State Time. 8005	Start Time. 1023	Start Time: D441	Start Time: 0920	Start Time:	Start Time:	Start Time:
Calibrated Infrared	David 57 100	15 . Tubo	- 4 -				
Thermometer	Brand: Fluke Model: 561	Brand: Fluck Model: 561	Brand: Flute	Brand: Pull	Brand:	Brand:	Brand:
(6.[7])	Cal. Due Date:7-29-/5	Cal. Due Date: 7-29-15	Model: 5(0)	Model: 561	Model:	Model:	Model:
(0.[/])	File Number 101974	File Number 10974	Cal. Due Date: 7-29-15	Cal. Due Date: 1/24/15	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:
Ambient Temperature		The Number 107174	File Number 10 1974	File Number 10/474	File Number	File Number	File Number
Ambient Temperature (6.[9])	65.3 °F	107.2°F	65.9 °F	66.0°F	°F	°F	°F
Container ID#	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)	Temp (°F)
	(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])
S818435	65.7	107.0	64.9	45.5			
S802833	66.1	107.1	64.6	105,6			
S801676	65.6	66.5	124.4	105.4			
S816810	64.8	100.7	643	65.3			
70069	64.8	665	104.0	65.2			
S822844	65.0	67.0	104.60	65.5			
S825879	64.7	67.2	(24.9	125.10			
S793724	64.8	1009	124.5	65.5			
S813545	64.7	(06,1	64.1	65.1			-
S822713	65.5	107.2	103.1	105.8			
S802739	65.6	(06.8	64.8	105.7			
69907	65.6	(06.7	104.4	105.60			
S804995	65.6	67,0	65.0	105.5			
S816434	66.0	67.2	64.8	(25.9			-

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Revision:

9-11-2014

Effective Date: Page:

25 of 37

ATTACHMENT 2 Page 2 of 3

6.[6] Date: From 9.22.14 to 9.28.14

	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])
ΓA-54-231 (continue	d)						(0.[.0],0.[.1])
S805289	65.7	107.3	64.8	105.7			
S862888	65.9	6609	104.9	65.6			
70072	65.7	107.2	1045	105.5			
S823184	65.9	(07.1	Della 5.8 (15.3	106.1			
S822599	65.7	(07.3	105.2	105-8			
69904	65.2	000.7	704.4	65.3			
S805051	65.0	1010.8	64.3	105.1			
S864213	65.2	67.6	64.4	65.2			
S853714	65.0	67.2	(65.0	105.5			
S803078	64.9	(08.0	65.5	660			
S825878	65.2	(07.5	65.2	65.7			
S823124	65.2	(07.8	45.3	65.8			
S804948	66.0	67.4	65.1	65.9			
S813385	66.0	(07.7	(05.2	66.0			
S842446	66.5	107.7	Le5.5	66.2			
mbient Temperature 5.[14])	66.5 °F	67.69°F	65.7°F	6.6.6°F	°F	°F	°F
nd Time (6.[15])	0841	1033	0957.	0927.			
6.[15]	Operator: JR	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:
	Operator: &C	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:

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EWMO-AREAG-FO-L JP-1246

Page:

9-11-2014 26 of 37

ATTACHMENT 2 Page 3 of 3

6.[6] Date: From <u>9.22-14</u> to <u>9.28-14</u>					
6.[2] Comments:					
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Elera, Cordera 180 D / 1114188/ Ec 19.2214		/	/	/	/
THONAS KOTL 4-17 175382 / 70 / 9/23/14		Signature /	Z# /	Initials _/	Date /
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SOM or designee (print) Signature Z# Initials Date					

Document No.:

EWMO-AREAG-FO-

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Revision:

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Effective Date: Page:

27 of 37

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 9.22.14 to 9.28.14

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]
	Start Time: 0734	Start Time: 0924	Start Time: 1236	Start Time: 1140	Start Time:	Start Time:	Start Time:
TA-54-375 Cell 1							
Calibrated Infrared Thermometer	Brand: Floke Model: 5%	Brand: Fluce Model: 561	Brand: Fluke Model: 561	Brand: Fluce Model: 561	Brand:	Brand:	Brand:
(6.[7])	Cal. Due Date: 6/2/5 File Number 10/915	Cal. Due Date: 61215 File Number 101915	Cal. Due Date: 6-12-15 File Number 101915	Cal. Due Date: 6-12-15	Cal. Due Date:	Model:	Model:
Ambient Temperature	7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 -	The Number 10010	THE MUNIDER TOTALS	File Number 101915	File Number	File Number	File Number
(6.[9])	<u>62.6</u> °F	63.5°F	<u>70,8</u> °F	69.6°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])
68685	61.7	62,6	71.8	69.9	<u> </u>	(0.[11],0.[11])	(0.[10]/0.[11])
68540	61.8	624	21.0	69.0			
68553	62.2	62.5	7,5.7	68.6			
69445	62.2	62.7	21.2	69.4			
69618	62.0	620	70.7	69.6			
69013	61.8	62.9	70.9	68.3			
LASB50522	61.8	63.3	69.6	68.9			
LASB50452	61.9	63.1	69.9	68.2			
LASB50431	61.3	62.7	69.9	67.9			
LASB50069	62.0	63.\	70.4	68.5			
LASB50073	62.4	63.0	203	68.5			
69636	61.4	62.6	20.5	68.2			
69616	61,2	62.7	69.5	62.5		<u> </u>	
69417	61.8	62.6	1011	68.9			

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Document No.:

EWMO-AREAG-FO-

Revision:

Effective Date:

9-11-2014

Page:

28 of 37

ATTACHMENT 3 Page 2 of 3

6.[6] Date: From <u>9.22/14</u> to <u>9.28.17</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-54-375 Cell 1 (cor	ntinued)						(0.[10]/0.[11]/
69620	61.9	63.0	70.6	68.5			
69520	62.6	62.7	69.7	68.6			
69641	62.0	63.6	70.3	68.7			
69298	61.8	628	69.5	68.4			
LASB02203	61.5	62.9	69.7	67.7			
Ambient Temperature (6.[14])	62 C of	643 of	71.3°F	69. Jar	°F	°F	oF.
End Time (6.[15])	0740	6930	1242	1147			
6.[15]	Operator: FC Operator: TR	Operator: SA	Operator: Operator:	Operator: W	Operator:Operator:	Operator: Operator:	Operator:

6.[2] Comments:		

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6.[6] Date: From 9.22.14 to 9.28.17

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Document No.: EWMO-AREAG-FO-

Revision: Effective Date:

9-11-2014

Page:

29 of 37

ATTACHMENT 3 Page 3 of 3

6.[19] Performed by:					-				
Eloy D Colder &	1500	1/14/8	8180	19.2214	Tina Flauirr	e that for a	> Music	nPDA	9-25-
Operator (print)	Signature	Z#	Initials		Operator (print)	Signature ()	Z#	Initials	Date
Jackie Romero	Quekie Romer	118706	61JK	19-22-14	Wilham Jun	oz/ Celly	2014:	58/ wo	T 9-25
Operator (print)	\$ gnature	Z#	Initials		Operator (print)	Signature	Z#	Initials	Date
Iva Paine	the Acces	12497	194	9.23.14	Jose Chaver	(Jankly	12145	1850	19.23.
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William Juarez	hybellen	20145	8/ w	79-24-14			/	_ /	/
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Jese Chaver	(pelling	121624	8/TC	192414			/	_/	/
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Document No.: EWMO-AREAG-FO-

Revision:

Effective Date: Page:

9-11-2014 30 of 37

ATTACHMENT 4

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 9.22.14 to 9.28.14

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]
	Start Time: 0859	Start Time: 0959	Start Time: 1247	Start Time: 1227	Start Time:	Start Time:	Start Time:
TA-54-375 Cell 2							
Calibrated Infrared	Brand: Fluke	Brand: Pluke	Brand: Fluke	Brand: Pluce	Brand:	Brand:	Brand:
Thermometer	Model: 561	Model: 561	Model: 561	Model: 561	Model:	Model:	Model:
(6.[7])	Cal. Due Date:6-12-15	Cal. Due Date: 6-12-15	Cal. Due Date: 6-12-15	Cal. Due Date: 6-12-15	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:
	File Number 101912	File Number 161915	File Number loi91	File Number 10 (9 (2	File Number	File Number	File Number
Ambient Temperature (6.[9])	<u>61.8</u> °F	62.5 °F	67.6°F	65.8°F	°F	op	°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	61.1	62.4	66.8	65.3	(5.[10], 5.[11])	(0.[10]/0.[11])	(0.[10]/0.[11])
68638	61.1	63.0	67.3	67.0			
69615	61.4	62.6	68.4	62.8			
69635	62.3	62.8	69.3	(58.2			
69642	61.7	63.7	68.4	68.0			
69630	61.7	62.6	69.3	67.6			
69633	62.0	63.0	68.5	62.4			
68430	101.7	62.8	6215	66.8	**		-
68631	61.3	62.2	68.0	66.2			
69634	61.0	61.8	69.9	64.9			
68567	61.1	62.5	66.8	65.3			
94227	61-6	62.4	62.0	65.8			
LASB50442	62.0	63.1	67.7	60.3			
69644	62.1	62.7	69.0	66.2			
LASB50443	62.0	63.7	68.3	68.3			
69638	62.1	63.6	68.7	67.0			

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Document No.: EWMO-AREAG-FO-.

Revision:

9-11-2014

Effective Date: Page:

31 of 37

ATTACHMENT 4 Page 2 of 3

6.[6] Date: From 9.22.14 to 9.28.14

	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])
ΓA-54-375 Cell 2 (con	ntinued)				(((((((((((((((((((((0.[10]/0.[11]/	(0.[10]/0.[11])
68624	61.9	62.6	62.8	62,1			
68507	62.2	62.8	68.2	67.2			
69568	61.4	62.5	62.9	66.7			
69553	61.7	62.4	62.5	6611			
69598	61.2	433762.6	67.1	65.6			
LASB50559	61.9	Part 2 9 62.	62.3	65.7			
69015	62.2	63.1	67.8	66.9			
69639	62.5	62.9	68.0	66.9			
69637	62.2	62.7	68.8	67.7			
Ambient Temperature 6.[14])	61.9 °F	63,0°F	67.2°F	65.7°F	°F	°F	°F
nd Time (6.[15])	0906	1008	1252	1232			
6.[15]	Operator: JR Operator: EC	Operator: SC	Operator: US	Operator: Operator:	Operator:Operator:	Operator:Operator:	Operator:

0.[2] Comments:	 		
o.[2] Comments:			

Document No.: EWMO-AREAG-FO-_ P-1246

Revision:

Effective Date: Page:

9-11-2014 32 of 37

ATTACHMENT 4
Page 3 of 3

6.[6] Date: From 9.22.14 to 9.28.14

	6.[19] Performed by:									
	Jackie Rome	20 1 Jackie Ron	zero/1870	661 TR	19-22-14	Tima Agama	Aran Ass.	-/17VS7	101A-	9:25-1
	Operator (print)	Signature	Z#	Initials	Date	Operator (print)	Signature (Z#	Initials	Date
	Eloy D. Cold	UNA1 88 Dh	11/41	88 EC	19.2214	William Juana	hullh	1701458	F) w	T9-25-1
	Operator (print)	Signature	Z#	Initials	Date	Operator (print)	Signature	Z#	Initials	Date
	Ina Aguirre	Those Adue	2/2497	194	19-23-14	Jesse Chavez	I do ling	121457	150	19-25-19
	Operator (print)	Signature	Z#	Initials	Date	Operator (print)	Signature /	Z#	Initials	Date
	Jesse Chave	EZ Colo Co	12/4	577 50	19-25-14			/	/	/
_	Operator (print)	gnature	Z#	Initials	Date	Operator (print)	Signature	Z#	Initials	Date
	hua Hairra	- Alex Acres	[149n	AL	19-24-14			/	/	/
	Operator (print)	Signature (1)	Z#	Initials	Date	Operator (print)	Signature	Z#	Initials	Date
	WILLIAM JUANEZ		20145	8/ 6	+9-24-14			/_	/	/
	Operator (print)	Signature	Z#	Initials	Date	Operator (print)	Signature	Z#	Initials	Date
	Jesse Channe	Color	71459	8/50	192414		/	/	/	/
	Operator (print)	Signature	Z#	Initials	Date	Operator (print)	Signature	Z#	Initials	Date

.1[2] Reviewed by:				
	/	/	/_	/
SOM or designee (print)	Signature	Z#	Initials	Date

Document No.:

EWMO-AREAG-FO-

P-1246

Revision:

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9-11-2014

Effective Date: Page:

ge: 33 of 37

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>9.22.14</u> to <u>9.28.14</u>

UET

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]
	Start Time: 073/	Start Time: 6932	Start Time: 1254	Start Time: 1149	Start Time:	Start Time:	Start Time:
TA-54-375 Cell 3						THE RUN	
Calibrated Infrared Thermometer (6.[7])	Brand: Fluke Model: 56/ Cal. Due Date: 6/2/5	Brand: Fluide Model: 561	Brand: Fluce Model: 56	Brand: Fluce Model: 561	Brand:	Brand:	Brand:
	File Number 1019/6	Cal. Due Date: 61215 File Number 101916	Cal. Due Date: 6-12-15 File Number 101916	Cal. Due Date: 6/2-15 File Number 10/416	Cal. Due Date: File Number	Cal. Due Date: File Number	Cal. Due Date:
Ambient Temperature (6.[9])	63.1 °F	63.9°F	692°F	68.4°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])
69519	62,9	62.5	6912	66.6			
69645	62.8	63.2	69.9	62.7			
94068	63.0	63.2	69.2	67.6			
93605	63.4	62.9	69.9	67.9			
69548	63.2	63.1	69.6	68.2	-		
69604	63.0.	62.9	69.6	67.8			
LASB50529	63.2	63.5	70.1	68.5			
LASB50418	63.4	63.4	70.2	67.9		,	
69036	63.0	63.2	69.6	68.3			
LASB50451	63.2	63.2	69.5	68.0			
69559	63.4	63.2	69,6	68.6			
LASB50448	63.7	63.9	70.1	68.7			
Ambient Temperature 6.[14])	63.3 ∘F	<u>64.2°</u> F	69.8°F	69.0F	°F	°F	°F
End Time (6.[15])	0734	0937	12.57	1125			
6.[15]	Operator: 8c	Operator: O	Operator: A	Operator: A	Operator:	Operator:	Operator:
	Operator: JR	Operator: Se	Operator: US	Operator:	Operator:	Operator:	Operator:

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Document No.: EWMO-AREAG-FO-4

Revision:

Effective Date:

9-11-2014

Page:

34 of 37

ATTACHMENT 5	9
Page 2 of 2	_

6.[6] Date: From 9.2	2.14 to 9.28.14							
6.[2] Comments:								
					. 1			
6.[19] Performed by:				- 1			v 1	
Eluya Gides A	1800		19-22-14	Ina tairre	Tha Ageisa	INVENT	A	7-25-14
Operator (print)	Signature	Z# Initials	Date	Operator (print)	Signature	Z#	Initials	
Jackie Romero	1 Garlie Romero	11870661 JR	19-22-14	William Duarre	/well of	201458	/w	19251
Operator (print)	\$Ignature ,	Z# Initials	Date	Operator (print)	Signature	Z#	Initials	
lina Davinne	The Agens	men IA	9-23-14	Jesse Chaver	(folia)	214578		19-25-1
Operator (print)	Signature	Z# Initials	Date	Operator (print)	Signature	Z#	Initials	Date
Seffe Chaver	1 had	1214578 30	192319		/	/	/	/
Operator (print)	Signature	Z# Initials	Date	Operator (print)	Signature	Z#	Initials	Date
WILLIAM JUGNEZ	11 sollehun	201458/ w	1.23-14		/	/	/	/
Operator (print)	Signature	Z# Initials	Date	Operator (print)	Signature	Z#	Initials	Date
3ess Chaup	1. 6.16		19,221.161		/	/	/	/
Operator (print)	Bignature 0		Date	Operator (print)	Signature		Initials	Date
William Jugger	Kulh	201498/w	Date 79-24-14		/		/	/
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					

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

Revision:

Effective Date: 9-11-2014

Page:

35 of 37

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ATTACHMENT 6 Page 1 of 3

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

6.[6] Date: From 9-25-14 to 9-25-14 Location: 375

	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]	Start Time:	Start Time: 6.[6]	Start Time: 6,[6]
Calibrated Infrared Thermometer (6.[7])	Model: Cal Due Date: C-15 File Number	Brand: Model: Cal. Due Date: 6 12-15 File Number 101615	Model: De Date: G-12-15 File Number	Brand: Model: Cal. Due Date: 6-12-15	Brand: Fluck Model: Sel Pue Date: File Number File Number	Model: Cal. Due Date:	Model 6 Cal. Due Date: 6-12-15 File Number 101915	Brand: Fluce Model: Cal. Due Date:	Model: Cal. Due Date:	Brand: Fluce Model: Sol Cal. Due Date:	Brand: Fluce Model: Cal. Due Date	Model: Cal. Due Date:	Brand: Model: Cal Due Date: File Number	Brand: Model: Cal. Due Date: File Number
Ambient Temperature (6.[9])	60,2°F	6/10°F	62.3°F	63.9°F	662°F	File Number 101915	101915 69.8°F	File Number 101915	File Number LO1915	73.8°F	72.8°F	Tale Number 101915	•F	°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 (°K) (6.[10]/6.[11])	Temp (°F)
505 22	60.2	61.0	62,6	63-4	66.3 65.1	69.1	71.9	73.5	74.7	15.7	75.1	73.3		
								+						

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INITIAL Sym DATE 9-25-14

Document No.: EWMO-AREAG-FO-DOP-1246 4

Revision:

Effective Date: 9-11-2014

Page:

36 of 37

ATTACHMENT 6
Page 2 of 3

6.[6] Date: From 9-25-14 to 9-25-14 Location: 375

Container ID # (6.[10]/6.[11])	Temp (°F) (6,[10]/6,[11])	Temp (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11]											
							X							
														\bigcap
														H
														1
nbient mperature	60,3°F	61,5°F	63.4F	63.7°F	66.7°F	€8.5°F	20.9°F	12.5°F	74.0	24.3 _F	73.5°F	7129F		_
[14]) d Time [15])	0629	0231	0828	0929	1030	1128	1225	1328	1429	1529	1626	1727	°F	
Y	Operator: Operator:	Operator:	Operator: Operator:	Operator: Operator:		Operator: Operator:	Operator:	Operator:	Operator:		Operator:	Operator:		Operator:
	<u></u>			A.A.		Operator		Operator:	Operator:	التنا	Operator:	Operator	Operator:	Operator:

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

Revision:

Effective Date: 9-11-2014

Page:

Initials Date

37 of 37

6.[6] Date: From 9	25-1410 9-25-14	Loc	ation: 315	ATTACHMEN Page 3 of 3	<u>T 6</u>				
6.[2] Comments: U	oue-								
				1					
					#				
					1				
6.[19] Performed by:	61.	1011-							
Operator (print). Guran Sur	Signatur _# 7(//	Z#	1019-25-14 Initials Date 8 w 9.2514	Operator (print)	/ Signature	Z# /	Initials	Dato	
Operator (print)	Signature / N	7#	Initials Date	Operator (print)	Signature	Z#	Initials	Date	
Operator (print) Sesse Chaver	Signature /	Z# _/2145/	Initials Date 18.5C 9-25-14	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	/	
Operator (print)	Signature	Z#	Initials Date	Operator (print)	Signature	Z#	Initials	Date	
Operator (print)	/ Signature	/	/ / / Initials Date	Operator (print)	/ Signature	/	/ Initials	/	

Initials Date

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

Revision:

Effective Date: 9-11-2014

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 9-25-14 to 9-26-14 Location: 375

	Start Time: 6.[6]	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:
	1825	1926	202S	2127	2226	2327	0026	0129	0276	0328	0426	USZ8	6.[6]	6.[6]
Calibrated Infrared	Flure	FLUKE	HUKE	Pluke	Fulce	Flule	Brand:	Brand	Fluis	Brand	Puls	Brand Aulo	Brand:	Brand:
Thermometer	Model 7	Model (Model 501	Model:	561	S61	Model: 561	Model	Moder 561	Model SG(Model 5	Model (Model	Model:
(6.[7])	Cal. Due Date	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal, Due Date:	Cal Due Date	06/215	Cal Due Date	Cal. Due Date	Cal Due Date	Ob ZIS	Cal. Due Date	Val. Due Date:
	File Number	OI915	File Number	File Number	File Nugber	File Number	File Number	File Number	File Number	File Number /0/9/5	Cal Due Date 061215 File Number 101915	File Number	File Number	File Number
Ambient Temperature	70.1°F	68.7°F	67.0°F	ldo. 2 °F	65.1°F	(H.O.F	63.8 ·F	62.4 °F	667 °F	61.0 °F	59,9°F	59.6 °F	7	
(6.[9])	1011	-Cort.	QI.C.	W. Z. F	02.11	- Control	UJ-U-F	WG T	614 I	WIID 'F	2// 1%	2110 %	°F	°F
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])	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])
68685	70.6	68.7	67.8	66.4	له5.5	64.1	63.5	621	61.9	608	60.1	59,7	(3,03) 3, (1)	(3.1.0)(3.1.1)
50522	68.6	67.S	66.0	65.7	64.3	63.2	63.0	620	61.4	61.1	60.5	60.5		
					2(11									
					101									

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

Revision:

Effective Date: 9-11-2014 Page: 9-11-2014

ATTACHMENT 6
Page 2 of 3

6.[6] Date: From 9-25-14 to 9-26-14 Location: 37

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.[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])	(6.[10]/6.[11])		(6.[10]/6.[11])	(6.[10]/6.[11])	(6.[10]/6.[11])	(6.[10]/6.[11])	(6.[10]/6.[11]
						ι Δ								
						1.12				<u> </u>			-	
						VI								
							,							
mbient emperature	69.5°F	68.4 of	67.3°F	66.7°F	65,3 °F	64.7 °F	63,6 °F	62,2 °F	lalis of	613 °F	60,1 of	ledd of	or.	1
5.[14])											11	aca st	r	
nd Time 5.[15])	1827	1926	2026	2128	2227	2327	0027	0/29	0227	0329	0427	0529	11.	
6.[15]	Operator:	Openator:					Operator:		Operator:	1	· .			2
	Operator:	Operator:	Operator:	Operator	Operator:	Operator:	LM_	Operator:	/ Concrator.	Operator:	Operator:	Operator:	Operator:	Operator:
ľ	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	operator:	Operator:	Operator:	Operator:
		1-VV	fm		120	T. ALT	(2.0		_(18	45			/	

Nitrate Salt-Bearing	TRU	Waste	Container	Monitoring
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SOM or designee (print)

Signature

Revision:

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

Effective Date: 9-11-2014

Page:

37 of 37

ATTACHMENT 6 Page 3 of 3 6.[6] Date: From 9-25-14 to 9-26-14 Location: 375 6.[2] Comments: 6.[19] Performed by: Operator (print) Z# Initials Date 14324 1 092614 Operator (print) Signature Signature Date Operator (print) Z# Initials Date | 14474 | OB | OR-26-14 Operator (print) Signature Initials Date Danni Dareli Operator (print) Operator (print) Signature Initials Date Operator (print) Signature Operator (print) Z# Initials Date Initials Date Operator (print) Operator (print) Z# Signature Z# Initials Date Initials Date Operator (print) Operator (print) Signature Z# Signature Z# Initials Date Initials Date Operator (print) Operator (print) Signature Signature Initials Date Initials Date 8.1[2] Reviewed by: