From: Diaz, Tammy

Sent: Wednesday, February 18, 2015 4:52 PM

To: Haagenstad, Mark P; Ryan.Flynn@state.nm.us; Jeff.Kendall@state.nm.us; John Kieling; steve.pullen@state.nm.us; 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; butch.tongate@state.nm.us; Cobrain, Dave, NMENV; kathryn.roberts@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; 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; Juarez, Catherine L; Cabbil, Cheryl Denise; Young, Steven L; Erickson, Randy; Funk, David John; Alexander, Rick A; Frederici, Dave; Juarez, Catherine L; Robinson, Bruce Alan; Lansing, Michael Alan; Tymkowych, John M; Diaz, Tammy

Subject: Daily Technical Submission - February 18, 2015

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.

Tammy Diaz for

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 18, 2015

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 temperature data attached.

• Monitoring – Visual Inspections

- o No abnormal conditions were observed.
- Monitoring headspace gas (HSG)
 - o Containers (SWBs) 68685 and SB50522.
 - Continue daily head space gas (HSG) sample collection.
 - February 18, 2015 HSG data attached.
 - o H₂, CO, CO₂ and N₂O
 - o Other containers:
 - A minimum of once per month HSG sampling will be conducted.
 - To date in February, 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)

o Currently, no further movements or re-packaging are occurring.

Other

Next Call: Thursday, February 19, 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 notices).	NMED		Complete June 5, 2014
2.	Keep NMED informed on the status of ongoing 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 saltbearing 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.	LANL		Complete July 9, 2014 (Letter sent addressing items 1-4 and 6-9 of the email request)
	WIPP Recovery Daily Meeting Action List item #84 – NMED requested a copy of the LANL remediation records for waste stored in			July 17, 2014 (Letter sent with updated spreadsheet)
	Panel 6 (Trais Kliphuis) – is a subset of the information in item 5 of this action.			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)
				October 1, 2014 (Eleventh submittal in response to item 5)
				October 8, 2014 (Twelfth submittal in response to item 5)
				October 16, 2014 (Thirteenth submittal in response to item 5)
				October 23, 2014 (Fourteenth submittal in
				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.	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		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 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 201-250 on December 1, 2014. Submitted RTR Videos 251-300 on December 19, 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	Email sent February 3, 2015. Letter to follow.	
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		Complete 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	Email sent February 17, 2015. Letter to follow.	

Remediated Nitrate Salt Container Headspace Gas Analysis

		686	585			SB50	0522	
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
02/18/15	128	446	9513	2449	1538	441	33338	961

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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 2-1615 to 2.22-15

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]	6.[6]
	Start Time: <u>0808</u>	Start Time: 0910	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:
TA-54-231		STREET MELLINE					
Calibrated Infrared Thermometer (4.2.1[1][B])	Brand: Fluke Model: 566 Cal. Due Date: 7/29/15 File Number 10 1974	Brand: Nodel: 561 Cal. Due Date: 7.19.15 File Number 101914	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand:
Ambient Temperature (6.[7])	46.7 °F	<i>53.</i> 9 °F	°F	°F	°F	°F	°F
Container ID #	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])
S818435	48.2	52.2					
S802833	48.9	51.3					
S801676	50.1	31.5					
S816810	53.8	56.8					
70069	54.0	55.0					
S822844	54.9	57.2					
S825879	53.3	54.6					
S793724	53.8	56.7					
S813545	52.9	55.4					
S822713	52.0	54.5					
S802739	51.0	53.2					
69907	500	52.8					
S804995	50.6	53.2					
S816434	50.8	34.0	·				

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6.[6] Date: From 2.1615 to 7.22.15

	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])				
TA-54-231 (continue	d)						
S805289	50.7	53.4					
S862888	51.1	52.8					
70072	50.7	53.1					
S823184	51.6	53.9					
S822599	52.1	53.5					
69904	52.7	54.9					
S805051	53.3	55.8					
S864213	53.2	55.7					
S853714	53.8	55.4					
S803078	53.1	56.0					
S825878	52.9	55.4					
S823124	52.5	55.3					
S804948	51.3	53.6					
S813385	50.8	52.6					
S842446	51.4	52.2					
Ambient Temperature	46.2 °F	53.2 °F	oF	°F	°F	°F	°F
6.[12])	0	,	J				
End Time (6.[13])	0816	89 15					
6.[13]		Operator:	Operator:	Operator:	Operator:	Operator:	Operator:
	Operator: 2C	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:

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5.[6] Date: From 2.1	16:15 to 2.22-15	_				
5.[2] Comments:						
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[17] Daufaum od h						
5.[17] Performed by: Jackie Romen	o Gashie Romer	11870/6(1 TK 12-16	20/(**	/	/	/ /
Operator (print)	Sagnature	Z# Initials Date	Operator (print)	Signature	Z#	Initials Date
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Operator (print)	Signature	Z# Initials Date	Operator (print)	Signature	Z#	Initials Date
THOWAS VI	3th + 1-1	15722851 40 15 11	15	/	/	/ /
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3.1[2] Reviewed by:						
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SOM or designee (print)	Signature	Z# Initials Date				

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

6.[6] Date: From 2/6/5 to 2.22/15

			Monday 6.[6] Start Time: <u>0726</u>	Tuesday 6.[6] Start Time: 6455	Wednesday 6.[6] Start Time:	Thursday 6.[6] Start Time:	Friday 6.[6] Start Time:	Saturday 6.[6] Start Time:	Sunday 6.[6] Start Time:	
1	TA-54-375 Cell 1									
Cal The (4.2	Thermometer (4.2.1[1][B]) C		Brand: Flyce Model: S61 Cal. Due Date: G1215 File Number 10919	Brand: Fluke Model: Stol Cal. Due Date: C1215 File Number 10,915	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal, Due Date: File Number	Brand:	Brand: Model: Cal. Due Date: File Number	
	Ambient Temperat (6.[7])	ture	46.6°F	30.1 °F	°F	°F	°F	°F	°F	
	Container ID) #	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	
	68685		49.6	53.7						
	LA00000070503	68540 68553	49.5	53.6 57.0						
	69445		49.0	52.8						
'[69618		48.4	52.3						
L	69013		50.5	53.5						
L	LASB50522	2	51.6	84.6						
L	LASB50452		50.9	54.8						
L	LASB5043		51.7	54.8						
	LASB50069		51.3	54.2						
L	LASB50073	3	51.2	54.2						
_	69636		51.7	55.2						
-	69616		52.5	54.4						
L	69417		21.1	54.1						

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6.[6] Date: From 2.16.15 to 2.22.15

	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	tinued)						
69620	51.2	54.5					
69520	52.0	54.2					
69641	52.2	54.5					
69298	57.7	54.7					
LASB02203	52.6	54.8					
Ambient Temperature (6.[12])	<u>46.7</u> °F	51.9 oF	°F	°F	oF	°F	oF
End Time (6.[13])	<u>C736</u>	100)					
6.[13]	Operator: 45	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:

	Operator. 14	Operator.770	Operator	Operator	Operator	Operator	Operator
6.[2] Comments:							

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6.[6] Date: From 2.16	15 to 2.22.15					
6.[17] Performed by:	4 1/4	/730x	+ 1 2/11/2		/	/
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Operator (print)	/	/	/ /		/	/
Operator (print)	Signature	/ 	Initials Date	Operator (print)	Signature	Z#
оралител (р.п.т.)	/	/	/ /		/	/
Operator (print)	Signature	/ Z#	Initials Date	Operator (print)	Signature	Z#
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Operator (print)	Signature	Z#	Initials Date	Operator (print)	Signature	Z#
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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 2.1615 to 2.22.15

	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: 1052	Start Time:	Start Time:	Start Time:	Start Time:	Start Time:
TA-54-375 Cell 2							
Calibrated Infrared Thermometer (4.2.1[1][B])	Brand: FUKE Model: S6) Cal. Due Date: 61715	Brand: Fluke Model: 56 Cal. Due Date: 6 12 15	Brand: Model: Cal. Due Date:	Brand: Model: Cal. Due Date:	Brand: Model: Cal. Due Date:	Brand: Model: Cal. Due Date:	Brand: Model: Cal. Due Date:
(4.2.1[1][D])	File Number 161912	File Number 16,012	File Number	File Number	File Number	File Number	File Number
Ambient Temperature (6.[7])	49.9 °F	<u>53.9</u> °F		°F	°F	°F	°F
Container ID #	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])
LASB02198	49.5	53.8					
68638	51.1	34.6					
69615	51.0	55.5					
69635	31.7	56.3					
69642	56.6	56.0	·				
69630	56.1	56.2					
69633	51.6	53.5					
68430	51.0	54.9					
68631	50.0	54.4					
69634	49.8	54.0					
68567	49.2	33.6					
94227	50.3	54.9 56.2					
LASB50442	<1.3	5.20					
69644	51.5	55.9					
LASB50443	49.7	54.7					
69638	51.1	54.3					

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6.[6] Date: From 2.16.15 to 2.22.15

UET

6.[2] Comments:

	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])				
TA-54-375 Cell 2 (con	tinued)						
68624	52.6	58.3					
68507	51.9	56.0					
69568	56.7	54.2					
69553	56.4	53.5					
69598	50.1	34.)					
LASB50559	51.5	59.7					
69015	31.6	55.4					
69639	52.0	53.9					
69637	51.7	54.8					
Ambient Temperature (6.[12])	49.7 °F	53.6 _F	°F	°F	°F	°F	°F
End Time (6.[13])	0739	1008					
6.[13]	Operator: NS	Operator: Operator:	Operator:	Operator:	Operator:	Operator:Operator:	Operator:

-		

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o.lo] Date: From 2.16.	15 10 2.22.15			
_	7] Performed by: Operator (print) Decrease Sancher	Signature /Magnan Sanch	<u>/24382</u> Z# / [&1% 13	Initials	/ 2/16/15 Date
_	Operator (print)	Signature	Z#	Initials	Date 1
	THOMOS VIET L	t the	12338	4 4	12/17/15
	perator (print)	Signature	Z#	Initials	
	ony Sena	Nony from	123739	21/16/-	12/17/15
	perator (print)	Signature	Z#	Initials	Date '
		/	/	/	/
C	perator (print)	Signature	Z#	Initials	Date
		/	/	/	/
C	perator (print)	Signature	Z#	Initials	Date
_		/	/	/	/
C	perator (print)	Signature	Z#	Initials	Date
8.1[2] Reviewed by:				
		/	/	/	/
S	OM or designee (print)	Signature	Z#	Initials	Date

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

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ATTACHMENT 5

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

6.[6] Date: From 2-16-15 to 2-22-15 Wednesday Thursday Friday Saturday Monday Tuesday Sunday 6.[6] 6.[6] 6.[6] 6.[6] 6.[6] 6.[6] 6.[6] Start Time: 0947 Start Time: 0120 Start Time: Start Time: Start Time: Start Time: Start Time: TA-54-375 Cell 3 Brand: Flake Brand: FUR Brand: Brand: Brand: Brand: Brand: Calibrated Infrared Thermometer Model: 56 Model: Model: Model: Model: Model: Model: Cal. Due Date: (1215 Cal. Due Date: 6 12 5 Cal. Due Date: Cal. Due Date: (4.2.1[1][B]) Cal. Due Date: Cal. Due Date: Cal. Due Date: File Number 10 916 File Number OPIC File Number File Number File Number File Number File Number Ambient Temperature <0,0 °F oF (6.[7])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])52.4 54.1 69519 52.7 69645 54.0 57.8 54.5 94068 51.2 53.0 93605 69548 S3.2 52.0 53.2 69604 52.8 LASB50529 LASB50418 69036 51 4 53.6 51.2 LASB50451 53.4 52.0 69559 56.9 57.6 LASB50448 50.1 °F 53.7°F oF Ambient Temperature °F oF (6.[12])2510 G954 End Time (6.[13]) Operator: _ Operator: Operator: 6.[13] Operator: Operator: Operator: Operator: Operator: NS Operator: Operator: Operator: Operator: Operator: Operator:

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6.[6] Date: From 2 16.15 to 2.22.15 6.[2] Comments: 6.[17] Performed by: 12363821 Operator (print) Signature Z# Initials Operator (print) Signature Initials 1187818/ NS 12/16/15 Horman Sanchez Operator (print) Signature Z# Initials Date Operator (print) Signature Z# Initials Date THOMAS GUT 1236382/ + Operator (print) Z# Signature Initials Date Operator (print) Signature Initial Date Iony Sena 12373921 mu/s Operator (print) Z# Signature Initials Date Operator (print) Signature Operator (print) Z# Signature Initials Date Operator (print) Z# Initials Date Signature Operator (print) Z# Initials Date Signature Operator (print) Z# Signature Initials Date Operator (print) Signature Z# Initials Date Operator (print) Signature Z# Initials Date 8.1[2] Reviewed by: SOM or designee (print) Z# Signature Initials Date

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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 2-17-15 to 2-17-15 Location: 375

		T	T				1		T			_		
	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:	Start Time:
	7631	6.[6] 0127	0.823	0926	1024	6.[6]	1225	1325	6.[6]	1525	1621	6.[6]	6.[6]	6.[6]
Calibrated	Brand:	Brand:	Brand:	Brand;	Brand:	Brand:	Brand:	Brand:	Brand:	Prand:		17.2.3 Brand:	Brand:	Brand:
Infrared	Model					1								
Thermometer (4.2,1[1][B])	Model	Mod I:	Motel:	Model:	Model:	Model:	Mod I:	Model:	Model:	Model:	Model:	Model:	Model:	Model:
(4.2,1[1][B])	Cal. Due Date:	Cal. Due Data	Cal. Due Date:	Cal. Due Pate:	Cal. Dua Date:	Cal. Duo Date:	Cal. Due Date:	Cal. Due Date	Cal. Due Date:	Cal. Due Date:	Cal. Due Date:	Cal. Dua 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
				\					- He Hamber	The Humber	The Palmoer	The Indinder	The Number	- ne ramber
Ambient Temperature	49.51 of	48.69	48.98	50.59F	56.36°F	52.84	52.2 pr	51.59	63 Cor	F7 80	-105		\	
(6.[7]) 13	1.00	0.00	50.00	70.2	24.76	2009	20010	2112	53,8°F	52-89	51.88	52.55	~~~~\overline{\chi_F}	°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])	(6.[8]/6.[9])
68685 TI	51.51	50.7	50.86	52.78	52.93	53.93	53.0	52.49	54.41	53.1	51.89	53.1		\ \ \ \ \ \
68685 TZ	50.60	49.82	50,12	51,68	52.09	53,18	52.32	51,57	53.76	52.21	51.22	52.44	N	
50522 TY	51.45	50.82	50.87	549	52-49	_	52.63	52.57		-	52.21	52.9		
50522 15	51.16	50,55	50,6	51.81		53.11	52.51	52.31						
		0012-	3-10	0 (- 0)	10.00	2111	30.0	34.51	27162	2001	22,00	20011		
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6.[6] Date: From 2-17-15 to 2-17-15 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])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])				
						12								
				-		101				10.1				
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						1							\(\frac{1}{2}\)	
				<u> </u>										A
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									i				'	
Ambient Temperature (6.[12]) T3	49.5h	48.64°F	पश्रवद्धः	50.59	51.35F	52.84	52.24	51.59	53-84	52.9°F	51.88	52.49	oF	-_oF
End Time (6.[13])	0637	0728	0924	0926	1024	1125	1225	1326	1427	1526	1627	1724		
6.[13]	Operator:	Opprator:	Operator:	Operator:	operator:	operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:
!	Operator:	Operator:	Operator:	Operator	Operator	Operato:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:	Operator:

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			Page 3 o	f 3				
6.[6] Date: From 2-17	1-15 to 2-17-15	Location: 375						
6.[2] Comments: Di		ter Peru	logger	computor	Stan in Dou	ding O	rder la	247 R2
		D/A						
6.[17] Performed by:	(,)						+	
Operator (print) Operator (print)	Signature Signature	Zet	Operator (print) Operator (print)	Signature / Signature	/ Z#	Initials Date / / Initials Date		
Operator (print)	Signature	Z# Initials Date 2.4578 JC , 2-17-15	Operator (print)	Signature	Z# /	Initials Date		
Operator (print)	Signature	Z# Initials Date	Operator (print)	Signature /	Z#	Initials Date		
Operator (print)	Signature Q A	Z# Initials Date	Operator (print)	Signature /	72.11	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		
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TA-54 AREA G NITRATE SALT TRU WASTE CONTAINER HOURLY TEMPERATURE DATA SHEET

6.[6] Date: From <u>7-17-15</u> to <u>2-18-15</u> Location: <u>Dome 375</u>

	Start Time: 6,[6] 1828	Start Time: 6.[6] 1930	Start Time: 6,[6] 2031	Start Time: 6.[6] 2126	Start Time: 6.[6] 2227	Start Time: 6 [6] 2328	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 Thermometer (4.2.1[1][B])	Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Modul. Cal. Due Date: File Number	Moltal: Moltal: Cal. Due Date: File Number	Mond: Cal. Due Date: File Number	Modul: Cal. Due Qate: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Model: A Cal. Due Date: File Number	Mddel: Cal. Due Date: File Number	Model: A Cal. Due Date: File Number	Model A Cal Due Oate File Number	Model: Cal Due Date File Number	Model Cal Due Date Fild Number
Ambient Temperature (6.[7])	57.31°F	50,63°F	50.14°F	49,78 _F	48.75°F	48.46°F	47.73 °F	47.32°F	47.06F	46.71°F	46.54 °F	44.27	°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])
68685 (TI)	52.30	51.99	51.75	51.45	50.61	50.34	49.72	49.34	49.05	48.80	48.58	48.37	- (
68685 (12)	51.61	51.31	51.03	50.73	49.90	49.58	48.33	48.58	48.34	48.02	47.85	47.66	NA	
50522(14)		51.94	51.74	51.49	50.80	50.53	50.05	49.76	49.45	49.28	49.07	48.89		NA
50522(15)	52.09	51.69	51.46	51.20	50.57	50.31	49.79	49.46.	49.22	49.02	48.81	48.66		
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6.[6] Date: From 2-17-15 to 2-18-15 Location: Dome 375

Container ID # (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F (6.[8]/6.[9												
						1/4								
					N									
													NH	10/4
nbient emperature	51.31 °F	<i>50</i> 63°F	50.64 %	49.79	48.75F	4 8 4 8 4 CF	47.73°F	4732°F	47.060;	46.719	46.540	44.30°F	4.	G ₁₂
[12]) id Time [13])	1829	1930	2032	2127	7227	23 28	0030	0/32	0230	0326	0425	0525		
6.[13]	Operator.	Operator	Operator:	Operator:	Operator:									
	Operator:	Operator:	Operator.	Operator:	OW	Operator-	Operator	Operator:	Operator	Operator	Onerator:	Operator:	Operator:	Operator:

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6.[6] Date: From 2	17-15 to 2-18-15	Location: Dome 375	5—					
6.[2] Comments: D. Dowe 375	id not enter s Control 200	our 375 Permace	on Per Star	neling Orales	-1247 Re	V Z. Fessgrate	eres taken In	em
		ua hi	the setime in	4'				-
,								
		WHITE						
6.[17] Performed by: Operator (print)	Signature	1/12907 CSK Z-17-15 Initials Date	Operator (print)	/ Signature	/ Z#	/ / Initials Date		
Operator (print) Timmy Konele	Signature	//90853 TV / 2 · 18 - 15 Z# Initials Date 234253 TR / 2 - 18 - 15	Operator (print)	Signature	Z#	Initials Date		
Operator (print)	Signature	Z# Initials Date	Operator (print)	Signature /	Z# 1	Initials Date		
Operator (print)	Signature	Z# Initials Date	Operator (print) Operator (print)	Signature / Signature	Z#	Initials Date / / Initials Date		
Operator (print)	Signature /	Z# Initials Date / / / Z# Initials Date	Operator (print)	/ Signature	Z#	Initials Date		
Operator (print)	aignature	Z# Initials Date	1 14 /	· ·				

Operator (print)

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SOM or designee (print)

Signature

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Operator (print)

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