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
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NMED / LANL Technical Summary

September 26, 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 day's daily temperature data attached.
- **Monitoring – Visual Inspections**
  - No abnormal conditions.
- **Monitoring – headspace gas (HSG)**
  - Containers (SWBs) 68685 and SB50522.
    - Continue daily head space gas (HSG) sample collection.
      - September 26, 2014 HSG data attached
        - H_2, CO, CO_2 and N_2O
  - 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.
        - 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, re-packaging).**
    - Currently, no further movements or re-packaging are planned.

- **Other:**
    - No new items.

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
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 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	---	Information will be included in LANL response to NMED's August 26, 2014 letter.
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)
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

	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 (3rd 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

	68685				SB50522				68567				69568				69598			
Date	**H_2 ppm**	**CO ppm**	**CO_2 ppm**	**N_2O ppm**	**H_2 ppm**	**CO ppm**	**CO_2 ppm**	**N_2O ppm**	**H_2 ppm**	**CO ppm**	**CO_2 ppm**	**N_2O ppm**	**H_2 ppm**	**CO ppm**	**CO_2 ppm**	**N_2O ppm**	**H_2 ppm**	**CO ppm**	**CO_2 ppm**	**N_2O 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**	**N_2O ppm**	**H_2 ppm**	**CO ppm**	**CO_2 ppm**	**N_2O ppm**	**H_2 ppm**	**CO ppm**	**CO_2 ppm**	**N_2O ppm**	**H_2 ppm**	**CO ppm**	**CO_2 ppm**	**N_2O ppm**	**H_2 ppm**	**CO ppm**	**CO_2 ppm**	**N_2O ppm**
09/26/14	90	0	1238	598	31	0	228	571	2943	216	1186	332	831	915	7883	1916	1081	241	3738	268

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

6.[6] Date: From 9·22·14 to 9·28·14

	Monday 6.[6] Start Time: 0833	Tuesday 6.[6] Start Time: 1025	Wednesday 6.[6] Start Time: 0947	Thursday 6.[6] Start Time: 0920	Friday 6.[6] Start Time:	Saturday 6.[6] Start Time:	Sunday 6.[6] Start Time:
TA-54-231							
Calibrated Infrared Thermometer (6.[7])	Brand: Fluke Model: 561 Cal. Due Date: 7-29-15 File Number 101974	Brand: Fluke Model: 561 Cal. Due Date: 7-29-15 File Number 101974	Brand: Fluke Model: 561 Cal. Due Date: 7-29-15 File Number 101974	Brand: Fluke Model: 561 Cal. Due Date: 7/29/15 File Number 101974	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])	65.3 °F	67.2 °F	65.9 °F	66.0 °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])
S818435	65.7	67.0	64.9	65.5			
S802833	66.1	67.1	64.6	65.6			
S801676	65.6	66.5	64.4	65.4			
S816810	64.8	66.7	64.3	65.3			
70069	64.8	66.5	64.0	65.2			
S822844	65.0	67.0	64.6	65.5			
S825879	64.7	67.2	64.9	65.6			
S793724	64.8	66.9	64.5	65.5			
S813545	64.7	66.1	64.1	65.1			
S822713	65.5	67.2	63.1	65.8			
S802739	65.6	66.8	64.8	65.7			
69907	65.6	66.7	64.4	65.6			
S804995	65.6	67.0	65.0	65.5			
S816434	66.0	67.2	64.8	65.9			

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6.[6] Date: From 9·22·14 to 9·28·14

Container ID #	Monday Temp (°F) (6.[10]/6.[11])	Tuesday Temp (°F) (6.[10]/6.[11])	Wednesday Temp (°F) (6.[10]/6.[11])	Thursday Temp (°F) (6.[10]/6.[11])	Friday Temp (°F) (6.[10]/6.[11])	Saturday Temp (°F) (6.[10]/6.[11])	Sunday Temp (°F) (6.[10]/6.[11])
TA-54-231 (continued)							
S805289	65.7	67.3	64.8	65.7			
S862888	65.9	66.9	64.9	65.6			
70072	65.7	67.2	64.5	65.5			
S823184	65.9	67.1	정정내용 ~~65.3~~ 65.3	66.1			
S822599	65.7	67.3	65.2	65.8			
69904	65.2	66.7	64.4	65.3			
S805051	65.0	66.8	64.3	65.1			
S864213	65.2	67.6	64.6	65.2			
S853714	65.0	67.2	65.0	65.5			
S803078	64.9	68.0	65.5	66.0			
S825878	65.2	67.5	65.2	65.7			
S823124	65.2	67.8	65.3	65.8			
S804948	66.0	67.4	65.1	65.9			
S813385	66.0	67.7	65.2	66.0			
S842446	66.5	67.7	65.5	66.2			
Ambient Temperature (6.[14])	66.5 °F	67.6 °F	65.7 °F	66.6 °F	°F	°F	°F
End Time (6.[15])	0841	1033	0957	0927			
6.[15]	Operator: JR Operator: EC	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: [illegible]	Operator: Operator:	Operator: Operator:	Operator: Operator:

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6.[6] Date: From 9.22.14 to 9.28.14

6.[2] Comments:

6.[19] Performed by:

Operator (print)	Signature	Z#	Initials	Date
Jackie Romero	Jackie Romero	187066	JR	9-22-14
Elena Cardona	[illegible]	114188	EC	9.22.14
THOMAS VIGIL	[illegible]	123382	[illegible]	9/23/14
Josephine Duran	[illegible]	157977	[illegible]	9/23/14
Josephine Duran	[illegible]	157977	[illegible]	9/24/14
THOMAS VIGIL	[illegible]	123382	[illegible]	9/24/14
Josephine Duran	[illegible]	157977	[illegible]	9/25/14
THOMAS VIGIL	[illegible]	123382	[illegible]	9/25/14
	/			
	/			
	/			
	/			
	/			
	/			
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	/			

8.1[2] Reviewed by:

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

ATTACHMENT 3
Page 1 of 3

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

6.[6] Date: From 9.22.14 to 9.28.14

	Monday 6.[6] Start Time: 0736	Tuesday 6.[6] Start Time: 0924	Wednesday 6.[6] Start Time: 1236	Thursday 6.[6] Start Time: 1140	Friday 6.[6] Start Time:	Saturday 6.[6] Start Time:	Sunday 6.[6] Start Time:
TA-54-375 Cell 1							
Calibrated Infrared Thermometer (6.[7])	Brand: Fluke Model: 561 Cal. Due Date: 6/2/15 File Number 101915	Brand: Fluke Model: 561 Cal. Due Date: 6/2/15 File Number 101915	Brand: Fluke Model: 561 Cal. Due Date: 6-12-15 File Number 101915	Brand: Fluke Model: 561 Cal. Due Date: 6-12-15 File Number 101915	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])	62.6 °F	63.5 °F	70.8 °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			
68540	61.8	62.4	71.0	69.0			
68553	62.2	62.5	70.7	68.6			
69445	62.2	62.7	71.7	69.4			
69618	62.0	62.7	70.7	68.6			
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	68.9	67.8			
LASB50069	62.0	63.1	70.4	68.5			
LASB50073	62.4	63.0	70.5	68.5			
69636	61.4	62.6	70.5	68.2			
69616	61.2	62.7	69.5	67.5			
69417	61.8	62.6	70.1	68.9			

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6.[6] Date: From 9.22.14 to 9.28.14

Container ID #	Monday Temp (°F) (6.[10]/6.[11])	Tuesday Temp (°F) (6.[10]/6.[11])	Wednesday Temp (°F) (6.[10]/6.[11])	Thursday Temp (°F) (6.[10]/6.[11])	Friday Temp (°F) (6.[10]/6.[11])	Saturday Temp (°F) (6.[10]/6.[11])	Sunday Temp (°F) (6.[10]/6.[11])
TA-54-375 Cell 1 (continued)							
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	62.9	69.5	68.4			
LASB02203	61.5	62.9	69.7	67.7			
Ambient Temperature (6.[14])	62.6 °F	64.3 °F	71.3 °F	69.6 °F	____ °F	____ °F	____ °F
End Time (6.[15])	0740	0930	1242	1147			
6.[15]	Operator: EC Operator: JR	Operator: DA Operator: SC	Operator: DA Operator: MW	Operator: DA Operator: MW	Operator: ____ Operator: ____	Operator: ____ Operator: ____	Operator: ____ Operator: ____

6.[2] Comments:

ATTACHMENT 3
Page 3 of 3

6.[6] Date: From 9.22.14 to 9.28.14

6.[19] Performed by:

Operator (print)	Signature	Z#	Initials	Date
Eloy Calderon	[illegible]	1141881	EC	9.22.14
Jackie Romero	Jackie Romero	1187066	JR	9-22-14
Tina Aguirre	Tina Aguirre	1249977	AT	9.23.14
Jesse Chavez	[illegible]	1214578	JC	9-23-14
Tina Aguirre	Tina Aguirre	1249977	AT	9-24-14
William Juarez	[illegible]	2014581	WJ	9-24-14
Jesse Chavez	[illegible]	1214578	JC	9.24.14
Tina Aguirre	Tina Aguirre	1249977	AT	9-25-14
William Juarez	[illegible]	2014581	WJ	9-25-14
Jesse Chavez	[illegible]	1214578	JC	9-25-14

8.1[2] Reviewed by:

SOM or designee (print)	Signature	Z#	Initials	Date

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 6.[6] Start Time: 0859	Tuesday 6.[6] Start Time: 0959	Wednesday 6.[6] Start Time: 1247	Thursday 6.[6] Start Time: 1227	Friday 6.[6] Start Time:	Saturday 6.[6] Start Time:	Sunday 6.[6] Start Time:
TA-54-375 Cell 2							
Calibrated Infrared Thermometer (6.[7])	Brand: Fluke Model: 561 Cal. Due Date: 6-12-15 File Number 101912	Brand: Fluke Model: 561 Cal. Due Date: 6-12-15 File Number 101912	Brand: Fluke Model: 561 Cal. Due Date: 6-12-15 File Number 101912	Brand: Fluke Model: 561 Cal. Due Date: 6-12-15 File Number 101912	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])	61.8 °F	62.5 °F	67.6 °F	65.8 °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	61.1	62.4	66.8	65.3			
68638	61.1	63.0	67.3	67.0			
69615	61.4	62.6	68.4	67.8			
69635	62.3	62.8	68.3	68.2			
69642	61.7	62.7	68.4	68.0			
69630	61.7	62.6	68.3	67.6			
69633	62.0	63.0	68.5	67.4			
68430	61.7	62.8	67.5	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	67.0	65.8			
LASB50442	62.0	63.1	67.7	67.3			
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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INITIAL EC DATE 9.22.14

ATTACHMENT 4
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6.[6] Date: From 9.22.14 to 9.28.14

Container ID #	Monday Temp (°F) (6.[10]/6.[11])	Tuesday Temp (°F) (6.[10]/6.[11])	Wednesday Temp (°F) (6.[10]/6.[11])	Thursday Temp (°F) (6.[10]/6.[11])	Friday Temp (°F) (6.[10]/6.[11])	Saturday Temp (°F) (6.[10]/6.[11])	Sunday Temp (°F) (6.[10]/6.[11])
TA-54-375 Cell 2 (continued)							
68624	61.9	62.6	67.8	67.1			
68507	62.2	62.8	68.2	67.2			
69568	61.4	62.5	67.9	66.7			
69553	61.7	62.4	67.5	66.1			
69598	61.2	~~63.7~~ 62.6	67.1	65.6			
LASB50559	61.9	~~62.9~~ 62.7	67.3	65.7			
69015	62.2	63.1	67.8	66.9			
69639	62.5	62.9	68.0	66.8			
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
End Time (6.[15])	0906	1008	1252	1232			
6.[15]	Operator: JR Operator: EC	Operator: [illegible] Operator: JC	Operator: [illegible] Operator: WS	Operator: [illegible] Operator: WS	Operator: ____ Operator: ____	Operator: ____ Operator: ____	Operator: ____ Operator: ____

6.[2] Comments:

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6.[6] Date: From 9.22.14 to 9.28.14

6.[19] Performed by:

Operator (print)	Signature	Z#	Initials	Date
Jackie Romero	Jackie Romero	1870661	JR	9-22-14
Eloy D. Carduna	[illegible]	1114188	EC	9-22-14
Tina Aguirre	[illegible]	174977	[illegible]	9-23-14
Jesse Chavez	[illegible]	1214578	JC	9-23-14
Tina Aguirre	[illegible]	174977	[illegible]	9-24-14
William Juarez	[illegible]	2014581	WJ	9-24-14
Jesse Chavez	[illegible]	1214578	JC	9-24-14
Tina Aguirre	[illegible]	174977	[illegible]	9-25-14
William Juarez	[illegible]	2014581	WJ	9-25-14
Jesse Chavez	[illegible]	1214578	JC	9-25-14

8.1[2] Reviewed by:

SOM or designee (print)	Signature	Z#	Initials	Date

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 9.22.14 to 9.28.14

	Monday 6.[6] Start Time: 0731	Tuesday 6.[6] Start Time: 0932	Wednesday 6.[6] Start Time: 1254	Thursday 6.[6] Start Time: 1149	Friday 6.[6] Start Time:	Saturday 6.[6] Start Time:	Sunday 6.[6] Start Time:
TA-54-375 Cell 3							
Calibrated Infrared Thermometer (6.[7])	Brand: Fluke Model: 561 Cal. Due Date: 6/12/15 File Number 101916	Brand: Fluke Model: 561 Cal. Due Date: 6/12/15 File Number 101916	Brand: Fluke Model: 561 Cal. Due Date: 6/12-15 File Number 101916	Brand: Fluke Model: 561 Cal. Due Date: 6/12-15 File Number 101916	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])	63.1 °F	63.9 °F	69.2 °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	68.2	66.6			
69645	62.8	63.2	69.9	67.7			
94068	63.0	63.2	69.2	67.6			
93605	63.6	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	64.2 °F	69.8 °F	68.0 °F	°F	°F	°F
End Time (6.[15])	0734	0937	12.57	1152			
6.[15]	Operator: EC Operator: JR	Operator: QA Operator: SC	Operator: QA Operator: WS	Operator: QA Operator: WS	Operator: Operator:	Operator: Operator:	Operator: Operator:

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Z# 114188
INITIAL EC DATE 9.22.14

ATTACHMENT 5
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6.[6] Date: From 9.22.14 to 9.28.14

6.[2] Comments:

6.[19] Performed by:

Operator (print)	Signature	Z#	Initials	Date
Eloy Valdez A	EdV	1114188	EC	9.22.14
Jackie Romero	Jackie Romero	1187066	JR	9-22-14
Tina Aguirre	Tina Aguirre	1129	TA	9-23-14
Jesse Chavez		1214578	JC	9.23.14
William Suarez		201458	WS	9.23.14
Jesse Chavez		1214578	JC	9.24.14
William Suarez		201458	WS	9.24.14
Tina Aguirre	Tina Aguirre	1129	TA	9.25.14
William Suarez		201458	WS	9.25.14
Jesse Chavez		1214578	JC	9.25.14
	/	/	/	/
	/	/	/	/
	/	/	/	/
	/	/	/	/
	/	/	/	/

8.1[2] Reviewed by:

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

62.3

ATTACHMENT 6
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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] 0628	Start Time: 6.[6] 0730	Start Time: 6.[6] 0826	Start Time: 6.[6] 0928	Start Time: 6.[6] 1029	Start Time: 6.[6] 1127	Start Time: 6.[6] 1224	Start Time: 6.[6] 1327	Start Time: 6.[6] 1428	Start Time: 6.[6] 1528	Start Time: 6.[6] 1624	Start Time: 6.[6] 1726	Start Time: 6.[6]	Start Time: 6.[6]
Calibrated Infrared Thermometer (6.[7])	Brand: Fluke Model: 561 Cal. Due Date: 6-12-15 File Number 101915	Brand: Fluke Model: 561 Cal. Due Date: 6-12-15 File Number 101915	Brand: Fluke Model: 561 Cal. Due Date: 6-12-15 File Number 101915	Brand: Fluke Model: 561 Cal. Due Date: 6-12-15 File Number 101915	Brand: Fluke Model: 561 Cal. Due Date: 6-12-15 File Number 101915	Brand: Fluke Model: 561 Cal. Due Date: 6-12-15 File Number 101915	Brand: Fluke Model: 561 Cal. Due Date: 6-12-15 File Number 101915	Brand: Fluke Model: 561 Cal. Due Date: 6-12-15 File Number 101915	Brand: Fluke Model: 561 Cal. Due Date: 6-12-15 File Number 101915	Brand: Fluke Model: 561 Cal. Due Date: 6-12-15 File Number 101915	Brand: Fluke Model: 561 Cal. Due Date: 6-12-15 File Number 101915	Brand: Fluke Model: 561 Cal. Due Date: 6-12-15 File Number 101915	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number
Ambient Temperature (6.[9])	60.2 °F	61.0 °F	62.3 °F	63.9 °F	66.2 °F	68.4 °F	69.8 °F	71.5 °F	72.8 °F	73.8 °F	72.8 °F	72.0 °F	°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 (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])
68685	60.2	61.1	62.6	63.1	66.3	69.1	71.9	73.5	74.7	75.7	75.1	73.3		
505 22	60.5	61.0	62.9	63.4	65.1	67.7	69.4	71.2	72.0	73.6	73.2	71.4		

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Z# 226235
INITIAL [illegible] DATE 9-25-14

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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])	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])
						N/A	N/A						N/A	
Ambient Temperature (6.[14])	60.3 °F	61.5 °F	63.4 °F	63.7 °F	66.7 °F	68.5 °F	70.9 °F	72.5 °F	74.0 °F	74.3 °F	73.5 °F	71.9 °F	°F	°F
End Time (6.[15])	0629	0731	0828	0929	1030	1128	1225	1328	1429	1529	1626	1727		
6.[15]	Operator: DA Operator: MW	Operator: DA Operator: MW	Operator: DA Operator: MW	Operator: MW Operator: DA	Operator: MW Operator: DA	Operator: DA Operator: MW	Operator: DA Operator: MW	Operator: DA Operator: MW	Operator: DA Operator: MW	Operator: DA Operator: MW	Operator: DA Operator: MW	Operator: DA Operator: MW	Operator: Operator:	Operator: Operator:

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

6.[2] Comments: None

6.[19] Performed by:

Operator (print)	Signature	Z#	Initials	Date
Tina Aguirre		1745780		9-25-14
William Suarez		201458	WS	9-25-14
Jesse Chavez		1214578SC		9-25-14

Operator (print)	Signature	Z#	Initials	Date

8.1[2] Reviewed by:

SOM or designee (print)	Signature	Z#	Initials	Date
Pat O'Grady		1151358	JPO	9/25/14

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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] 1825	Start Time: 6.[6] 1926	Start Time: 6.[6] 2025	Start Time: 6.[6] 2127	Start Time: 6.[6] 2226	Start Time: 6.[6] 2327	Start Time: 6.[6] 0026	Start Time: 6.[6] 0128	Start Time: 6.[6] 0226	Start Time: 6.[6] 0328	Start Time: 6.[6] 0426	Start Time: 6.[6] 0528	Start Time: 6.[6]	Start Time: 6.[6]
Calibrated Infrared Thermometer (6.[7])	Brand: FLUKE Model: 561 Cal. Due Date: 06-12-15 File Number 101915	Brand: FLUKE Model: 561 Cal. Due Date: 06-12-15 File Number 101915	Brand: FLUKE Model: 561 Cal. Due Date: 06-12-15 File Number 101915	Brand: FLUKE Model: 561 Cal. Due Date: 061215 File Number 101915	Brand: FLUKE Model: 561 Cal. Due Date: 061215 File Number 101915	Brand: FLUKE Model: 561 Cal. Due Date: 061215 File Number 101915	Brand: FLUKE Model: 561 Cal. Due Date: 061215 File Number 101915	Brand: FLUKE Model: 561 Cal. Due Date: 061215 File Number 101915	Brand: FLUKE Model: 561 Cal. Due Date: 061215 File Number 101915	Brand: FLUKE Model: 561 Cal. Due Date: 061215 File Number 101915	Brand: FLUKE Model: 561 Cal. Due Date: 061215 File Number 101915	Brand: FLUKE Model: 561 Cal. Due Date: 061215 File Number 101915	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number
Ambient Temperature (6.[9])	70.1 °F	68.7 °F	67.0 °F	66.2 °F	65.1 °F	64.0 °F	63.8 °F	62.4 °F	61.7 °F	61.0 °F	59.9 °F	59.6 °F	°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 (°F) (6.[10]/6.[11])	Temp (°F) (6.[10]/6.[11])
686685	70.0	68.7	67.8	66.4	65.5	64.1	63.5	62.1	61.9	60.8	60.1	59.7		
50522	68.6	67.5	66.0	65.7	64.3	63.2	63.0	62.0	61.4	61.1	60.5	60.5		

NA

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INITIAL QA DATE 9-25-14

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6.[6] Date: From 9-25-14 to 9-26-14 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])	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])
						NA								
Ambient Temperature (6.[14])	69.5 °F	68.4 °F	67.3 °F	66.7 °F	65.3 °F	64.7 °F	63.6 °F	62.2 °F	61.5 °F	61.3 °F	60.1 °F	60.1 °F	°F	°F
End Time (6.[15])	1827	1926	2026	2128	2227	2327	0027	0129	0227	0329	0427	0529		
6.[15]	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator:	Operator: [illegible] Operator:	Operator: NA Operator:	Operator: Operator:

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6.[6] Date: From 9-25-14 to 9-26-14 Location: 375

6.[2] Comments: N/C

6.[19] Performed by:

Operator (print)	Signature	Z#	Initials	Date
Tina Aguirre	Tina Aguirre	174977	TA	9-25-14
Nde Montoya	[illegible]	163266	[illegible]	092614
Sammy Parele	[illegible]	114471	[illegible]	09-26-14