From: Haagenstad, Mark P
Sent: Monday, September 15, 2014 6:05 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
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; 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; George, Victoria A
Subject: Daily Technical Submission - September 15, 2014

Attached is the written daily technical submission for today. The Permittees are submitting this 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 VIII of the May 29, 2014, *Revised LANL Nitrate Salt-Bearing Waste Container Isolation Plan*.

Please contact me with any revisions or 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 15, 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.
- **Additional measures currently underway**
  - As a conservative measure, LANL is currently conducting additional monitoring. This additional monitoring includes:
    - Container (SWB) 68685.
      - Continue daily head space gas (HSG) sample collection.
        - September 13-15, 2014 HSG data attached
          - H_2, CO, CO_2 and N_2O
        - LANL also continuing *solid phase micro-extraction*.
      - Hourly temperature measurements.
        - Previous day's hourly temperature data attached.
        - Temperatures remain below 90°F.
    - Container (SWB) SB50522.
      - Continue daily HSG sample collection.
        - September 13-15, 2014 HSG data attached
          - H_2, CO, CO_2 and N_2O
        - LANL also continuing *solid phase micro-extraction*.
      - 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 bi-weekly HSG sample collection.
        - September 15, 2014 HSG data attached

- LANL has conducted HSG sampling on each of the 55 SWBs that contain 55-gallon drums of remediated nitrate salt-bearing waste.

- **Anticipated Changes to Nitrate Salt-Bearing Waste Containers (e.g. movement, re-packaging).**
  - Currently, no further movements or re-packaging are planned.

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
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)
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 sent 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)
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	---	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
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 16, 2014

Remediated Nitrate Salt Container Headspace Gas Analysis Results

	68685				69553				69615				69616				SB50069				SB50452				SB50522			
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	H_2 ppm	CO ppm	CO_2 ppm	N_2O ppm	H_2 ppm	CO ppm	CO_2 ppm	N_2O ppm
09/13/14	126	993	24294	7750																					7478	456	57344	961
09/14/14	114	1012	22444	7093																					8202	445	52319	849
09/15/14	87	813	20465	6530	148	735	23914	3539	101	405	9965	514	218	1252	34044	7636	430	1223	29994	5129	584	1124	27536	5474	6879	384	56055	928

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 9-12-14 to 9-14-14

	Monday 6.[6] Start Time	Tuesday 6.[6] Start Time	Wednesday 6.[6] Start Time	Thursday 6.[6] Start Time	Friday 6.[6] Start Time 0954	Saturday 6.[6] Start Time 0841	Sunday 6.[6] Start Time 0822
TA-54-231							
Calibrated Infrared Thermometer (6.[7])	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 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
Ambient Temperature (6.[9])	°F	°F	°F	°F	64.3 °F	58.3 °F	59.3 °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					64.5	57.8	60.1
S802833					64.4	58.4	60.1
S801676					64.2	58.0	60.2
S816810					64.0	57.0	59.3
70069			NA		63.7	56.7	59.1
S822844					64.1	57.2	59.4
S825879					64.3	56.9	59.3
S793724					64.5	57.0	59.2
S813545					63.9	57.0	59.6
S822713					64.7	57.8	60.3
S802739					64.4	57.8	60.2
69907					64.5	58.1	60.3
S804995					64.7	57.9	60.3
S816434					64.9	58.5	60.7

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INITIAL EC DATE 9-12-14

ATTACHMENT 2
Page 2 of 3

6.[6] Date: From 9.12.14 to 9.14.14

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					64.4	58.5	60.4
S862888					64.5	58.5	60.8
70072					64.6	58.1	60.4
S823184					64.7	58.2	60.6
S822599					64.6	58.0	60.5
69904					64.1	57.3	59.8
S805051					64.0	57.1	59.7
S864213					64.2	57.1	60.0
S853714					64.3	57.1	59.7
S803078					64.3	57.0	59.8
S825878					64.4	57.3	59.9
S823124					64.5	57.6	60.2
S804948					64.6	58.2	60.9
S813385					64.8	58.4	60.9
S842446					65.3	59.4	61.5
Ambient Temperature (6.[14])	_____ °F	_____ °F	_____ °F	_____ °F	64.8 °F	57.8 °F	60.5 °F
End Time (6.[15])	_____	_____	_____	_____	1004	0847	0832
6.[15]	Operator: _____ Operator: _____	Operator: _____ Operator: _____	Operator: _____ Operator: _____	Operator: _____ Operator: _____	Operator: JR Operator: EC	Operator: JR Operator: EC	Operator: JR Operator: EC

ATTACHMENT 2
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6.[6] Date: From 9-12-14 to 9.14.14

6.[2] Comments: _____

6.[19] Performed by:

Operator (print)	Signature	Z#	Initials	Date
Jackie Romero	Jackie Romero	1187066	JR	9-12-14
Elora J. Gordon	Elora J. Gordon	1114188	EC	9.12.14
Jackie Romero	Jackie Romero	1187066	JR	9-13-14
Elora J Gordon	Elora J Gordon	1114188	EC	9.13.14
Jackie Romero	Jackie Romero	1187066	JR	9-14-14
Elora J. Gordon	Elora J. Gordon	1114188	EC	9-14-14
~~Operator (print)~~	NA			
Operator (print)	Signature	Z#	Initials	Date

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

8.1[2] Reviewed by:

SOM or designee (print)	Signature	Z#	Initials	Date

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 9-12-14 to 9-14-14

	Monday 6.[6] Start Time:	Tuesday 6.[6] Start Time:	Wednesday 6.[6] Start Time:	Thursday 6.[6] Start Time:	Friday 6.[6] Start Time: 0714	Saturday 6.[6] Start Time: 0708	Sunday 6.[6] Start Time 0711
TA-54-375 Cell 1							
Calibrated Infrared Thermometer (6.[7])	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 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
Ambient Temperature (6.[9])	____ °F	____ °F	____ °F	____ °F	60.2 °F	54.9 °F	57.9 °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					59.7	54.6	58.0
68540					59.7	54.7	58.0
68553					59.6	54.6	58.1
69445					59.6	54.5	57.8
69618					59.8	54.7	58.0
69013			N/A		60.0	55.2	58.4
LASB50522					60.7	56.3	58.9
LASB50452					59.9	55.2	58.2
LASB50431					60.1	55.4	58.7
LASB50069					60.2	55.8	58.5
LASB50073					60.5	55.5	58.6
69636					59.7	55.0	57.8
69616					60.2	56.2	58.4
69417					59.7	55.0	58.8

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Page 2 of 3

6.[6] Date: From 9.12.14 to 9.14.14

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					60.0	55.2	58.4
69520					60.1	55.0	58.5
69641					60.4	55.3	58.7
69298					60.6	55.7	59.7
LASB02203			N/A		60.1	55.1	58.6
Ambient Temperature (6.[14])	____ °F	____ °F	____ °F	____ °F	60.1 °F	55.1 °F	58.1 °F
End Time (6.[15])					0719	0712	0716
6.[15]	Operator: ____ Operator: ____	Operator: ____ Operator: ____	Operator: ____ Operator: ____	Operator: ____ Operator: ____	Operator: EC Operator: JR	Operator: EC Operator: JR	Operator: EC Operator: JR

6.[2] Comments:

ATTACHMENT 3
Page 3 of 3

6.[6] Date: From 9.12.14 to 9.14.14

6.[19] Performed by:

Operator (print)	Signature	Z#	Initials	Date
Eloy D. Cordova	[signature]	114188	EC	9.12.14
Jackie Romero	Jackie Romero	187066	JR	9-12-14
Eloy D. Cordova	[signature]	114188	EC	9.13.14
Jackie Romero	Jackie Romero	187066	JR	9-13-14
Eloy D. Cordova	[signature]	114188	EC	9.14.14
Jackie Romero	Jackie Romero	187066	JR	9-14-14
	NA			

Operator (print)	Signature	Z#	Initials	Date
	NA			

8.1[2] Reviewed by:

SOM or designee (print)	Signature	Z#	Initials	Date

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 9-12-14 to 9-14-14

	Monday 6.[6] Start Time:	Tuesday 6.[6] Start Time:	Wednesday 6.[6] Start Time:	Thursday 6.[6] Start Time:	Friday 6.[6] Start Time: 0833	Saturday 6.[6] Start Time: 0755	Sunday 6.[6] Start Time: 0731
TA-54-375 Cell 2							
Calibrated Infrared Thermometer (6.[7])	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 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
Ambient Temperature (6.[9])	°F	°F	°F	°F	61.8 °F	56.2 °F	58.7 °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					61.5	56.3	59.4
08638					61.4	56.0	58.9
69615					61.3	56.0	58.9
69635					62.1	56.5	59.5
69642					61.6	55.6	58.6
69630			NM		61.7	56.2	58.9
69633					62.1	56.8	59.6
68430					61.7	56.3	58.9
68631					62.1	56.0	59.6
69634					61.8	56.7	59.2
68567					61.4	56.4	58.5
94227					~~61.8~~ 61.4	56.2	58.7
LASB50442					~~61.9~~ 61.8	57.1	59.2
69644					61.9	57.0	59.3
LASB50443					62.0	57.0	59.6
69638					61.8	56.8	59.2

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6.[6] Date: From 9-12-14 to 9-14-14

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					61.7	56.7	59.0
68507					61.8	56.7	59.1
69568					61.5	56.5	59.0
69553					61.7	56.4	59.1
69598					62.7	57.0	59.0
LASB50559					61.7	57.1	58.7
69015		NB			62.3	56.7	59.2
69639					62.1	57.1	59.5
69637					61.8	56.9	59.3
Ambient Temperature (6.[14])	____ °F	____ °F	____ °F	____ °F	62.5 °F	56.5 °F	58.8 °F
End Time (6.[15])					0843	0802	0740
6.[15]	Operator: ____ Operator: ____	Operator: ____ Operator: ____	Operator: ____ Operator: ____	Operator: ____ Operator: ____	Operator: JR Operator: EC	Operator: JR Operator: EC	Operator: JR Operator: EC

6.[2] Comments:

ATTACHMENT 4
Page 3 of 3

6.[6] Date: From 9-12-14 to 9-14-14

6.[19] Performed by:

Operator (print)	Signature	Z#	Initials	Date
Jackie Romero	Jackie Romero	1187066	JR	9-12-14
Eloy D. Cordova	[signature]	1114188	EC	9.12.14
Jackie Romero	Jackie Romero	1187066	JR	9-13-14
Eloy D. Cordova	[signature]	1114188	EC	9.13.14
Jackie Romero	Jackie Romero	1187066	JR	9-14-14
Eloy D. Cordova	[signature]	1114188	EC	9.14.14
~~Operator (print)~~	~~Signature~~ NA	~~Z#~~	~~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
	NA			
Operator (print)	Signature	Z#	Initials	Date
Operator (print)	Signature	Z#	Initials	Date
Operator (print)	Signature	Z#	Initials	Date
Operator (print)	Signature	Z#	Initials	Date

8.1[2] Reviewed by:

SOM or designee (print)	Signature	Z#	Initials	Date

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 9.12.14 to 9.14.14

	Monday 6.[6] Start Time:	Tuesday 6.[6] Start Time:	Wednesday 6.[6] Start Time:	Thursday 6.[6] Start Time:	Friday 6.[6] Start Time: 0709	Saturday 6.[6] Start Time 0704	Sunday 6.[6] Start Time: 0705
TA-54-375 Cell 3							
Calibrated Infrared Thermometer (6.[7])	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 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
Ambient Temperature (6.[9])	°F	°F	°F	°F	59.6 °F	55.7 °F	57.9 °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					59.1	56.2	58.8
69645					60.0	56.5	59.1
94068					60.1	56.8	58.8
93605					60.1	56.4	59.1
69548					60.1	56.5	59.1
69604					60.3	56.7	59.2
LASB50529					60.6	57.0	59.2
LASB50418					60.0	56.4	58.7
69036					59.5	55.8	58.3
LASB50451					60.0	56.3	58.6
69559					60.1	56.8	59.0
LASB50448					60.6	57.1	59.2
Ambient Temperature (6.[14])	°F	°F	°F	°F	59.9 °F	56.2 °F	58.1 °F
End Time (6.[15])					0712	0704	0709
6.[15]	Operator: / Operator:	Operator: / Operator:	Operator: / Operator:	Operator: / Operator:	Operator EC / Operator: JR	Operator: EC / Operator: JR	Operator EC / Operator: JR

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ATTACHMENT 5
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6.[6] Date: From 9-12-14 to 9.14.14

6.[2] Comments:

6.[19] Performed by:

Operator (print)	Signature	Z#	Initials	Date
Eloy J. Cdeva	[signature]	114188	EC	9-12-14
Jackie Romero	Jackie Romero	187066	JR	9-12-14
Eloy J. Cdeva	[signature]	114188	EC	9-13-14
Jackie Romero	Jackie Romero	187066	JR	9-13-14
Eloy J. Cdeva	[signature]	114188	EC	9-14-14
Jackie Romero	Jackie Romero	187066	JR	9-14-14
NA				

Operator (print)	Signature	Z#	Initials	Date
NA				

8.1[2] Reviewed by:

SOM or designee (print)	Signature	Z#	Initials	Date

ATTACHMENT 6
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TA-54 AREA G NITRATE SALT TRU WASTE CONTAINER HOURLY TEMPERATURE DATA SHEET

6.[6] Date: From 9-14-14 to 9-14-14 Location: Dome 375 Cell 1

	Start Time 6.[6] 0650	Start Time 6.[6] 0727	Start Time 6.[6] 0831	Start Time 6.[6] 0933	Start Time 6.[6] 1027	Start Time 6.[6] 1130	Start Time 6.[6] 1226	Start Time 6.[6] 1327	Start Time 6.[6] 1425	Start Time 6.[6] 1526	Start Time 6.[6] 1629	Start Time 6.[6] 1724	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 / File Number: 6-12-15 / 101915	Brand: Fluke Model: 561 Cal Due Date / File Number: 6-12-15 / 101915	Brand: Fluke Model: 561 Cal Due Date / File Number: 6-12-15 / 101915	Brand: Fluke Model: 561 Cal Due Date / File Number: 6-12-15 / 101915	Brand: Fluke Model: 561 Cal Due Date / File Number: 6-12-15 / 101915	Brand: Fluke Model: 561 Cal Due Date / File Number: 6-12-15 / 101915	Brand: Fluke Model: 561 Cal Due Date / File Number: 6-12-15 / 101915	Brand: Fluke Model: 561 Cal Due Date / File Number: 6-12-15 / 101915	Brand: Fluke Model: 561 Cal Due Date / File Number: 6-12-15 / 101915	Brand: Fluke Model: 561 Cal Due Date / File Number: 6-12-15 / 101915	Brand: Fluke Model: 561 Cal Due Date / File Number: 6-12-15 / 101915	Brand Model Cal Due Date File Number	Brand Model Cal Due Date File Number
Ambient Temperature (6.[9])	58.7 °F	58.3 °F	60.3 °F	63.6 °F	65.4 °F	66.0 °F	69.4 °F	71.1 °F	71.5 °F	73.0 °F	73.6 °F	73.3 °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	58.4	58.0	59.3	62.3	64.6	68.1	70.6	72.5	73.4	74.7	75.0	74.0	N/A	
50522	57.1	58.7	59.9	62.4	64.1	66.8	68.4	70.6	71.0	72.2	72.3	71.8		

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6.[6] Date: From 9-14-14 to 9-14-14 Location: Dom 375 Cell 1

(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])	(6.[10]/6.[11])	(6.[10]/6.[11])
Ambient Temperature (6.[14])	58.6 °F	58.8 °F	60.5 °F	64.2 °F	65.6 °F	69.5 °F	69.9 °F	71.5 °F	72.1 °F	73.3 °F	73.8 °F	73.2 °F	°F	°F
End Time (6.[15])	0632	0730	0833	0935	1030	1132	1227	1330	1428	1527	1631	1726		
6.[15]	Operator: [illegible] Operator: ZB	Operator: [illegible] Operator: ZB	Operator: [illegible] Operator: ZB	Operator: [illegible] Operator: ZB	Operator: [illegible] Operator: ZB	Operator: [illegible] Operator: ZB	Operator: [illegible] Operator: ZB	Operator: [illegible] Operator: ZB	Operator: [illegible] Operator: ZB	Operator: [illegible] Operator: ZB	Operator: [illegible] Operator: ZB	Operator: [illegible] Operator: ZB	Operator: Operator:	Operator: Operator:

ATTACHMENT 6
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6.[6] Date: From 9.14.14 to 9.14.14 Location: Dome 375 Cell 1

6.[2] Comments:

6.[19] Performed by:

Operator (print)	Signature	Z#	Initials	Date
Larry Brito	[signature]	116605	LB	9-14-14
Leon Montoya	[signature]	119526	[initials]	9/14/14

8.1[2] Reviewed by:

SOM or designee (print)	Signature	Z#	Initials	Date

ATTACHMENT 6
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TA-54 AREA G NITRATE SALT TRU WASTE CONTAINER HOURLY TEMPERATURE DATA SHEET

6.[6] Date: From 9-14-14 to 9-15-14 Location: Dome 375 C111

	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 6.[6]	Start Time: 6.[6]	Start Time 6.[6]
	1833	1932	2031	2131	2233	2330	0030	0132	0230	0329	0430	0530		
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])	72.5 °F	69.2 °F	66.6 °F	65.5 °F	64.2 °F	63.2 °F	62.7 °F	63.0 °F	62.2 °F	62.6 °F	61.3 °F	60.4 °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	72.7	69.4	66.6	65.1	64.0	62.7	62.0	61.8	61.6	62.1	61.1	60.0		
50522	69.9	67.2	65.5	64.5	63.9	62.8	61.9	61.9	61.7	62.3	61.3	60.6		

N/A N/A

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6.[6] Date: From 9-14-14 to 9-15-14 Location: Dome 375 Cell 1

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								
Ambient Temperature (6.[14])	71.4 °F	68.8 °F	66.5 °F	65.4 °F	64.2 °F	63.2 °F	62.6 °F	63.1 °F	62.4 °F	61.9 °F	61.7 °F	60.5 °F	°F	°F
End Time (6.[15])	1834	1933	2032	2132	2234	2331	0031	0133	0231	0330	0431	0531		
6.[15]	Operator: Dan / Operator: TR	Operator: Dan / Operator: TR	Operator: Dan / Operator: TR	Operator: Dan / Operator: TR	Operator: Dan / Operator: TR	Operator: Dan / Operator: TR	Operator: TR / Operator: Dan	Operator: TR / Operator: Dan	Operator: TR / Operator: Dan	Operator: TR / Operator: Dan	Operator: TR / Operator: Dan	Operator: TR / Operator: Dan	Operator: / Operator:	Operator: / Operator:

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6.[6] Date: From 9.14.14 to 9.15.14 Location: D... 375 Cell 1

6.[2] Comments:

6.[19] Performed by:

Operator (print)	Signature	Z#	Initials	Date	Operator (print)	Signature	Z#	Initials	Date
Corey Maury	[signature]	226735	[initials]	9-15-14					
Timmy Romero	[signature]	234253	TR	9-15-14					
N/A					N/A				

8.1[2] Reviewed by:

SOM or designee (print)	Signature	Z#	Initials	Date
Robert Vandenberghe	[signature]	122493	[initials]	9-15-14