From: Haagenstad, Mark P
Sent: Wednesday, December 03, 2014 5:12 PM
To: Ryan.Flynn@state.nm.us; Jeff.Kendall@state.nm.us; John Kieling; steve.pullen@state.nm.us; Kliphuis, Trais, NMENV; Timothy.Hall@state.nm.us; siona.briley@state.nm.us; ricardo.maestas@state.nm.us; Gregory.Lauer@state.nm.us; steve.holmes@state.nm.us; coleman.smith@state.nm.us; butch.tongate@state.nm.us
Cc: Pete Maggiore; Silas DeRoma; Cummings, Lisa K; Nickless, David J; Bishop, M. Lee; Turner, Gene E; Armijo, Karen (CONTR); Wallace, Terry C; Torres, Enrique; Woitte, Deborah Kay; Clemmons, Steve; Allen, Don; Roberts, Kathryn Margaret; Brandt, Michael Thomas; Sharp-Geiger, Raeanna Racine; Dorries, Alison Marie; Grieggs, Tony; Bacigalupa, Gian A; Vigil-Holterman, Luciana R; Alexander, Rick A; Baumer, Andy; Martinez, Saundra; Sauer, Selena Z; Wood, Yvonne Barbara; Schreiber, Arleen Thorn; Maestas, Pamela Therese; Hargis, Kenneth Marshall; Diaz, Tammy; Juarez, Catherine L; Beard, Carl Allen; Cabbil, Cheryl Denise; Young, Steven L; Erickson, Randy; Funk, David John; Alexander, Rick A; Frederici, Dave; Diaz, Tammy; Juarez, Catherine L; Robinson, Bruce Alan
Subject: Daily Technical Submission - December 3, 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.

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

December 3, 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 were observed.
- **Monitoring – headspace gas (HSG)**
  - Containers (SWBs) 68685 and SB50522.
    - Continue daily head space gas (HSG) sample collection.
      - December 3, 2014 HSG data attached.
        - H_2, CO, CO_2 and N_2O
  - Other containers
    - A minimum of once per month HSG sampling will be conducted.
      - To date in December, LANL has conducted HSG sampling on 23 SWBs.
      - December 3, 2014 HSG data attached.

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, re-packaging).

- Currently, no further movements or re-packaging are planned.

- **Other:**

Next Call: Thursday, December 4, 2014

Summary Chart - Requested Information / Pending Issues:

	Requested Information	Actionee	Status	Completion Date
1.	NMED contact / process for LANL to notify NMED under the Revised Isolation Plan (e.g., 24 hour notices).	NMED	---	Complete June 5, 2014
2.	Keep NMED informed on the status of on-going chemistry / analytical work.	LANL	---	Complete June 9, 2014

	Requested Information	Actionee	Status	Completion Date
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	---	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) 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 (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 Meeting scheduled for Monday September 29th	Complete September 29, 2014 (meeting held)
35.	Schedule a third update on LANL efforts – including teams.	LANL / NMED	---	Complete October 20, 2014

	Requested Information	Actionee	Status	Completion Date
36.	NMED request regarding LANL Causal Analysis associated with processing of nitrate salt-bearing waste at WCRRF – when document is Final.	LANL	Document is currently Draft.	
37.	NMED requested a diagram illustrating the current locations within the 375 Permacon of the 55 SWBs that contain the 57 remediated nitrate salt-bearing waste containers. NMED also requested a list of these 55 SWBs and the waste drums within each SWB (including the container numbers and waste stream type).	LANL	---	Complete October 27, 2014 (Diagram submitted) November 3, 2014 (Table submitted) November 20, 2014 (Revised table submitted)
38.	NMED requested documentation regarding CIN01.001 waste containers that are not part of the September 19, 2014 Nitrate Salts-Bearing Waste Container Isolation Plan, Revision 2.	LANL	In Progress LANL will submit this documentation in batches as it is becomes available.	Submitted 100 out of 586 RTRs and documentation on October 3, 2014. Submitted documentation for 101-200 containers on October 10, 2014. Submitted documentation for 201-300 containers on October 16, 2014. Submitted documentation for 301-400 containers on October 23, 2014. Submitted documentation for 401-500 containers on October 27, 2014. 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.

	Requested Information	Actionee	Status	Completion Date
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
43.	Schedule a fifth update on LANL efforts – including teams.	LANL/ NMED	---	Complete November 20, 2014
44.	Schedule a fifth update on LANL efforts – including teams.	LANL/ NMED	In progress: Site visit to be scheduled for week of December 8, 2014.	

Remediated Nitrate Salt Container Headspace Gas Analysis

	68685				SB50522				69298			
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**
12/03/14	128	537	13467	3833	2247	404	38377	911	628	724	9585	1184

Remediated Nitrate Salt Container Headspace Gas Analysis

	69630				69642				69636			
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**
12/03/14	382	589	11223	733	64	92	2089	122	228	283	6716	525

Remediated Nitrate Salt Container Headspace Gas Analysis

	SB02203				SB50073				SB50431			
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**
12/03/14	124	72	2388	80	902	1066	7869	2095	723	391	6609	1040

Remediated Nitrate Salt Container Headspace Gas Analysis

	SB50443			
Date	**H_2 ppm**	**CO ppm**	**CO_2 ppm**	**N_2O ppm**
12/03/14	716	850	10898	1735

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 12-1-14 to 12-7-14

	Monday 6.[6] Start Time: 0821	Tuesday 6.[6] Start Time: 0918	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:
TA-54-231							
Calibrated Infrared Thermometer (4.2.1[1][B])	Brand: Fluke Model: 561 Cal. Due Date: 7/29/15 File Number 101974	Brand: Fluke Model: 561 Cal. Due Date: 07/29/15 File Number 101974	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number
Ambient Temperature (6.[7])	38.6 °F	37.3 °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	39.3	38.9					
S802833	38.9	37.7					
S801676	38.5	37.8					
S816810	36.7	35.8					
70069	36.4	35.5					
S822844	36.6	35.8					
S825879	36.5	35.7					
S793724	36.9	36.0					
S813545	36.8	36.3					
S822713	38.4	37.5					
S802739	38.6	37.6					
69907	38.7	37.7					
S804995	39.4	38.0					
S816434	40.3	39.5					

ATTACHMENT 2
Page 2 of 3

6.[6] Date: From 12-1-14 to 12-7-14

Container ID #	Monday Temp (°F) (6.[8]/6.[9])	Tuesday Temp (°F) (6.[8]/6.[9])	Wednesday Temp (°F) (6.[8]/6.[9])	Thursday Temp (°F) (6.[8]/6.[9])	Friday Temp (°F) (6.[8]/6.[9])	Saturday Temp (°F) (6.[8]/6.[9])	Sunday Temp (°F) (6.[8]/6.[9])
TA-54-231 (continued)							
S805289	40.2	38.7					
S862888	39.5	38.1					
70072	38.7	37.8					
S823184	39.1	37.9					
S822599	38.3	37.5					
69904	37.5	36.5					
S805051	37.2	36.2					
S864213	37.1	36.0					
S853714	36.9	36.3					
S803078	37.0	36.4					
S825878	37.3	36.6					
S823124	37.5	36.8					
S804948	39.3	38.2					
S813385	39.6	38.7					
S842446	41.1	40.2					
Ambient Temperature (6.[12])	39.0 °F	38.1 °F	____ °F	____ °F	____ °F	____ °F	____ °F
End Time (6.[13])	0827	0925					
6.[13]	Operator: JR Operator: EC	Operator: [illegible] Operator: [illegible]	Operator: ____ Operator: ____	Operator: ____ Operator: ____	Operator: ____ Operator: ____	Operator: ____ Operator: ____	Operator: ____ Operator: ____

ATTACHMENT 2
Page 3 of 3

6.[6] Date: From 12-1-14 to 12-7-14

6.[2] Comments:

6.[17] Performed by:

Operator (print)	Signature	Z#	Initials	Date
Jackie Romero	Jackie Romero	187066	JR	12-1-14
Elda Cordova	[illegible]	114188	[illegible]	12-1-14
Josephine Duran	[illegible]	159771	[illegible]	12/2/14
Thomas Vigil	[illegible]	123638	[illegible]	12/2/14

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 12-1-14 to 12-7-14

	Monday 6.[6] Start Time: 1014	Tuesday 6.[6] Start Time: 1136	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:
TA-54-375 Cell 1							
Calibrated Infrared Thermometer (4.2.1[1][B])	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	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number
Ambient Temperature (6.[7])	52.4 °F	51.5 °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	54.3	53.4					
LA00000070503 68540	55.7	54.0					
LA00000070503 68553	55.7	54.0					
69445	55.6	53.7					
69618	55.5	53.0					
69013	55.2	53.9					
LASB50522	56.6	54.5					
LASB50452	56.2	55.0					
LASB50431	56.5	55.0					
LASB50069	54.9	54.0					
LASB50073	54.8	54.3					
69636	55.6	54.7					
69616	55.3	54.6					
69417	56.3	54.7					

IPC-1

ATTACHMENT 3
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6.[6] Date: From 12-1-14 to 12-7-14

Container ID #	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	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 (continued)							
69620	55.3	54.9					
69520	56.0	55.0					
69641	56.2	55.4					
69298	56.4	55.5					
LASB02203	55.0	55.1					
Ambient Temperature (6.[12])	53.0 °F	49.9 °F	°F	°F	°F	°F	°F
End Time (6.[13])	1019	1137					
6.[13]	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: [illegible]	Operator: Operator:	Operator: Operator:	Operator: Operator:	Operator: Operator:	Operator: Operator:

6.[2] Comments:

ATTACHMENT 3
Page 3 of 3

6.[6] Date: From 12·1·14 to 12·7·14

6.[17] Performed by:

Operator (print)	Signature	Z#	Initials	Date
THOMAS VIGIL		236382		12/1/14
Joshua Lopez		116598		12/01/14
THOMAS VIGIL		236382		12/2/14
Joshua Lopez		116598		12/02/14

Operator (print)	Signature	Z#	Initials	Date

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 12·1·14 to 12·7·14

	Monday 6.[6] Start Time: 1020	Tuesday 6.[6] Start Time: 1138	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:
TA-54-375 Cell 2							
Calibrated Infrared Thermometer (4.2.1[1][B])	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	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number
Ambient Temperature (6.[7])	55.9 °F	55.6 °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])
LASB02198	55.6	55.7					
68638	56.7	56.0					
69615	57.1	56.0					
69635	57.5	56.7					
69642	56.8	55.7					
69630	56.8	55.8					
69633	57.3	56.3					
68430	57.0	56.1					
68631	56.6	55.8					
69634	56.8	57.0					
68567	56.0	55.4					
94227	56.8	56.3					
LASB50442	57.0	56.3					
69644	58.8	56.5					
LASB50443	57.0	55.8					
69638	57.4	56.6					

ATTACHMENT 4
Page 2 of 3

6.[6] Date: From 12·1·14 to 12·7·14

Container ID #	Monday Temp (°F) (6.[8]/6.[9])	Tuesday Temp (°F) (6.[8]/6.[9])	Wednesday Temp (°F) (6.[8]/6.[9])	Thursday Temp (°F) (6.[8]/6.[9])	Friday Temp (°F) (6.[8]/6.[9])	Saturday Temp (°F) (6.[8]/6.[9])	Sunday Temp (°F) (6.[8]/6.[9])
TA-54-375 Cell 2 (continued)							
68624	57.3	57.5					
68507	57.6	57.1					
69568	56.6	56.2					
69553	56.0	55.4					
69598	58.3	57.2					
LASB50559	58.3	57.4					
69015	58.2	57.4					
69639	56.9	56.2					
69637	56.9	55.5					
Ambient Temperature (6.[12])	55.8 °F	59.0 °F	____ °F	____ °F	____ °F	____ °F	____ °F
End Time (6.[13])	1028	1144					
6.[13]	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: [illegible]	Operator: ____ Operator: ____	Operator: ____ Operator: ____	Operator: ____ Operator: ____	Operator: ____ Operator: ____	Operator: ____ Operator: ____

6.[2] Comments:

ATTACHMENT 4
Page 3 of 3

6.[6] Date: From 12·1·14 to 12·7·14

6.[17] Performed by:

Operator (print)	Signature	Z#	Initials	Date
THOMAS TIGER	[signature]	236382	[initials]	12/1/14
Joshua Lopez	[signature]	116598	[initials]	12/01/14
THOMAS TIGER	[signature]	236382	[initials]	12/2/14
Joshua Lopez	[signature]	116598	[initials]	12/02/14
	/	/	/	/
	/	/	/	/
	/	/	/	/
	/	/	/	/

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 12·1·14 to 12·7·14

	Monday 6.[6] Start Time: 1009	Tuesday 6.[6] Start Time: 1123	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:
TA-54-375 Cell 3							
Calibrated Infrared Thermometer (4.2.1[1][B])	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	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number
Ambient Temperature (6.[7])	54.7°F	53.7 °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])
69519	56.4	56.8					
69645	56.5	55.8					
94068	56.1	55.6					
93605	56.1	55.2					
69548	55.6	55.1					
69604	56.0	55.1					
LASB50529	56.1	55.9					
LASB50418	56.2	55.6					
69036	55.9	55.1					
LASB50451	56.0	54.6					
69559	56.1	54.9					
LASB50448	55.6	54.4					
Ambient Temperature (6.[12])	55.5°F	53.7 °F	°F	°F	°F	°F	°F
End Time (6.[13])	1013	1128					
6.[13]	Operator: tv Operator: JN	Operator: tv Operator: JN	Operator: Operator:	Operator: Operator:	Operator: Operator:	Operator: Operator:	Operator: Operator:

ATTACHMENT 5
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6.[6] Date: From 12·1·14 to 12·7·14

6.[2] Comments:

6.[17] Performed by:

Operator (print)	Signature	Z#	Initials	Date
THOMAS VIGIL		236382		12/1/14
Joshua Lopez		116598		120114
THOMAS VIGIL		236382		12/2/14
Joshua Lopez		116598		12 02 14

Operator (print)	Signature	Z#	Initials	Date

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 12-2-14 to 12-2-14 Location: 12-2-14

	Start Time: 6.[6] 0626	Start Time: 6.[6] 0726	Start Time: 6.[6] 0829	Start Time: 6.[6] 0923	Start Time: 6.[6] 1025	Start Time: 6.[6] 1127	Start Time: 6.[6] 1225	Start Time: 6.[6] 1326	Start Time: 6.[6] 1427	Start Time: 6.[6] 1523	Start Time: 6.[6] 1627	Start Time: 6.[6] 1721	Start Time: 6.[6]	Start Time: 6.[6]
Calibrated Infrared Thermometer (4.2.1[1][B])	Brand: Model: N/A Cal. Due Date: File Number	Brand: Model: N/A Cal. Due Date: File Number	Brand: Model: N/A Cal. Due Date: File Number	Brand: Model: N/A Cal. Due Date: File Number	Brand: Model: N/A Cal. Due Date: File Number	Brand: Model: N/A Cal. Due Date: File Number	Brand: Model: N/A Cal. Due Date: File Number	Brand: Model: N/A Cal. Due Date: File Number	Brand: Model: N/A Cal. Due Date: File Number	Brand: Model: N/A Cal. Due Date: File Number	Brand: Model: N/A Cal. Due Date: File Number	Brand: Model: N/A Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number
Ambient Temperature (6.[7])	49.87 °F	49.68 °F	50.45 °F	51.24 °F	52.79 °F	52.54 °F	53.28 °F	53.83 °F	54.13 °F	54.23 °F	53.05 °F	51.85 °F	°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])
686855 T1	51.62	51.57	52.22	52.81	54.13	53.05	53.48	53.82	54.05	54.08	53.08	52.01		
686855 T2	50.28	50.82	51.61	52.13	53.56	52.31	52.89	53.15	53.40	53.49	52.50	51.42		
505227 T4	51.75	51.69	52.11	52.72	53.63	53.08	53.39	53.7	53.38	53.97	53.29	52.42		
505227 T5	51.52	51.43	51.81	52.43	53.46	52.96	53.33	53.67	53.85	53.96	53.19	52.30		

N/A

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6.[6] Date: From 12-2-14 to 12-2-14 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])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])
Ambient Temperature (6.[12])	49.83 °F	49.69 °F	50.50 °F	51.24 °F	52.81 °F	52.71 °F	53.34 °F	53.83 °F	54.15 °F	54.23 °F	53.05 °F	51.85 °F	°F	°F
End Time (6.[13])	0627	0727 DA 12-2-14	0830	0924	1026	1128	1226	1327	1428	1524	1628	1722		
6.[13]	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: DA Operator: MW	Operator: MW Operator: DA	Operator: DA Operator: MW	Operator: DA Operator: MW	Operator: DA Operator: MW	Operator: Operator:	Operator: Operator:

NA

NA

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1247-R2
Dt 12-2-14
~~1246~~ ~~R5~~

6.[6] Date: From 12-2-14 to 12-2-14 Location: 325

6.[2] Comments: Did not enter Permacon due to Standing Order Area B ~~1246 R2~~
all Temp taken in Dome 325 (Data logger Computer)

N
A

6.[17] Performed by:

Operator (print)	Signature	Z#	Initials	Date
Jose Chavez		314578	JC	12-2-14
Tina Aguirre		174911	TA	12-2-14
William Juarez		201458	WJ	12-2-14
	/	/	/	/
	/	/	/	/
	/	/	/	/
	/	/	/	/
	/	/	/	/
	/	/	/	/
	/	/	/	/
	/	/	/	/
	/	/	/	/
	/	/	/	/

N
A

8.1[2] Reviewed by:

SOM or designee (print)	Signature	Z#	Initials	Date
Gary Mann		226935		12-2-14

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

6.[6] Date: From 12-2-14 to 12-3-14 Location: Dome 375 Permacon

	Start Time: 6.[6] 1828	Start Time: 6.[6] 1929	Start Time: 6.[6] 2029	Start Time: 6.[6] 2130	Start Time: 6.[6] 2230	Start Time: 6.[6] 2327	Start Time: 6.[6] 0028	Start Time: 6.[6] 0127	Start Time: 6.[6] 0229	Start Time: 6.[6] 0328	Start Time: 6.[6] 0428	Start Time: 6.[6] 0528	Start Time: 6.[6]	Start Time: 6.[6]
Calibrated Infrared Thermometer (4.2.1[1][B])	Brand: Model: NA Cal. Due Date: File Number	Brand: Model: NA Cal. Due Date: File Number	Brand: Model: NA Cal. Due Date: File Number	Brand: Model: NA Cal. Due Date: File Number	Brand: Model: NA Cal. Due Date: File Number	Brand: Model: NA Cal. Due Date: File Number	Brand: Model: NA Cal. Due Date: File Number	Brand: Model: NA Cal. Due Date: File Number	Brand: Model: NA Cal. Due Date: File Number	Brand: Model: NA Cal. Due Date: File Number	Brand: Model: NA Cal. Due Date: File Number	Brand: Model: NA Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number
Ambient Temperature (6.[7])	51.57 °F	51.63 °F	52.38 °F	53.82 °F	50.88 °F	52.06 °F	52.14 °F	50.73 °F	51.15 °F	51.42 °F	51.19 °F	50.44 °F	°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 (T1)	52.01	52.08	53.02	53.61	51.57	53.10	52.92	51.7	51.94	52.56	52.42	51.84		
68685 (T2)	51.40	51.68	52.29	53.11	50.86	52.43	52.4	50.98	51.45	51.91	51.75	51.05		
50522 (T4)	52.42	52.41	53.14	53.39	52.10	53.07	52.81	52.08	51.96	52.56	52.41	52.07		
50522 (T5)	52.29	52.29	52.99	53.23	51.90	52.87	52.66	51.86	52.10	52.38	52.21	51.81		

N/A

NA NA

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6.[6] Date: From 12-2-14 to 12-3-14 Location: Bldg 375 Permacon

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])
							N/A						NA	NA
Ambient Temperature (6.[12])	51.57 °F	51.76 °F	52.31 °F	52.82 °F	50.91 °F	52.03 °F	52.13 °F	50.73 °F	51.15 °F	51.39 °F	51.13 °F	50.47 °F	___ °F	___ °F
End Time (6.[13])	1829	1930	2030	2130	2231	2328	0029	0128	0230	0329	0429	0529		
6.[13]	Operator: TR Operator: [illegible]	Operator: WJC Operator: TR	Operator: WJC Operator: TR	Operator: WJC Operator: TR	Operator: TR Operator: WJC	Operator: TR Operator: WJC	Operator: WJC Operator: [illegible]	Operator: WJC Operator: [illegible]	Operator: [illegible] Operator: TR	Operator: [illegible] Operator: TR	Operator: [illegible] Operator: TR	Operator: [illegible] Operator: TR	Operator: Operator:	Operator: Operator:

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6.[6] Date: From 12-2-14 to 12-3-14 Location: Dome 375 Permacon

6.[2] Comments: Did not enter Dome 375 Permacon Per EWMO-AreaG-SO-1247, R-2, Temperature ~~readings~~ readings were taken from Dome 375 Control room from Data Loggers

6.[17] Performed by:

Operator (print)	Signature	Z#	Initials	Date
Willie J. Carbin		12507	WJC	12-3-14
Sammy Barch	Sammy Barch	11447M		12-3-14
Timmy Romero		B4253-TR		12-3-14