ERID-525234
EP2014-5367

From: Juarez, Catherine L
Sent: Friday, October 24, 2014 2:27 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; coleman.smith@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; Haagenstad, Mark P
Subject: Daily Technical Submission - October 24, 2014

Sent on behalf of Mark Haagenstad.

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 Mark at mph@lanl.gov or 505-665-2014 if additional information would be helpful. Thank you.

Catherine Juarez
ENV-CP
cjuarez@lanl.gov
Schedule "A"
7-4961

NMED / LANL Technical Summary

October 24, 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.
      - October 24, 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 October, LANL has conducted HSG sampling on 55 SWBs.
      - 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*.
            - 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: Tuesday, October 28, 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
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) 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)

	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	In progress	
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.
39.	NMED requested a diagram of the location of the thermocouples on 68685 and SB50522.	LANL	In progress	
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	In progress	

Remediated Nitrate Salt Container Headspace Gas Analysis

	68685				SB50522				SB50451			
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**
10/24/14	128	726	16887	5117	4069	462	47369	913	193	146	2198	158

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 10-20-14 to 10-26-14

	Monday 6.[6] Start Time: 0928	Tuesday 6.[6] Start Time: 0937	Wednesday 6.[6] Start Time: 1120	Thursday 6.[6] Start Time: 0923	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: 7/29/14 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])	64.2 °F	55.6 °F	55.6 °F	53.8 °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])
S818435	54.0	56.8	61.2	54.1			
S802833	53.8	56.4	60.3	52.8			
S801676	53.4	56.0	60.0	52.6			
S816810	52.1	54.8	59.9	51.4			
70069	51.5	54.3	59.2	50.8			
S822844	52.0	54.7	60.0	50.9			
S825879	52.1	54.4	10/22/14 60.4 ~~60.3~~	51.6			
S793724	52.2	54.7	10/22/14 60.3 ~~59.2~~	50.1			
S813545	52.2	54.8	10/22/14 59.2 ~~61.1~~	50.5			
S822713	53.6	56.1	10/22/14 61.1 ~~60.4~~	50.2			
S802739	53.7	56.3	60.8	52.4			
69907	53.9	56.4	60.8	52.2			
S804995	54.0	56.8	61.0	52.3			
S816434	54.9	57.5	60.9	52.9			

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6.[6] Date: From 10·20·14 to 10·26·14

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	54.8	57.6	61.6	55.4			
S862888	54.4	56.8	60.6	54.1			
70072	53.8	56.4	60.7	52.3			
S823184	54.0	56.7	61.0	52.4			
S822599	53.5	55.1	60.9	52.3			
69904	52.6	55.0	59.5	59.1			
S805051	52.3	55.1	59.4	53.2			
S864213	52.3	54.9	59.6	51.4			
S853714	52.3	55.0	59.8	50.9			
S803078	EC 10·20·14 ~~52.5~~ 52.4	55.1	60.9	50.3			
S825878	EC 10·20·14 ~~52.7~~ 52.5	55.3	60.3	51.7			
S823124	EC 10·20·14 ~~54.0~~ 52.7	56.5	60.1	50.8			
S804948	EC 10·20·14 ~~54.4~~ 54.0	56.9	60.8	50.8			
S813385	EC 10·20·14 ~~55.6~~ 54.4	56.8	60.9	52.8			
S842446	55.6	58.8	61.9	53.6			
Ambient Temperature (6.[14])	56.7 °F	56.2 °F	61.0 °F	54.1 °F	°F	°F	°F
End Time (6.[15])	0927	0943.	1135	0931			
6.[15]	Operator: EC Operator:	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 10-20-14 to 10-26-14

6.[2] Comments:

6.[19] Performed by:

Operator (print)	Signature	Z#	Initials	Date
Eloy D Cordova		114188	EC	10-20-14
Leon Montoya		19526		10-20-14
Josephine Duran		157971		10/21/14
Thomas Vigil		236382		10/21/14
Thomas Vigil		236382		10/22/14
Joshua Lopez		116598		10/22/14
Josephine Duran		157971		10/23/14
Alfredo Aguilar		273181		10/23/14

8.1[2] Reviewed by:

SOM or designee (print)	Signature	Z#	Initials	Date

ATTACHMENT 3
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TA-54 AREA G TA-54-375 CELL 1 NITRATE SALT TRU WASTE CONTAINER DAILY TEMPERATURE DATA SHEET

6.[6] Date: From 10·20·14 to 10.26·14

	Monday 6.[6] Start Time: 0854	Tuesday 6.[6] Start Time: 1106	Wednesday 6.[6] Start Time: 1212	Thursday 6.[6] Start Time: 1050	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: 6/12/15 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	Brand: Model: Cal. Due Date: File Number
Ambient Temperature (6.[9])	54.5 °F	58.4 °F	65.0 °F	58.5 °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	54.0	58.3	64.1	58.6			
68540	54.2	58.7	63.9	58.4			
68553	54.3	58.7	64.5	58.4			
69445	54.6	58.8	64.3	59.0			
69618	54.8	58.7	64.1	58.8			
69013	55.1	58.9	63.8	58.8			
LASB50522	55.6	59.1	64.1	59.1			
LASB50452	55.4	59.0	63.9	59.0			
LASB50431	55.4	59.1	63.5	58.9			
LASB50069	55.2	59.1	63.7	58.9			
LASB50073	55.5	59.2	64.3	59.3			
69636	55.4	59.2	63.3	58.8			
69616 EC 10·20·14	~~51~~ 55.1	59.1	63.7	59.1			
69417	55.2	58.7	63.9	59.0			

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6.[6] Date: From 10·20·14 to 10·26·14

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	55.6	59.0	63.7	59.0			
69520	55.9	59.4	63.8	59.1			
69641	55.9	59.9	64.1	59.1			
69298	56.1	59.7	63.8	59.2			
LASB02203	55.7	59.3	63.4	59.0			
Ambient Temperature (6.[14])	54.7 °F	59.0 °F	64.9 °F	59.2 °F	°F	°F	°F
End Time (6.[15])	0859	1112	1226	1100			
6.[15]	Operator: EC Operator: [illegible]	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: [illegible]	Operator: Operator:	Operator: Operator:	Operator: Operator:

6.[2] Comments:

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6.[6] Date: From 10·20·14 to 10·26·14

6.[19] Performed by:

Operator (print)	Signature	Z#	Initials	Date
Eloy D. Cordova		114188	EC	10·20·14
Leon Montoya		149526		10-20-14
Thomas Vigil		236382	tv	10/21/14
Joshua Lopez		116598	JL	102114
Thomas Vigil		236382	tv	10/22/14
Joshua Lopez		116598	JL	102214
Josephine Duran		151971	JD	10/23/14
Joshua Lopez		116598	JL	102314

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 10·20·14 to 10·26·14

	Monday 6.[6] Start Time: 0900	Tuesday 6.[6] Start Time: 1113	Wednesday 6.[6] Start Time: 1242	Thursday 6.[6] Start Time: 1100	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])	56.2 °F	60.1 °F	62.4 °F	58.3 °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	56.0	59.9	62.6	58.6			
68638	55.6	59.6	62.8	58.5			
69615	55.9	59.7	63.3	58.8			
69635	56.8	60.0	63.8	59.1			
69642	55.6	59.6	63.7	59.0			
69630	55.9	59.7	64.4	59.2			
69633	56.3	60.0	63.8	59.2			
68430	55.7	60.1	63.1	10/20/15 ~~59.5~~ 59.1			
68631	55.3	59.5	62.8	10/20/15 ~~58.6~~ 59.3			
69634	56.0	59.7	61.9	10/20/15 ~~58.3~~ 58.6			
68567	56.0	59.5	62.4	10/20/15 ~~58.7~~ 58.3			
94227	55.7	60.0	62.6	10/20/15 ~~59.2~~ 58.7			
LASB50442	56.5	59.8	63.2	10/20/15 ~~59.1~~ 59.2			
69644	56.5	59.7	63.4	59.1			
LASB50443	56.0	59.7	63.3	59.0			
69638	56.3	59.9	63.5	58.7			

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6.[6] Date: From 10·20·14 to 10·26·14

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	56.2	60.0	63.4	59.2			
68507	56.7	60.0	63.7	59.2			
69568	57.0	60.0	62.3	58.6			
69553	56.0	59.5	62.4	58.7			
69598	56.2	59.8	62.7	59.2			
LASB50559	56.2	59.9	63.2	59.0			
69015	56.7	60.3	63.6	59.5			
69639	57.1	60.2	62.6	59.2			
69637	57.2	59.8	63.5	59.2			
Ambient Temperature (6.[14])	56.0 °F	59.6 °F	62.4 °F	59.4 °F	____ °F	____ °F	____ °F
End Time (6.[15])	0905	1119	1245	1107			
6.[15]	Operator: EC Operator:	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: [illegible]	Operator: ____ Operator: ____	Operator: ____ Operator: ____	Operator: ____ Operator: ____

6.[2] Comments:

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6.[6] Date: From 10·20·14 to 10·26·14

6.[19] Performed by:

Operator (print)	Signature	Z#	Initials	Date
Eloy D. Gonzalez		114188	SC	10.20.14
Leon Montoya		194526		10-20-14
Thomas Vigil		236382		10/21/14
Joshua Lopez		116598		10/21/14
Thomas Vigil		236382		10/22/14
Joshua Lopez		116598		10/22/14
Josephine Duran		157926		10/23/14

Operator (print)	Signature	Z#	Initials	Date
Joshua Lopez		116598		10/23/14

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 10·20·14 to 10·26·14

	Monday 6.[6] Start Time: 0849	Tuesday 6.[6] Start Time: 1100	Wednesday 6.[6] Start Time: 1207	Thursday 6.[6] Start Time: 1038	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])	56.4 °F	60.2 °F	64.0 °F	59.5 °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	57.2	59.7	64.5	59.8			
69645	57.2	61.2	64.5	60.1			
94068	57.8	60.9	64.7	60.3			
93605	57.6	61.0	65.2	60.7			
69548	57.4	60.8	64.9	60.3			
69604	57.3	60.7	64.8	60.2			
LASB50529	56.9	60.6	64.4	60.2			
LASB50418	56.9	60.4	64.6	60.1			
69036	56.6	60.1	64.8	59.9			
LASB50451	57.0	60.3	64.7	59.7			
69559	57.6	60.8	64.8	60.2			
LASB50448	57.2	60.7	64.8	60.1			
Ambient Temperature (6.[14])	56.7 °F	60.1 °F	64.9 °F	60.1 °F	°F	°F	°F
End Time (6.[15])	0852	1105	1212	1049			
6.[15]	Operator: EC Operator: [illegible]	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: [illegible]	Operator: Operator:	Operator: Operator:	Operator: Operator:

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Z# 114188

ATTACHMENT 5
Page 2 of 2

6.[6] Date: From 10.20.14 to 10.26.14

6.[2] Comments:

6.[19] Performed by:

Operator (print)	Signature	Z#	Initials	Date
Eloy D. Cordova A		114188		10.20.14
Luis Montoya		191526		10-20-14
Thomas Vigil		236282		10/21/14
Joshua Lopez		116598		10/21/14
Thomas Vigil		236282		10/22/14
Joshua Lopez		116598		10/22/14
Josephine Duran		151971		10/23/14
Joshua Lopez		116598		10/22/14
Operator (print)	Signature	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
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 6
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TA-54 AREA G NITRATE SALT TRU WASTE CONTAINER HOURLY TEMPERATURE DATA SHEET

6.[6] Date: From 10-23-14 to 10-23-14 Location: 375

	Start Time: 6.[6] 0630	Start Time: 6.[6] 0731	Start Time: 6.[6] 0830	Start Time: 6.[6] 0932	Start Time: 6.[6] 1033	Start Time: 6.[6] 1131	Start Time: 6.[6] 1229	Start Time: 6.[6] 1330	Start Time: 6.[6] 1429	Start Time: 6.[6] 1529	Start Time: 6.[6] 1630	Start Time: 6.[6] 1729	Start Time: 6.[6]	Start Time: 6.[6]
Calibrated Infrared Thermometer (6.[7])	Brand: Model: Cal. Due Date: NA File Number	Brand: Model: Cal. Due Date: NA File Number	Brand: Model: Cal. Due Date: NA File Number	Brand: Model: Cal. Due Date: NA File Number	Brand: Model: Cal. Due Date: NA File Number	Brand: Model: Cal. Due Date: NA File Number	Brand: Model: Cal. Due Date: NA File Number	Brand: Model: Cal. Due Date: NA File Number	Brand: Model: Cal. Due Date: NA File Number	Brand: Model: Cal. Due Date: NA File Number	Brand: Model: Cal. Due Date: NA File Number	Brand: Model: Cal. Due Date: NA File Number	Brand: Model: Cal. Due Date: NA File Number	Brand: Model: Cal. Due Date: NA File Number
Ambient Temperature (6.[9]) T3	52.64 °F	52.24 °F	52.65 °F	54.33 °F	57.21 °F	60.54 °F	62.71 °F	62.78 °F	64.68 °F	65.37 °F	64.29 °F	62.42 °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 T1	52.77	52.33	52.66	54.26	57.05	59.84	62.06	63.17	65.38	65.88	65.09	62.94		
68685 T2	52.39	52.04	52.44	54.02	56.51	59.31	61.35	62.45	64.42	64.90	64.41	62.63		
50522 T4	53.92	53.56	53.71	54.86	56.95	59.91	60.67	61.03	62.57	63.00	62.74	61.36		
50522 T5	53.96	53.53	53.81	55.05	57.71	59.21	60.79	61.27	62.77	63.15	62.85	61.62		

NA

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Z# 226235
INITIAL JGM DATE 10-23-14

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6.[6] Date: From 10-23-14 to 10-23-14 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	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ambient Temperature (6.[14]) T3	52.64 °F	52.24 °F	52.65 °F	54.39 °F	57.21 °F	60.54 °F	62.71 °F	62.78 °F	64.68 °F	65.37 °F	64.29 °F	62.42 °F	°F	°F
End Time (6.[15])	0631	0732	0831	0933	1034	1132	1230	1331	1430	1529	1630	1730		
6 [15]	Operator: WS Operator: SC	Operator: WS Operator: SC	Operator: WS Operator: SC	Operator: WS Operator: SC	Operator: WS Operator: SC	Operator: WS Operator: SC	Operator: WS Operator: SC	Operator: WS Operator: SC	Operator: WS Operator: SC	Operator: WS Operator: SC	Operator: WS Operator: SC	Operator: WS Operator: SC	Operator: Operator:	Operator: Operator:

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6.[6] Date: From 10-23-14 to 10-23-14 Location: 375

6.[2] Comments: Did not go in to the Permacon per standing order Area G - 1247 R. 2 temps were taken from data logger in control Room NH

NA

6.[19] Performed by:

Operator (print)	Signature	Z#	Initials	Date
William Duane		201458	WT	10-23-14
Jesse Chavez		214505C		10-23-14
	/	/	/	/
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NA

8.1[2] Reviewed by:

SOM or designee (print)	Signature	Z#	Initials	Date
Robert V Warder		224934	RVH	10-23-14

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

6.[6] Date: From ~~10-28-14~~ 10-23-14 TR 10/23/14 to 10-24-14 Location: Dome 375

	Start Time: 6.[6] 1834	Start Time: 6.[6] 1929	Start Time: 6.[6] 2028	Start Time: 6.[6] 2129	Start Time: 6.[6] 2230	Start Time: 6.[6] ~~0327~~ 2328 TR 10/24/14	Start Time: 6.[6] 0028	Start Time: 6.[6] 0127	Start Time: 6.[6] 0228	Start Time: 6.[6] 0329	Start Time: 6.[6] 0428	Start Time: 6.[6] ~~0527~~ 0527 TR 10/24/14	Start Time: 6.[6]	Start Time: 6.[6]
Calibrated Infrared Thermometer (6.[7])	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: TR 10/24/14 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
Ambient Temperature (6.[9])	59.68 °F	59.35 °F	59.33 °F	58.74 °F	57.43 °F	57.18 °F	56.76 °F	56.01 °F	54.98 °F	54.35 °F	53.96 °F	53.25 °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 (T1)	60.10	59.76	59.12	58.42	57.14	56.94	56.23	55.87	54.91	54.39	53.75	53.33		
68685 (T2)	59.93	58.96	58.69	58.01	56.76	56.51	56.11	55.57	54.61	54.05	53.68	53.04		
50522 (T4)	59.48	59.23	59.03	58.51	57.52	57.34	56.87	56.49	55.75	55.33	54.98	54.39		
50522 (T5)	59.67	59.16	58.99	58.41	57.43	57.24	56.60	56.40	55.66	55.19	54.84	54.34		
						N/A							N/A	N/A

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Z# 234253
INITIAL TR DATE 10/23/14

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6.[6] Date: From 10-23-14 to 10-24-14 Location: Dome 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])	59.71 °F	59.42 °F	59.33 °F	58.74 °F	57.44 °F	57.16 °F	56.73 °F	55.96 °F	54.96 °F	54.35 °F	53.78 ~~53.72~~ °F TR 10/24/14	53.32 °F	____ °F	____ °F
End Time (6.[15])	1835	1930	2029	2129	2231	2329	0029	0128	0229	0330	0428	0528		
6.[15]	Operator: TR Operator: [illegible]	Operator: TR Operator: [illegible]	Operator: TR Operator: [illegible]	Operator: TR Operator: [illegible]	Operator: TR Operator: [illegible]	Operator: TR Operator: [illegible]	Operator: TR Operator: [illegible]	Operator: TR Operator: [illegible]	Operator: TR Operator: [illegible]	Operator: TR Operator: [illegible]	Operator: TR Operator: [illegible]	Operator: TR Operator: [illegible]	Operator: Operator:	Operator: Operator:

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6.[6] Date: From 10-23-14 to 10-24-14 Location: Dome 375

6.[2] Comments: Did Not Enter Permacon per standing order Area G 1247 R2 All Temps taken At data Logger in control room

6.[10] Performed by:

Operator (print)	Signature	Z#	Initials	Date
Sammy Barela	Sammy Barela	114474	SB	10-24-14
Timmy Romero	Timmy Romero	234253	TR	10/24/14
	/	/	/	/
	/	/	/	/
	/	/	/	/
	/	/	/	/
	/	/	/	/
	/	/	/	/

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

8.1[2] Reviewed by:

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