

From: Vigil-Holterman, Luciana R

Sent: Tuesday, November 04, 2014 3:36 PM

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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; Alexander, Rick A; Baumer, Andy; Martinez, Sandra; 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; Haagenstad, Mark P; Vigil-Holterman, Luciana R

Subject: Daily Technical Submission - November 4, 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 Mark Haagenstad if additional information would be helpful.

Luciana Vigil-Holterman for Mark Haagenstad

Mark Haagenstad
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NMED / LANL Technical Summary

November 4, 2014

Participants:

- New Mexico Environment Department: Siona Briley.
- LANL – Los Alamos Field Office: Gene Turner.
- LANL – Los Alamos National Security: Alison Dorries, Randy Erickson, Don Allen, Mark Haagenstad, Tony Grieggs.

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.
 - November 4, 2014 HSG data attached.
 - H₂, CO, CO₂ and N₂O
 - Other containers
 - A minimum of once per month HSG sampling will be conducted.
 - To date in November, LANL has conducted HSG sampling on 15 SWBs.
 - Sampling of 8 additional containers today, November 4, 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, November 6, 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 | --- | <p>Complete</p> <p>Empty Parent June 16, 2014</p> <p>Unremediated August 14, 2014 (Supplemental information discussed on sampling of parent containers)</p> <p>August 26, 2014 (Letter on applicability of LANL HWFP for opening waste containers)</p> |

| | Requested Information | Actionee | Status | Completion Date |
|-----|---|-----------------|---------------|--|
| 13. | <p>Respond to NMED email request for information associated with the nitrate salt-bearing parent and daughter waste containers.</p> <p>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.</p> | LANL | --- | <p>Complete</p> <p>July 9, 2014 (Letter sent addressing items 1-4 and 6-9 of the email request)</p> <p>July 17, 2014 (Letter sent with updated spreadsheet)</p> <p>August 7, 2014 (First submittal in response to item 5)</p> <p>August 14, 2014 (Letter addressing items 2 & 8 - Second submittal in response to item 5)</p> <p>August 18, 2014 (Third submittal in response to item 5)</p> <p>August 21, 2014 (Fourth submittal in response to item 5)</p> <p>August 27, 2014 (Fifth submittal in response to item 5)</p> <p>September 4, 2014 (Sixth submittal in response to item 5)</p> <p>September 9, 2014 (Seventh submittal in response to item 5)</p> <p>September 11, 2014 (Eighth submittal in response to item 5)</p> <p>September 22, 2014 (Ninth submittal in response to item 5)</p> <p>September 23, 2014 (Tenth submittal in response to item 5)</p> <p>October 1, 2014 (Eleventh submittal in response to item 5)</p> <p>October 8, 2014 (Twelfth submittal in response to item 5)</p> <p>October 16, 2014 (Thirteenth submittal in response to item 5)</p> <p>October 23, 2014 (Fourteenth submittal in response to item 5)</p> <p>October 27, 2014 (Fifteenth submittal in response to item 5)</p> <p>October 28, 2014 (Sixteenth submittal in response to item 5)</p> <p>November 3, 2014 (Seventeenth submittal in response to item 5)</p> |

| | 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 <i>Response to Request for Information on Management of Waste at LANL.</i> | Complete July 8, 2014 |
| 25. | NMED requested an additional discussion on a future technical call regarding CO ₂ , including data. | LANL | --- | Complete August 14, 2014 (Meeting held) |
| 26. | NMED requested additional discussion on CIN-01 waste containers and absorbent, including confirmation and extent of use. | LANL | --- | Complete July 18, 2014 (Meeting held) |
| 27. | NMED requested historic analytical information on pH of liquids associated with gypsum cemented waste. | LANL | --- | Complete August 7, 2014 |
| 28. | NMED requested link to pdf of Actinide Quarterly edition (3 rd Q 2008). | LANL | --- | Complete July 21, 2014 |
| 29. | NMED requested a copy of lessons learned | LANL | --- | Complete August 11, 2014 |
| 30. | NMED request regarding empty drum sampling presentation. | LANL | Presentation is a pre-decisional draft/working document not for external release | August 25, 2014 |
| 31. | Respond to NMED email request dated 8/12/2014 for information associated with the nitrate salt-bearing waste containers. | LANL | --- | Complete September 11, 2014 |
| 32. | NMED request regarding technical presentation. | LANL | Presentation is a pre-decisional draft/working document not for external release | August 25, 2014 |
| 33. | NMED request regarding literature review of catalytic reactions. | LANL | Literature review is a pre-decisional draft/working document not for external release | August 25, 2014 |
| 34. | LANL requested to schedule a meeting with NMED on remediation planning and schedules. | LANL / NMED | 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) |
| 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 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. |
| 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 | In progress | |

Remediated Nitrate Salt Container Headspace Gas Analysis

| | 68685 | | | | SB50522 | | | | 68540/68553 | | | |
|-------------|--------------------------|---------------|---------------------------|---------------------------|--------------------------|---------------|---------------------------|---------------------------|--------------------------|---------------|---------------------------|---------------------------|
| Date | H₂ ppm | CO ppm | CO₂ ppm | N₂O ppm | H₂ ppm | CO ppm | CO₂ ppm | N₂O ppm | H₂ ppm | CO ppm | CO₂ ppm | N₂O ppm |
| 11/04/14 | 114 | 656 | 16116 | 4776 | 3607 | 435 | 46770 | 899 | 27 | 0 | 1223 | 101 |

Remediated Nitrate Salt Container Headspace Gas Analysis

| | 69013 | | | | 69417 | | | | 69445 | | | |
|-------------|--------------------------|---------------|---------------------------|---------------------------|--------------------------|---------------|---------------------------|---------------------------|--------------------------|---------------|---------------------------|---------------------------|
| Date | H₂ ppm | CO ppm | CO₂ ppm | N₂O ppm | H₂ ppm | CO ppm | CO₂ ppm | N₂O ppm | H₂ ppm | CO ppm | CO₂ ppm | N₂O ppm |
| 11/04/14 | 26 | 0 | 1216 | 62 | 1 | 0 | 55 | 0 | 185 | 214 | 3706 | 226 |

Remediated Nitrate Salt Container Headspace Gas Analysis

| | 69618 | | | | 69620 | | | | 69636 | | | |
|-------------|--------------------------|---------------|---------------------------|---------------------------|--------------------------|---------------|---------------------------|---------------------------|--------------------------|---------------|---------------------------|---------------------------|
| Date | H₂ ppm | CO ppm | CO₂ ppm | N₂O ppm | H₂ ppm | CO ppm | CO₂ ppm | N₂O ppm | H₂ ppm | CO ppm | CO₂ ppm | N₂O ppm |
| 11/04/14 | 107 | 92 | 1111 | 196 | 260 | 348 | 3825 | 848 | 203 | 179 | 6054 | 381 |

Remediated Nitrate Salt Container Headspace Gas Analysis

| | SB50431 | | | |
|-------------|--------------------------|---------------|---------------------------|---------------------------|
| Date | H₂ ppm | CO ppm | CO₂ ppm | N₂O ppm |
| 11/04/14 | 595 | 336 | 6397 | 914 |

Nitrate Salt-Bearing TRU Waste Container Monitoring

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ATTACHMENT 2

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

6.[6] Date: From 9/5/14 to 11/9/14

| | Monday 6.[6] Start Time: <u>0920</u> | Tuesday 6.[6] Start Time: _____ | 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: <u>Fujie</u> Model: <u>SG1</u> Cal. Due Date: <u>7/21/15</u> File Number <u>161970</u> | 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 _____ | Brand: _____ Model: _____ Cal. Due Date: _____ File Number _____ |
| Ambient Temperature (6.[7]) | <u>47.8</u> °F | _____ °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 | <u>49.9</u> | | | | | | |
| S802833 | <u>48.3</u> | | | | | | |
| S801676 | <u>47.8</u> | | | | | | |
| S816810 | <u>46.3</u> | | | | | | |
| 70069 | <u>46.1</u> | | | | | | |
| S822844 | <u>46.5</u> | | | | | | |
| S825879 | <u>46.6</u> | | | | | | |
| S793724 | <u>46.7</u> | | | | | | |
| S813545 | <u>46.5</u> | | | | | | |
| S822713 | <u>48.3</u> | | | | | | |
| S802739 | <u>48.2</u> | | | | | | |
| 69907 | <u>48.5</u> | | | | | | |
| S804995 | <u>48.9</u> | | | | | | |
| S816434 | <u>50.1</u> | | | | | | |

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6.[6] Date: From 11/3/14 to 11/9/14

6.[2] Comments: _____

6.[17] Performed by:

| | | | | |
|---------------------|--------------------|---------------|-------------------|----------------|
| <u>Thomas Vigan</u> | <u>[Signature]</u> | <u>123682</u> | <u>[Initials]</u> | <u>11/3/14</u> |
| Operator (print) | Signature | Z# | Initials | Date |
| <u>Gary Mason</u> | <u>[Signature]</u> | <u>226235</u> | <u>[Initials]</u> | <u>11-3-14</u> |
| Operator (print) | Signature | Z# | Initials | Date |
| / | / | / | / | / |
| Operator (print) | Signature | Z# | Initials | Date |
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| Operator (print) | Signature | Z# | Initials | Date |
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| Operator (print) | Signature | Z# | Initials | Date |
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| Operator (print) | Signature | Z# | Initials | Date |
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| Operator (print) | Signature | Z# | Initials | Date |
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| Operator (print) | Signature | Z# | Initials | Date |
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| Operator (print) | Signature | Z# | Initials | Date |

8.1[2] Reviewed by:

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

Nitrate Salt-Bearing TRU Waste Container Monitoring

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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 11/3/14 to 11/9/14

| | | Monday 6.[6] Start Time: <u>1356</u> | Tuesday 6.[6] Start Time: _____ | 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: <u>Flyke</u> Model: <u>561</u> Cal. Due Date: <u>6/12/15</u> File Number <u>101915</u> | 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 _____ | Brand: _____ Model: _____ Cal. Due Date: _____ File Number _____ |
| Ambient Temperature (6.7) | | <u>58.8</u> °F | _____ °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 | <u>59.2</u> | | | | | | |
| | 68540 | <u>59.3</u> | | | | | | |
| LA00000070503 | 68553 | <u>59.4</u> | | | | | | |
| | 69445 | <u>59.9</u> | | | | | | |
| | 69618 | <u>60.1</u> | | | | | | |
| | 69013 | <u>59.7</u> | | | | | | |
| | LASB50522 | <u>59.5</u> | | | | | | |
| | LASB50452 | <u>59.4</u> | | | | | | |
| | LASB50431 | <u>59.8</u> | | | | | | |
| | LASB50069 | <u>59.2</u> | | | | | | |
| | LASB50073 | <u>59.2</u> | | | | | | |
| | 69636 | <u>59.9</u> | | | | | | |
| | 69616 | <u>59.5</u> | | | | | | |
| | 69417 | <u>60.2</u> | | | | | | |

Nitrate Salt-Bearing TRU Waste Container Monitoring

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6.[6] Date: From 11/3/14 to 11/9/14

| 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 | 60.6 | | | | | | |
| 69520 | 60.0 | | | | | | |
| 69641 | 60.5 | | | | | | |
| 69298 | 60.2 | | | | | | |
| LASB02203 | 59.9 | | | | | | |
| Ambient Temperature (6.[12]) | 59.0 °F | _____ °F | _____ °F | _____ °F | _____ °F | _____ °F | _____ °F |
| End Time (6.[13]) | 1402 | | | | | | |
| 6.[13] | Operator: <u>[Signature]</u> Operator: <u>[Signature]</u> | Operator: _____ Operator: _____ | Operator: _____ Operator: _____ | Operator: _____ Operator: _____ | Operator: _____ Operator: _____ | Operator: _____ Operator: _____ | Operator: _____ Operator: _____ |

6.[2] Comments:

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6.[6] Date: From 11/3/14 to 11/9/14

6.[17] Performed by:

| Operator (print) | Signature | Z# | Initials | Date |
|---------------------|--------------------|----------------|-------------------|----------------|
| | <i>[Signature]</i> | <i>1236282</i> | <i>[Initials]</i> | <i>11/3/14</i> |
| <i>Rancho Miera</i> | <i>[Signature]</i> | <i>1235765</i> | <i>[Initials]</i> | <i>11-3-14</i> |
| Operator (print) | / | / | / | / |
| Operator (print) | Signature | Z# | Initials | Date |
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| 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 |
|-------------------------|-----------|----|----------|------|
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Nitrate Salt-Bearing TRU Waste Container Monitoring

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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 11/3/14 to 11/9/14

| | Monday 6.[6] Start Time: <u>1403</u> | Tuesday 6.[6] Start Time: _____ | 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: <u>Flyka</u> Model: <u>SG1</u> Cal. Due Date: <u>8/2/15</u> File Number <u>10912</u> | 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 _____ | Brand: _____ Model: _____ Cal. Due Date: _____ File Number _____ |
| Ambient Temperature (6.7) | <u>59.2</u> °F | _____ °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 | <u>60.3</u> | | | | | | |
| 68638 | <u>60.1</u> | | | | | | |
| 69615 | <u>59.8</u> | | | | | | |
| 69635 | <u>61.5</u> | | | | | | |
| 69642 | <u>60.1</u> | | | | | | |
| 69630 | <u>60.2</u> | | | | | | |
| 69633 | <u>59.7</u> | | | | | | |
| 68430 | <u>59.3</u> | | | | | | |
| 68631 | <u>59.1</u> | | | | | | |
| 69634 | <u>59.0</u> | | | | | | |
| 68567 | <u>58.8</u> | | | | | | |
| 94227 | <u>59.0</u> | | | | | | |
| LASB50442 | <u>59.2</u> | | | | | | |
| 69644 | <u>59.5</u> | | | | | | |
| LASB50443 | <u>59.3</u> | | | | | | |
| 69638 | <u>59.6</u> | | | | | | |

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6.[6] Date: From 11/3/14 to 11/9/14

| 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 2 (continued) | | | | | | | |
| 68624 | 59.8 | | | | | | |
| 68507 | 59.3 | | | | | | |
| 69568 | 60.1 | | | | | | |
| 69553 | 58.8 | | | | | | |
| 69598 | 58.8 | | | | | | |
| LASB50559 | 58.7 | | | | | | |
| 69015 | 59.7 | | | | | | |
| 69639 | 59.7 | | | | | | |
| 69637 | 59.9 | | | | | | |
| Ambient Temperature (6.[12]) | 59.1 °F | _____ °F | _____ °F | _____ °F | _____ °F | _____ °F | _____ °F |
| End Time (6.[13]) | 1409 | _____ | _____ | _____ | _____ | _____ | _____ |
| 6.[13] | Operator: <u>[Signature]</u> Operator: <u>[Signature]</u> | Operator: _____ Operator: _____ | Operator: _____ Operator: _____ | Operator: _____ Operator: _____ | Operator: _____ Operator: _____ | Operator: _____ Operator: _____ | Operator: _____ Operator: _____ |

6.[2] Comments:

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6.[6] Date: From 11/3/14 to 11/9/14

6.[17] Performed by:

| | | | | |
|---------------------|--------------------|----------------|-------------------|----------------|
| Operator (print) | Signature | Z# | Initials | Date |
| <u>Thomas Vega</u> | <u>[Signature]</u> | <u>1236382</u> | <u>[Initials]</u> | <u>11/3/14</u> |
| Operator (print) | Signature | Z# | Initials | Date |
| <u>Pancho Miera</u> | <u>[Signature]</u> | <u>1357165</u> | <u>[Initials]</u> | <u>11-3-14</u> |
| 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 |
| 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 |
| | | | | |

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6.[6] Date: From 11/3/14 to 11/9/14

6.[2] Comments:

6.[17] Performed by:

| | | | | |
|-----------------------------|----------------------|---------------|---------------------|-----------------|
| Operator (print) | Signature | Z# | Initials | Date |
| Pancho Miera | Rems | 12363821 | TR | 11/2/14 |
| 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 |
| 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 |
|-------------------------|-----------|----|----------|------|

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6.[6] Date: From 11-3-14 to 11-3-14 Location: 375

6.[2] Comments: Did not enter permacon per standing order Area G 1247-R5 All Temps were taken from data logger in control room dome 375

(Handwritten initials and date)
 DA
 11-3-14

6.[17] Performed by:

| | | | | |
|-----------------------|-----------------------|-----------------|-----------|-----------------|
| <u>Tina Aguirre</u> | <u>Tina Aguirre</u> | <u>01197</u> | <u>DA</u> | <u>11-03-14</u> |
| Operator (print) | Signature | Z# | Initials | Date |
| <u>Jesse Chavez</u> | <u>Jesse Chavez</u> | <u>1745785C</u> | <u>JA</u> | <u>11-3-14</u> |
| Operator (print) | Signature | Z# | Initials | Date |
| <u>William J. ...</u> | <u>William J. ...</u> | <u>201458</u> | <u>WJ</u> | <u>11-3-14</u> |
| Operator (print) | Signature | Z# | Initials | Date |
| <u>Garrett ...</u> | <u>Garrett ...</u> | <u>0216285</u> | <u>GA</u> | <u>11-3-14</u> |
| Operator (print) | Signature | Z# | Initials | Date |
| <u>DA</u> | <u>DA</u> | <u>DA</u> | <u>DA</u> | <u>11-03-14</u> |
| Operator (print) | Signature | Z# | Initials | Date |
| <u>DA</u> | <u>DA</u> | <u>DA</u> | <u>DA</u> | <u>11-03-14</u> |
| Operator (print) | Signature | Z# | Initials | Date |
| <u>DA</u> | <u>DA</u> | <u>DA</u> | <u>DA</u> | <u>11-03-14</u> |
| Operator (print) | Signature | Z# | Initials | Date |

| | | | | |
|------------------|-----------|-----------|-----------|-----------------|
| <u>DA</u> | <u>DA</u> | <u>DA</u> | <u>DA</u> | <u>11-03-14</u> |
| Operator (print) | Signature | Z# | Initials | Date |
| <u>DA</u> | <u>DA</u> | <u>DA</u> | <u>DA</u> | <u>11-03-14</u> |
| Operator (print) | Signature | Z# | Initials | Date |
| <u>DA</u> | <u>DA</u> | <u>DA</u> | <u>DA</u> | <u>11-03-14</u> |
| Operator (print) | Signature | Z# | Initials | Date |
| <u>DA</u> | <u>DA</u> | <u>DA</u> | <u>DA</u> | <u>11-03-14</u> |
| Operator (print) | Signature | Z# | Initials | Date |
| <u>DA</u> | <u>DA</u> | <u>DA</u> | <u>DA</u> | <u>11-03-14</u> |
| Operator (print) | Signature | Z# | Initials | Date |
| <u>DA</u> | <u>DA</u> | <u>DA</u> | <u>DA</u> | <u>11-03-14</u> |
| Operator (print) | Signature | Z# | Initials | Date |

8.1[2] Reviewed by:

Robert ... Robert ... 224938 RDV 11-3-14
 SOM or designee (print) Signature Z# Initials Date