**From:** George, Victoria A
**Sent:** Tuesday, July 29, 2014 2:21 PM
**To:** Ryan.Flynn@state.nm.us; Jeff.Kendall@state.nm.us; tom.blaine@state.nm.us; John Kieling; steve.pullen@state.nm.us; Kliphuis, Trais, NMENV; Timothy.Hall@state.nm.us; siona.briley@state.nm.us; ricardo.maestas@state.nm.us
**Cc:** Pete Maggiore; Silas DeRoma; Cummings, Lisa K; Nickless, David J; Bishop, M. Lee; Turner, Gene E; Armijo, Karen (CONTR); Wallace, Terry C; Mousseau, Jeffrey David; Cox, Daniel Ray; Woitte, Deborah Kay; Johns-Hughes, Kathryn W; Clemmons, Steve; Roberts, Kathryn Margaret; Brandt, Michael Thomas; Sharp-Geiger, Raeanna Racine; Dorries, Alison Marie; Grieggs, Tony; Haagenstad, Mark P; Bacigalupa, Gian A; Vigil-Holterman, Luciana R; Alexander, Rick A; Allen, Don; Martinez, Saundra; Sauer, Selena Z; Wood, Yvonne Barbara; Schreiber, Arleen Thorn; Nevergold, Debra Sue
**Subject:** Daily Technical Submission - July 29, 2014
**Importance:** High

Attached is the written daily technical submission for today. The Permittees are submitting this pursuant to: Section 19 of the May 19, 2014, *Administrative Order; the* July 10, 2014 letter from NMED regarding *Modification to May 19, 2014, Administrative Order*; and Section VIII of the May 29, 2014, *Revised LANL Nitrate Salt-Bearing Waste Container Isolation Plan*.

If you have any revisions, please let me know.

Thank you

Tori

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Tori George
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# NMED / LANL Technical Summary

# July 29, 2014

**Participation:**

- New Mexico Environment Department: Siona Briley, Trais Kliphaus, Steve Holmes.
- LANL - Los Alamos Field Office: Gene Turner.
- LANL - Los Alamos National Security: Tori George, Kiki Torres, Alison Dorries, Mark Haagenstad.

**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.
- **Monitoring – Visual Inspections**
  - No abnormal conditions.
- **Additional measures currently underway**
  - As a conservative measure, LANL is currently conducting additional monitoring. This additional monitoring includes:
    - Container 68685.
      - Collecting a daily head space gas sample.
        - $CO_2$, $H_2$ and $N_2O$ - continuing analytical.
        - LANL also continuing *solid phase micro-extraction* technique.
      - Hourly temperature measurements.
        - On July 28, LANL was conducting filter changes on SWBs in the 375 Permacon and was unable to take one of the additional hourly temperature measurements on 68685. All other hourly temperature measurements on 68685 were taken.
        - Temperatures remain below 90°F.

- 15 other SWB overpacks (containing 55-gallon drums of remediated nitrate salt bearing waste).
    - Sampling 4 SWBs will continue. Sampling of the eleven other SWBs will also continue.
    - Collecting a daily head space gas sample.
        - $CO_2$, $H_2$ and $N_2O$ - continuing analytical.

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

**Summary Chart - Requested Information / Pending Issues:**

| | Requested Information | Actionee | Status | Completion Date |
|---|---|---|---|---|
| 1. | NMED contact / process for LANL to notify NMED under the Revised Isolation Plan (e.g., 24 hour notices). | NMED | --- | Complete<br><br>June 5, 2014 |
| 2. | Keep NMED informed on the status of on-going chemistry / analytical work. | LANL | --- | Complete<br><br>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<br><br>July 6, 2014<br>(Discussion on call)<br><br>July 18, 2014<br>(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<br><br>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<br><br>June 5, 2014 |
| 6. | Provide LANL procedures and example records associated with post-1991 TA-55 cementation process discussed on June 6. | LANL | --- | Complete<br><br>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<br><br>June 17, 2014<br><br>(Supplemental Info provided July 3) |

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| 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<br><br>July 3, 2014 |
| 9. | Provide copy of CCP/LANL Interface Document. | LANL | --- | Complete<br><br>June 9, 2014 |
| 10. | Provide a list of the analytes for which LANL is sampling HSG ($CO_2$ and LFL analytes). | LANL | --- | Complete<br><br>June 11, 2014 |
| 11. | Discuss potential sampling of HSG for $NO_x$. | LANL | --- | Complete<br><br>June 16, 2014 |
| 12. | Follow-up with Tim Hall regarding LANL Hazardous Waste Facility Permit and procedures that LANL is developing for possible future sampling of empty parent containers and unremediated nitrate salt-bearing containers at LANL. | LANL | Unremediated Parent In progress – will include information on sampling of S802701 and S813389 (occurred before the May 19 Administrative Order) in next technical meeting (August). | Empty Parent Complete<br>June 16, 2014 |
| 13. | Respond to NMED email request for information associated with the nitrate salt-bearing parent and daughter waste containers. | LANL | In progress – remaining items are portions of items 2 and 8, and all of item 5. | Partially Complete<br><br>July 9, 2014<br>(Letter sent addressing items 1-4 and 6-9 of the email request)<br><br>July 17, 2014<br>(Letter sent with updated spreadsheet.) |
| 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<br><br>June 23, 2014 |
| 15. | NMED has requested 'copies of any waste processing, treatment, characterization stop orders issued since Feb 14, 2014.' | LANL | --- | Complete<br><br>June 13, 2014<br>(Included w/ daily summary)<br><br>June 16, 2014<br>(Discussed current TA-54 & WCRRF operations) |

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| 16. | NMED requested information on the location of drums 68327 and 68328. Request made June 14. | LANL | --- | Complete<br><br>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<br><br>July 2, 2014 |
| 18. | Neutralizer use in association with container S855793 (parent of 68660 and 68685). | LANL | --- | Complete<br><br>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 | In progress. | |
| 20. | Schedule follow-on update on LANL efforts – including teams. | LANL / NMED | In progress.<br><br>Meeting scheduled for August 14. | |
| 21. | NMED requested information on document approval / review (as discussed on July 3 call). | LANL | In progress. | |
| 22. | What analyses will be conducted on samples taken from empty drums that previously contained nitrate salt-bearing waste. | LANL | --- | Complete<br><br>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<br><br>July 17, 2014<br>(Letter sent w/ information)<br><br>July 18, 2014<br>(Meeting held) |
| 24. | NMED requested the procedure for sampling empty parent drums that previously contained nitrate salt-bearing waste. | LANL | EP-AREAG-WO-DOP-1245 is included in Enclosure 1 to LANL's July 3, 2014 *Response to Request for Information on Management of Waste at LANL*. | Complete<br><br>July 8, 2014 |
| 25. | NMED requested an additional discussion on a future technical call regarding $CO_2$, including data. | LANL | In progress.<br><br>Will include trending information in next technical meeting (August 14). | |
| 26. | NMED requested additional discussion on CIN-01 waste containers and absorbent, including confirmation and extent of use. | LANL | --- | Complete<br><br>July 18, 2014<br>(Meeting held) |

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| 27. | NMED requested historic analytical information on pH of liquids associated with gypsum cemented waste. | LANL | In progress. | |
| 28. | NMED requested link to pdf of Actinide Quarterly edition (3rd Q 2008). | LANL | --- | Complete<br><br>July 21, 2014 |
| 29. | NMED requested a copy of lessons learned. | LANL | In progress. | |

**Next Call:** Thursday, July 31, 2014 - at 10 am.