Subject: Daily Technical Call Submission - June 6, 2014 EP2014-5163

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Attached is the written daily submission from today's pre-scheduled technical call. The Permittees are submitting this pursuant to Section 19 of the 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.

We will talk with you on Monday's call.

Thank you

Tori

Tori George

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NMED / LANL Technical Call

June 6, 2014

Participation:

- New Mexico Environment Department: Tom Blaine, John Kieling, Trais Kliphuis, Steve Pullen, Tim Hall, Siona Briley.
- LANL - Los Alamos Field Office: Pete Maggiore, Lisa Cummings.
- LANL - Los Alamos National Security: Tori George, Deb Woitte, Davis Christensen, Alison Dorries, Tony Grieggs, Gian Bacigalupa, Enrique Torres.

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 on container 68685. This additional monitoring includes:
    - Collecting a daily head space gas sample.
      - CO_2 - increasing trend, moving towards equilibrium between SWB and drum. The Permittees are working with LANL chemistry SMEs, and will continue to watch this trend.
      - H_2, CH_4, and VOCs - all below LFLs.
    - Hourly temperature measurements.
      - Temperatures remain below 90°F.
- **Anticipated Changes to Nitrate Salt-Bearing Waste Containers (e.g. movement, re-packaging).**
  - Currently, no further movements or re-packaging are planned.

- As a conservative measure, based on recent information, LANL has applied the D002 code to the remaining unremediated nitrate salt-bearing waste containers with free liquids.

- **Other**
  - LANL had planned to test the pull stations in the 231 Dome on June 6, 2013. However, LANL is rescheduling this test.

Requested Information / Pending Issues:

- **Information on post-1991 cemented wastes**
  - In 1991, LANL fully implemented the new evaporator and cement fixation equipment/process for the nitrate solutions at TA-55. While LANL had been using this new equipment/process before 1991, it was in 1991 that LANL removed the equipment that had been previously used to make nitrate salts at TA-55. This eliminated the generation of unconsolidated nitrate salt wastes.
  - In this new evaporator and cement fixation process, nitrate liquid solutions are reduced to evaporator bottoms. They remain in liquid form. These are then neutralized and sent to the cement fixation process. This is a robust cementation process that employs mixing paddles in a 55-gallon drum, resulting in uniform mixing. The mixture of waste and concrete slurry are a set ratio. This process originally used Gypsum cement, however some dewatering occurred. Gypsum cement was no longer used after 1996. Portland Cement has been the cement used since 1996.
  - This process operated under interim status from 1991 until 2010. It was included in the renewed LANL Hazardous Waste Facility Permit, as issued in November of 2010.
  - There are 351 containers of post-1991 cemented waste from this TA-55 process that are currently on-site at Area G. (Note: There are 27 cemented wastes on-site at Area G from other cementation processes at other LANL facilities. These do not involve nitrate salts.)
  - LANL has conducted Real-Time Radiography (RTR) on a number of containers in the post-1991 cemented waste streams from this TA-55 process, and will provide information on this to NMED.

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	In progress. LANL is working with NMED to schedule a meeting.	
3.	On upcoming daily call, provide additional discussion on the potential for liquids in the 378 post-1991 cemented containers (including a discussion of the review of RTR tapes).	LANL	In progress. Provided additional discussion on June 6, 2014 call. Will continue to provide discussion.	
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	Discussed June 5, 2014 tech call Action: Include information discussed in June 5 tech call in written daily submission.	Complete June 5, 2014 Included in this written submission.
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		
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		
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		
9.	Provide copy of CCP/LANL Interface Document.	LANL		

Next Call: Monday, June 9, 2014 - at 10 am.