



Office of the Director



National Nuclear Security Administration
Los Alamos Field Office, MS A316
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May 29, 2014

Ryan Flynn, Cabinet Secretary
New Mexico Environment Department
Harold Runnels Building
1190 St. Francis Dr., Room 4050
Santa Fe, NM 87505

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MAY 29 2014

NMED
Hazardous Waste Bureau

Dear Mr. Flynn:

On May 23, 2014, the U.S. Department of Energy (DOE) and Los Alamos National Security, LLC (LANS) ("Permittees") received the New Mexico Environment Department's (NMED's) contingent approval of the Permittees' May 21, 2014, *LANL Nitrate Salt-Bearing Waste Container Isolation Plan* ("Isolation Plan"). NMED approved the Isolation Plan contingent on the submittal of a revised Isolation Plan that incorporated additional requirements ("Revised Isolation Plan"). NMED required the Permittees to address all of the items enumerated in their May 23, 2014 letter, incorporate those changes and resubmit the plan by May 29, 2014.

Enclosed please find a copy of LANL's proposed Revised Isolation Plan. The Permittees' addressed all of NMED's requirements in this Revised Isolation Plan, including attaching all relevant procedures. Additionally, we have enclosed a cross-walk documenting NMED's additional requirements and where these requirements were addressed in the Revised Isolation Plan.

Please contact Jeff Mousseau at (505) 606-2337 (jmousseau@lanl.gov) or Peter Maggiore at (505) 665-5025 (peter.maggiore@nnsa.doe.gov) if you have any questions regarding the Revised Isolation Plan.

Sincerely,

For:
Charles F. McMillan, Director
Los Alamos National Laboratory
PO Box 1663, MS K499
Los Alamos, New Mexico 87545

Sincerely,

Kimberly Davis Lebak, Manager
Los Alamos Field Office
U.S. Department of Energy
3747 West Jemez Road, MS A316
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Ryan Flynn
DIR-14-088

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May 29, 2014

JM/PM/KR:sm

- Enclosures: 1. Revised LANL Nitrate Salt-Bearing Waste Container Isolation Plan (LA-UR-14-32820)
2. Cross-Walk of NMED's May 23, 2014 Additional Requirements and the LANL Revised Isolation Plan (LA-UR-14-23821)

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Cross-Walk Documenting NMED's Additional Requirements and Location Requirements are Addressed in the LANL Revised Isolation Plan

NMED Item Number	NMED Item from May 23, 2014 Contingent Approval Letter	LANL Revised Isolation Plan Section
1	In Part IV, the Permittees shall describe how daily temperature measurements will be taken from the closed containers that are over packed in standard waste boxes ("SWBs").	Section IV(4)
2	In Part IV, the Permittees shall describe how the additional tamper seals were installed and if there are plans to install other tamper seals on any additional containers.	Section IV(1)
3	In Part IV, the Permittees shall describe how the Permittees are preventing workers from coming into contact with the nitrate salt-bearing waste containers in question and how workers are being protected, including but not limited to, a discussion of how and if other protective shields and/or barriers will be utilized to protect workers.	Section IV(6)
4	In Part IV, the Permittees shall provide copies of monitoring procedures and checklists associated with the monitoring of the waste in the storage areas, including visual inspection and temperature monitoring.	Attachments
5	In Part IV, the Permittees shall state the temperature range at which the nitrate salt-bearing waste container are maintained while in the 375 Permacon.	Section IV(4)
6	Part IV states the remediated nitrate salt-bearing waste containers are currently stored in Dome 230 and will be moved to the Permacons at Domes 231 and 375. Part V states the unremediated nitrate salt-bearing waste containers are currently stored in Dome 232 and will be moved to the Permacons at Domes 231 or 375. The Permittees shall include in Parts IV and V a discussion of how Dome 231, Dome 375 and the Permacons are adequate for the containment of a breach with energy similar to the WIPP incident.	Section IV(3) and V(2)
7	In Part IV, the Permittees shall discuss in more detail the active fire suppression system in storage areas, including but not limited to, whether the system is compatible with the waste and how any by-products produced would be contained in the event a reaction occurs.	Section IV(3) and V(2)
8	Parts IV(4) and V(2) state "[a]ction levels will be established and response instructions prepared." These parts shall clearly state what parameters will be used for the action levels. Also, the emergency response plan referenced in Parts IV(4) and V(2) must be attached to the Plan.	Section IV(4) and V(3) (note - Section V(2) has been re-numbered)
9	Part IV(5) and V(3) state that the subject containers will be placed "an adequate distance apart." These Parts shall state what distance was determined to be adequate by LANL and the basis for that determination.	Sections IV(5) and V(4) (note - Section V(3) has been re-numbered)

10	Parts IV and V shall state whether fire department/emergency responders will be present or alerted when the subject containers are being transported and if responders will be present/alerted during other actions.	Sections IV(7) and V(6)
11	Part IV(5) states that “where possible, fire resistant curtains will be used in lieu of spacing.” The Plan shall describe the effectiveness of fire resistant curtains, including the temperatures the curtains are rated for in contrast to the estimated temperatures reached in Panel 7, Room 7, based on the most recent evidence available.	Sections IV(5) and V(4)
12	Part IV(7) shall state that the sister drum and the 57 subject containers have been/will be clearly labeled with the appropriate warning labels and any other required labeling.	Section IV(9) (note - Section has been re-numbered)
13	In Part V, the Permittees shall describe how daily temperature measurements will be taken of the unremediated nitrate salt-bearing waste containers.	Section V(3)
14	In Part V, the Permittees shall detail how the Permittees are preventing workers from coming into contact with these containers and how workers are being protected, including but not limited to, discussion of how and if other protective shields and/or barriers will be utilized to protect workers.	Section V(5)
15	In Part VI, the Permittees shall further explain the basis for the determination that the cementation process and the associated procedures adequately remove characteristics of ignitability and reactivity from the nitrate salt waste stream and why no further controls are necessary for the legacy and newly generated cemented nitrate salt-bearing waste.	Section VI
16	The Plan shall state that the Permittees will maintain records of all monitoring and all events related to disposition of the nitrate salt-bearing waste. The Plan shall state that all records will be updated on a daily basis and be available to NMED for inspection.	Monitoring: Sections IV(4) and V(3) Events Related to Disposition: Sections IV(10) and V(8)
17	Table D-2 of the contingency plan for TA-54 Area G does not list Dome 230, 231, and 375 as being equipped with fire suppression systems. Instead, it states that there are several fire hydrants in Area G which will supply water at an adequate volume and pressure to satisfy the requirement of 40 CFR 264.32(d). The Plan shall address this discrepancy, including discussion of whether firefighters or other trained and certified personnel will be available 24-hours a day to utilize the fire hydrants in the event of a fire or reaction if the fire suppression system is not automated.	Sections IV(3) and V(2)
18	Table D-2 of the contingency plan lists Dome 375 as being equipped with pull fire alarm stations that must be activated by an employee; the Plan does not describe how the Permittees will provide access to pull alarms during an event.	Sections IV(3) and V(2)

19	All LANL and CCP procedures related to any activity in the Plan shall be attached to the Plan.	Attachments
20	The Acceptable Knowledge Summary Document (CCP-AK-LANL-006) for waste stream LA-MHD01.001 states that the waste stream contains varying amounts of nitrate salts remediated with cat litter absorbent. The Permittess must incorporate into the Plan the basis for the exclusion of the LA-MHD01.001 waste stream from the Plan and specifically explain why the LA-MHD01.001 waste stream does not pose a threat. Otherwise, this stream should be treated with the same caution as waste stream LA-MIN02.001.	Section III
21	The spreadsheet titled "Carlsbad_LANL_List_Variance_2014-05-20.xlsx" includes, in addition to the LA-MIN02.001 and LA-MHD01.001 waste streams, reference to the LA-CIN01.001 and LA-MIN04-S.001 waste streams. These waste streams must also be addressed in the Plan in accordance with Item 20, above.	Section III
22	Part IV and V state the numbers of nitrate salt- bearing waste containers that are remediated and unremediated. These designations are for waste stream LA-MIN02.001 only, and as discussed in Item 20, shall include containers in the LA-MHD01-001 waste stream, unless it is explained to NMED why the waste stream does not pose a similar threat.	Section III
23	Treatment of the nitrate salt-bearing waste containers is not explicitly discussed in the Plan, but treatment is referenced. Part IV(8) and V(5) state that the Permittees have established a Remediation Team to identify a path forward for remediation of the nitrate salt-bearing waste containers as necessary and appropriate. Any treatment plans or proposals that are developed by the Remediation Team shall be discussed with NMED, and shall include, but not be limited to, the neutralization steps, the reagents used, the location of process, the process for treating drums overpacked into 85 gallon containers and any other specific information related to treatment and neutralization. The treatment plans that are developed shall detail which characteristic (toxicity, reactivity, ignitability, corrosively) mixed transuranic ("TRU") wastes the Permacons are authorized to treat. As discussed prior, permit modifications may be necessary for treatment of the nitrate salt- bearing waste containers, and such permit considerations shall be taken into account by the Permittees and discussed with NMED.	Sections IV(10) and V(8)