NEW MEXICO ENVIRONMENT DEPARTMENT

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ELECTRONIC MAIL & CERTIFIED MAIL - RETURN RECEIPT REQUESTED

May 23, 2014

Charles F. McMillan, Director
Los Alamos National Laboratory
P.O. Box 1663, MS K499
Los Alamos, New Mexico 87545

Kimberly Davis Lebak, Manager
Los Alamos Field Office
U.S Department of Energy
3747 West Jemez Road, MS A316
Los Alamos, New Mexico 87544

RE: LANL NITRATE SALT-BEARING WASTE CONTAINER ISOLATION PLAN
LOS ALAMOS NATIONAL LABORATORY
EPA I.D. NUMBER NM0890010515

Dear Mr. McMillan and Ms. Davis Lebak:

On May 19, 2014, the New Mexico Environment Department ("NMED") issued an Administrative Order requiring the Department of Energy ("DOE") and Los Alamos National Security, LLC ("LANS"; collectively, with DOE the "Permittees") to submit a Los Alamos National Laboratory ("LANL") Nitrate Salt-Bearing Waste Container Isolation Plan ("Plan"). The Plan was received by NMED on May 21, 2014, and has been reviewed. NMED hereby approves the Plan, contingent on the submittal of the additional requirements found below. In order to ensure the continued protection of human health and the environment, the Permittees shall address all of the items enumerated below, incorporate changes and resubmit the Plan to NMED by May 29, 2014.

THE PLAN

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").

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.

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.

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.

5. In Part IV, the Permittees shall state the temperature range at which the nitrate salt-bearing waste containers are maintained while in the 375 Permacon.

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.

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.

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.

9. Parts 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.

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.

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.

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.

13. In Part V, the Permittees shall describe how daily temperature measurements will be taken of the unremediated nitrate salt-bearing waste containers.

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.

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.

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.

17. Table D-2 of the contingency plan for TA-54 Area G does not list Domes 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.

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.

19. All LANL and CCP procedures related to any activity in the Plan shall be attached to the Plan.

OTHER NITRATE SALT-BEARING WASTE STREAMS

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.

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.

22. Parts 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.

TREATMENT

23. Treatment of the nitrate salt-bearing waste containers is not explicitly discussed in the Plan, but treatment is referenced. Parts 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.

To ensure the continued protection of human health and the environment, the Permittees shall immediately commence implementation of the Plan and submit to NMED, by 5:00 PM MST on May 29, 2014, a revised Plan that addresses the enumerated items above. If you have any questions regarding this matter, please contact John Kieling at (505) 476-6035.

Yours truly,

For Ryan Flynn
Secretary
New Mexico Environment Department

cc: Tom Blaine, Director, NMED EHD
John Kieling, NMED HWB
Trais Kliphuis, NMED HWB
Tom Skibitski, NMED DOEOB
Pete Maggiore, NNSA
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