



BILL RICHARDSON
GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Telephone (505) 428-2500
Fax (505) 428-2567
www.nmenv.state.nm.us



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

May 19, 2005

David Gregory, Federal Project Director
Los Alamos Site Office
Department of Energy
528 35th Street, Mail Stop A316
Los Alamos, NM 87544

G. Pete Nanos, Director
Los Alamos National Laboratory
P.O. Box 1663, Mail Stop A100
Los Alamos, NM 87545

**RE: APPROVAL WITH MODIFICATIONS
INVESTIGATION WORK PLAN FOR MATERIAL DISPOSAL AREA T SOLID
WASTE MANAGEMENT UNIT 21-016(a)-99
LOS ALAMOS NATIONAL LABORATORY, EPA ID #NM0890010515
HWB-LANL-04-003**

Dear Messrs. Gregory and Nanos:

The New Mexico Environment Department (NMED) is in receipt of the October 29, 2004 *Response to the Notice of Disapproval for the Investigation Work Plan for Material Disposal Area T, Los Alamos National Laboratory, NM890001051 [Response]*. After review of the October 29, 2004 Response to the Notice of Disapproval [Response] (referenced by ER2004-0604), NMED hereby approves the Investigation Work Plan for MDA T (Work Plan) incorporating the commitments to modify the Work Plan outlined in the Response and with the modifications outlined in this letter. If the Regents of the University of California and the Department of Energy (collectively, the Permittees) fail to implement the modifications, this approval will be automatically rescinded.

The Permittees shall document in the Investigation Report for MDA T (Report) all activities conducted pursuant to this approval, including the modifications outlined in this letter. In



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addition, all required supplemental information specified in this letter must be submitted to NMED within 30 days of receipt of this letter. The Report, summarizing the results of work plan implementation, must be submitted on or before May 24, 2006.

General Comment:

1. Inside the cover page of the Work Plan is a disclaimer stating that the Permittees are not responsible for the "accuracy, completeness, or usefulness of any information" contained in the Work Plan. In fact, the Permittees *are* responsible and accountable for the accuracy, completeness and usefulness of the information cited in the Work Plan and any other document submitted to NMED in accordance with the Permittees Resource Conservation and Recovery Act operating permit and the March 1, 2005 Compliance Order on Consent (Order) (section XI.B.1) referencing 200.4.1.900 NMAC incorporating 40 C.F.R. 270.11(d)(1). If the Permittees can't attest to the accuracy of the information provided in the documents submitted, NMED can't approve any work plan, investigation report or other document where inaccurate, unreliable or useless data and information are cited. If future document submittals from the Permittees contain this message, NMED will reject the document. The Permittees must resubmit the cover page without the disclaimer within 10 days of receipt of this letter.

Section 1.0, Introduction, Footnote 1, page 1:

2. **Permittees' Statement:** "This document contains data on radioactive wastes, including source, special nuclear, and byproduct material. The management of these materials is regulated under the Atomic Energy Act and is specifically excluded from regulation under the Resource Conservation and Recovery Act and the New Mexico Hazardous Waste Act. These data are provided to the New Mexico Environment Department for informational purposes only."
3. **NMED Comment:** There is no need to include the disclaimer regarding radioactive waste data in this section or on the title page of the document. As part of the finalized Consent Order, the Permittees agreed to voluntarily test for, and report on radionuclides, as detailed in a letter from Everet Beckner, NNSA Deputy Director, to NMED Secretary Ron Curry, dated August 26, 2004.

Notice of Disapproval Response #43:

4. **NMED Comment:** The Permittees shall submit within 30 days of receipt of this approval with modifications the referenced more descriptive IDW Management plan. NMED requires that all decontamination fluid must be containerized and analyzed prior to disposal. It can't be discharged to the ground.

Work Plan Sections 4.7 and 5.4:

5. **NMED Comment:** NMED requires that, for the deeper borings proposed around the MDA T absorption beds and shafts pore-gas samples be collected delineating a vertical profile rather than collecting two samples from discrete intervals (i.e., one from the depth matching the depth of the nearest targeted disposal unit and one from total depth). NMED recommends targeting pore gas sample collection at higher permeability intervals such as surge beds, the "old alluvium", the Cerro Toledo Interval and fracture zones and/or regular intervals of 30, 60, 100, 150, 200, 250, 300 feet below ground surface and at total depth of the deeper boreholes.
6. Section 4.7 of the MDA T Work Plan also refers to groundwater samples being collected if perched water is encountered. If perched water is encountered in any of the boreholes, a groundwater monitoring well construction plan must be submitted to NMED for approval within 15 days of borehole and sampling completion. Groundwater monitoring wells must be installed in accordance with Sections IV.C.3.c vi; IV.C.3.c.viii and X of the Order.

Work Plan Appendix B:

7. **NMED Comment:** The Permittees shall provide the NMED approved document citing the fill "background" values listed in some of the Tables (e.g., Tables B-23 and B-25).
8. **Response Table 1, *Summary of Borehole Sample Target and Figure 12 Revised Borehole Locations:***
9. NMED Comment: Boreholes 1-5 shall be moved as close as possible to the absorption beds.
10. Borehole 6 shall be moved to the southeast as close to the shaft field as possible.
11. One 280-foot borehole shall be added at the northwest corner of Absorption Bed 3.
12. In order to investigate potential water infiltration along the surface drainage on the northwest corner of MDA T near the edge of the former Retrievable Waste Storage Area, a 40-foot boring every 40-50 feet along the surface drainage shall be added to the scope of work for MDA T investigations.
13. Three boreholes shall be added to the investigation of MDA T (20-40 feet) in the former footprint of Building 35 to investigate possible releases from historic operations from this building.

As a reminder, the Permittees must collect vapor samples in SUMMA canisters for laboratory analysis of VOCs using EPA Method TO-15 or equivalent method and also determine percent

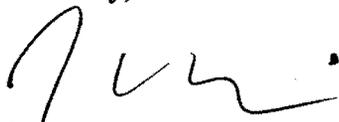
moisture. Sample selection must be based on the vapor field screening results, or other evidence of potential contamination (e.g., presence of surge beds). NMED understands that the Permittees will voluntarily submit vapor samples for tritium analysis in accordance with the DOE letter from Everet Beckner to NMED Secretary Ron Curry, dated August 26, 2004.

NMED requires that for volatile organic compound (VOC) field screening, the Permittees must isolate the base of the boreholes at each sampling interval during drilling and purge the subsurface air in sufficient quantities to ensure that formation air is sampled. The Permittees must use a photoionization detector (PID) equipped with an 11.7 eV lamp for VOC screening and also measure percent carbon dioxide and oxygen. NMED understands that the Permittees will collect vapor samples from each interval using silica gel cartridges in series for analysis of tritium using EPA Method 114 (NESHAP Part 61, Appendix B) or equivalent method.

Finally, if an air rotary drilling method is needed to advance the proposed Cerro Toledo borings to total depth once auger drilling is no longer practicable, the Permittees must use appropriate methods to ensure that quality subsurface air samples are obtained from each borehole (e.g., lengthy purging and stabilization of parameters). The Permittees must ensure the boreholes are left open for use during future monitoring and that contaminant migration down the borehole does not occur in while vapor monitoring wells are being contemplated. In accordance with Section IV.C.3.c.v of the Order, the Permittees must submit a long-term subsurface vapor monitoring and sampling work plan to NMED for approval after the investigation results have been reported to NMED.

Should you have any questions, please contact John Young of my staff at (505) 428-2538.

Sincerely,



James P. Bearzi
Chief
Hazardous Waste Bureau

JPB:jy

cc: J. Young, NMED HWB
D. Cobrain, NMED HWB
D. Pepe, NMED DOE OB
S. Yanicak, NMED DOE OB, MS J993
L. King, EPA 6PD-N
J. Ordaz, DOE LASO, MS A316
K. Hargis, LANL RRES/DO, MS M591
N. Quintana, LANL RRES-RS, MS M992

Messrs. Gregory and Na
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D. McInroy, LANL RRES-RS, MS M992
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