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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

April 4, 2008

David Gregory
Federal Project Director
Los Alamos Site Office
Department of Energy
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David McInroy
Remediation Services Deputy Project Director
Los Alamos National Laboratory
P.O. Box 1663, MS M992
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**RE: NOTICE OF DISAPPROVAL FOR THE INVESTIGATION REPORT FOR
MIDDLE LOS ALAMOS CANYON AGGREGATE AREA
LOS ALAMOS NATIONAL LABORATORY (LANL),
EPA ID #NM0890010515
HWB-LANL-08-002**

Dear Messrs. Gregory and McInroy:

The New Mexico Environment Department (NMED) has received the United States Department of Energy (DOE) and the Los Alamos National Security L.L.C.'s (LANS) (collectively, the Permittees) *Investigation Report for Middle Los Alamos Canyon Aggregate Area* (Report), dated January 2008 and referenced by LA-UR-08-0179/EP2007-0809. NMED has reviewed this document and hereby issues this Notice of Disapproval (NOD).

General Comments:

1. The Permittees conducted a human health risk screening assessment for all sites included in the Middle Los Alamos Aggregate Area Investigation Work Plan (Plan). However, different risk scenarios (e.g., industrial, construction worker) were used for each of the solid waste management units (SWMUs), areas of concern (AOCs), and Consolidated Units (CUs). For example, industrial soil screening levels (SSLs) were used for comparison and to evaluate risk at SWMU 02-004(a) and construction worker SSLs were used for the risk screening at CU 21-



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006(e)-99). In each section of the Report where human health risk screening is addressed, the Permittees must also include an explanation of how and why the risk scenario was chosen.

Specific Comments:

1. Section 1.3.2, Geophysical Survey, page 3, paragraph 3:

Permittees' Statement: Geophysical results indicated that the remaining portion of the liquid acid waste line terminated approximately 200 ft west of its eastern endpoint (Plate 1)."

NMED Comment: The Permittees must clarify whether or not the remaining portion of the acid waste line identified during the geophysical survey was removed. If the line was left in place, the Permittees must remove the remaining portions of the line. Following the removal, the Permittees must obtain confirmatory samples from two depths; 0-0.5 ft and 1.0-2.0 ft beneath the former line. At a minimum, samples must be collected at 50 foot intervals, at areas of visible staining, and at the locations of all pipe connections. The Permittees must submit samples to a laboratory for analysis of the same analytical suite completed for AOC 02-004(f).

2. Section 1.3.4, Field Screening, page 3, paragraph 1:

Permittees' Statement: "The action level for organic vapor field screening was 10 ppm. If field screening of the deepest planned sample at a location detected organic vapors in head space at or above 10 ppm greater than the ambient air reading, additional samples were collected at greater depths."

NMED Comment: The Permittees must provide the rationale for the 10 ppm threshold was chosen as the basis for determining the extent of organic constituents.

3. Section 1.4.2, Cleanup Standards, page 5, paragraph 1:

Permittees' Statement: "The current land use is industrial, and screening assessments will compare COPC concentrations for each site with industrial SSLs."

NMED Comment: The Permittees must explain why they have used industrial SSLs to compare contaminants of potential concern (COPC) concentrations for the screening assessments for sites in Middle Los Alamos Canyon Aggregate Area (MLACAA), particularly at Technical Area (TA) 2 where all structures at TA-2 has been removed. As the Permittees are aware, if the individual SWMUs and AOCs do not achieve risk under a residential scenario, a corrective action complete without controls cannot be granted and such sites must maintain controls (*e.g.*, engineered, institutional). Also see General Comment # 1.

4. Section 2.2.5.2, Soil and Rock Sample Field-Screening Results:

Permittees' Statement: "No organic vapors were detected more than 10 ppm above ambient air during headspace (PID) screening of samples at AOC 02-003(a)."

NMED Comment: See Specific Comment # 2.

5. Section 2.6.6, Summary of Human Health Risk Screening, page 24:

Permittees' Statement: "A preliminary screening assessment using an industrial scenario was conducted to determine whether remediation may be necessary at AOC 02-003(e). The screening assessment results did not indicate that any area requires remediation.

NMED Comment: The Permittees have stated that AOC 02-003(e) requires additional sampling to define the lateral and vertical extent of contamination. However, spot removal is necessary at this site. According to Table F-2.5-3 *Summary of Radionuclides Detected or Detected Above BV/FV at AOC 02-003(e)*, cesium-137 concentrations were greater than the industrial screening action level (SAL) at three locations (02-600206, 02-600207, and 02-600208) at depths ranging from 4.5 feet to 8.1 feet. Therefore, in addition to proposed sampling, the Phase II Work Plan should include proposed removal activities for the areas of elevated cesium-137.

6. Section 3.2.5.4, Nature and Extent of Soil and Rock Contamination, page 103:

Permittees' Statement: "Vertical extent is defined for cyanide (total), perchlorate, explosive compounds, dioxin/furan congeners, and radionuclides (americium-241, cesium-134, and cesium-137)."

NMED Comment: The Permittees state that the vertical extent is defined for perchlorate. However, no perchlorate data is provided in Table F-3.1-1, *Summary of Inorganic Chemicals Above BV at Consolidated Unit 21-006(e)-99*. According to Section 4.2.2 of the approved Plan, perchlorate analysis was required for samples obtained at CU 21-006(e)-99. The Permittees must revise Table F-3.1-1 to include the perchlorate data for CU 21-006(e)-99.

Additionally, there are two places in Table F-3.1-1, under the 'Cyanide (total)' heading for sample ID RE21-07-6484 and under the 'Cyanide (total)' heading for sample ID RE21-07-6487, that are blank. The Permittees must revise Table F-3.1-1 to reflect the appropriate identifier (*i.e.*, na= not available, analyte not above BV) for the two aforementioned sample IDs.

7. Section 4.6.4, Nature and Extent of Soil and Rock Contamination, page 113:

Permittees' Statement: Vertical extent is defined for explosive compounds, SVOCs, and strontium-90 (Appendix F)."

NMED Comment: The Permittees state that vertical extent is defined for explosive compounds. However, Table F-4.1-2 does not present any analytical data for explosive compounds. The Permittees must revise Table F-4.1-2 to include the explosive compound analyses.

8. Section 6.0, Recommendations, page 116, paragraph 2:

Permittees' Statement: "At TA-21, additional sampling and remediation should be planned in coordination with the DP Site Aggregate Area investigation as appropriate. Data obtained during the additional investigation activities should be sufficient to define the extent of contamination and perform risk-screening assessments for the two sites. If practicable, the additional investigation activities at the TA-21 sites should be performed as part of the DP Site Aggregate Area investigation and reported as part of that investigation."

NMED Comment: Although the two sites at TA-21 (AOC 21-028(c) and CU 21-006(e)-99) are physically located within the DP Site Aggregate Area, the investigation activities proposed at these two sites were included in the approved *Investigation Work Plan for Middle Los Alamos Canyon Aggregate Area* at the request of the Permittees. Therefore, Phase II investigation/remediation activities at these two sites must be included in the Phase II Investigation Work Plan for MLACAA.

9. Section 7.0, Schedule for Recommended Activities, page 116:

Permittees' Statement: "A revised or Phase II investigation work plan will be developed and submitted to NMED within 6 months of approval of this investigation report. The work plan will provide details and a schedule for the implementation of remediation and sampling activities and submittal of a Phase II investigation report."

NMED Comment: NMED concurs with the Permittees' conclusion that additional sampling and remediation activities are necessary at TA-2, TA-21, and TA-26. NMED reiterates that a Phase II Investigation Work Plan must be submitted to NMED within six months of approval of the Report. The submittal date for the Phase II Investigation Work Plan will be provided in the approval letter for the Report.

10. Table 1.3-2, Samples Collected and Analyses Requested, pages 151-193:

NMED Comment: The Permittees must revise Table 1.3-2 to identify the analytical method (e.g., 8260 for VOCs) used for analyses of the constituents listed in this Table.

11. Appendix B, Section B-8.1, Deviations from Work Plan, Sample Collection, page B-5, bullet 2:

Permittees' Statement: "All sampling depths required by the investigation work plan were not collected due to the hand auger refusal at locations inaccessible to a drill rig, or due to drill rig refusal. The HSA rig met refusal at 95 locations, and hand augering met refusal at 60 locations."

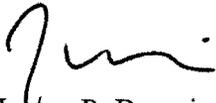
NMED Comment: The Permittees must provide a table in the revised Report that identifies which sample locations encountered refusal. The table must include the sample ID, the work plan location (e.g., BH5-2), the proposed sample depth, and the associated SWMU or AOC number.

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The Permittees must address all comments (where appropriate) and submit a revised Report by May 5, 2008. As part of the response letter that accompanies the revised Report, the Permittees shall include a table that details where all revisions have been made to the Report and that cross-references NMED's numbered comments. All submittals (including maps) must be in the form of two paper copies and one electronic copy in accordance with Section XI.A of the Order. In addition, the Permittees shall submit a redline-strikeout version that includes all changes and edits to the Report (electronic copy) with the response to this NOD.

Please contact Kathryn Roberts at (505) 476-6041, should you have any questions.

Sincerely,



James P. Bearzi
Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
K. Roberts, NMED HWB
S. Yanicak, NMED DOE OB, MS J993
T. Skibitski, NMED DOE OB
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File: Reading and LANL '08, TA-2 [02-003(a-e), 02-004(a-g), 02-005, 02-006(a-e), 02-007-00 (02-007, 02-009(a-c), 02-009(e)), 02-008(a), 02-008(c), 02-009(d), 02-010, 02-011(a-e), 02-012, 21-004(b)-99 (21-004(b), 21-004(c), 21-004(d)), 21-006(e)-99 (21-006(e), 21-006(f)), 21-011(b), 21-022(b)-99 (21-022(b-e), 21-022(g)), 21-028(c), 26-001, 26-002(a-b), 26-003]