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**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

March 14, 2006

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

David McInroy
Remediation Services Deputy Project Director
Los Alamos National Laboratory
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Los Alamos, NM 87545

**RE: NOTICE OF DISAPPROVAL
INVESTIGATION WORK PLAN FOR THE MIDDLE LOS ALAMOS CANYON
AGGREGATE AREA, LOS ALAMOS NATIONAL LABORATORY (LANL)
EPA ID #NM0890010515
HWB-LANL-06-001**

Dear Messrs. Gregory and McInroy:

The New Mexico Environment Department (NMED) is in receipt of the Department of Energy and the Regents of the University of California's (collectively, the "Permittees") *Investigation Work Plan for the Middle Los Alamos Canyon Aggregate Area* (Work Plan) dated December 2005 and referenced by LA-UR-05-7819/ER2005-0738. NMED has reviewed this document and hereby issues this Notice of Disapproval. The Permittees must address all comments and submit revised text and replacement pages (where directed) within thirty (30) days of receipt of this letter. As part of the response letter that accompanies the revised text and replacement pages, the Permittees shall include a table that details where all revisions have been made to the Work Plan 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 XIA of the March 1, 2005 Consent Order (Order).



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General Comments:

1. The Permittees did not include PCBs in the analytical suite for several SWMUs and AOCs within and east of the Reactor Building (TA-02-001). Furthermore, according to the Historical Investigation Report (HIR), SWMUs 02-006(b) and 02-006(e) were sampled in 2000 and analyzed for PCBs. SWMU 02-006(b) had an Aroclor-1260 detect of 0.56 mg/kg and SWMU 02-006(e) had Aroclor-1260 and Aroclor-1254 detects of 1.30 and 0.14 mg/kg respectively. In addition, PCBs have been detected in various locations across the Laboratory where process knowledge precluded their use and/or storage. Hence, the Permittees cannot rely on process knowledge alone to rule out the possibility of contamination from PCBs and must include PCBs in the analytical suite for all samples at each location. (Revise text to reflect this change where appropriate.)
2. The Permittees have proposed that VOCs and SVOCs be analyzed only if detected during field-screening for the following SWMUs and AOCs: 02-003(c), 02-003(d), 02-004(a) (WBR Area, OWR Cooling Liquid Circulation Piping, OWR Material Storage Area, and OWR Gaseous Effluent Vent Line), 02-005, 02-006(a), 02-008(a), 02-011(a)x, 26-001, 26-002(a), 26-002(b), and 26-003. NMED recommends that any preliminary VOC/SVOC data be reviewed and discussed with NMED prior to demobilizing from the site. Review of the preliminary VOC/SVOC data may reveal that field screening may not be a useful tool to guide sampling and drilling activities at these sites and an alternate approach must be evaluated. This should aid in determining vertical and lateral extent while on-site versus having to complete additional sampling at a later date.

Specific Comments:

1. Section 4.1.1 Proposed activities for AOCs 02-003(a), 02-003(b), 02-003(c), 02-003(e), 02-008(c)(i), and 02-011(b), page 43, paragraph 1:

NMED Comment: According to the HIR (Section 3.1.1, page 19), screening data were obtained within the Line 117 pipe trench following excavation, which showed no radioactivity above pre-determined cleanup levels. However, no confirmatory sampling was conducted following D & D activities. Therefore, the Permittees must collect additional samples for laboratory analysis along former Line 117, based on as-built drawings, which target the pipe connections. Additional locations must have the same sampling intervals and analytical suite as boreholes BH3a-1 and BH3a-2. (The Permittees must provide a revised map and text.)

2. Section 4.1.2 AOC 02-003(d), Garden Hose Discharge Area and Gaseous Effluent Vent Line (Portion of Line 119) from Delay Tanks (TA-02-131) to Mesa-top Stack (TA-02-009) page 45, paragraph 2:

Permittees' Statement: "Samples will be collected from the following locations along the gaseous effluent vent line as it runs up to the stack on the mesa top: 20 ft south of the connection of Line 119 and the OWR gaseous effluent vent line and every 200, 400, and 600 ft south."

NMED Comment: NMED reminds the Permittees that sampling locations beneath the OWR gaseous effluent vent line must target areas of pipe connections and/or joints, as these are the areas most likely to have leaked.

3. Section 4.1.2 SWMU 02-009(a), Radioactively Contaminated Soil Area behind Storage Building (TA-02-050), page 46, paragraph 2:

Permittees' Statement: "Samples will not be collected any deeper than 5.0 ft bgs because this is a surface contamination area."

NMED Comment: Section 4.1.2, Proposed Activities for AOC 02-003(d), SWMU 02-006(a), and SWMU 02-009(a), page 45 states, "[a]dditionally, samples will be collected every 5 ft below contaminated intervals as determined by field screening until an uncontaminated sampling interval is collected or the saturated zone is reached." To clarify the discrepancy between these two statements, the Permittees must collect samples at all locations 10-ft below the deepest detected contamination based on field screening. If field screening cannot reliably be used to determine the termination depth (TD), the Permittees must submit a sample from the target TD for quick turn-around off-site laboratory analysis. (Revise text to reflect this change where appropriate.)

4. Section 4.1.3 AOC 02-004(a), OWR (TA-02-001) and Associated Structures, pages 47-48:

NMED Comment: According to the HIR, no previous sampling was conducted beneath the WBR Area of the Reactor Building. Therefore, the Permittees must include the additional sampling locations proposed by NMED on Figure 4.1-3 attached to this letter. The sampling intervals and analytical suite must be identical to that of boreholes BH4a-10 through BH4a-19, including PCBs, as specified in general comment #1 above. (Provide revised map and text)

5. Section 4.1.3 AOC 02-012 Associated with Underground Storage Tank Areas (TA-02-067 and TA-02-029), page 51, paragraph 1:

Permittees' Statement: Samples will be collected from three locations (locations BH12-1 through BH12-3) to evaluate the former UST (TA-02-067) fuel line (Figure 4.1.3)."

NMED Comment: The Permittees must provide a map that shows the location of the former UST fuel line.

6. Section 4.1.8 AOC 02-009(b), Radioactively Contaminated Soil Area North of the Stack-Gas Valve House (TA-02-019), page 59, paragraph 1:

Permittees' Statement: "Samples will not be collected deeper than 10.0 ft bgs because this is a surface contamination area."

NMED Comment: See specific comment #3 above.

7. Section 4.1.8 AOC 02-009(d), Soil Contamination of Unknown Source Near Reactor Building (TA-02-001), page 60, paragraph 1:

Permittees' Statement: "Samples at locations BH9d-1 through BH9d-3 will be collected from 0 to 0.5-ft, 1.5-ft to 2.0-ft (previous screening highest contamination before regrading), and 11.5-ft to 12.0-ft depth intervals (previous sampling highest contamination)..." "At locations BH9d-4 through BH9d-11, samples will be collected from the 0-ft to 0.5-ft, 1.5-ft to 2.0-ft, and 9.5-ft to 10.0-ft depth intervals. Samples will not be collected deeper than 10.0-ft bgs because this is a surface contamination area."

NMED Comment: According to the above statement, the highest contamination from previous sampling was at the 11.5-ft to 12.0-ft depth interval. The Permittees must explain why samples BH9d-4 through BH9d-11 (also associated with AOC 02-009(d)) are not being sampled below a depth of 10 ft. If the highest contamination was found at 11.5-ft to 12.0-ft, samples must be collected below a depth of 12 ft until at least 10 ft of uncontaminated media is encountered. The Permittees may also provide justification for the chosen sampling intervals.

8. Section 5.1 Drilling, page 68:

Permittees' Statement: "Boreholes 10 or more feet deep will be drilled with a rotary drill rig capable of core retrieval."

NMED Comment: The Permittees have not shown that rotary drilling is appropriate for this investigation. NMED believes it is more appropriate to continue to use hollow-stem augers until conditions in the borehole warrant a change of drilling equipment (*e.g.*, auger refusal). (Revise text to reflect this change.)

9. Section 7.0 Schedule, page 72:

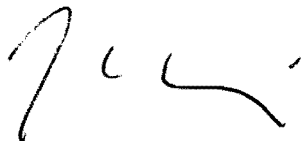
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Permittees' Statement: "An investigation report will be submitted one year after receipt of final analytical data."

NMED Comment: According to Section V.H of the Order, NMED will determine a submittal date for the investigation report upon review of the work plan. NMED is unable to do this because the Permittees have not provided enough information on which to base this determination. The Permittees must propose a submittal date for the Middle Los Alamos Canyon Aggregate Area Investigation Report that is based on the duration of anticipated investigation activities.

Should you have any questions, please contact Kathryn Chamberlain at (505) 428-2546.

Sincerely,



James P. Bearzi
Chief
Hazardous Waste Bureau

JPB:kc

cc: D. Goering, NMED HWB
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file: Reading and LANL TA-2 '06 [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]

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