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**CERTIFIED MAIL  
RETURN RECEIPT REQUESTED**

July 17, 2006

David Gregory  
Federal Project Director  
Los Alamos Site Office  
Department of Energy  
528 35<sup>th</sup> Street, MS A316  
Los Alamos, New Mexico 87545

David McInroy  
Remediation Services Deputy Project Director  
Los Alamos National Laboratory  
P.O. Box 1663, MS M992  
Los Alamos, NM 87545

**SUBJECT: NOTICE OF DISAPPROVAL (NOD)  
THE ADDENDUM TO THE COMPLETION REPORT  
FOR THE VOLUNTARY CORRECTIVE ACTION  
USING A SOIL VAPOR EXTRACTION SYSTEM  
AT AREA OF CONCERN 0-027  
LOS ALAMOS NATIONAL LABORATORY, EPA ID # NM0890010515  
HWB-LANL-05-023**

Dear Messrs. Gregory and McInroy:

The New Mexico Environment Department (NMED) is in receipt of the Department of Energy and the Los Alamos National Security, LLC's (collectively the "Permittees") *Addendum to the Completion Report for the Voluntary Corrective Action Using a Soil Vapor Extraction System at Area of Concern 0-027*, dated June 2005 and referenced by LA-UR-05-0583/ER2005-0021. NMED has reviewed this document and has determined that the Report is technically deficient. While NMED does not require submission of a new Report, the Permittees must respond to the comments below and provide the requested information within 30 days of the receipt of this letter.

**General Comment:**

1. In the discussion of Human Health Screening Assessment (Section 2.4.1) beginning on page 9 and continuing throughout the Screening Evaluation, the text refers to comparisons between Table 2.4-1 (Screening Evaluation for Noncarcinogenic Contaminants of Potential Concern



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[COPCs] at Area of Concern [AOC] 0-027) and Table B-1 (Screening Evaluation for Noncarcinogenic COPCs at AOC 0-027 Using 2002 Data).

**NMED Comment:** For ease of use in the comparison, the heading for Table 2.4-1 should include the vintage of the data (2004) as labeled in Table B-1, and the numbers in bold appearing at the bottom of Table B-1 should include the designation for Hazard Index (HI) as labeled in Table 2.4-1. The Permittees must revise the Tables accordingly so that the format is consistent.

### **Specific Comments:**

#### **1. Section 1.0, Introduction, page 1, paragraphs 4 and 5:**

**Permittees' Statement:** "Depending upon the type of contaminant(s) and the history of a site, either NMED or DOE has administrative authority over work performed by the ENV-RS project. NMED, under the auspices of the State of New Mexico, has authority over sites with hazardous waste or hazardous constituents, including the hazardous portion of mixed waste. Hazardous constituents are regulated under the Resource Conservation and Recovery Act (RCRA). DOE has authority over sites with radioactive contamination."

"The area of concern addressed in this addendum, AOC 0-027, is not listed in Table A of the Module VIII of the Laboratory's RCRA Hazardous Waste Facility permit (EPA 1990, 01585; EPA 1994, 44146). DOE has administrative authority over the work performed by ENV-RS at this site."

**NMED Comment:** The contaminants found at AOC 0-027 were VOCs (including BTEX), SVOCs, TPH, RCRA metals, PCBs, and pesticides. Radioactive contamination at this site is not considered to be an issue. NMED, therefore, has administrative authority over the work being performed at this AOC.

#### **2. Section 2.2.1 Previous Investigations, page 3, paragraph 3:**

**Permittees' Statement:** "The 1996 sample data are included in Appendix A. Elevated levels of BTEX contaminants were found in the samples."

**NMED Comment:** It is not clear what the Permittees mean by elevated levels. As there are no background values for BTEX constituents, there are no baseline concentrations for comparison. TPH levels are two orders of magnitude higher than BTEX with regard to the 1996 sample data and are therefore considered "elevated" according to NMED TPH Screening Guidelines dated November 2005. The Permittees must revise the statement to explain quantitatively what is

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meant by elevated levels of BTEX and by the same definition also note elevated levels of any and all constituents for which samples were analyzed.

**3. Section 2.2.2 Preliminary Site Conceptual Model, page 3, paragraph 1:**

**Permittees' Statement:** "The only potential ecological receptors that are known to be present on the site are ants that have burrowed into cracks in the parking lot."

**NMED Comment:** The Permittees must reference the New Mexico Ecological Exclusion Criteria Checklist to document the above statement. The checklist may be found on NMED's website at:

[http://www.nmenv.state.nm.us/hwb/data/Attachments%20AB\\_Part%20B%20final.doc](http://www.nmenv.state.nm.us/hwb/data/Attachments%20AB_Part%20B%20final.doc)

**4. Section 2.2.2 Preliminary Site Conceptual Model, page 3, paragraph 1:**

**Permittees' Statement:** "Most of the site is now covered with a concrete parking lot, and there is minimal potential for surface exposure to contaminants in the paved area. For subsurface exposure to humans to be complete, the site would need to be excavated and contaminated subsurface material would need to be removed and redistributed on the surface, so that it could be available for contact."

**NMED Comment:** Future land use may be subject to change and may include construction activities. Permittees must therefore include the construction worker scenario for evaluation of human health risk.

**5. Section 2.3.4 Revised Site Conceptual Model, page 7, paragraph 1:**

**Permittees' Statement:** "The preliminary conceptual site model for AOC 0-027 is described in Section 2.2.2, and the revised site conceptual model remains unchanged."

**NMED Comment:** The land adjacent to AOC 0-027 is planned to become the Trinity Site Revitalization Project, which will include major construction activities. It remains likely that AOC 0-027 will also undergo construction activities in the near future.

Permittees must reevaluate the revised conceptual model and include the construction worker scenario for evaluation of human health risk.

**6. Section 2.3.4.1 Nature and Extent of Contamination, page 7, paragraph 3:**

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**Permittees' Statement:** "TPH, both DRO and GRO, are present in the subsurface at AOC 0-027. TPH does not have an associated toxicity value. Rather, it is the constituent chemicals (VOCs or SVOCs) typically occurring in petroleum mixtures that result in associated risk."

**NMED Comment:** TPH levels have an associated toxicity value according to NMED TPH Screening Guidelines (November 2005). These guidelines can be found on the web at:

[http://www.nmenv.state.nm.us/hwb/data/NMED\\_Total\\_Petroleum\\_Hydrocarbon\\_\(TPH\)\\_Screening\\_Guidelines\\_6-24-2003.pdf](http://www.nmenv.state.nm.us/hwb/data/NMED_Total_Petroleum_Hydrocarbon_(TPH)_Screening_Guidelines_6-24-2003.pdf)

Data from 1996 show TPH-DRO concentrations to be as high as 17,000 mg/kg at the four-foot depth interval. According to the NMED screening guidelines referenced above, inhalation levels should not exceed 940 mg/kg for kerosene or jet fuel, and should not exceed 880 mg/kg for diesel #2 or crankcase oil. The data for 2004 show the greatest concentration of TPH to be at 20 feet bgs (28,400 mg/kg). Two other samples had concentrations of 7,900 mg/kg and 10,000 mg/kg at the 9 – 10 ft. depth.

The Permittees must evaluate the potential impact to human exposure under the construction worker scenario referred to in Comment 5 and incorporate the TPH Screening Guidelines in the screening assessment.

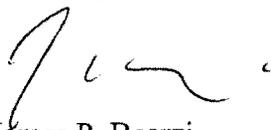
**7. Section 2.4.1 Human Health Screening Assessment, page 9, paragraph 2 (Scoping):**

**Permittees' Statement:** "Land use at AOC 0-027 currently results in a limited social exposure and is expected to remain the same for the reasonably foreseeable future."

**NMED Comment:** The Permittees must clarify what is meant by "social" exposure, and revise the statement to include the possibility of anticipated future land use that may involve construction activities.

If you have any questions regarding this letter please contact Mark Cummings of my staff at (505) 428-2543.

Sincerely,



James P. Bearzi  
Chief  
Hazardous Waste Bureau

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JPB:mac

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