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**CERTIFIED MAIL – RETURN RECEIPT REQUESTED**

August 17, 2007

David Gregory  
Federal Project Director  
Los Alamos Site Office  
DOE/NNSA  
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Los Alamos, NM 87544

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

**RE: RESPONSE TO PERMITTEES' RESPONSE TO THE APPROVAL WITH  
MODIFICATIONS  
PHASE II INVESTIGATION WORK PLAN FOR CONSOLIDATED UNIT  
21-016(a)-99, MATERIAL DISPOSAL AREA T  
LOS ALAMOS NATIONAL LABORATORY EPA ID #NM0890010515  
HWB-LANL-06-017**

Dear Messrs. Gregory and McInroy:

The New Mexico Environment Department (NMED) is in receipt of the United States Department of Energy's and the Los Alamos National Security's (collectively, the Permittees) document entitled *Response to the Approval with Modifications, Phase II Investigation Work Plan for Consolidated Unit 21-016(a)-99, Material Disposal Area T, at Technical Area 21* (Response), dated June 7, 2007 and referenced by LA-UR-07-3844/EP2007-0354. NMED has reviewed the Response and has the following comments.

In the Permittees' response #3, the Permittees state that the "nature and extent of americium-241 have been defined in all eight of the boreholes." The Permittees made this same conclusion in the investigation report for MDA T. NMED continues to disagree with this conclusion. NMED



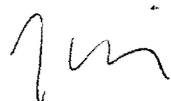
restates its position that borehole 21-25262 does not serve to determine vertical extent of contamination in the identified area of concern. This area has documented contamination between the depths of five and ten feet below the ground surface (bgs) from either a localized spill or, more likely, a subsurface leak from the underground storage tanks, manholes, or other tanks that were located in the area. The sampling performed at borehole 21-25262 did not focus on expected areas of contamination. Instead, the first sample was collected at 22 feet bgs. This sample was collected approximately 11 feet below the soil/tuff interface even though a document written by the Permittees states that "most of the radiological contamination is in a zone between the upper fill and coherent tuff." At a minimum, the Permittees should have collected a sample from the 8-10 foot interval in addition to the 22-23.5 foot interval where a fracture was encountered.

NMED also restates its position that boreholes 21-02540 and 21-25358 do not serve to adequately determine the vertical extent of contamination within the former Building 21-035 area, particularly at location 21-02541 (see NMED letter dated April 9, 2007). Even though borehole 21-25358 is located approximately 12 feet away, the samples were collected at 6.8-7 feet and 38-40 feet bgs. The sample intervals were not selected to determine the extent of contamination at nearby borehole 21-02541 and the concentrations of contaminants between 12.5 and 38 bgs feet are unknown. This information was necessary because, as stated in NMED's original comment, "the concentrations of several constituents (americium-241, cesium-137, plutonium-238, plutonium-239, strontium-90, and tritium) increase with depth in borehole 21-02541."

In the Permittees' response #4, the Permittees proposed a submittal date of July 18, 2008 for the Phase II investigation report. This date is based on the Permittees' desire to collect and report four quarters of pore gas data starting in July and NMED's requirement to install three permanent vapor-monitoring wells. As part of the Phase II investigation work plan, NMED originally approved the collection of two quarters of pore gas prior to report submittal and submittal of a report by November 15, 2007. NMED still requires the Permittees submit the report no later than November 15, 2007, but requires only one round of pore gas data be reported as part of thereport. The Permittees must report the remaining three quarters of data in a status report no later than 45 days following collection of the last quarter's sample.

Should you have any questions, please feel free to contact Darlene Goering of my staff at (505) 476-6042.

Sincerely,



James Bearzi  
Chief  
Hazardous Waste Bureau

Messrs. Gregory and McElroy  
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JPB:dxg

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file: Reading and LANL TA-21