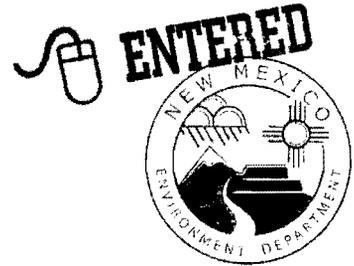




NEW MEXICO
ENVIRONMENT DEPARTMENT



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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

November 19, 2009

David Gregory
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Los Alamos Site Office
Department of Energy
3747 Jemez Road, MS A316
Los Alamos, NM 87544

David McInroy
Remediation Services Deputy Project Director
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**RE: NOTICE OF DISAPPROVAL
INVESTIGATION WORK PLAN FOR DELTA PRIME SITE AGGREGATE
AREA DELAYED SITES AT TECHNICAL AREA 21
LOS ALAMOS NATIONAL LABORATORY (LANL),
EPA ID #NM0890010515
HWB-LANL-09-054**

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 Work Plan for Delta Prime Site Aggregate Area Delayed Sites* (Plan), dated September 2009 and referenced by LA-UR-09-6108/EP2009-0434. NMED has reviewed the Plan and hereby issues this Notice of Disapproval (NOD).

Specific Comments

1) Section 2.1.1, Land Use, page 4:

Permittees' Statement: "Currently, land use of the DP Site Aggregate Area is industrial. It is anticipated that the area will remain industrial and will not change in the reasonably foreseeable future, even if transferred to Los Alamos County. Public access is currently limited at TA-21 through physical controls such as fencing."

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NMED Comment: It is public knowledge that the Permittees intend to transfer land parcels in TA-21 to Los Alamos County (DOE Target Dates, February 12, 2002) potentially for residential use. The Permittees must therefore revise this section to include residential land use as a potential future land use scenario at DP Aggregate.

2) Section 2.3.4, Cleanup Standards, page 6:

Permittees' Statement: "Human health SSLs for chemicals and screening action levels for radionuclides that may be detected at the sites are provided in Tables 2.3-1 and 2.3-2 for the industrial and construction worker scenarios."

NMED Comment: The Permittees must revise Tables 2.3-1, 2.3-2 and the text, where appropriate, to include a comparison to residential soil screening levels (SSLs) and screening action levels (SALs). Also see specific comment # 1.

3) Section 6.2.3, Scope of Activities, page 14, paragraph 3:

Permittees' Statement: "During pipe removal activities, excavation of soil, fill, and/or tuff (including any stained areas) will proceed until media with elevated levels of radionuclide and organic vapors based on field screening has been removed to a maximum depth of 10 ft bgs. Excavating to 10 ft bgs is technically practicable for the excavation equipment."

NMED Comment: Section 6.1.2 of the Plan states that "[a]lpha-emitting radionuclide contamination was left in place at approximately 15 ft bgs after the sumps were removed." NMED acknowledges that U.S. Environmental Protection Agency (EPA) guidance only evaluates risk to a depth of 10-feet below ground surface (bgs). NMED reminds the Permittees that if contamination above residential SSLs is left in place, a designation of "corrective action complete without controls" cannot be achieved and the site will not be released for unrestricted use.

4) Section 8.0, Investigation Methods, page 24-28:

NMED Comment: In accordance with Section XI.C.14.a, *Field Methods*, of the March 1, 2005 Order on Consent (Order), the Permittees must ensure that a description of the *actual* field activities conducted at each site is included in the investigation report. Referencing the Permittees' standard operating procedures (SOPs) is not sufficient.

5) Section 8.4.2, Hand Auger, page 25:

Permittees' Statement: "Hand augers may be used to bore shallow holes. The hand auger is advanced by turning the auger into the soil or tuff until the barrel is filled. The auger is removed and the sample is placed in a stainless steel bowl, homogenized, and then placed into the appropriate sample containers depending on the analytical method requirement."

NMED Comment: In accordance with Section IX.B.2.b.ii (Soil and Rock Sampling) of the

March 1, 2005 Order on Consent (Order), “[h]omogenization of discrete samples collected for analyses other than for VOC and SVOC analyses shall be performed by the analytical laboratory, if necessary.” Therefore, the Permittees are prohibited from homogenizing samples in the field.

6) Section 8.7.2, Organic Vapor Field Screening, page 26, paragraph 1:

Permittees’ Statement: “Organic vapor field screening of subsurface core will be conducted using a portable VOC photoionization detector (PID) with an 11.7-electron volt lamp.”

NMED Comment: Using a photoionization detector (PID) for field screening of VOCs is not an effective method except in limited situations (e.g., screening for VOCs with ionization potentials less than 9.5 electron volts such as benzene, TCE, or PCE) due to the propensity for PIDs equipped with more sensitive lamps to provide unreliable data under moist or dusty conditions and their inability to detect SVOCs.

7) Section 10.0, Schedule, page 29:

NMED Comment: The Permittees intend to submit two investigation reports: the first for the Delayed Sites Investigation Report for Consolidated Unit 21-004(b)-99, SWMU 21-011(b), and the DP East building footprint investigations, and the second for the Delayed Sites Investigation Report for Consolidated Unit 21-022(b)-99, the sites at MDA T, and the DP West building footprint investigations. The Permittees state that the latter report will be submitted “by June 19, 2014, 320 working days after all the data are received.” The Permittees must provide justification for the proposed submittal dates of the DP West letter work plans and the second report. Specifically, the Permittees state that the “Delayed Sites Investigation Report for Consolidated Unit 21-004(b)-99, SWMU 21-011(b), and the DP East building footprint investigations by October 3, 2011, 120 working days after all the validated data area received.” The Permittees must explain why the first report will be submitted 120 days after all validated data are received and an extra 200 days (320 total) is required for submittal of the second report following receipt of validated data.

8) Table 2.3-2, Screening Action Levels for Radionuclides, page 52:

NMED Comment: The Permittees must revise Table 2.3-2 to include the residential SALs.

9) Appendix B, Management Plan for Investigation-Derived Waste, Section B-2.1, Drill Cuttings, page B-2:

Permittees’ Statement: This waste stream will be characterized based either on direct sampling of the waste or on the results from core samples collected during drilling. If directly sampled, the following analyses will be performed: volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), explosive compounds (if site sampling indicates the presence of high explosives), radionuclides, total metals, and if needed, toxicity characteristic metals.”

NMED Comment: Sections B-2.2, B-2.3, and B-2.6 all state that waste will be characterized based on direct sampling or acceptable knowledge (AK). The Permittees must describe how they

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will determine which method will be utilized. The Permittees must also explain why basing the characterization on the results from the core samples is not more comprehensive since the core samples will be analyzed for a broader suite of constituents.

The Permittees must address all comments and submit a revised Plan by December 23, 2009. 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 Plan (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
J. Kieling, NMED HWB
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T. Skibitski, NMED DOE OB
L. King, EPA 6PD-N
G. Rael, DOE LASO, MS A316
M. Graham, ADEP, MS M991
file: Reading and LANL'09, TA-21 (SWMUs 21-004(b)-99, 21-011(b), and 21-022(b)-99)