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TA21

**CERTIFIED MAIL**
**RETURN RECEIPT REQUESTED**

April 13, 2005

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

G. Pete Nanos, Director
Los Alamos National Laboratory
P.O. Box 1663, Mail Stop A100
Los Alamos, NM 87545

**RE: APPROVAL WITH MODIFICATIONS FOR THE INVESTIGATION WORK PLAN FOR DELTA PRIME SITE AGGREGATE AREA AT TECHNICAL AREA 21, LOS ALAMOS NATIONAL LABORATORY**
**EPA ID #NM0890010515**
**HWB-LANL-04-011**

Dear Messrs. Gregory and Nanos:

The New Mexico Environment Department (NMED) has received and reviewed the United States Department of Energy and the Regents of the University of California's (collectively the Permittees) Response to the Notice of Disapproval (NOD) for the *Investigation Work Plan for Delta Prime Site Aggregate Area at Technical Area 21*, dated March 11, 2005 and referenced by LA-UR-05-1696/ER2005-0128. NMED hereby approves the work plan with the modifications described in this letter. The Permittees must respond to the specified comments and resubmit information as outlined in this letter within thirty (30) days of receipt of this letter. If the Permittees fail to submit the requested information and implement the modifications, NMED will automatically rescind this approval.

10824

***(Note: Comment numbers refer to the original NOD dated February 8, 2005)***

**General Comments**

**5)** The table developed by the Permittees to satisfy the requirements of Section IX.A of the Consent Order, dated March 1, 2005 (Order), is unacceptable. The information included in the 'summary' column of the table states what the standard operating procedure (SOP) is and what it encompasses. There is no description of investigation, sampling or analytical methods and procedures in sufficient detail to evaluate the quality of acquired data, which is specifically stated in Section IX.A, Standard Operating Procedures, of the Order. The Permittees must revise and resubmit the table to include descriptions of the proposed field and laboratory methods and procedures. (Submit to NMED within 30 days of receipt of this letter)

**7)** NMED agrees with the Permittees' response to this comment with the exception of the proposed analytical suite. The Permittees state that, in accordance with NMED's NOD for the MDA U work plan, they will "complete a full analytical suite on the selected sample, exclusive of explosive compounds and volatile organic compounds (VOCs)." NMED concurs that because this extended sampling is in an outfall area, field screening or laboratory analysis will most likely not detect VOCs. However, this is not the case for explosive compounds. The Permittees must select their most contaminated sample based on field screening results, and complete a full analytical suite on the selected sample, including explosive compounds. VOCs analysis may be excluded.

**8)** The table provided by the Permittees in the work plan (Table 1.2-2) lists all of the SWMUs and AOCs, regardless of status, within the DP Site and Middle Los Alamos Canyon Aggregate Areas. However, it does not specify which SWMUs/AOCs are in the DP Site Aggregate Area and which are included in the Middle Los Alamos Canyon Aggregate Area. The Permittees must revise and resubmit the table so that it identifies in which aggregate area each SWMU/AOC is located. (Submit to NMED within 30 days of receipt of this letter)

**Specific Comments**

**3)** The Permittees must submit the revised Table 4.3-1 within 30 days of receipt of this letter.

**4)** The Permittees must submit the revised Section 5.0 within 30 days of receipt of this letter.

**6)** The Permittees did not respond to the comment. NMED asked specifically about the 'sampling guidance document' and not the 'appropriate SOPs' referenced in their statement. The Permittees must explain what 'sampling guidance document' they are referring to and provide the appropriate reference information and descriptions of procedures. (Submit to NMED within 30 days of receipt of this letter)

**7)** The Permittees must submit the revised text from Section 6.1.4 within 30 days of receipt of this letter.

**9)** Contrary to the Permittees' statement, Section X.D of the Order does outline borehole abandonment procedures. "The open borehole can then be pressure grouted (via the tremie pipe method) from the bottom of the borehole to the ground surface. After the grout has cured, the top two ft of the borehole shall be filled with concrete to insure a secure surface seal." The Permittees must follow the procedures in Section X.D of the Order.

**14)** NMED does not approve the Permittees' plan for handling Investigation Derived Waste (IDW). Specifically, the Permittees may not return drill cuttings, decontamination water, Personal Protective Equipment (PPE), or other IDW to their point of origin. Rather, the Permittees must contain all IDW, and characterize it to ensure proper handling, including but not limited to, final disposal in accordance with Sections IX.B.2.b.iv and IX.B.5 of the Order.

Whether the waste is RCRA hazardous or low-level only, the Permittees may not return environmental media to the point of origin because, by doing so, the Permittees will change the hydraulic characteristics of the unit(s) and may provide a conduit for contaminant migration. All boreholes must be properly plugged and abandoned following Section X.D of the Order.

In their description of the methods and procedures used to characterize and manage all IDW, the Permittees may not substitute a reference to their SOPs for a description of its procedures (See general comment #5).

Drill cuttings, purge and decontamination water, PPE, and all other IDW must be containerized and characterized prior to disposal. Each container of waste generated must be properly labeled immediately following containerization. All IDW must be sampled and analyzed for contaminants that are suspected or detected prior to or during investigation activities. All suspected radioactively contaminated waste/material should be sampled or surveyed for radionuclides. All IDW must be disposed of properly at an appropriate disposal facility. Descriptions of the methods used to store, control, and transport each waste type and classification must be included in the investigation report.

The RCRA regulations (40 CFR 262.11(c)(2)) regarding Acceptable Knowledge (AK) to make a hazardous waste determination are vague, but allow old analytical data to be used as a form of AK. However, one caveat is that analytical equipment and sampling techniques have improved significantly. Constituents that were not detectable using outdated sampling and analytical methods may now be detectable with more sophisticated equipment and procedures. This, combined with the fact that historical data and previous sampling results for SWMUs/AOCs within the DP Site Aggregate Area are sparse and unreliable, increases the chances for improper or illegal disposal if a knowledge-based assessment is the only method employed to make a hazardous waste determination. As a reminder, these regulations

(40 CFR 262.11(c)(2)) state that AK can be used to determine if a waste is characteristic, not if it is listed. Therefore, the Permittees must provide all data used as a form of AK. This should include, all samples that had detects above Background Values (BV) or Estimated Quantitation Limits (EQLs). In cases where detection limits were higher than BV, that data must also be included. The Permittees must also submit all associated QA/QC data so that NMED can determine if the information is sufficient to meet the requirements of AK. (Submit to NMED within 30 days of receipt of this letter)

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

Sincerely,

James P. Bearzi
Chief
Hazardous Waste Bureau

JPB:kc

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file: Reading and LANL TA-21, '05