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**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

July 26, 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: NOTICE OF DISAPPROVAL
PUEBLO CANYON AGGREGATE AREA INVESTIGATION WORK PLAN
LOS ALAMOS NATIONAL LABORATORY (LANL), NM0890010515
HWB-LANL-05-006**

Dear Messrs. Gregory and Nanos:

The New Mexico Environment Department (NMED) is in receipt of the *Pueblo Canyon Aggregate Area Investigation Work Plan* (Work Plan), referenced by LA-UR-05-2366/ER2005-0119 and dated May 2005. NMED has reviewed this document and issues this notice of disapproval (NOD). The University of California and the Department of Energy (collectively, the "Permittees") must respond to the comments outlined in this letter within 30 days of receipt of this letter. The Permittees must provide responses to the comments and submit revised text and/or replacement pages (where appropriate) within thirty (30) days of receipt of this letter. As part of the response letter that accompanies the revised text, the Permittees shall include a table that details where all revisions have been made to the Work Plan and cross-references NMED's numbered comments. All submittals must be in the form of two paper copies and one electronic copy in accordance with Section XI.A of the Consent Order.

General Comments

1. The Permittees provided the historical information for the aggregate area as either sections within or appendices to the Work Plan. This is a violation of Section XI.B.13 of



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the Consent Order. The Permittees are reminded that compliance with the Order is mandatory; noncompliance with any requirement set forth in the Order subjects the Permittees to possible enforcement action(s) as set forth in Section III.U of the Consent Order.

2. For all proposed borings, the Permittees must continue drilling and sampling if contamination is detected by field screening or other observations. The boreholes must be drilled to a minimum of five feet below the deepest detected contamination.

Specific Comments

1. Section 1.1 General Site Information, pg. 2:

NMED Comment: The Permittees state that “[t]wo AOCs [00-030(k) and 00-034(a)] have NFA approval by DOE.” NMED does not acknowledge that AOC 00-030(k) (septic system) and AOC 00-034(a) (landfill, eastern area) were approved for NFA by DOE because NMED does not recognize DOE as an administrative authority for these sites. The investigation activities for AOC 00-030(k) were reported in the *VCA Report for Potential Release Sites 0-030(d,k) and C-0-043* dated August 1997 and submitted to NMED on June 14, 2005. NMED has reviewed this report and agrees that AOC 00-030(k) cannot be located and is appropriate for NFA.

The Permittees submitted the *NFA Report for Potential Release Sites 0-034(a), 0-034(b), 73-001(b), 73-004(c), and 73-004(d)*, dated September 1997, to NMED on June 14, 2005. The report states that no field investigations were conducted at the site because it was only used for “the production of cement/concrete materials, and no RCRA solid or hazardous wastes or constituents” were managed at the site. NMED has reviewed this report and agrees that hazardous wastes were not managed at AOC 00-034(a) and is appropriate for NFA.

2. Sections 2.1.2.1 and 2.2.2.1 Source of Contamination, pgs. 4 and 8:

NMED Comment: The Permittees state that the “more recent sludges generated between 1983 and 1991 were subject to permit restrictions and analysis are not expected to have contributed to contamination at SWMU 00-018(b).” It is possible that the Permittees exceeded permit restrictions in the past and, therefore, must evaluate these possible occurrences during this investigation. See specific comment #4.

3. Section 2.12.2.3 Potential Receptors and Exposure Pathways, pg. 43:

NMED Comment: Currently, the site is located on private property. The Permittees have identified commercial workers and occasional site visitors as the only potential human receptors for this site. However, it is reasonable to include residential receptors because the Permittees cannot control or predict the potential future land uses for this property.

4. Section 4.1 Sampling and Analysis for SWMU 00-018(a), Pueblo Canyon Wastewater Treatment Plant, pg. 80:

NMED Comment: The Permittees must collect two samples in the westernmost sludge bed to determine possible contamination that could have occurred if effluent exceeded permit limitations. The Permittees must collect one sample of the sludge and one sample of the underlying tuff. Also, see specific comment #2.

5. Section 4.2 Sampling and Analysis for AOC 00-018(b), Bayo Canyon Wastewater Treatment Plant (Active):

NMED Comment: The Permittees must drill a borehole to investigate potential releases underneath the active sludge drying bed. The Permittees may defer this part of the investigation until the sludge drying bed is no longer active.

6. Section 4.4 Sampling and Analysis for AOC 00-030(eN), Septic System, pg. 83 and Section 4.6 Sampling and Analysis for AOC 00-030(f), Septic System, pg. 85:

NMED Comment: The Permittees state that the removal of “the structures, however, is contingent upon the approval of respective property owners, the conditions of the access agreements, and an evaluation of any overlying structures that could be negatively impacted by excavation.” However, the Permittees did not provide an alternate to structure and soil removal if it is deemed impossible. The Permittees must describe a contingency plan for investigation of these sites.

The Permittees must also explain if the drainline removal at AOC 00-030(eN) includes the inlet pipe that, according to Figure 1.1-6, extends from the tanks to a location south of Canyon Road.

7. Section 4.8 Sampling and Analysis for AOC 00-030(j), Septic System, pg. 87:

NMED Comment: NMED does not agree with drilling one borehole in a location that may not coincide with the former septic tank. In addition, if the tank has been removed, the sampling media will consist of fill material overlying tuff. Any samples collected of the fill material above the tank will not be representative of a release from the tank. Instead, NMED requires drilling 3-4 boreholes in the vicinity of the presumed tank location and collecting a sample from the fill /tuff interface depth in each borehole.

8. Section 4.9 Sampling and Analysis for AOC 00-030(n), Septic System, pg.88:

NMED Comment: Sampling performed at a location underneath the inlet pipe detected some metals above background or had elevated detection limits. The Permittees must sample at this location (00-04782) in order to include the inlet pipe as part of the vertical contamination investigation.

9. Section 4.12 Sampling and Analysis for SWMU 00-039, Underground Tanks, pg. 90:

NMED Comment: The Permittees have identified additional data needs based on historical data that were obtained from a mobile chemical lab during a 1995 investigation. The samples were only analyzed for TPH and VOCs. Given the uncertainty associated with historical mobile chemical laboratory data and NMED's position that mobile laboratory data cannot be used to determine the extent of contamination at a site (or for confirmatory samples following remediation), the Permittees must propose additional investigation of this site. The investigation must include analysis of VOCs, SVOCs, TAL metals, and TPH.

10. Section 4.13 Sampling and Analysis for AOC C-00-043, Manhole (Removed), pg. 91:

NMED Comment: Two of the proposed boreholes should be located at the intersection of the manhole and the sewer pipeline to detect possible leaks from pipe joints.

11. Section 4.14 Sampling and Analysis for SWMU 31-001, Septic System, pg. 92:

NMED Comment: The depth of the former tank is unknown at this location. The Permittees propose collecting samples at three identified depths at this location but do not provide the rationale for these depths. The Permittees must provide this information. Also, see general comment #2.

12. Section 4.15 Sampling and Analysis for Consolidated Unit 45-001-00, Wastewater Treatment Plant – TA-45, pgs. 93-94:

NMED Comment:

- a. *South Waste Line Outfall (SWMU 45-001):* Location 45-01028 is being resampled at the same depths as previous samples. If the objective is to delineate the extent of previously identified contamination, the Permittees must focus their sampling efforts at deeper sampling intervals.
- b. *North Waste Line and Outfall (SWMU 45-001):* The Permittees claim that the “[h]istorical analytical results were sufficient to define the vertical and horizontal extent of inorganic chemical and radionuclide contamination” is inaccurate. Many of the sampling locations had inorganic detections either greater than the background level or the detection limits were elevated. The Permittees must determine extent of inorganic contamination at this site.
- c. *Parking Lot (SWMU 45-001):* The Permittees must justify resampling the same depths at location 45-01033. In order to meet the data needs identified by the Permittees, the Permittees should collect samples at deeper intervals at this location. The Permittees are resampling at location 45-01029 but did not provide the previously collected data for this location. The Permittees must provide these data and collect samples at this location at deeper intervals to define extent.

Messrs. Gregory and Nancy

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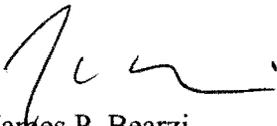
- d. *Vertical Decontamination Facility (SWMU 45-002)*: Plutonium-239 was detected at location 45-01055 (10-12 foot interval) at 0.821 pCi/g. The background/fallout level is 0.05 pCi/g. NMED recommends the Permittees determine the extent of plutonium-239 contamination at this location.
- e. *Sanitary Sewer Emergency Bypass (SWMU 45-004)*: The Permittees must provide the data for location 45-01068 and justify resampling at the same depths at this location.

13. Figure 4.14-1. SWMU 31-001 proposed sampling location and depths, pg. 225:

NMED Comment: Based on the figure provided, it is not clear the proposed sampling will occur in the drainage. The Permittees must ensure that the samples are collected from sediment accumulation areas or other areas where contaminants are more likely to be present.

Should you have any questions, please feel free to contact Darlene Goering of my staff at (505) 428-2542.

Sincerely,



James P. Bearzi

Chief

Hazardous Waste Bureau

JB:dxg

cc: D. Goering, NMED HWB
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