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CERTIFIED MAIL
RETURN RECEIPT REQUESTED

February 10, 1997

Mr. G. Thomas Todd
Los Alamos Area Office
Department of Energy
528 35th Street, Mail Stop A316
Los Alamos, New Mexico 87544

**RE: Notice of Deficiency Technical Review Letters
Los Alamos National Laboratory (LANL)
NM0890010515**

Dear Mr. Todd:

The New Mexico Environment Department (NMED) Hazardous and Radioactive Materials Bureau (HRMB) is responding to the DOE/LANL conversation with Mr. John Kieling regarding technical review letters not received with recent correspondence. Attached are the Environmental Protection Agency technical review letters for the Notice of Deficiencies for the RCRA Facility Investigation Report for Technical Area 0, Potential Release Sites (PRS) 0-028(a and b) and the Sampling and Analysis Plan for PRS 33-008(c). LANL must respond to the deficiencies within 30 days of the receipt of this letter. Please disregard the 30-day response in the February 4, 1997, letters.

If you have any questions please call me or Mr. John Kieling at (505) 827-1561.

Sincerely,

Benito J. Garcia, Chief
Hazardous and Radioactive Materials Bureau

BJG:jek

attachments



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cc: T. Davis, NMED HRMB
-R. Dinwiddie, NMED HRMB
✓T. Glatmaier, DDEES/ER, MS M992
✓J. Jansen, LANL ER, MS A316
✓M. Johannsen, LAAO, MS A316
J. Kieling, NMED HRMB
M. Leavitt, NMED GWQB
✓D. McInroy, EM/ER, MS M992
✓D. Neleigh, EPA 6PD-N
J. Parker, NMED DOE OB
G. Saums, NMED SWQB
S. Yanicak, NMED DOE OB
✓K. Zamora, LAAO, MS A316
✓File: HSWA LANL FU-3/OU 1122/TA-33/33-008(c)
HSWA LANL FU-1/OU 1078/TA-0/0-028 (a and b)
TRACK: LANL, 2/10/97, N/A, DOE/LANL, HRMB/JEK, RE, HSWA

LIST OF DEFICIENCY
LANL SAP for PRS 33-008(c)

Site Specific Comments:

1. Page 3, last paragraph; in phrase "sample AAA2086 from a point 50 ft southwest of drainage," Should this state "southeast" instead of "southwest"? (Best Professional Judgement (BPJ))

2. Page 4, Figure 1: Please explain:
 - i) Two types of expressions (closed circle and open circle) were used to show potential borehole locations. What is the difference between them?

 - ii) Are the potential borehole locations different from the actual sample locations? Explain the difference.

 - iii) The physical locations of buried area and trench areas showed in Figure 1 and showed in Figures 1 and 2 of Appendix A do not seem to match. Please explain and identify the corresponding areas in these figures in Appendix A.

 - iv) According to the figure, there are total 12 potential sample locations; however, on Page 5, Section 2.2, it states, "Samples will be collected from a minimum of four boreholes located within the disposal areas". Why does the number of sample locations reduces from 12 to four. (BPJ)

3. On Page 5, last paragraph, the plan specifies "a minimum of 4 boreholes located within the disposal areas." On Page 9, second paragraph and last paragraph, the plan specifies a minimum of 4 boreholes in each the primary disposal area and the area south of the culvert. A minimum of 4 boreholes in each area is necessary and the Page 5 reference should be clarified.

Further, 2 of the 4 boreholes in the primary disposal area shall be located to sample the bottom of the ravine as it existed prior to placement of the fill. (BPJ)

4. Page 9, 3rd paragraph: Since SVOCs could stay in the soil longer than VOCs, the borehole cores screening shall include SVOC besides radioactivity and VOCs, as specified in Table 2.2-1. (BPJ)

5. Clarify meaning of terms "soil" and "fill". In some places it appears terms are interchangeable. In other usages, it seems fill may refer to covered waste; e.g., on Page 5, statement is made that samples will include soil and fill. (BPJ)

Appendix A: Geophysical Investigation

6. What information is contoured on Appendix A, Figures 1 and 2? What are units? (BPJ)
7. Maps attached to Appendix A need directional orientation. (BPJ)
8. Page 4; 5th paragraph: "...outline on Figure 2 (TDMD Data)", Should Figure 2 be Figure 1? (BPJ)
9. Page 5, Section 2.4: Although TDMD and EM data indicate that no buried objects or debris are expected to occur below the trenches, the bottom of the trenches might deposit hazardous chemicals. Therefore, soil samples from 2-ft below the bottom of the trench area must be included in the sampling and analysis plan to characterize the possible presence of COPCs. (BPJ)

LIST OF DEFICIENCIES
LANL RFI Report for PRSS 0-028(a,b)
in Technical Area 0

Site Specific Comments:

1. Page 31: first paragraph: "Thirty-seven samples were collected from PRSS 0-028(a,b) were analyzed for VOCs and SVOCs". No rationale was provided to explain the deviation from RFI Workplan for OU 1071, Page 5-84: "Ten cores will be augured at the golf course and six at the ball fields"... "Three samples will be collected from each core hole; one from the uppermost 6 in., a second from the interval midway through the soil or from the interval with a positive field screen response, and a third from the tuff contact". In accordance with the approved RFI Workplan, a total of 16 core holes would be augured with 3 samples taken per core hole; this yields a total of 48 samples (16 X 3).

The RFI Report only references and provides data for 37 samples. Core Holes Nos., 00-04754, 00-04755, 00-04759, 00-04763, 00-04764 and 00-04765, listed in Table 5.1.6-1 (RFI Report) did not have three (3) samples taken per core hole as indicated in the RFI Workplan. LANL shall explain the deviation from the RFI workplan with regards to the total number of samples taken and why the previously specified sample intervals were not sampled for each core hole. (Best Professional Judgement (BPJ))

2. Page 34: first paragraph: It states, "Of the organics that were not detected in any sample collected from PRSS 0-028 (a,b), seven had reporting limits (RPLs) greater than SALs. ...In addition, twenty-eight others do not have SALs to which the RPLs can be compared."

To have RPLs higher than SALs is unacceptable. LANL shall submit the RPLs information to determine whether re-sampling is necessary. The information includes RPLs of those seven chemicals along with their respective SALs, and of the twenty-eight undetected chemicals. The EPA/NMED will assess the hazardous effect of those chemicals in accordance with EPA's health based number from IRIS data. (BPJ)

3. Sections 2.2.1 (geologic setting) and 2.3.2 (groundwater) need to provide a more complete discussion of the alluvial fan hydro-geology and explain why the alluvial fan contains no perched aquifers or springs at the site. It is a fact that alluvial fans present geologic conditions that are excellent for obtaining groundwater in large quantities from wells sunk into their permeable materials. Typically, water infiltrates readily into the coarse materials at the head of a fan and moves down the fan under hydrostatic head. During much of the time stream channels across a fan are dry and much of the water is likely to sink into the coarse alluvium

near the fan apex. It is extremely rare for an alluvial fan not to contain useable sources of ground water. The report's determination that no perched aquifers or springs exist is contrary to the geological nature of an alluvial fan and should be verified by further study (See Section 2.3.2). The geologic description should also discuss how the fans age ("paleo fan") influences the ground water supply. (BPJ)