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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
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DALLAS, TX 75202-2733

February 5, 1998

See clearance following to APPL/DOE by 3/13/98 or person EPA 34 Steven

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MSWA LADL 1/1106/21
1/1079/31

Mr. Benito Garcia, Chief
New Mexico Environment Department
Hazardous and Radioactive Materials Bureau
2044A Galisteo St.
Santa Fe, New Mexico 87505

RE: Review of LANL VCA Completion Report for PRSs 21-013(c,d,e)
and PRS 31-001, EPA I.D. No. NM0890010515

Dear Mr. Garcia:

The Environmental Protection Agency (EPA) has completed a technical review of Los Alamos National Laboratory (LANL) RCRA Voluntary Corrective Action (VCA) Completion Report for cleanup activities in Technical Areas (TAs) -21 and -31, Potential Release Sites (PRSs) 21-013(c, d, and e), and PRS 31-001, dated February 26, 1996. The EPA has found parts of the Report to be deficient and enclosed is a list of deficiencies.

If you have any questions or need additional information, please contact Allen T. Chang of my staff at (214) 665-7541.

Sincerely yours,

Richo Moya

for

David W. Neleigh, Chief
New Mexico/Federal Facilities
Section

Enclosure



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LIST OF DEFICIENCIES
LANL VCA COMPLETION REPORT FOR
PRSS 21-013(c, d, and e) and PRS 31-001

General Comments

1. LANL needs to include in the revised report all the sampling results for each PRS, not just those results above detection limits, SALs, or UTL background. LANL needs to include the sampling depths, any soil boring logs or field screening information, detection limits for the VOCs and SVOCs. Until all the information is submitted, no determination can be made about this site. **(Best Professional Judgement, (BPJ))**
2. LANL shall clarify the confirmatory sampling depths for each site. Are they 0-6 inches from where the soil was removed? Please explain. **(BPJ)**

Site Specific Comments

PRS 21-013(c) - Surface Disposal Area

1. Page 1, 1st paragraph: It states that the site consisted of an excavated trench. LANL should investigate the purpose of the trench, and are any liquid or solid wastes buried there? Have samples been taken from the bottom of the trench during the RFI and VCA confirmatory sampling? **(BPJ)**
2. Page 1, 2nd paragraph: It states, "The sampling intervals were to be 0-to-6 in, 0-to-2.5 ft, 2.5-to-5.0 ft, and 5.0-to-7.5 ft." Except the first sample (0-to-6), all others are composite samples. Due to the nature of the sample, they are less convincing to characterize the site contaminants. LANL shall use discrete sample results and resample the locations at depths of 2-ft, 4-ft, and 6-ft. **(BPJ)**
3. Page 2, 3rd paragraph: It states, "The radiation survey was performed using alpha, beta/gamma, and low-energy gamma radiation detection instruments. Detected radiation levels were consistent with the local TA-21 background radiation levels."

The above statement contradicts the following statement, "All ten of the 0-to-6 in samples were shipped to an off-site analytical laboratory for a full suite of analyses because of a concern that elevated alpha radiation screening results from the radiation survey indicated possible

airborne radioactive contamination from the nearby former filter building TA-21-153 that served facilities at DP East." (the 6th paragraph; page 2) Please explain. (BPJ)

4. Page 1, Appendix A: To expedite the review process, LANL shall submit a table and list all VCA confirmatory data and RFI sample results (both on-site field screening results and off-site lab results) including site location ID, sample depth, background UTL, SAL, and detection limits for VOCs and SVOCs. (BPJ)
5. Page 5, 2nd paragraph: LANL states that the confirmatory samples were analyzed for TAL metals. There were no analytical results and no discussion was found in the report pertaining to metals. (BPJ)
6. Page 5, 2nd paragraph: Please show the confirmatory sample locations on a map for PRS 21-013(c) and clarify the vertical depths of those samples taken. Are they 0-6 inches from where the soil was removed? Please explain. (BPJ)
7. Pages 7, 16 and 27; Figures 1, 2, and 3: Please include an outline of how the debris/soil piles boundary for each PRS are located within these figures. (BPJ)

PRS 21-013(d and e) - Surface Disposal Area

8. Page 11, 3rd paragraph: It states, "Prior to the VCA, the "cold dump" area appeared to have been scraped and the material removed." Please explain the meaning of "cold dump". Has LANL investigated what was removed? Are they RCRA regulated constituents? Has LANL analyzed these in the final confirmatory sample? Please explain in detail. (BPJ)
9. Page 12, 2nd paragraph: LANL combined the sampling plans for 21-013(d)'s and 21-13(e)'s, redrew the sites to 26 grid sections, and then sampled 18 out of 26 grid sections. How were the 18 grid sections selected? What are the selection criteria? (BPJ)
10. Page 12, 2nd paragraph: LANL states, "The additional eight grid sections would only be sampled if radiation survey results indicated the presence of contamination." The statement makes little sense. Please explain what LANL tried to find by using the radiation survey? The work plan stated that the historical information indicated that non-radioactive chemicals were disposed of at this site. Radiation survey does not necessarily respond to the RCRA regulated chemicals. Besides, a radiation survey would not

identify any localized spill, or discarded chemicals. (BPJ)

11. Page 13, 2nd paragraph: It states, "The RFI work plan called for a field survey for organic vapors because of historical information indicating that non-radioactive chemicals were disposed of at this site. This survey was not done."

LANL should be required to perform the survey since they did not get approval from the Administrative Authority to "drop" the survey. (BPJ)

12. Page 13, 3rd paragraph: It states, "RFI data was collected prior to remediation, and did not include the areas beneath the waste piles (the focus of the VCA effort)." Please explain why those areas do not need to be investigated? Please provide a figure that indicates the locations of those waste piles. (BPJ)
13. Page 13, CORRECTIVE ACTION: It states, "A VCA plan for PRS 21-013(d) was prepared based on the approved VCA plan for PRS 21-013(e)..." Please specify by whom the VCA plan was approved. (BPJ)
14. Page 13, CORRECTIVE ACTION: It states, "Field screening did not indicate the presence of radioactivity or volatile organic vapors above background levels." Please explain more specifically. Was the field screening device calibrated to the background UTL for each chemicals? Please submit all the field screening results. (BPJ)
15. Page 13; 1st paragraph: LANL mentions that vapors detected during drilling were attributed to organic matter. Please explain what organic matter was involved and at what concentrations? (BPJ)
16. Page 13; 3rd paragraph: The intent of the RFI investigation should also be to "check" for areas underneath the waste piles. (BPJ)
17. Page 18, Table 2: LANL collected confirmatory samples at 0-to-3 inches for testing of VOCs and SVOCs. LANL collected surface samples at 0-to-6 inches in the past. This is not what was specified in the work plan. Besides, are they 0-3 inches from where the soil was removed? LANL shall redo two confirmatory samples at 0-6 inches. (BPJ)

18. Page 1, APPENDIX B: LANL shall compile and summarize the RFI results in a table including analyte, analytical results, location ID, sample ID, sample depth, background UTL, SAL, analysis qualifier, and detection limit. (BPJ)

PRS 21-013(e) - Surface Disposal Area

19. Page 24, LANL shall compile and submit all RFI analytical results for the site in a table including the following parameters: analyte, analytical results, location ID, sample ID, sample depth, background UTL, SAL, analysis qualifier, and detection limit. (BPJ)
20. Page 23, 2nd paragraph: The report states that debris piles were scattered in the site. Have any of those piles been separately investigated, or been included in the 26 grid sections and investigated? The debris piles may have the potential of containing contaminated wastes, they shall be investigated first. (BPJ)
21. Page 29, TABLE 3: Please explain: 1) Does "UGL" stand for "µg/L"? 2) Does "NA" and "N/A" mean the same in the column of "Loc ID" and "Depth". 3) Table 3 shall include the background UTL of each chemical when its "95% UTL of Mean" is listed. (BPJ)

PRS 31-001 - Septic System Outfall

22. Page 33, 4th paragraph: Please submit all previously-obtained site characterization data including RFI and VCA field screening results for RCRA regulated chemicals. (BPJ)