



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
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*John K. -
Please see
me on this
11/18/98*

November 18, 1998



HSWA LANL 1/1106/21

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

Re: Notice of Deficiency on the Sampling and Analysis Plan (SAP) for PRS 21-015, LA-UR-98-2901, EM/ER:98-337, Los Alamos National Laboratory (LANL), EPA I.D. NM0890010515

Dear Mr. Garcia:

The Environmental Protection Agency (EPA) has reviewed LANL's SAP for PRS 21-015 dated September 10, 1998, and has found the Plan to be deficient. EPA recommends that LANL submit a revised SAP which addresses all deficiencies. Enclosed are the deficiencies.

Should you have any questions, please feel free to contact Mr. Rich Mayer at (214) 665-7442.

Sincerely,

for David W. Neleigh, Chief
New Mexico and Federal
Facilities Section

Enclosure



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Notice of Deficiency Comments on LANL's SAP for PRS 21-015

The following comments pertain to the Sampling and Analysis Plan for PRS 21-015.

General Comments

1. LANL needs to ensure that all angled borehole descriptions include the following information in the RFI Report for PRS 21-015:
 1. Any visual or olfactory contamination should be noted;
 2. All PID or FID readings should be noted;
 3. Approximate angle of borehole;
 4. Approximate starting location of borehole;
 5. Approximate vertical depth of soil sample; and
 6. Approximate horizontal location of sample.
2. NMED is not satisfied in the manner by which a particular section of the sampling plan was written. On page 29, second paragraph, LANL mentions that VOC analysis will be collected at the end of each borehole and at two other locations along each borehole. However, on page 30, LANL mentions in the footnote of Table 3.3-2 that VOC samples will be analyzed only if field screening indicates their presence. This is contradictory to the narrative discussion on page 29. In the future, sampling plans should clearly state the sampling intervals and the types of analysis to be performed. Contradictory or deceptive language in sampling plans are not appreciated and may create a feeling of distrust towards LANL.

Specific Comments

1. **Page 27; Quality Assurance/Quality Control:** LANL mentions that the field QC samples, such as duplicates, rinsate blanks, and trip blanks, will be collected in accordance with Laboratory ER Project guidance; however, this information is not included in the sampling plan. Please submit a revised sampling plan that includes this information
2. **Page 28; Tables 3.3-1 and 2:** The SOPs for the soil sampling methods and borehole core

sampling methods are not attached to the workplan. Please submit a revised sampling plan which includes the soil sampling methods and the borehole core sampling methods.

- 3. Page 29; 1st paragraph:** LANL needs to clarify in the revised sampling plan whether all 10 sampling intervals per angled borehole will be analyzed for selected radionuclides, SVOCs, and metals? From reviewing the Appendix B Tables, it appears that there will not be 10 samples per borehole analyzed, which is contradictory to the narrative discussion of paragraph 1 on page 29. Please clarify in the revised sampling plan.

Also, LANL indicates that each borehole will be cored at the 2.5 to 5 foot interval to be screened for VOCs and radioactivity. If radionuclides or organic are detected, then subsequent intervals will be logged, photographed and inspected for fractures. For clarity, NMED will require that each borehole interval be screened and logged. Please revise the sampling plan accordingly.

- 4. Page 29; 2nd paragraph:** If practical, LANL should be using either EPA method 5021 or 5035 on cores in which the tuff is recovered in a "powered" or friable state, instead of the "Soil-Gas Sampling Procedure for Open Boreholes". VOC soil samples should be analyzed using methods 5021 or 5035 of Update III to SW-846, "Test Methods for Evaluating Solid Waste" as published in the Federal Register of June 13, 1997, Vol. 62, No. 114, pp. 32452-463. If EPA method 5021 or 5035 are not practical, please justify in the revised sampling plan.

Also, LANL mentions in the sampling plan that two VOC samples will taken from each angled borehole. LANL should clarify in the revised sampling plan whether the VOC samples taken from each angled borehole will be located underneath the trench.

- 5. Page 30; 5th bullet:** LANL mentions that boreholes 8, 9, and 10 will be located based on the analysis of the field screening instruments used during the drilling of the first seven angled boreholes. LANL should revise the sampling plan to include the analytical lab results in addition to the field screening results in determining the location of the final 3 boreholes.

If the first seven borings indicate no contamination, will the remaining boreholes be drilled? Please clarify in the revised workplan. LANL should contact NMED before a decision is made on the three remaining boreholes.

- 6. Page 30; Analytical Methods:** The detailed analyte lists, estimated quantitation limits, required QC procedures, and the acceptance criteria should be included in the sampling plan.
- 7. Page 30; Table 3.3-3:** LANL mentions in the footnote of the table that VOC samples will be analyzed only if field screening indicates their presence. This is contradictory to the narrative discussion on page 29, the next to last paragraph. In that paragraph, LANL

mentions that VOC analysis will be collected at the end of each borehole and at two other locations along the borehole. NMED will require that LANL comply with the requirements stated on page 29. If field screening instruments indicate no VOC's, LANL still must take 3 samples per angled borehole, with the 3 sample intervals being located underneath the trench.