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PETER MAGGIORE
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CERTIFIED MAIL
RETURN RECEIPT REQUESTED

January 8, 1999

Theodore Taylor, Project Manager
Los Alamos Area Office
Department of Energy
528 35th Street
Los Alamos, New Mexico 87544

Dr. John C. Browne, Director
Los Alamos National Laboratory
P.O. Box 1663, Mail Stop A100
Los Alamos, New Mexico 87545

**RE: Request for Supplemental Information
Sampling and Analysis Plan for SWMU 21-015
Los Alamos National Laboratory (LANL)
NM0890010515**

Dear Mr. Taylor and Dr. Browne:

The Hazardous and Radioactive Materials Bureau (HRMB) RCRA Permits Management Program (RPMP) has reviewed the Sampling and Analysis Plan for SWMU 21-015, dated September 10, 1998, and referenced by EM/ER: 98-337, and found it to be insufficient. The US Environmental Protection Agency provided technical comments which were considered in staff review. LANL must respond to the request for supplemental information noted in Attachment A within thirty (30) calendar days of the receipt of this letter. If DOE/LANL does not submit a complete response to the request for supplemental information or submit the information with thirty (30) calendar days a Notice of Deficiency will then be issued.

Should you have any questions regarding this letter, please contact me at (505) 827-1561 ext. 1039 or Mr. John Kieling, HRMB's LANL Facility Manager, at (505) 827-1558 ext. 1012.

Sincerely,

Robert S. (Stu) Dinwiddie, Ph.D., Manager
RCRA Permits Management Program
Hazardous and Radioactive Materials Bureau



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RSD:jek

cc: J. Canepa, LANL EM/ER, MS M992
J. Davis, NMED SWQB
B. Garcia, NMED HRMB
M. Johansen, DOE LAAO, MS A316
M. Kirsch, LANL EM/ER, MS M992
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File: Reading an/d HSWA LANL 1/1106/21
Track: LANL, 1/8/99, na, DOE/LANL, HRMB/Dinwiddie, RE, File

General Comments

1. LANL needs to ensure that all angled borehole descriptions include the following information in the 21-015 RFI Report:
 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 and analysis 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 and analysis plans should clearly state the sampling intervals and the types of analysis to be performed. Contradictory or deceptive sampling and analysis plans are not appreciated and may create a feeling of distrust towards LANL.

Specific Comments:

1. **Section 3.2 Quality Assurance/Quality Control, Page 27, paragraph 4**
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 and analysis plan. Please submit a revised sampling and analysis plan that includes this information.
2. **Section 3.3 Field Activities, Page 29, paragraph 1**
LANL needs to clarify in the revised sampling and analysis 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.

Also, LANL indicated that each borehole will be cored at the 2.5 to 5 foot interval to be screened for VOCs and radioactivity. If radionuclides or organics 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.

3. **Section 3.3 Field Activities, Page 29, paragraph 2**

If practical, LANL should be using EPA method 5021 or 5035 on cores in which the tuff is recovered in a "powdered" 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-826, "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 and analysis plan.

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

4. **Section 3.3 Field Activities, Page 30, 5th bullet**

LANL mentions that boreholes 8, 9, and 10 will be located based on the analysis of the filed screening instruments used during the drilling of the first seven angled boreholes. LANL should revise the sampling and analysis plan to include the analytical lab results in addition to the filed screening results in determining the location of the final 3 boreholes.

Please clarify if the remaining boreholes be drilled if the first seven borings indicate no contamination. LANL should contact NMED prior to locating the three remaining boreholes.

5. **Section 3.3 Field Activities, Page 30, paragraph 4, Analytical Methods**

The detailed analyte lists, estimated quantitation limits, required QC procedures, and the acceptance criteria should be included in the sampling and analysis plan.

6. **Section 3.3 Field Activities, Page 30, Table 3.3-3**

LANL mentions in the footnote of the table that VOC samples will be analyzed only if the filed screening indicates their presence. This is contradictory to the narrative discussion on page 29, the next to the 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 VOCs, LANL still must take 3 samples per angled borehole, with the 3 sample intervals being located underneath the trench.