Department of Energy
Field Office, Albuquerque
Los Alamos Area Office
Los Alamos, New Mexico 87544

DEC 1 6 1994

LANL

Mr. William Honker, Chief
RCRA Permits Branch
U. S. Environmental Protection Agency
Region 6
1445 Ross Ave., Suite 1200
Dallas, Texas 75202-2733

Dear Mr. Honker:

Subject: Response to Notice of Deficiency (NOD), Operable Unit (OU) 1071, Solid Waste Management Unit (SWMU) 0-039 Sampling Plan

Enclosed with this letter is the response to the Environmental Protection Agency's NOD for the Sampling Plan for SWMU 0-039. The NOD, which was received at the Department of Energy (DOE) Los Alamos Area Office (LAAO) on November 14, 1994, specified a due date for the response of December 2, 1994. On November 30, 1994, a request for an extension until December 16, 1994 was submitted to your office.

The New Mexico Environment Department (NMED) Underground Storage Tank (UST) Bureau also provided comments for the subject sampling plan to LAAO on November 30, 1994. A meeting was held at the NMED UST Bureau office on December 9, 1994 to verbally present responses to the UST Bureau's comments. Because the responses presented adequately addressed the NMED UST Bureau's comments, they were able to give a verbal approval at the meeting to proceed with implementation of the revised sampling plan. They requested submittal of a final document to their office instead of specific NOD response comments.

Should you have any questions regarding the enclosed NOD response, please contact me at (505) 665-7203, or Bonnie Koch at (505) 665-7202.

Sincerely,

Theodore J. Taylor
Program Manager
Environmental Restoration Program

LAAMEP:2BK-004

Enclosure

cc:
See page 2

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TV

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Response to EPA Notice of Deficiency (NOD) on the OU 1071 RFI Work Plan Addendum for PRS 0-039

This response addresses both U.S. Environmental Protection Agency (EPA), Region 6, and New Mexico Environmental Department Underground Storage Tank Bureau (UST Bureau, NMED), deficiencies and comments. After the Addendum for Potential Release Site (PRS) 0-039 was prepared, it was learned that the Mobile Chemical Analysis Lab (Chem-Van) could be configured to provide analytical data of the quality required for making decisions affecting environmental action(s) for this PRS. Furthermore, another site with similar chemical constituents was investigated by collecting both vapor and soil samples, and it is anticipated that those data will provide insights as to the benefits of using either or both types of analytical data for site risk assessments. Given that there is a standard strategy for the assessment of PRSs with these types of chemical sonstituents that does not include vapor sampling, and that this investigation should be completed as early as possible, it was decided to use only soil samples to characterize this site.

Items from the EPA List of Deficiencies.

1. *LANL needs to elaborate on how confirmation sampling locations will be chosen, and how many samples will be selected.*

Response: The exact number and location of confirmation samples along the underground pipelines cannot be determined until field activities are underway. Possible outcomes of this part of the investigation include:

- No chemicals are detected in samples collected at 20-foot intervals beneath the pipelines and there is no other evidence (e.g., stained soil that a release has occurred. In this case, no additional samples would be required.
- Low levels of chemicals are detected in one or more samples beneath the pipeline. In this case, soil in the immediate vicinity may be excavated to define extent, and a minimum of five confirmation samples would be collected along the sides and bottom of the excavation.
- High levels of chemicals are detected in one or more samples beneath the pipeline, such that excavation of contaminated soil appears impractical, e.g., the vertical extent may be many meters. In this case, the area overlying the pipelines may be backfilled to provide a working surface for initiating a soil boring program to delineate the extent of contamination.

2. *LANL may not composite core samples for chemical analysis.*

Response: The proposed soil vapor sampling has been eliminated, and composite soil samples representing similar borehole intervals is no longer necessary. Discrete samples will be collected in the manner described below, in the response to 3b.

3a. *What level of analytical data may be obtained by using the Chem-Van?*

Response: The Chem-Van will provide level 3 quality data, which is suitable for both screening and decision making purposes. It will be configured to achieve the following detection limits (the quantitation limits will be well below the SAL levels):

- Infrared spectroscopy for analysis of TPH with a detection limit of 1 ppm.
- GC/MS for analysis of VOCs using method 8240 (or 8260 capillary column) with a detection limit of 10 ug/kg for most compounds including PCE.
- Modified method 8100 will be used for analysis of a selected target SVOC list using a GC equipped with dual PID/FID detectors and dual column confirmation. Detection limits will be between 50 and 100 ug/kg for the SVOCs (Polynuclear aromatics naphthalene and 1- and 2-methylnaphthalene) detected in the tanks and in one soil sample during the Glorieta Geoscience, Inc. Mininum Site Assessment (MSA).

3b. *....LANL may be able to submit the discrete samples from each core which have the highest readings for laboratory analysis. In addition, a sample should be collected ten feet below the deepest sample for which there is no reading from the Chem-Van, and this sample should be submitted for laboratory analysis.*

Response: The revised sampling plan addresses deficiencies/comments put forth by both EPA, Region 6 and the UST Bureau, NMED. Samples will be collected from the bottom six inches of each 5-foot core run. Each soil sample will be analyzed for VOCs, specific SVOCs, and TPH.

A single borehole will be drilled between the location of the former dry cleaning tanks to determine the extent of contamination, as was proposed in the original sampling plan. The intent will be to drill to a depth ten feet below the extent of contamination. Following characterization in that borehole, four perimeter boreholes will be drilled to assess the lateral extent of contamination. These boreholes will be drilled at locations approximately 30 feet from the location of the former tanks. The area encompassed by the perimeter boreholes comprises an area approximately equivalent to a residential exposure unit. If any of the perimeter boreholes encounter contaminants, then boreholes at greater offsets along the same direction(s) will be drilled until the extent is bounded. Decisions to terminate any perimeter hole before a non-detect (ND)

for all contaminants of concern (COCs) will be made in consultation with the regulators.

4. LANL needs to provide a sampling schedule for fieldwork and for submittal of an RFI report.

Response: Since approval of the work plan is expected in December/January, only the drilling portion of the work plan is immediately feasible. The excavation portion of the investigation will be scheduled for March, when the ground should be thawed. The RFI report will be submitted by 28 July 1995, provided that only Chem-Van analyses are required throughout the investigation.

Items from the UST Bureau, NMED, not already responded to in the above responses.

4. Additional borings / sampling should be completed near the rear of the present dry cleaning facility. This is where the fill pipes to the former underground storage tanks (UST's) are located.

Response: The underground pipelines located between the building housing the dry cleaning operation and the building to the north include those that, at one time, connected the fill pipes to the solvent UST's, both of which have been removed. Task 3 of the work plan (addendum) encompasses the former fill pipe area; therefore, the work plan will not be revised to address this comment. Task 3 also includes the removal of the underground pipelines; however, the Phase I (MSA by Glorieta Geoscience, Inc.) activities included pumping cement into these pipelines. If no contamination is found in the ground associated with the pipelines, then there would not be a compelling reason to remove them. In addition, leaving the pipelines in place would reduce the amount of waste generated as part of this investigation. The regulators will be consulted before making a decision on the disposition of these pipelines.

5. Welded Bandelier Tuff was encountered at a depth of approximately 19 feet below grade during previous investigations. The work plan calls for each boring to go to a total depth of 100 feet below grade. An alternative plan should be addressed in case auger refusal is encountered.

Response: Task 4 of the work plan stated that for planning purposes, a maximum total depth of 100 feet below ground surface (bgs) is assumed. It also stated that borings B1 and B2, probably the deepest for the investigation, would have a total depth determined by the results from the Chem-Van screening-level analyses. This plan will use level 3 data to determine the total depth of the borings.

Highly welded tuff is not likely to be encountered in the boreholes, and though a backhoe could have difficulty with highly welded tuffs, the drillers could penetrate them. Core recovery may be difficult at some intervals; however, samples will be collected as close to 5-foot intervals as possible.

Planned deviations from the work plan:

Because the Chem-Van will be performing level 3 analyses, commencing minutes after sample collection, there will be no reason to use the methanol extraction/preservation step of the VOC sampling procedure.

The table in Figure 5-103 is no longer applicable due to changes in the number of boreholes and the replacement of the previously planned composite samples by discrete samples. Changes to the table and to text affected by the modifications described in this document will be reflected in a Field Implementation Plan. This plan will be prepared prior to the readiness review for the field work, and will be a part of the record for the RFI of PRS 0-039.