



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

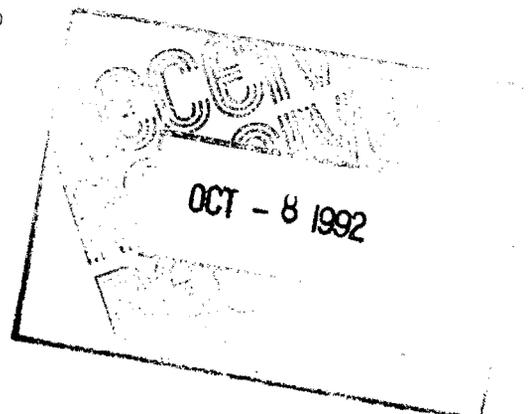
REGION 6  
1445 ROSS AVENUE SUITE 1200  
DALLAS, TEXAS 75202-2733

*Grove/ste*

OCT 05 1992.

*OU 1079*

Mr. Jerry L. Bellows  
Area Manager  
Department of Energy  
Los Alamos Area Office  
Los Alamos, New Mexico 87544



Re: RFI Work Plan for OU 1079  
Los Alamos National Laboratory  
NM0890010515

Dear Mr. Bellows:

The Environmental Protection Agency (EPA) has completed a review of the RCRA Facility Investigation (RFI) Work Plan for the Operable Unit 1079 (OU 1079), and has found the work plan to be deficient. You have sixty (60) days from receipt of this letter to address the enclosed list of deficiencies.

In addition, an error was noted in EPA's Overall Comments portion of the Notice of Deficiency (NOD) letter sent you for OU 1147. Under number 6, the NOD should have also listed SWMU 50-003(d) as not being required to be added to the permit to undergo an RFI.

Should you have any questions or require additional information, please contact Barbara Driscoll at (214) 655-6785.

Sincerely,

William K. Honker, P.E.  
Chief  
RCRA Permits Branch (6H-P)

Enclosure

cc: Benito Garcia, NMED  
Al Tiedman, LANL

*76*



3381

## LIST OF DEFICIENCIES

### Overall Comments:

1. The Implementation Dates in Table E-1 on page E-3 indicate that field work for Phase I of this RFI should be completed in FY-94, and Figure E-1 on page E-4 indicates that the RFI Report will be completed in March 1997. When is RFI field work scheduled to be completed? The time frame indicated for the final RFI Report deliverable is too long, and should be no later than 6-8 months after completion of field work.
2. In the Tables which show the laboratory analyses for the SWMU investigations in the work plan, the trigger levels for nonradionuclides are indicated to be the proposed RCRA Subpart S action levels. A copy of the Subpart S action levels should be included in the workplan, as an Appendix, so that these trigger levels can be easily located by anyone reading the work plan.
3. Los Alamos National Laboratory (LANL) should include in each work plan a list of the specific constituents for which analysis will be conducted in that work plan even though this may be repetitive of information provided in the Installation Work Plan (IWP). This information may be included as an Appendix.
4. As part of the ongoing RCRA Facility Assessment (RFA) conducted by LANL the following SWMUs do not appear to require an RFI; therefore, the HSWA permit does not need to be modified to include these units:

10-001(e)  
10-006  
Area of Concern C-31-001  
Area of Concern C-32-001

### Specific Comments

- 3.3.1 Overview of Historical Operations - TA 32 p.3-71 -  
SWMU 32-002(b) was removed in 1988, and the analyses done on this SWMU indicated concentrations of volatile organics, and semivolatiles. A summarized copy of this data should have been included in the work plan.
- 3.6.1.1.1 Firing Sites SWMU Aggregate - TA-10 p.3-131 -  
Appendix C does not contain the standard EPA method for high explosives (HE) which is a USATHAMA method.
- 5.1.2.5. Design Criteria - TA-10 p.5-20 - In the second paragraph of this section, the second sentence indicates that no contamination has been found in stream sediment samples. There is no indication from the data presented in Chapter 5 that hazardous constituents have been sampled.

If any hazardous constituents have been sampled for then the analytical results should be presented; otherwise, this sentence should be changed to read that no radioactive contamination has been previously found in the stream sediments.

**5.1.2.6.2 Sample Collection - TA-10 Channel Sediments p. 5-21 -** The Problem Statement (5.1.2.1 on page 5-15) indicates that it is expected that surface contaminants from anywhere in the TA-10 site will be concentrated in the Bayo Canyon channel. Some samples will be collected from the stream as part of this work plan and other additional samples may be collected as part of the Canyons RFI work plan. As part of a thorough investigation of this OU 1079, the channel sediments should be adequately sampled. Analysis of these samples should be for Appendix VIII constituents. The sample transects indicated should be extended further downstream to incorporate any runoff from the liquid disposal systems near the radiochemistry laboratory. LANL should sample at least two more downstream transects.

**5.2.1 DQO Process for SWMUs with Known Residual Contamination - Subsurface Disposal SWMU Aggregate p. 5-25 through 5-34 -** The definition of a maximum removal remediation volume, VMAX, is not quantified. In sampling plans for the areas of known residual contamination in TA-10, an initial borehole will be placed in the center of the existing plumes, and additional boreholes will be placed at a distance as determined by VMAX, and if the extent of contamination is not bounded by the VMAX, then three additional boreholes will be drilled at a distance two times the radius of the VMAX. LANL must present sampling plans which show actual sampling locations. It cannot be determined from the text where additional boreholes, other than the original borehole will be placed.

One of the primary purposes of an RFI is to determine the lateral and vertical extent of contamination. Text on p.5-33, the last paragraph of 5.2.1.6.2.1 SWMU 10-003(a-o) TA-10 Central Area indicates that, "Missing a plume altogether is a possibility for the Phase I sampling, but because of the data available after Phase I coring and analysis, it should not be a significant likelihood for Phase II." This is not an acceptable approach for an RFI work plan. If no plume was discovered during Phase I sampling would there be Phase II sampling?

LANL should use a more direct approach to sampling. In Chapter 3, 3.1.4.1.3 Nature and Extent of Existing Contamination p.3-48, text indicates that five plumes of contamination have been identified and diagrams for the estimated extent of these plumes are presented. Boreholes should be located just outside the edge of the estimated plumes in order to determine the extent of contamination. Samples should be analyzed for Appendix VIII constituents unless a reduction in analysis can be justified by LANL.

**5.2.2.2 The Decision Process - DQO Process for SWMUs with Unknown Residual Contamination p. 5-35** - The location of these boreholes should be identified in the work plan, so they may be evaluated.

**8.1.6 Sampling Plan - SWMU 1-002 Untreated Industrial Waste Line p. 8-12** - The sampling locations in Figure 8.1-3 do not show all the locations for the transects proposed for the Acid Canyon to Pueblo Canyon surface samples, and it is unclear if each of the three samples collected at the transect will be analyzed for TAL metals and semivolatile organics, explosives and volatiles. Please elaborate on the transect sampling and provide a figure depicting sampling locations.

**8.2.6 Sampling Plan - SWMU 45-001 p. 8-17** - Samples designated as B-3, B-4, C-5, C-7, D-7 and E-8 are not shown on Figure 8.1-3, please clarify or supply a figure with these samples located.

Also, the last paragraph of these section discusses collecting six additional surface soil samples from the canyon bottom, and the next sentence discusses collecting three samples from the canyon bottom, as does Figure 8.1-2 Flow diagram for the Phase I sampling on page 8-13, please clarify the number and location of samples.

For the 10 samples to be collected from the cliff face, it might be advisable to use best judgement in determining sample locations by sampling areas which appear to be part of drainage paths rather than collecting samples randomly as indicated in the work plan. random samples.

**8.3.6 Sampling Plan - SWMU 45-002 p. 8-19** - Describe where these boreholes will be located in relation to the drainage channel.