



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

SEP 02 1994.

Mr. Joseph C. Vozella, Assistant Area Manager
Environment, Safety and Health Branch
Department of Energy
Los Alamos Field Office
Los Alamos, NM 87544

Re: Notice of Deficiency, RFI Work Plan OU 1085
Los Alamos National Laboratory
NM0890010515

Dear Mr. Vozella:

The Environmental Protection Agency (EPA) has reviewed the RCRA Facility Investigation (RFI) Work Plan for Operable Unit 1085 (OU 1085) dated May 23, 1994 and found it to be deficient. Enclosed is a list of deficiencies which need to be addressed within thirty (30) days of receipt of this letter. Sampling plans requested need to be provided within 60 days of receipt of this letter.

Should you have any questions, please contact Barbara Driscoll at (214) 665-7441.

Sincerely yours,

A handwritten signature in black ink, appearing to read "W.K. Honker".

William K. Honker, P.E.
Chief, RCRA Permits Branch

Enclosure (1)

cc: Mr. Benito Garcia, Bureau Chief
Hazardous and Radioactive Materials Bureau
New Mexico Environment Department

Mr. Jorg Jansen, Program Manager
Environmental Restoration Program
Los Alamos National Laboratory, M992



**List of Deficiencies
Operable Unit 1085**

General Comments:

1. For sampling conducted at all SWMUs, potential contaminants of concern which are found to be above background may require further delineation of the extent of contamination. No response needed.
2. Data quality objectives should be concise and to the point. The primary purpose of this work plan should be to describe the units required for investigation and the sampling plans for those units. The format used (DQOs followed by sampling plans) is very repetitious, and as a result is also confusing. In addition, information presented in the DQOs may conflict with information presented in the sampling plans (see deficiency #12). No response needed.
3. LANL may request a Class III permit modification for removal of SWMU 12-002 from the HSWA permit. The following units do not need to be added to the permit:

C-12-006
12-003
14-008

Specific Comments:

1. Section 5.1 - A more detailed VCA plan should be submitted separately for unit 12-001(b) to EPA for approval as this will be considered the final remedy for this unit. Will removing the visible HE from the surface be sufficient to address the actual pit where HE was detonated? EPA is concerned that there may be residual HE in the pit. Is the VCA to be based on the five samples to be collected (p. 5-1-12 bottom)? Text is not clear on the use of the five samples.
2. Section 5.1.3.1, p. 5-1-7 - Is there any visible staining from the fuel use at area of concern C-12-004?
3. Section 5.1.5.2 Boundaries, p. 5-1-11 - Text indicates that the drainage path for this unit, C-12-003, will be sampled; however, a description of this event is not included in the sampling plans for C-12-003 (p. 5-1-15). LANL shall provide information related to sampling the drainage path.
4. Section 5.1.6 Phase I Sampling and Analysis Plan, p. 5-1-13 - There is no description of the grid proposed in the field screening section. This information along with a figure showing the grid should also be provided. In addition, how can you determine what two times background is until background sampling has been conducted for this area. Locations of background samples should be included in the figures.

5. Section 5.1.6.3 Sampling Summaries, p. 5-1-14 -

a. Deeper samples should be collected from the interior of the open firing site (12-001(b)). At the two biased surface sample locations, a sample should be collected at 6 inches and a deeper sample should be collected at the 18 inch to 24 inch interval. Laboratory analysis should be conducted for high explosives (HE), HE byproducts and metals for all four samples.

b. Is the interior of 12-001(a) lined or is it dirt? Biased rather than randomly located soil samples (based on field screening) should be collected from the interior of the pit.

6. 5.2.2 Description and History, p. 5.2-2 -

a. These units are listed as SWMUs however, they are currently not included in the HSWA portion of the RCRA permit for investigation. Should sampling indicate HE contamination, then these units will need to be added to the permit.

b. Text in the last paragraph of this section and in the first paragraph of Section 5.2.4.1 both refer to HE occurring at this site. What type of tests were conducted in 1959 to determine that HE was present? The activities described do not appear to include any explosives, so what is the potential source of the HE? Is there possibly another source for the HE rather than the experiments conducted here?

7. Section 5.2.5.4 Design Criteria (DQO Step 6), p. 5.2-7 - Regardless of the statistical sampling approach used, LANL shall send any samples for laboratory analysis which have a positive indication on the HE spot test kit.

8. SWMU 14-010, p. 5-3-5 - Was there a drain field associated with this SWMU? Investigatory sampling should be conducted at any outfall from the sump of in the drain field.

9. 5.3.6.2 Sampling p. 5-3-11 through 5-3-15 -

a. LANL may not defer sampling of the decommissioned sites 14-001(f), 14-002(a-b), 14-009, and 14-010. LANL shall develop sampling plans to address these areas and provide such to EPA within 60 days of receipt of this NOD. Because several of the sites are so closely located, LANL may want to develop a sampling plan to address releases for the area and not for each individual SWMU with the exception of 14-009 and 14-010. These sampling plans should include drawings detailing sampling locations for the units of concern. LANL should provide a blow-up of the areas to be sampled with building outlines and sampling locations marked. Sampling should also address the sandbags.

b. LANL needs to provide more information concerning the selection of sampling locations for the eight surface samples. A detailed drawing of the drainage paths would be helpful.

10. SWMU 14-006, p. 5.4-3 - LANL shall sample the outfall area of this SWMU. Samples should be collected at 6 inches and 18-24 inches in depth next to the outfall (even into the tuff). LANL shall provide a figure which indicates the sampling locations and the unit in more detail. Has the sump been or can it be examined for leakage?

11. 5.5.6.3 Sampling Summary, p. 5-5-8 - A deeper sample should be collected immediately below the outfall at 18-24 inches and analyzed as the other samples.

12. Text concerning SWMUs 14-002(d) and 14-002(e) is conflicting in sections 5.6.5.4.1 and 5.6.5.4.2 (p. 5-6-10). The first section indicates using six sampling points for the firing site obtained by the nomogram approach to provide an 80% chance of detecting contamination if 25% of the site is contaminated. The second section indicates that the nomogram approach indicates two samples for each PRS would provide a 75% detection probability if 50% of each PRS was contaminated. Six samples should be collected for these two units combined.

13. 5.6.6.2.3 Sampling Summaries, p. 5.6-12 -

a. SWMU 14-002(c) - It is unclear why LANL believes that contamination has escaped from this bunker. It is more likely that contamination found outside the bunker is a result of activities at SWMUs 14-002(d and e).

b. East Site Drainage Sampling, p. 5.6-15 - The four sampling locations are not indicated on any figure in this section. LANL shall provide a figure showing the location of the drainage and the sampling locations.

14. 6.1.1 Satellite Storage Area, SWMU 14-004(b), p. 6-1 - LANL should provide the background information concerning this unit. How long has the storage area been used? What is stored in this area and what type of storage is provided? Has a visible inspection of this area been conducted recently? Can LANL provide documentation that for the entire time this unit was used that spills have been cleaned up? EPA cannot evaluate the request with the limited amount of information provided. This also applies to satellite storage areas 14-004(a,c).

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B. Driscoll
6H-PN: BDRISCOLL:BD:8/31/94:J:\USER\SHARE\OU1085.NOD FILE:TECH

6H-PN OWEN
Driscoll
6H-PN NELEIGH
6H-P ACTING

2098
TA-12

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