



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
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DALLAS, TX 75202-2733

Barbara
File LANL ref

OCT 29 1993

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CERTIFIED LETTER: RETURN RECEIPT REQUESTED

Mr. Joseph C. Vozella, Chief
Environment, Safety and Health Branch
Department of Energy
Los Alamos Area Office
Los Alamos, New Mexico 87544

Re: RFI Work Plan for OU 1114
Notice of Deficiency
Los Alamos National Laboratory NM0890010515

Dear Mr. Vozella:

The Environmental Protection Agency (EPA) has reviewed the RCRA Facility Investigation for Operable Unit 1114 (OU 1114) and found it to be deficient. Enclosed is a list of deficiencies which you have thirty (30) days to respond to in full.

No deficiencies have been listed for the assumptions made in this work plan which EPA has already previously expressed disagreement, and which have been addressed by the Technical Assumptions Task Force (TATF). When approved the work plan should be implemented under the provisions that TATF has agreed to.

Should you have any questions, or need additional information, please contact Barbara Driscoll at (214) 655-7441.

Sincerely,

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

Enclosure

cc: Benito Garcia, NMED ✓
Al Tiedman, ADO, LANL, MS-A120



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List of Deficiencies

1. **Executive Summary, p. ES-4** - LANL makes the statement that "A CMS is not necessary for OU 1114; therefore, no cost estimates are required. It has not been determined yet whether or not a CMS will be needed at OU 1114; therefore, the above statement is inaccurate and should be removed from the work plan.
2. **Executive Summary** - The length of time required for the submittal of the final RFI Report is too long. LANL shall submit the final RFI report 6 months after receipt of data from the final RFI field work. LANL shall submit a schedule of the RFI with more detail. A sub-schedule for each SWMU aggregate, SWMU or AOC should be combined in a master schedule which encompasses the seven years proposed for the field activities.
3. **2.2.1 Background Information, p. 2-6** - LANL makes a conclusion that the facilities at TA-3 have never released significant amounts of hazardous constituents. This statement should be deleted. It is the goal of the RFI to determine the nature and extent of the releases. It is the goal of the CMS to determine if these releases are significant.
4. **3.5.2.3 Perched Aquifers, p. 3-13** - The statement is made that the main aquifer does not appear to be hydrologically connected to the overlying perched zones; therefore, the perched zones are not of concern as they are not drinking sources. Unless no interconnection between the perched and main aquifer can be demonstrated, the perched aquifers are potential sources of contamination to the aquifer. The perched zones are potential contamination sources to the surface water.
5. **4.2.3 Active Sites, p. 4-10** - EPA will make the final determination whether or not active sites are to be investigated, and if action will be deferred until later. The statement regarding whether or not active sites are to be investigated should be deleted from the work plan. Investigation activities can be performed even if the unit is active.
6. **4.3.1 Potential Contaminants of Concern, p. 4-11** - Initial sampling analysis will be for Appendix IX. Because the list of potential contaminants of concern (PCOC) were determined based only on archival data and the periods of operation for this Operable Unit are lengthy, it does not appear reasonable that a PCOC list can be determined for the entire Operable Unit. If LANL wishes to submit a list of PCOC for areas with recent operation and for which accurate records of hazardous constituents were maintained then EPA will consider a reduction in analysis (LANL appears to have done this in the specific sampling plans). A Target Analyte List (TAL) may be proposed based upon the results of initial Phase I analysis.
7. **5.2.1.1 Description and History, p. 5-15** - Why is AOC C-60-005 listed as an area of concern rather than as a SWMU? This unit meets the definition of a SWMU, due to the numerous spills, and

presence of hazardous constituents. LANL shall redefine this unit as a SWMU within the work plan.

8. **5.2.1.2.1 Nature and Extent of Contamination, p. 5-16 and Table 5-5 Range of VOC Analytical results at AOC C-60-005, p. 5-17** - Text and the results in the Table 5-5 do not agree.

Text indicates that carbon disulfide was found at concentrations of less than 0.1 ppm in samples from pad #2, while in Table 5-5, Pad #2, Sample #200, carbon disulfide is listed at 106 ppm. Please indicate the correct concentration of the sample.

9. **5.2.3 Data Needs and Data Quality Objectives, p. 5-21** - Text appears to indicate that four samples would nominally provide 80% confidence of detection; however, Table 5-7 indicates that only 1 sample will be sent for laboratory analysis. LANL shall submit the three samples with the highest field screening readings from SWMU 60-007(b), and the main drainage ditch TA-60-2 for laboratory analysis (total of 6 samples, plus QA/QC). Laboratory analysis shall consist of metals (TAL metals), and SVOCs (SW 8270). In addition, LANL shall include the provision in their work plan to take additional samples where contamination may be indicated to be deeper than 0-18 inches, and send these samples for the above mentioned laboratory analysis. At AOC C-60-005 the confirmatory samples should be collected from the areas of the highest field screening reading.

10. **5.3.4.1.2 Sampling, p. 5-32** - Text indicates that samples for SWMU 3-015 will be collected from the erosion channel leading from the outfall; however, Figure 5-6 makes it look like two of the samples may be collected outside of the channel. Samples should be collected from the erosion channel. All samples should be analyzed for metals (SW846 method 6010) and SVOCs. Samples should be analyzed for VOCs based on field screening.

11. **5.5.4.1.2 Sampling, p. 5-55** -

a. An additional sample needs to be collected at SWMU 3-012(b) within the actual channel area and analyzed for the same constituents as the other samples.

b. How will the locations of the five samples collected for SWMU 3-014(a,e) be determined? LANL shall include the rationale that will be utilized to determine the sampling locations for SWMU 3-014(a,e).

12. **5.5.4.1.3 Laboratory Analyses, p. 5-58** - All the samples collected at these SWMUs will be analyzed for metals using SW846 method 6010.

13. **5.6.4.1.3 Laboratory Analysis, p. 5-66** - LANL shall include analysis for the additional Subpart S metals.

14. **5.7.1.2.1 Nature and Extent of Contamination, p. 5-71** - The primary purpose of the RFI is to determine if a release has

occurred. The presence of contaminants above screening action levels (SALs) will be used to determine whether a Corrective Measure Study (CMS) will be required by EPA. Therefore, LANL cannot make the determination to not analyze for a hazardous constituent based on the theory that the concentrations of that contaminant will not be above SALs. Delete all language associated with the theory that concentrations of contaminants will not be above screening action levels.

15. 5.7.4.1.2 Sampling, p. 5-77 -

a. Analysis for metals and SVOCs should be included for two additional locations in SWMU 60-007(a) (total of three locations undergoing CLP analysis). Two of these samples should be collected from the area where the majority of spills are located.

b. A total of three confirmatory samples should be analyzed from the areas that were supposedly remediated for metals, PCBs and TPH.

16. 5.8.4.1.3 Laboratory Analysis, p.5-88 - Samples from SWMU 60-004 (c) should be analyzed for metals using EPA method 6010 found in SW846.

17. 5.8.4.1.2 Sampling, p. 5-88 - What is the purpose of the six samples located outside the fence? If there are any drainage routes located near the pond then these might be preferentially sampled. Otherwise the samples should be located closer to the pond.

18. 5.9.4.1.2 Sampling, p. 5-97 - Additional samples should be collected in the other open areas of the drainage ditch closer to the original drain outlet from TA-3-38. In addition, samples should also be analyzed for metals (SW846, method 6010) and SVOCs.

19. 5.10.1.2.1 Nature and Extent of Contamination, p. 5-102 -

a. The action level for mercury in Subpart S is 20 ppm; therefore, LANL should revise their SAL to be the same and not higher (24 ppm).

b. In addition, the presence of solvents may not be ruled out based on a visual inspection. Any samples which are field screening for TPH and have results less than 100 ppm, should be analyzed for SVOCs and metals (SW846 method 6010).

c. All the samples collected in the 3-056(c) area for which a VCA is not conducted should be analyzed for VOCs and metals (SW 846 method 6010).

d. The three samples taken in the drainage channel at SWMU 61-001 should be analyzed for SVOCs and metals (SW 846 6010).

Chapter 6, No Further Action Requests

General Comment: The statement is repeatedly made that some of the materials spilled are not target compound list (TCL) materials. It is important to note that the list of hazardous constituents (Appendix VIII) which are regulated under RCRA covers more than TCL materials; therefore, the material spilled may not be on the TCL, but may still be regulated by RCRA.

In addition, if new information becomes available for any site for which No Further Action (NFA) has been determined which indicates possible contamination then LANL will be required to investigate these areas.

SWMU 61-002, p. 6-2 - SWMU 61-001 is not currently in Module VIII of the HSWA permit whereas, SWMU 61-002 (originally listed at 3-003(c)) is in the permit. It would have made more sense for LANL to have renumbered SWMU 61-001 to 61-002 in the work plan when LANL realized this was a duplicative SWMU. For this reason, NFA is not granted for SWMU 61-002 as it is still listed for investigation under the HSWA permit. LANL should note the duplication of the SWMU numbers in their next report.

EPA will not approve NFA for the following active units without concurrent approval from the New Mexico Environment Department:

SWMU Number:

3-056(b)	61-005	3-035(b)
3-044(a)	61-006	3-001(k)

SWMU 3-038 (a,b), p. 6-7 - Were any samples analyzed for hazardous constituents? This site cannot be deferred as it is not a site actively regulated under RCRA. Being located in an active area (traffic area) does not qualify as being an actively regulated site. It appears that action is appropriate for the portion of the waste line which has not been removed. LANL shall provide sampling plans for this area which will be implemented when road work makes it possible. In addition, the information presented is not sufficient for a NFA determination.

SWMU 3-037, p. 6-11 - Additional information needs to be provided for this SWMU. It is unclear from the text what analysis was actually conducted in the 1991 sampling. If TCLP was the only analysis conducted then finding 5 ppm lead means the waste exhibits the characteristic of toxicity and is hazardous. TCLP was an inappropriate test to determine if the area had been impacted by waste management practices. In addition, it needs to be clarified if the collapsed waste line was addressed and remediated. Is this a regulated unit?

SWMU 3-028, p. 6-12 - What is the period of operation for this SWMU? Has the SWMU always been covered by an NPDES permit? This information needs to be submitted for this unit.

SWMU 3-010(a), p. 6-12 - EPA is awaiting confirmatory sampling

prior to making a decision for this SWMU.

SWMU 3-029, p. 6-13 - LANL's current actions at this SWMU under the citation issued by NMED are considered stabilization and not necessarily remediation. This SWMU should be investigated and a work plan submitted.

SWMU 3-009(a), p. 6-16 - No dates of operation are given for this SWMU. Can LANL demonstrate that the fill at this area is only from construction debris?

SWMU 3-009(d), p. 6-18 - Further information needs to be provided about this SWMU. The origin of the material should be determined. How do you tell from a visual inspection that material is not TAL, TCL or radioactive?

SWMU 60-002, p. 6-20 - LANL should ensure that these debris piles have been screened for potential radioactivity.

SWMU 3-013(c), p. 6-25 - Some confirmatory sampling should occur to ensure that there has not been a release to the environment.

SWMU 3-013(e), p. 6-27 - Ethylene glycol is listed in Appendix VIII as a hazardous constituent. In the future, LANL should clean-up these spills rather than allow them to drain to the storm drain.

SWMUs 3-036(a,c,d,e), p. 6-30 - LANL shall provide documentation from the McVey report (McVey, 1989, 17-582) for EPA review. Also in the Rationale for Recommendation section on p. 6-31, what are the areas of offsite migration of hazardous substances that the Laboratory is planning to remediate?

SWMU 3-026(d), p. 6-36 - LANL has just requested that this SWMU be added to the HSWA permit. An inspection of the tank and possibly sampling should occur. LANL should reevaluate why they requested this SWMU be added to the permit.

SWMUs which LANL requested be added to the HSWA permit in March 1993, for which NFA has been requested:

59-003
61-004(a,b,c)
3-013 (e,g)
3-020(b)

LANL may apply under a Class III permit modification for removal of the following SWMUs from the permit:

3-009(b)	3-020(a)
3-009(c)	3-018
3-009(e)	59-001
3-009(f)	3-043(e)
3-009(g)	60-006(c)
3-003(c)	3-056(a)

3-012(a)
60-002

3-039 (a)

The following SWMUs do not need to be added to the HSWA permit for investigation:

3-010(b)	60-001(c)
3-010(c)	64-001
3-010(d)	3-055(b)
3-013(d)	30-001
3-013(f)	59-002
3-013(h)	60-001(b)
61-003	60-001(d)
60-003	60-004(a)
60-005(b)	60-006(b)
3-039(b-e)	