



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6  
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DALLAS, TX 75202-2733

FILE LANL HSWA  
FOI 2 TA 12/14/07

*Bartman*

JUL 12 1996



Mr. Benito Garcia, Chief  
New Mexico Environment Department  
Hazardous and Radioactive  
Materials Bureau  
2044A Galisteo St.  
Santa Fe, NM 87505

**RE: Review of Los Alamos National Laboratory RCRA RFI Report for Potential Release Sites (PRSS) in Technical Areas 14 and 12/67, EPA I.D. No. NM0890010515**

Dear Mr. Garcia:

The Environmental Protection Agency (EPA) has completed its review of Los Alamos National Laboratory (LANL) RCRA RFI Report for Potential Release Sites (PRSS) in Technical Areas 14 and 12/67 submitted by LANL on February 15, 1996. Enclosed is a list of deficiencies which EPA recommends that LANL be allowed sixty days in which to respond.

Based upon the soil sample results presented in the report, EPA recommends that sixteen (16) sites should not be added to the LANL RCRA/HSWA permit, and another five (5) sites could be removed from LANL's current RCRA/HSWA permit. The EPA recommends that the Class 3 permit modification not be initiated by LANL until all comments have been resolved.

If you have any questions or need additional information, please contact Mr. Allen T. Chang of my staff at (214) 665-7541.

Sincerely yours,

David W. Neleigh, Chief  
New Mexico - Federal  
Facilities Section

Enclosure



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## Review Summary

### **RFI Report for Technical Areas 14 and 12/67 Los Alamos National Laboratory**

**Sites Where No Further Action (NFA) Appears Appropriate (5)**  
Based upon the information provided, EPA tentatively agrees with the NFA proposals for the following sites:

PRS 14-002(f), PRS 14-007, PRS 14-002(c), PRS 14-002(d), PRS 14-002(e)

**Sites Where it is Appropriate Not To Add To LANL RCRA/HSWA Permit (14)**

Based upon the information provided, EPA tentatively agrees the following sites are not potential SWMUs and do not need to be added to LANL RCRA/HSWA Permit:

AOC C-12-001, AOC C-12-002, AOC C-12-003, AOC C-12-005, AOC C-14-001, AOC C-14-002, AOC C-14-008, AOC C-14-004, AOC C-14-005, AOC C-14-006, AOC C-14-007, AOC C-14-009, PRS 14-004(c), Central Area Drainage

**Sites Where NFA Does Not Appear Appropriate (5)**

Because these proposed sites are still active, NFA does not appear to be appropriate:

PRS 14-001(a), PRS 14-001(b), PRS 14-001(c), PRS 14-001(d), PRS 14-001(e)

**Sites Where Additional Information is Needed (7)**

Additional information or further investigation is required for the following sites:

PRS 12-004(a), PRS 12-004(b), PRS 14-002(b), PRS 14-006, AOC C-12-004, AOC C-14-003, Firing Pad Drainage

**Sites Where VCA is Proposed or Being Undertaking (7)**

Further information will need to be provided on these sites prior to a decision being finalized:

PRS 12-001(a), PRS 12-001(b), PRS 14-001(f), PRS 14-002(a), PRS 14-009, PRS 14-010, PRS 14-003

**Sites Where Deferred Action is Proposed (4)**

Deferred action is proposed as these sites are still active:

PRS 14-001(g), PRS 14-005, PRS 14-004(a), PRS 14-004(b)

## GENERAL COMMENTS

1. RFI Reports should present all the analytical data (these which are above LANL UTL which is used as the basis for decision making. (Best Professional Judgement, (BPJ))
2. Sites which are listed on the HSWA permit, and for which LANL is proposing a VCA should still have all the analytical results submitted. The VCA report may function as the equivalent of the RFI Report, provided all the sampling and analytical data is provided in the VCA. Otherwise, LANL needs to provide the RFI data in the RFI Report. (BPJ)

## SITE-SPECIFIC COMMENTS

### AOC C-12-004

1. Section 5.6.5 (Background Comparisons), Page 5-13: The Report states that no inorganic compounds were analyzed for at this site. Unless "process knowledge" or specific waste characterization analytical data preclude analyses for inorganics, additional soil analytical data should be required. (BPJ)

### PRS 12-004(a)

2. Section 5.8.4 Field Investigation, Page 5-19: Recent radiological surveys showed that no readings greater than site-specific background. However, the result differs drastically from 1993 survey, which gave readings of approximately 10 times background. Why are the results so inconsistent? Can LANL justify the results of the recent survey? Please explain the variations in the two surveys. (BPJ)

### PRS 12-004(b)

3. Section 5.9.4.3, Page 5-25: Both samples were taken next to the aluminum pipe instead of in the pipe as specified in the Work Plan. Given that the site has no documented history, there is no knowledge of the depth of the pipe, and no knowledge of site activities, LANL shall explain the reason why they did not sample inside the pipe? (BPJ)

### PRS 14-002(b)

4. Page 5.13.3, Page 5-30: The site, as described in the Work Plan, was contaminated with uranium, lead and copper as well as explosives. That might explain why the pedestal was constructed of reinforced concrete which was 2 ft thick with a steel plate top and an 8-ft high earthen berm.

Interviews alone are not sufficient documentation to make an NFA determination. Site history and interviews can be used to guide an investigation or confirm other evidence, but are not sufficient by themselves. LANL's investigation does not meet NFA Criteria 1. (BPJ)

**PRS 14-001(a-e)**

5. Section 5.18, Page 5-35: Due to the fact that those PRSs are still associated with active firing sites and continue to be used, NFA will not be considered until decommissioning. (BPJ)

**PRS 14-006**

6. Section 5.22.7.1, Page 5-46: It states, "No inorganics were detected above background UTLs and below SALs.", however, Table 5.22.5-1 listed 7 inorganics with concentrations greater than background UTL. Please explain the results. (BPJ)
7. Table 5.22.7-3, Page 5-49: the maximum normalized thallium concentration was calculated wrong. The value should be 0.5574 instead of 0.4928, therefore, the total should be 1.5530 instead of 1.4884. (BPJ)
8. Equation 1, Page C-4: LANL used this equation to calculate the Preliminary Remediation Goals (PRG) for PRS 14-006 COPCs. However, the default value for Target Cancer Risk (TR) in the equation is  $1 \times 10^{-6}$ , as given in Risk Assessment Guidance for Superfund (RAGS) Part B (EPA 1991, 1994). Please explain why LANL used  $1 \times 10^{-4}$  instead. LANL needs to recalculate the results using a TR of  $1 \times 10^{-6}$ . (BPJ)
9. Table C-1, Page C-6: Under the row for Lead in the Table, it states, "see Section 4.1.1 for Lead Discussion." However, Section 4.1.1 does not exist. LANL shall provide the missing section or an explanation for why it is missing. (BPJ)

**AOC C-14-003**

10. Section 5.23.7.1, Page 5-53: The Report states that HMX was **estimated** (emphasized) at a concentration below its SAL of 3300 mg/kg. Please list the resulting concentration for HMX if the concentration exceeds its background UTL and explain why this information was missing from the report. (BPJ)

**Firing Pad Drainage**

11. Sections 5.34.5 (Background Comparisons); Pages 5-89 and 5-91: Copper, lead, mercury and zinc were detected at concentrations above background, but below their respective SALs. Unless site-specific circumstances preclude the possibility of the lead leaching below 6 inches, LANL shall perform TCLP tests for lead. (BPJ)