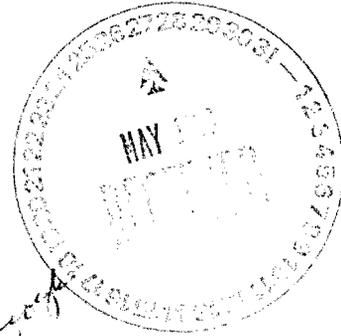




UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

May 21, 1998



*Site -
If you concern
please take the
following action
by 6/30/98 or
notify this through
the site by the
date 5/27/98*

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

**RE: Review of Response to RSI for the LANL RCRA RFI Report for
TA-1, Aggregates A, B, H, I, and J; EPA I.D. No.
NM0890010515**

Dear Mr. Garcia:

The Environmental Protection Agency (EPA) has completed a technical review of the Los Alamos National Laboratory (LANL) Response to the Request for Supplemental Information (RSI) for the LANL RCRA RFI Report for Technical Area 1, Aggregates A, B, H, I and J, dated December 19, 1997. The EPA has found parts of the Response to be deficient and enclosed is a list of deficiencies.

Based upon the information in the Response and the RFI Report, EPA recommends that five (5) sites be removed from LANL's current RCRA/HSWA permit (See Summary Page). 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 Neleigh
David W. Neleigh, Chief
New Mexico/Federal Facilities
Section

Enclosure



3261

CSIA LANL 11078/1/Aqgs A-B-H-J

TL

**SUMMARY OF RECOMMENDED ACTIONS FOR TA 1,
AGGREGATES, A, B, H, I, AND J**

SWMU	RECOMMENDED ACTIONS		
	NFA	FURTHER INVESTIGATION	COMMENTS
1-001(o)	YES	NO	NFA Criteria No. 5(*1)
1-003(d)	YES	NO	NFA Criteria No. 5(*1)
1-006(e)	YES	NO	NFA Criteria No. 5(*1)
1-007(d)	YES	NO	NFA Criteria No. 5(*1)
1-007(j)	YES	NO	NFA Criteria No. 5(*1)
1-001(a)	NO	YES	
1-003(a)	NO	YES	
1-003(e)	NO	YES	
1-006(o)	NO	YES	
1-001(e)	NO	YES	
1-001(m)	NO	YES	
1-007(e)	NO	YES	

*1: Annex B. NFA Process and Criteria, Environmental Restoration Document of Understanding (DOU), 1996.

*2: The summary is updated based LANL's RFI Report (dated March 5, 1996), and the Response to Request of Supplemental Information (RSI) (dated December 19, 1997).

**COMMENTS PERTAINING TO LANL'S RESPONSE TO RSI FOR
RFI REPORT FOR TA-1 (AGGREGATES A, B, H, I, AND J)**

1. PRS 1-007(e) - LANL Response to RSI, No. 1

EPA's COMMENT: It is true that a list of suspected contaminants is not by itself evidence of which contaminants were present at a PRS before remediation by excavation. To take them off the list, LANL should justify with new evidence to rebut that the previous information was wrong, and that the contaminants either do not exist, or they are at a level below human health concern. So far, LANL has not demonstrated this point.

First, Ahlquist's report was for radionuclides (uranium and plutonium), not for RCRA constituents. LANL mentioned "None of the three references identified a release of hazardous constituents below the Sigma Building during laboratory operations." This can be a piece of evidence; however, unknown and unnoticed release could also exist.

Secondly, LANL stated that 3 ft of soil was removed, the potential RCRA constituents could be removed too. Again, LANL did not specify where the affected area of excavation is located. Did the area cover the whole building, drain lines and septic tanks or several selected hot spots of radionuclides?

Thirdly, LANL believes that most the RCRA contaminants were gone. However "What are the level of contaminants left in the soil?".

If it is a problem to access the property, LANL could sample the drain pipelines, septic tanks, or outfall areas, which were interconnected to the building, as supplemental evidence. (BPJ)

2. Page 57, 1st paragraph of Section 5.2.5.1; LANL Response to RSI, No. 2

EPA's COMMENT: The objective of the Phase I investigations, as stated in the Executive Summary of the RFI Report, is to assess the presence or absence of residual contamination. Composite sampling could mask the hot spots of contaminant or source areas, and does not adequately achieve that objective. Moreover, the source of contamination in a landfill is not homogeneously distributed. With grab samples it would be much easier to locate the hot spot than a composite sample. Therefore, composite sampling should be avoided in this Phase.

In TABLE 2 of the Response shows that the results of grab samples are always higher than that of composite samples. If the hot spot does not exist, there should be no difference between the grab sample and the composite sample. However, how do we know that beforehand?

Sample IDs AAA1534, AAA1536, AAA1546, and AAA1540 showed Lead concentrations are 2-3 times higher than its background UTL. LANL should resample the neighborhood at surface and 1 ft deep. Since AAA1546 was composited by 7 samples, each of the 7 sample locations should be analyzed with grab sample.

3. SWMUs 1-001(a) & 1-003(a), Page 74, 7th Item, RSI No. 3

EPA's COMMENT: Besides sampling 01-2076 surface and subsurface, LANL should also collect the discrete samples from sample locations (01-2110 - 01-2116), so that LANL can demonstrate the assessment of composite samples.

4. SWMU 1-003(a)- Bailey Bridge Landfill, RSI No. 4, 4c

EPA's COMMENT: Regarding the grab sample vs. the lab duplicate sample. Which one is correct does not alter the fact that both results are much higher than the mercury background UTL, which means, a release occurred. LANL shall re-investigate the proximity of the sample location at the surface and subsurface (to 3 ft below the ground surface).

5. Page 79, 3rd paragraph, RSI No. 5, 5c & 5d

EPA's COMMENT:

5c. LANL stated that PAHs at concentrations greater than SALs are very limited, and that PAHs do not warrant further characterization. EPA does not agree. Since they are located next to a former landfill, to ease the uncertainty of a possible hot spot, sampling the locations is the best justification.

5d. As EPA stated in the SRI, if LANL believes PAHs results from non-PRS related activities, LANL could submit a sample plan to analyze samples that are collected from non-PRS related sites around the LANL.

EPA does not possess these documents that LANL cited in the Response, therefore, is unable to evaluate whether the evidence is sufficient and adequate.

6. SWMU 1-003(e); Surface Disposal Site, SRI, No.8

EPA's COMMENT: LANL must collect grab samples, not composite sample.

7. SWMU 1-001(m), Page 97, 3rd paragraph, RSI No.9

EPA's COMMENT: In many of LANL's sites that the XRF results in metals do not correlate to the fixed lab results. Finding no radionuclides does not confirm that no hazardous constituents are present. EPA considers the XRF method less reliable, and believes that LANL's explanation does not sufficiently justify the NFA for site 1001(m).