



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

'APR 26 1996

Mr. Benito Garcia, Chief  
Hazardous and Radioactive  
Materials Bureau  
New Mexico Environment Department  
P.O. Box 26110  
Santa Fe, NM 87502

Re: Review of Draft Expedited Cleanup Plan, SWMu 16-020  
Los Alamos National Laboratory (NM0890010515)

Dear Mr. Garcia:

The Environmental Protection Agency (EPA) has reviewed the draft Expedited Cleanup (EC) Plan for solid waste management unit (SWMU) 16-020 at Los Alamos National Laboratory (LANL). Enclosed is a list of comments which LANL needs to address when they revise this EC plan.

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

Sincerely,

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

Enclosure



LANL 8/1622/2016-020

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**Comments on Draft Expedited Cleanup Plan  
SWMU 16-020  
Los Alamos National Laboratory**

**General Comment:**

1. The Environmental Protection Agency previously agreed that LANL expedited cleanup plans might equate with an RFI Report submittal for a site. If LANL chooses to follow this approach, which would be more efficient than submitting both a plan and report on the same information, then LANL should submit equivalent information to that required in an RFI Report. This plan is lacking in a review of QA/QC data from the investigation, and submittal of all pertinent data as indicated below.
2. This expedited cleanup addresses human health risk, but not eco-risk which will have to be evaluated at some point in time. This site cannot be recommended for no further action until an eco-risk approach has been approved by all parties.
3. All official documents, such as final reports and certification statements should be submitted to the New Mexico Environment Department and the EPA should be copied.

**Specific Comments:**

**1. 2.1.2 Physical Setting, p. 6:**

a. LANL indicates that the thick unsaturated zone of the volcanic tuff inhibits ground water recharge by surface water infiltration. Results of recent sampling from the springs in the area of Technical Area 16 have indicated the presence of high explosives. This indicates recharge from the surface to the uppermost aquifers if not the main aquifer. LANL should revise this sentence accordingly.

b. The text states that no wells to the main aquifer have been completed at TA-16, but does not say where the closest well is. The location of the closest well completed in the main aquifer should be provided.

c. The text states that volcanic tuff is considered to inhibit ground water infiltration. The tuff can inhibit ground water recharge, but may not prevent it. Tuff can have very high porosity and permeability, as high as sandstone. This language should be deleted unless LANL can provide information, such as vertical permeability data or hydrological studies, which support it.

**2. 2.2.2 RCRA Facility Investigation, p. 8:**

- a. Text in the second paragraph indicates that geomorphic mapping of the core samples was used to determine the interface between the clay horizons. This information should have been presented in this report.
- b. Page 8: What is the depth to the tuff interface?
3. **2.2.3 Summary and Evaluation of RFI Analytical Results, p. 8:** LANL should be comparing the background results for the appropriate horizon from the background study to this area rather than using a soil UTL from all soil horizons.
- b. **Page 10:** The PAH contamination at the outfall is described as characteristic of a single release, as opposed to repeated releases. No justification is provided for this statement. This sentence should be deleted.
- c. **Page 11:** There are numerous springs in the area of this unit which would point to a perched alluvial aquifer within the area of this site. LANL should revise text accordingly.
4. **2.4.3 Cleanup Levels, p. 15:** LANL proposes a cleanup level with a target risk value of  $10^{-5}$  for carcinogenic PAHs based on the suspected contribution of the roof drain from a large asphaltic roof. LANL should determine what the actual PAH contribution from the roof. This work is proposed in Section 3.3, Cleanup Activities.
5. **3.3 Cleanup Activities, p. 17:**
- a. The text states that two soil samples were collected in February 1996 at locations guided by field screening and visual inspection. The purpose of the sampling was to check for contamination flowing down a slope outside of the drainage channel. The report should describe what type of field screening was used. Were the same screening test kits used as are being proposed for the clean-up? What were the screening results? The screening results should be compared to the analytical data, when available, and an assessment made of how well screening data correlates with laboratory data.
- b. LANL indicates that soil which screens at a value of 50% of the calculated total PAH cleanup level will be removed. Since the field screening kits measure total PAH content, does this mean that anything detected over 1.5 mg/kg will be removed (Benzo[a]pyrene and Dibenzo[a,h]anthracene both have proposed cleanup values of 3 mg/kg)? Do the detection kits being proposed for use detect PAHs at less than 1ppm 100% of the time? What is the actual detection limit and limitations for the kits?

**c. Page 21:** A screening method to determine the 95% upper confidence level (UCL) for comparison with the established cleanup level for each PAH is discussed. The screening tests for the exposure units (EUs) should be done before mobilization of equipment for excavation of the known contamination areas. This will avoid delays in any required soil removal in the EUs while waiting on the laboratory results.

6. **3.5.2 Design, p. 23:** The text states that confirmatory soil samples will be collected only from the bottom of the excavation. This procedure will not confirm that the width of the excavation is adequate to remove all contaminated soil above action levels. Confirmatory samples should also be taken from the sides of the excavation.
7. **3.5.3 Design, p. 24:**
  - a. LANL should provide the calculated 95% UCLs for the means of the constituents for which cleanup levels have been determined.
  - b. Verification samples to be collected from the remediated stretches in the areas defined by exposure units (EU) should not include previously collected data. Verification samples should be collected in the remediated areas to verify that the remediation activity was complete.
  - c. If a third verification sample needs to be collected within the EU, how will it's location be determined?
  - d. LANL indicates that "Standard good laboratory practices documented by the standard data deliverable, will suffice to ensure data quality". This statement implies that LANL will not be collecting any quality assurance/quality control samples to verify sample quality. LANL should be aware that if the useability of the data is questioned then LANL will be required to resample to confirm verification analysis. LANL shall collect appropriate QA/QC samples.
8. **3.5.3 Implementation, p. 25:** Why is the tuff not being sampled?
9. **3.6 Site Restoration Plan, p. 26:** The plan does not have a provision for maintenance of the backfilled material. LANL should provide for maintenance of graded areas, including regrading as required, reseeding, etc., until revegetation has been established to prevent erosion.
10. **3.7 Acceptance Inspection, p. 26:** The plan states that the inspection checklist, containing specific items, criteria, and requirements to be inspected, will constitute acceptance

of remediation activities. A caveat should be added, which states that the inspection checklist will constitute acceptance, unless new information becomes available or unforeseen conditions are observed. LANL would then be required to either further investigate and/or remediate suspect areas.

11. **Costs, p. 28:** The costs for some of the plans is very high. A site-specific health and safety plan should have been developed for the original investigation which should need to be updated for the construction activities.