



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

APR 03 1997

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



**RE: Technical Review of Los Alamos National Laboratory RFI
Report for Potential Release Site 21-002(b) in Technical
Area 21, EPA I.D. No. NM0890010515**

Dear Mr. Garcia:

The U.S. Environmental Protection Agency (EPA) has completed a technical review of Los Alamos National Laboratory (LANL) RCRA Facility Investigation (RFI) report for PRS 21-002(b) located in TA 21, dated July 3, 1996. The EPA has found the report to be incomplete and enclosed is a notice of deficiencies.

Based upon the soil sample results presented in the report, the EPA recommends No Further Action (NFA) request not be approved 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
David W. Neleigh, Chief
New Mexico/Federal Facilities
Section

Enclosure



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TK

NOTICE OF DEFICIENCIES
LOS ALAMOS NATIONAL LABORATORY (LANL)
RFI REPORT FOR PRS 21-002(b) in TA-21

1. Page 15, Section 3.5.1: Risk due to background, first full paragraph: "...default exposure assumptions...described in Section 3.4.2" This section does not exist in the report and is actually Section 3.5.2. (Best Professional Judgement (BPJ))
2. Page 19, Section 4.1.1 Inorganic Analyses: The reviewer does not understand why the mercury data are qualified UJ because "The recommended holding time for mercury was exceeded by about 20 days." The definition of UJ (See page 18) stated: "Estimated undetected quantity. The analyte was not detected in the sample, but there were one or more QC parameters associated with this sample that were outside allowed limits."

If mercury was not analyzed due to the holding time problem, then LANL shall resample the site for mercury. (BPJ)

3. Page 19, Section 4.1.2, Organic Analyses: The report states, "...one of more of the internal standards were outside acceptance criteria in samples AAC0111, AAC0114..." Please explain more clearly, and list those internal standards and its corresponding acceptance criteria. When the analytes are qualified UJ, this does not mean either the laboratory and LANL are free of responsibility. Situations like "...one or more QC parameters associated with this sample that were outside allowed limits.", or "...one of more of the internal standards were outside acceptance criteria...", then the laboratory must request new sample and re-analyze it. LANL must resubmit to the laboratory a new sample from that location. Otherwise, the investigation is not complete. (BPJ)
4. Page 27, Section 5.1.7.1 Screening Assessment: The reviewer questions LANL screening assessment approach used in this investigation. Multiple contaminants below SAL/AL require further evaluation due to the potential for additive or synergistic toxic effects. That is what the Multiple Chemical Evaluation (MCE) approach for. MCE assumes simultaneous exposure to all constituents by a given receptor. However, when LANL conveniently dropped some of the chemicals which have greater concentrations than their respective SAL and/or UTL priori to performing MCE, this defeated the whole purposes of MCE. (BPJ)
5. Page 29, 1st paragraph: The report states, "There are no known processes, past or present, at TA-21 that would have generated polycyclic aromatic hydrocarbons (PAHs) such as benzo(g,h,i)perylene, ...These chemicals are typically

associated with asphalt, fossil fuels, or products of combustion...These analytes are not retained as COPCs". If those PAHs are from the sources as LANL described, then PAHs would show up in the background at the same level. LANL shall have no trouble in providing supportive evidence. (BPJ)

6. Page 29, 3rd paragraph: Lead was present in one sample at concentration equal to its SAL of 400 mg/kg. We shall not overlook the fact that lead was also found at the neighboring sample locations at several times higher than the background UTL. It looks like that lead peaks at Location 21-2507 and spreads in all directions. Besides, those samples were taken from 0 - 6 inches, it is not known whether lead already infiltrated down to subsurface. LANL shall sample both surface and subsurface from Location 21-2507 to delineate the lead contamination. (BPJ)