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GARY E. JOHNSON  
GOVERNOR

State of New Mexico  
**ENVIRONMENT DEPARTMENT**  
**Hazardous & Radioactive Materials Bureau**  
2044 Galisteo  
P.O. Box 26110  
Santa Fe, New Mexico 87502  
(505) 827-1557  
Fax (505) 827-1544



MARK E. WEIDLER  
SECRETARY

EDGAR T. THORNTON, III  
DEPUTY SECRETARY

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED



4/10/20/142

June 17, 1996

Mr. G. Thomas Todd  
Los Alamos Area Office  
Department of Energy  
Los Alamos, NM 87544

**RE: Notice of Deficiency**  
**RFI Report for Technical Area 42**  
**Los Alamos National Laboratory (NM0890010515)**

Dear Mr. Todd:

The Hazardous and Radioactive Materials Bureau (HRMB) of the New Mexico Environment Department (NMED) has reviewed Los Alamos National Laboratory's (LANL) RFI Report for Technical Area 42 received October 6, 1995, and determined it to be deficient.

LANL shall provide a response to the enclosed list of deficiencies within thirty (30) days from the receipt of this letter. Please address one copy of your response to me and one to each of the individuals listed below in the copied list.

Should you have any questions concerning this Notice of Deficiency, please contact either Mr. Robert Dinwiddie at 505/827-1561 or Ms. Teri Davis at 505/827-1558 concerning permitting or technical issues, respectively.

Sincerely,

Benito Garcia, Chief  
Hazardous and Radioactive Materials Bureau

enclosures

cc: David Neleigh, Section Chief, US EPA New Mexico and Federal Facilities  
Barbara Hoditschek, RCRA Permits Program Manager, NMED-HRMB  
Jim Piatt, Chief, NMED-SWQB

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**List of Deficiencies**  
**RFI Report for Technical Area 42**  
**Received October 6, 1995**  
**Los Alamos National Laboratory**

Below are comments on the Los Alamos National Laboratory RCRA Facility Investigation (RFI) Report for Potential Release Sites 42-001(a), 42-001(b), 42-001(c) [incinerator complex], 42-002(a), 42-002(b) [decontamination facility], and 42-003 [septic system] located in Operable Unit 1129 at former Technical Area 42.

1. **3.0 Approach to Data Assessment and Analysis, p. 12** - To sample only for pre-determined contaminants of potential concern (COPCs) precludes a complete investigation being conducted. Analysis for indicator compounds for widespread areas of contamination can be justified for determining extent of contamination, but only after representative samples, analyzed for "full scan" organics and inorganics, have been evaluated for risk assessment purposes. NMED and EPA still have concerns about a reduction in analysis based on toxicity characteristic leaching process (TCLP) data.
2. **4.1 Aggregate J, p. 23** - Wastes and debris which were generated from the decommissioning of the incinerator, associated equipment in the control building and the septic tank were apparently sampled for radionuclides, prior to disposal in trenches at TA-54. Confirmation sampling for RCRA constituents was apparently not done.
3. **Table 4, p. 25** - Table 4 identifies a sample depth of 0-5 feet for "near surface" sampling at former TA-42. How can a five-foot sample interval be considered representative of a "near surface" sample even under so called "reconnaissance" circumstances? If this information was the basis of the RFI sampling plan, as stated in Section 4.1.1.2 (page 24), the results presented in the report could be deficient and the conclusions based on that data could be seriously flawed.
4. **4.1.2 Field Investigation, p. 29** - Unless samples of the fill material are available from the time it was placed, it is inappropriate that the top ten feet of material is "assumed to be clean" as the report suggests. Confirmation sampling of the fill material should be conducted to validate this assumption.
5. **4.1.2.2 Results of Field Screening, p. 32** -
  - a. An explanation should be provided to describe why an "uncertainty in the analytical results" is an adequate basis to discount downwind air sample results which are higher than upwind concentrations.

- b. If the OVA detected organic vapors in the borehole and drill cuttings, it cannot be assumed that the vapors are the result of the drill rig being located upwind from the sample location or a high moisture content in the sample, as the report suggests. The report states that the OVA recorded hits in the borehole and in several section of the split spoon sampling and not in the breathing zone. This is directly opposite of what would normally occur if the sampling zone was being impacted by vapors from a drill rig being located upwind. Furthermore, Table 5 identifies two samples containing organic compounds (PF-ST-15, PF-PLN-0), although the table attempts to discount these hits as asphalt or roofing tar, rather than report the analysis. The analytical results should be presented as found and a determination on their potential impacts should be made based on a historical review of the origin of the fill material. These analytical results further substantiate the previous comment that the fill material cannot be "assumed to be clean."
6. **4.1.3.1 Comparison with Human Health Screening Action Levels, p. 35** - The report states that five sample locations near the incinerator, with depths ranging from the ground surface to 3 feet, were analyzed for lead using EDXRF. The report indicates that no potential COCs were identified at these locations. Was the surface to 3 feet sample interval a composite or discreet sample taken within a specific interval?