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2/1100/53

**CERTIFIED MAIL  
RETRN RECEIPT REQUESTED**

October 8, 1999

Dr. John Browne, Director  
Los Alamos National Laboratory  
Post Office Box 1663, MS A100  
Los Alamos, New Mexico 87545

Theodore Taylor, Project Manager  
Los Alamos Area Office  
Department of Energy  
528 35<sup>th</sup> Street, MS A100  
Los Alamos, New Mexico 87544

**Re: NOTICE OF DEFICIENCY FOR RSI RESPONSE FOR TA-53 WP/SAP AND SAP  
ADDENDUM [PRSs 53-002 (a,b) AND 53-006(a-e)]**

Dear Dr. Browne and Mr. Taylor:

The Hazardous and Radioactive Materials Bureau (HRMB) has reviewed the Department of Energy/ Los Alamos National Laboratory (DOE/LANL) March 18, 1999 (EM/ER:99-057) RSI Response for TA-53 WP/SAP and SAP Addendum [PRSs 53-002 (a, b) and 53-006(a-e)] and found it to be deficient. A notice of deficiency (NOD) is hereby given. Attachment A lists the specific items which must be addressed by DOE/LANL within sixty (60) calendar days of receipt of this letter. If DOE/LANL fails to sign the return receipt, the sixty (60) calendar days begins as of the date of this letter. If DOE/LANL does not submit a complete response within sixty (60) calendar days an enforcement action may be taken.



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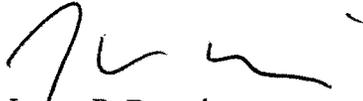
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HRMB NOD TA-53 SAP  
EM/ER:99-057  
October 8, 1999

Los Alamos National Laboratory  
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Should you have any questions regarding this letter, please contact John Kieling, at (505) 827-1558 extension 1012 or Lee Winn at (505) 827-1558 extension 1029.

Sincerely,



James P. Bearzi  
Chief  
Hazardous & Radioactive Materials Bureau

JPB/lw

cc w/attachments:

- S. Dinwiddie, NMED HRMB
- J. Kieling, NMED HRMB
- L. Winn, NMED HRMB
- P. Young, NMED HRMB
- J. Parker, NMED DOE OB
- S. Yanicak, NMED DOE OB, MS J993
- J. Davis, NMED SWQB
- D. Neleigh, EPA, 6PD-N
- J. Vozella, DOE LAAO
- J. Canepa, LANL ER, MS M992
- M. Kirsch, LANL EM/ER, MS M992
- D. McInroy, LANL EM/ER, MS M992
- File: Reading and HSWA LANL 2/1100/53

**ATTACHMENT A  
NOTICE OF DEFICIENCY  
RSI RESPONSE FOR TA-53 WP.SAP and SAP ADDENDUM  
[PRs 53-002 (a, b) and 53-006 (a-e)]**

The following comments list the original RSI comments and provide the notice of deficiency requirement.

**GENERAL COMMENTS**

3. In addition to the data summary tables presented in this work plan, LANL should present all historical and future analytical data (including QA/QC data) in electronic format.

**NOD REQUIREMENT:** There was no electronic copy of the data collected at the surface impoundments during the 1994/1995 sample campaign included as Attachment A as LANL stated in the response to the RSI. Only a printout of the data is included.

**LANL shall provide the electronic and hard copy versions of this data following the "RFI Annotated Outline" Appendix D - Analytical Suites and Results. Furthermore, tables summarizing this data should be presented in the format displayed in the "RFI Annotated Outline" Example Table 2.3-a2 Inorganic Chemicals with Concentrations at or Exceeding Background Values, and Example Table 2.3-c2 Detected Organic Chemicals**

Comments regarding screening assessment, human and ecological risk assessment and the conceptual model (General comments number 4 and 6 and specific comments number 27 and 44) will be reassessed after this phase of site characterization has taken place.

**NOD REQUIREMENT:** None.

**SPECIFIC COMMENTS:**

8. Regarding PRS 53-006(a-e), LANL should provide all previous "waste characterization strategy forms" and "waste profile forms" for all septic systems and underground tanks which were discharged to the surface impoundments including MPF-1 in building 1, and tanks 68, 69, 144, and 145. LANL should also provide MSDSs for all chemicals that were added to the tanks including corrosion inhibitors. Furthermore, LANL should sample the sludge in all holding tanks for all Appendix IX volatiles, semivolatiles, metals, and PCB's as well as radioactive isotopes.

**NOD REQUIREMENT:** LANL shall sample sludge in tanks 68 [PRS 53-006(b)], 69 [PRS 53-006(c)] and 144 [PRS 53-006 (d)], 145[PRS 53-006(e)] within 60 days of issuance of this notice of deficiency. Sampling shall be performed for all sampling suites listed in table 2.2-4 of the TA-53 Work Plan SAP, page 2-42. The regulatory authority may split samples during this sampling event.

29. Page 2-33. Section 2.2.2.1 Nature and Extent of Contamination, paragraph 3. "Contaminants that exceed the Laboratory background are...." Background values are not applicable within a land treatment unit. LANL should remove background comparisons for COPCs within the units and liner samples.

**NOD REQUIREMENT:** LANL shall report all values detected, not just those above background when presenting data from further investigations.

42. Page 2-51, Section 2.2.3.2 Media Characterization, paragraph 2. Berm Sampling of southern Impoundment "The berm surrounding the southern surface impoundment will be sampled at eight locations for two depth intervals (12-24 in...)". It is important that LANL find the hot spots where the material from the old ditch was used in the berm. This material will likely be the most elevated in radioactivity. LANL should sample every 50 feet around the berm. If co-location is verified, LANL should use field screening for sampling the berm for radioactivity. If co-location is not verified then LANL should propose systematic sampling for the berm. In addition, to prevent possible air borne contamination, LANL should include a surface sample at each sampling location.

**NOD REQUIREMENT:** "LANL believes that if the northern impoundment outfall material was used in the construction of the southern impoundment that the material will be somewhat uniformly spread throughout the berms, rather than isolated hot spots." Eight sample locations, at two depths are proposed using this assumption. HRMB does not concur with this approach. One way this problem may be solved is to use the volume of a backhoe bucket as a reasonable size for a target hotspot. LANL shall propose an acceptable statistical method to determine the number of samples to be collected in the southern berm. The proposal shall assume that the material was not spread uniformly throughout the berm.