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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

May 24, 1996

Mr. G. Thomas Todd, Area Manager
Los Alamos Area Office
US Department of Energy
528 35th Street
Los Alamos, NM 87544

Dear Mr. Todd:

RE: Notice of Deficiency (NOD) - Technical Adequacy Review of Los Alamos National Laboratory RCRA Waste Analysis Plan, Rev 0.0 EPA ID No. NM0890010515-1

The Hazardous and Radioactive Materials Bureau (HRMB) of the New Mexico Environment Department (NMED) has reviewed, for technical adequacy, the Los Alamos National Laboratory (LANL) RCRA Transuranic (TRU) Mixed Waste Analysis Plan. This plan, submitted on March 30, 1995, was required by NMED's conditional approval for the TA-54 Area G TRU Waste Inspectable Storage Project (TWISP) issued March 15, 1994.

After reviewing this document, HRMB has found the waste analysis plan (WAP) to be technically deficient. The enclosed attachment lists the requested information necessary for HRMB to proceed with other pending permit modifications which require an approved WAP. The overall structure and presentation of information in this WAP conforms with EPA guidance (OSWER 9938.4-03, April 1994), which should be followed for any additional WAPs LANL may develop. Although the LANL TRU mixed WAP differs significantly from the proposed Waste Isolation Pilot Plant (WIPP) waste characterization requirements for disposal, HRMB's review focussed solely on its use in characterizing TRU mixed wastes for storage at TA-54 Area G. DOE/LANL will have to seek a permit modification from NMED for a WIPP-compliant WAP before disposing of any TRU mixed waste at WIPP.

Submit the information listed in the attachment to HRMB within thirty (30) days of receipt of this NOD. Failure to submit the information within this designated time may result in the issuance of a compliance order with associated penalties. HRMB understands that some information listed in the NOD may require more than 30 days to develop. For this reason, HRMB will consider a petition to



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extend the deadline for submittal of specific portions of the required information if you provide a written justification and expected submittal date for each portion to HRMB before the end of the 30 day period.

If you have any questions about this NOD, please contact Mr. Steve Zappe of my staff at (505) 827-1561.

Sincerely,



Benito J. Garcia
Chief, Hazardous & Radioactive Materials Bureau

Enclosure

cc: Barbara Hoditschek, HRMB
Stu Dinwiddie, HRMB
Steve Zappe, HRMB
Jody Plum, DOE LAAO
Jack Ellvinger, LANL
LANL File - Red '96

**Technical Deficiencies in the Los Alamos National Laboratory RCRA
Waste Analysis Plan, Revision 0.0**

1. **Section 1.2, Description of TRU Mixed Waste Management Units, p. 18** - Several storage units are incorrectly identified as operating under interim status (container storage areas at the RANT facility at TA-54 West, storage unit at TA-55-185). Revise the WAP to classify these units as either permitted or pending a permit.
2. **Section 3.2, Acceptable Knowledge, p. 24+** - Although much attention is given to defining, justifying, and providing examples of acceptable knowledge, several statements concerning the implementation of "an acceptable knowledge certification program" (p. 22, second paragraph; p. 35, Section 5.2) are unsupported by necessary details describing exactly how acceptable knowledge data will be certified. Revise the WAP by providing detailed information about the acceptable knowledge certification program. LANL may wish to incorporate some of the material found in Appendix C9, "TRU Waste Characterization Using Acceptable Knowledge", of the WIPP RCRA Part B Permit Application, Revision 6 (April 1996).
3. **Section 3.3.1, Real-Time Radiography (RTR), p. 28+** - The description of RTR is unacceptably brief, and assumes the reader has prior knowledge of the technique. Revise this section of the WAP to include additional detail on the equipment used and the procedures followed; how the operators are qualified; how RTR verifies the absence of free liquids, physical form, waste classification, and waste form; how the results are documented, and provide an example of the RTR data form used to document the waste matrix parameter code. Also, provide the reference for a complete description of the procedure (Procedure 310.1, TRU Waste Characterization Sampling and Analysis Methods Manual, DOE/WIPP-91-043, April 1996).
4. **Section 3.3.2, Visual Examination, p. 29** - Insufficient details are provided on visual examination procedures. Revise this section of the WAP to include additional details on how the results of a visual examination are documented (provide example forms), and how the staff is trained. Provide a complete description of the statistical approach for selecting containers for visual examination, rather than simply mentioning the hypergeometric distribution. Much of this information is provided in the NOD Response Schedule (which is not part of the waste analysis plan), and should be reproduced here. Also, provide the reference for a complete description of the procedure (Procedure 310.2, TRU Waste Characterization Sampling and Analysis Methods Manual, DOE/WIPP-91-043, April 1996).

5. **Section 3.3.3, Headspace Gas Sampling and Analysis, p. 29+ -** The statement is made that the "drum headspace will be sampled when filters are inserted into unvented drums... a statistically selected subset of these drums will be sampled for selected VOCs..." This implies all waste codes will be subject to headspace gas analysis, yet the NOD Response Schedule emphasizes only heterogeneous waste will undergo headspace gas analysis. Revise the WAP to clarify this apparent discrepancy.
6. **Section 3.3.5 Statistical Approach for Headspace Gas and Solid Waste Sampling, p. 33 -** The "predetermined level of confidence" associated with determining whether a waste stream exhibits a hazardous characteristic is mentioned but is not provided. Again, more detail is provided in the schedule than in the waste analysis plan. Revise the WAP to provide sufficient detail about deciding whether a waste stream is hazardous for a RCRA constituent.
7. **Section 5.2, Verification of Future TRU Mixed Waste, p. 35-36 -** A verification sampling and analysis frequency of "at least 1 in 100 waste streams per year" is proposed, assuming use of the LANL Waste Profile Form and an acceptable knowledge certification program. As mentioned in comment #2, the acceptable knowledge certification program must be fully described. Also, the use of the term "waste streams" in the above context is unclear. Generally, waste analysis verification occurs at least annually for each waste stream to ensure the process for generating the waste has not changed. In fact, this condition is presently required in the LANL Hazardous Waste Facility Permit Attachment A, Section A.5.2. Revise the TRU mixed WAP to incorporate the conditions imposed in Section A.5.2 of the current WAP.
8. **Section 6.3, Procedures to Ensure Compliance with LDR Requirements, p. 36-37 -** The statement at the top of page 37 is unclear. By saying "If it is known whether or not the wastes meet applicable LDR standards," the WAP provides a conflicting "either/or" choice for conducting sampling and analysis. Revise the WAP to clearly state the situation(s) when sampling and analysis to certify LDR compliance are unnecessary.
9. **Section 7.0, List of References, Page 38 -** The title for DOE 1994a (CAO-94-1005, Revision 0, June 1994) is incorrect. Revise the list to refer to "Waste Isolation Pilot Plant Transuranic Baseline Inventory Report."