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Environmental Protection Division
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Date: September 4, 2004
Refer To: ENV-RCRA-08-173

Mr. James Bearzi
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6313

Dear Mr. Bearzi:

SUBJECT: REQUEST FOR "CONTAINED-IN" DETERMINATION FOR DRILL CUTTINGS, EXCAVATED SOIL, AND ASSOCIATED CONTACT WASTE FROM THE TA-16-340 COMPLEX AND FISH LADDER INVESTIGATION CONSOLIDATED UNITS 13-003(a)-99, 16-003(n)-99, 16-003(o), 16-026(j2), and 16-029(f)

The purpose of this letter is to request that the New Mexico Environment Department (NMED) Hazardous Waste Bureau use its authority under 20.4.1.200 NMAC §261.3(f) to determine that environmental media and associated contact waste, generated from the Los Alamos National Laboratory (LANL) consolidated units 13-003(a)-99, 16-003(n)-99, 16-003(o), 16-026(j2), and 16-029(f), TA-16-340 Complex and Fish Ladder Investigation, do not warrant management as F-listed hazardous waste, pursuant to the requirements of 20.4.1.200 NMAC §261.31. The waste consists of drill cuttings resulting from subsurface investigation, excavated soil removed as part of corrective action, and associated contact waste. LANL proposes to land apply the drill cuttings in accordance with the NMED-approved NOI Decision Tree, *Land Application of IDW Solids from Construction of Wells and Boreholes* and to manage the excavated soil and associated contact waste as nonhazardous.

The approximate volumes of wastes are:

- Drill cuttings (3.5 cubic yards) in four, one cubic yard wrangler bags
- Excavated soil and tuff (16 cubic yards) in one 20 cubic yard DOT-approved roll-off bin
- Contact waste in one, 55-gallon drum; two, five gallon buckets; and in one of the wrangler bags that also contains drill cuttings.



All three waste streams are currently being stored in two less than 90-day accumulation areas at the investigation site as hazardous waste. The waste characterization is based on direct sampling of the containerized soils and cuttings.

Based on analytical results for the cuttings and excavated soil samples, are not characteristic, but it does contain low concentrations of toluene. These results will be used to characterize the contact waste.

Documentation regarding possible sources of the contamination was reviewed to identify the source of the toluene. Based on the document review, a variety of F-listed solvents were discharged to consolidated units 13-003(a)-99, 16-003(n)-99, 16-003(o), 16-026(j2), and 16-029(f) from historical processes conducted at the TA-16-340 complex. The documentation did not identify disposal or spills of U or P-listed materials or any K-listed processes; therefore these waste numbers were not assigned. Table 1 compares the detected F-listed contaminant concentration with NMED Soil Screening Levels (SSLs) and the U.S. Environmental Protection Agency (EPA) Region 6 Human Health Medium-Specific Screening Levels (MSSLs) to determine whether the detected concentration presents a health-based concern for an industrial receptor.

According to EPA documents and associated guidance, the authorized state may also make a determination on a case-specific basis as to how the Land Disposal Restrictions (LDRs) apply to the waste when a "contained in" determination has been made. Because the maximum detected concentration of the listed contaminant from the investigation of consolidated units 13-003(a)-99, 16-003(n)-99, 16-003(o), 16-026(j2), and 16-029(f) is below the LDR treatment standards, as shown in Table 1, LANL also requests a determination from NMED that LDRs will not apply to the drill cuttings, excavated soil and associated contact waste. This would allow the excavated soil and contact waste to be disposed of as nonhazardous waste and the drill cuttings to be land applied in accordance with the NMED-approved NOI Decision Tree, *Land Application of IDW Solids from Construction of Wells and Boreholes*.

LANL believes that a "contained-in" determination for the organic constituent shown in Table 1 is appropriate because it would be protective of human health and the environment, and would allow for cost-effective disposition of the investigation-derived waste from consolidated units 13-003(a)-99, 16-003(n)-99, 16-003(o), 16-026(j2), and 16-029(f) TA-16-340 Complex and Fish Ladder investigation activities.

If you have any questions, please contact me at (505) 667-0666 or Gene Turner at (505) 667-5794.

Sincerely,



Anthony R. Grieggs
Group Leader
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EP-CAP Project File, M992
ENV-DO, File, J978
ENV-RCRA, File, K490
IRM-RMMSO, A150

Table 1

Comparison of Potential F-Listed Organic Constituents Detected in the consolidated units 13-003(a)-99, 16-003(n)-99, 16-003(o), 16-026(j2), and 16-029(f) Investigation to Soil Screening Levels and Land Disposal Restriction Treatment Standards

Constituent	Sample No.	Matrix	Maximum Concentration (mg/kg)	NMED Industrial SSL (mg/kg)¹	EPA Region 6 Industrial/Outdoor Worker MSSL (mg/kg)²	LDR Treatment Standard (mg/kg)³
Toluene	RE16-08-13731	Soil	0.000397	252	520	10

mg/kg = milligrams per kilogram

EPA = Environmental Protection Agency

MSSL = Medium Specific Screening Level

NMED = New Mexico Environment Department§

LDR = Land Disposal Restrictions

SSL= Soil Screening Level

1 – From “Technical Background Document for Development of Soil Screening Level” Revision 4.0 June 2006, New Mexico Environment Department

2 – From “EPA Region 6 Human Health Medium-Specific Screening Levels”, February 2007, US Environmental Protection Agency

3 – LDR Treatment Standards for Hazardous Wastes, Nonwastewaters, as provided in 40 CFR 268.40 and adopted by 20.4.1.800 NMAC