

TA 0654



Environmental Protection Division  
Water Quality & RCRA (ENV-RCRA)  
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Date: September 24, 2008  
Refer To: ENV-RCRA-08-195

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 AND ASSOCIATED CONTACT WASTE FROM DRILLING REGIONAL WELL R-40**

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 drilling regional well R-40, do not warrant management as F-listed hazardous waste, pursuant to the requirements of 20.4.1.200 NMAC §261.31. The Los Alamos National Laboratory (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 associated contact waste as nonhazardous waste.

Regional well R-40 is located south-southeast of MDA-H in Pajarito Canyon and was drilled to provide downgradient monitoring for potential releases from MDA-H. The approximate volumes of wastes are:

- Drill cuttings, 44 cubic yards in three 20 cubic yard Department of Transportation-approved roll-off bins
- Contact waste, 5 gallons (15 pounds) in one 5-gallon bucket

The two waste streams are currently being stored in a less than 90-day accumulation area at R-40 as hazardous waste. Both waste streams are being characterized using the drill cuttings analytical data. Based on analytical results, the cuttings are not a characteristic waste, but they do contain low concentrations of acetone, bis(2-ethylhexyl)phthalate, 2-butanone, 1,2-dichlorobenzene, methylene chloride, and tetrachloroethene. Documentation regarding possible sources of the contamination was reviewed to identify the source of the F-listed contaminants (i.e., 2-butanone, 1,2-dichlorobenzene, methylene chloride, and tetrachlorethene). Based on the document review, F-



spent solvents were discharged at TA-18, which is in the proximity of the drill site. There is a potential that the drill cuttings were contaminated by F-listed sources. The acetone is not present in sufficient quantities to be ignitable and is, therefore, not F-listed. The documentation did not identify disposal or spills of P- or U-listed wastes or any K-listed processes; therefore only F-listed contaminants are covered under this contained-in request.

LANL compared the maximum detected concentrations of F-listed contaminants from the drill cuttings to:

- NMED Residential Soil Screen Levels (SSLs)
- EPA Region 6 Residential Medium-Specific Screen Levels (MSSLs)
- EPA Land Disposal Restriction (LDR) Treatment Standards

The comparison is shown in Table 1. The maximum concentrations are less than these limits; therefore, the drill cuttings meet the criteria for land application in accordance with the NMED-approved NOI Decision Tree, *Land Application of IDW Solids from Construction of Wells and Boreholes* if the contained-in is approved.

According to EPA documents and associated guidance, the authorized state may also make a determination on a case-specific basis as to how LDR applies to the waste when a “contained in” determination has been made. Because the maximum detected concentrations of the F-listed contaminants shown in Table 1 are below the LDR treatment standards, disposal of the contact waste as nonhazardous waste is appropriate.

LANL believes that a “contained-in” determination for the organic constituent shown in Table 1 would be protective of human health and the environment, and would allow for cost-effective disposition of the investigation-derived waste from regional well R-40.

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  
Water Quality & RCRA (ENV-RCRA) Group

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LWSP 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 R-40 Drill Cuttings  
 to Soil Screening Levels and Land Disposal Restriction Treatment Standards

<b>Constituent</b>	<b>Sample No.</b>	<b>Maximum Concentration (mg/kg)</b>	<b>NMED Residential SSL (mg/kg)<sup>1</sup></b>	<b>EPA Region 6 Residential MSSL (mg/kg)<sup>2</sup></b>	<b>LDR Treatment Standard (mg/kg)<sup>3</sup></b>
2-butanone	GW40-08-14317	0.02	31800	32000	36
1,2-dichlorobenzene	GW40-08-14315	0.00057	37.4	280	6.0
Methylene chloride	GW40-08-14315	0.0078	182	8.9	30
Tetrachloroethene	GW40-08-14315	0.0064	12.5	0.55	6.0

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