

TA16



Environmental Protection Division
Water Quality & RCRA Group (ENV-RCRA)
P.O. Box 1663, Mail Stop K490
Los Alamos, New Mexico 87545
(505) 667-0666/FAX: (505) 667-5224

Date: January 6, 2009
Refer To: ENV-RCRA-09-003

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 WELL DEVELOPMENT WATER FROM DRILLING REGIONAL WELL R-25b

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 generated from drilling regional well R-25b, does 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 development water in accordance with the NMED-approved NOI Decision Tree, ENV-RCRA-SOP 10.1 *Land Application of Groundwater*.

Regional well R-25b is located at TA-16 on the mesa top on the south side of Canon de Valle adjacent to regional well R-25. The approximate volume of development water is 3000 gallons and is currently being stored in a less than 90-day accumulation area at R-25b as hazardous waste. Based on analytical results, the development water is not a characteristic waste, but does contain low concentrations of toluene. Documentation regarding possible sources of the contamination was reviewed to identify the source of the F-listed contaminant. Based on the document review, F-listed spent solvents (including toluene), were historically discharged at TA-16 facilities in the vicinity of the drill site. 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 the F-listed contaminant from the development water to:

- Human health standards for groundwater listed in 20.6.2.3103 NMAC, issued by the New Mexico Water Quality Control Commission (WQCC)



- Environmental Protection Agency (EPA) Safe Drinking Water Act Maximum Contaminant Levels (MCLs) (40 CFR §141.61)
- EPA Region 6 Tap Water Human Health Medium-Specific Screening Levels and LDR Treatment Standards (40 CFR §268.40)

The comparison in Table 1 shows the maximum concentration of toluene is less than these values, therefore the development water meets the criteria for land application in accordance with the NMED-approved NOI Decision Tree, *Land Application of Groundwater* 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 concentration of the F-listed contaminant shown in Table 1 is 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-25b.

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

ARG:JT/lm

Cy: Kathryn Roberts, NMED/HWB, Santa Fe, NM
David Cobrain, NMED/HWB, Santa Fe, NM
Gene Turner, LASO-EO, A316
Cheryl Rodriguez, LASO-EO, A316
Michael B. Mallory, PADOPS, A102
Richard S. Watkins, ADESHQ, K491
Jocelyn Buckley, ENV-RCRA, K490
John Tymkowych, ENV-RCRA, K490
Ann Sherrard, ENV-RCRA, K490
John McCann, EP-CAP, M992
Paul Huber, LWSP, M992
Matt Riggs, LWSP, M992
Mike Alexander, LWSP, M992
Mark Everett, SWSP, M992
LWSP Project File, M992
ENV-DO, File, J978
ENV-RCRA, File, K490
IRM-RMMSO, A150

Table 1

Comparison of Potential F-Listed Organic Constituent in Ground Water to Screening Levels and LDR Treatment Standards

Contaminant	Matrix	Maximum Concentration (ug/l)	NMWQCC Standards (ug/l)	EPA SDWA MCLs (ug/l)	Tap Water HHMSSLs (ug/l)	LDR Treatment Standard (ug/l)
Toluene	Liquid	0.301	750	1000	2,281	10000

ug/l = micrograms per liter

mg/kg = milligrams per kilogram

NA = Not applicable; no standard is available

HHMSSL = Tap Water Human Health Medium-Specific Screening Levels are based upon a 10^{-6} risk level for carcinogens.

LDR = Land Disposal Restrictions (LDR Treatment Standards for Hazardous Wastes, Non-wastewaters, as provided in 40 CFR 268.40 and adopted by 20.4.1.800 NMAC)