



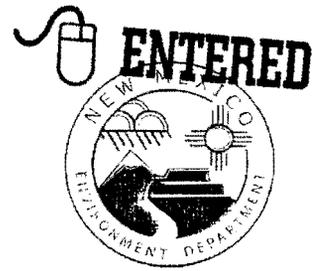
BILL RICHARDSON  
Governor

DIANE DENISH  
Lieutenant Governor

*General*  
NEW MEXICO  
ENVIRONMENT DEPARTMENT

*Hazardous Waste Bureau*

2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
Phone (505) 476-6000 Fax (505) 476-6030  
[www.nmenv.state.nm.us](http://www.nmenv.state.nm.us)



RON CURRY  
Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 5, 2010

George J. Rael  
Environmental Operations Manager  
Los Alamos Site Office  
Department of Energy  
3747 West Jemez Road, MS A316  
Los Alamos, NM 87544

Michael Graham  
Associate Director Environmental Programs  
Los Alamos National Security, L.L.C.  
P.O. Box 1663, MS 991  
Los Alamos, NM 87545

**RE: REQUIREMENT TO UPDATE GROUNDWATER BACKGROUND  
INVESTIGATION REPORT, REVISION 3  
LOS ALAMOS NATIONAL LABORATORY (LANL),  
EPA ID #NM0890010515  
HWB-LANL-MISC-GW**

Dear Messrs Rael and Graham:

The New Mexico Environment Department (NMED) hereby directs the United States Department of Energy (DOE) and the Los Alamos National Security, L.L.C.'s (collectively, the Permittees) to update the groundwater background data for the Facility. Determining appropriate and representative groundwater background conditions at the facility is required by Section IV.A.3.d of the March 1, 2005 Compliance Order on Consent (Order).

Upon NMED approval, the update will supersede the Permittee's current background document *Groundwater Background Investigation Report, Revision 3*, (Report) dated May 2007 (LA-UR-07-2853/EP2007-0250). The Permittees shall follow the procedures in U.S. Environmental Protection Agency's document titled "*Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance*", March 2009 to update the Report.

The Permittees shall not include data from drinking-water production wells or multi-level no-purge monitoring wells (e.g., R-19) in the updated Report. Background stations shall be

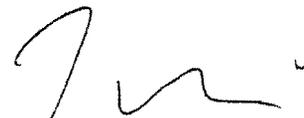


restricted to wells and springs located west of the Rio Grande and within the watersheds located between Guaje Canyon and Frijoles Canyon. Regional aquifer background locations shall be selected based on lithology or conditions of occurrence (*e.g.*, Puye Formation, tritium at activities less than 1 pCi/L, low concentrations of conservative ions such as chloride and sulfate, and the absence of anthropogenic compounds). Intermediate and alluvial locations shall be determined based on lithology, low concentrations of conservative ions, and the absence of anthropogenic compounds. Data used in determining background shall be obtained from wells where at least three casing volumes were purged prior to sample collection.

The Permittees must submit the updated groundwater background report no later than **August 31, 2010**. All submittals (including maps) must be in the form of two paper copies and one electronic copy in accordance with Section XI.A of the Order.

Please contact Michael Dale at (505) 661-2673 should you have any questions.

Sincerely,



James P. Bearzi  
Chief  
Hazardous Waste Bureau

cc: J. Kieling, NMED HWB  
D. Cobrain, NMED HWB  
K. Roberts, NMED HWB  
J. Kulis, NMED HWB  
S. Yanicak, NMED DOE OB, MS M894  
T. Skibitski, NMED DOE OB  
L. King, EPA 6PD-N  
V. George, LANS, MS M992  
P. Huber, EP-LWSP, MS M992  
H. Shen, DOE-LASO, MS A316

File: 2010 LANL, Groundwater General