



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

JON GOLDSTEIN  
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

November 12, 2008

David Gregory  
Federal Project Director  
Los Alamos Site Office  
Department of Energy  
528 35<sup>th</sup> Street, Mail Stop A316  
Los Alamos, NM 87544

David McInroy  
Remediation Services Deputy Project Director  
Los Alamos National Laboratory  
P.O. Box 1663, MS M992  
Los Alamos, NM 87545

**RE: NOTICE OF APPROVAL WITH MODIFICATIONS FOR 2008 INTERIM  
FACILITY-WIDE GROUNDWATER MONITORING PLAN  
LOS ALAMOS NATIONAL LABORATORY  
EPA ID #NM0890010515  
HWB-LANL-08-046**

Mssrs. Gregory and McInroy,

The New Mexico Environment Department (NMED) has received the United States Department of Energy (DOE) and the Los Alamos National Security L.L.C.'s (LANS) (collectively, the Permittees) *2008 Interim Facility-Wide Groundwater Monitoring Plan*, (Plan), dated May 2008 and referenced by LA-UR-08-3273/EP2008-0192. NMED hereby approves the Plan with the modifications included herein and also provides the following comments. The corrections to tables and text recommended in the following comments must be incorporated in the annual update of the Plan to be submitted in 2009.

**General Comments:**

1. The Permittees must include a table in the Plan that indicates the changes made to the sampling locations, monitoring frequency and the analytical suite from the 2007 Interim Facility-Wide Groundwater Monitoring Plan (2007 IFGMP) and provide rationale for these changes. The data as presented do not clearly point to the changes made to the

Pueblo Canyon in 2007 IFGMP. The Permittees must monitor all five alluvial wells or provide a rationale for eliminating alluvial well PAO-3 from the monitoring plan.

2. **Section 2.4.5. Springs, page 12:** The Permittees have not provided rationale for excluding GU-0.01 from the monitoring Plan. The Permittees must include rationale for changes in the Plan.
3. **Section 3.3, Monitoring Objectives, page 13:** Pesticides were detected above the applicable standards in South Fork of Sandia Canyon at E122. The Permittees are proposing to eliminate analyses of pesticides from the analytical suite. The Permittees must continue to monitor for pesticides at this location: samples must be collected annually.
4. **Section 4.4.2, Alluvial Groundwater, page 17:** The text states that alluvial well TSWB-6 in Ten Site Canyon will be monitored, but it is not included in the Table 4.4-1. The Permittees must revise the table to include TSWB-6.
5. **Section 4.4.3, Intermediate-Perched Groundwater, page 17:** Well MCOI-8 is included in the Table 4.4-1, but it is not included in the text under intermediate ground water wells. The Permittees must revise the text to include well MCOI-8.
6. **Section 4.4.4, Regional Aquifer Groundwater, page 17:**
  - a) Regional wells TW-8 and screen 2 of R-14 were included in 2007 IFGMP, but are not included in Table 4.4-1 of the Plan. The text does not provide any explanation for not including these wells in the monitoring plan. If the Permittees have determined that these locations are impacted by residual drilling fluids and may not provide representative data, then it should be explained in the text. If well rehabilitation efforts are complete at R-14, then the Permittees must propose a schedule for monitoring and an analytical suite.
  - b) A tracer test must be performed between R-1 and TW-8, prior to plugging and abandoning TW-8.
7. **Section 5.4.2, Alluvial Groundwater, page 17:** Alluvial wells PCAO-2, PCAO-3, PCAO-4 and PCAO-B were included in the Table 5.3-1 of 2007 IFGMP, but are not included in the Table 5.4-1 of the Plan. The Permittees have not explained reasons for excluding these wells from the monitoring Plan.
8. **Section 6.4.2, Alluvial Groundwater, page 22:** Alluvial well MSC-16-06294 has been excluded from the monitoring Plan, but no explanation is provided for its exclusion. Provide a rationale for not including MSC-16-06294 from the Plan.
9. **Section 6.4.4, Regional Aquifer Groundwater, page 22:** Provide the rationale for excluding monitoring of screen 2 of regional well R-26 from the Plan, since it was included in 2007 IFGMP.

well is scheduled for water-level monitoring only. The Permittees must collect samples from this well at the same frequency that R-23 is sampled and conduct full suite analyses for at least the first four sampling events.

13. **Table 6.4-1, Water (includes Cañon de Valle, Potrillo Canyon, and Fence Canyon) Watershed Interim Monitoring Plan, page 60:** The Permittees must include the two one-inch diameter screened wells located next to R-26 in all future routine monitoring events and analyze samples for full-suite analyses. In the R-26 Completion report, these wells are described as "piezometers" rather than wells; NMED disagrees with this description. RDX and HMX were detected in one of the wells when they were originally sampled. The Permittees must install a small diameter bladder pump capable of sampling to depths of 250 feet and sample for full suite analyses for at least four consecutive quarters.
14. **Table 6.4-1, Water (includes Cañon de Valle, Potrillo Canyon, and Fence Canyon) Watershed Interim Monitoring Plan, page 60:** The Permittees must change CdV-5.29 Spring to CdV-5.0 Spring. CdV-5.29 Spring represents ephemeral alluvial groundwater discharge and flow from the spring that is normally mixed with snowmelt runoff during the spring. CdV-5.0 Spring discharges from the upper Bandelier Tuff units, is perennial, is not affected by stream runoff, and better represents upgradient base-line water quality.
15. **Table 8.4-1, White Rock Canyon and Rio Grande Watershed Interim Monitoring Plan, page 66:** All springs in the White Rock Canyon should be analyzed for stable isotopes on annual basis.

Please contact Neelam Dhawan at (505) 476-6042 should you have any questions.

Sincerely,



James P. Bearzi  
Chief  
Hazardous Waste Bureau

cc:

D. Cobrain, NMED HWB  
K. Roberts, NMED HWB  
N. Dhawan, NMED HWB  
M. Dale, NMED HWB  
S. Yanicak, NMED DOE OB, MS J993  
T. Skibitski, NMED DOE OB  
L. King, EPA 6PD-N  
G. Rael, DOE LASO, MS A316  
S. Stiger, ENV MS J591  
File: Reading and LANL '08 IFGMP