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ENTERED
NEW MEXICO
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

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DAVE MARTIN
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BUTCH TONGATE
Deputy Secretary

JAMES H. DAVIS, Ph.D.
Director
Resource Protection Division

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

November 29, 2012

Peter Maggiore
Assistant Manager, Env. Projects Office
Los Alamos Site Office, DOE
3747 West Jemez Rd, MS A316
Los Alamos, NM 87544

Jeffrey D. Mousseau, Associate Director
Environmental Programs
Los Alamos National Security, L.L.C.
P.O. Box 1663, MS M991
Los Alamos, NM 87545

**RE: APPROVAL WITH MODIFICATIONS
DRILLING WORK PLAN FOR REGIONAL AQUIFER WELL R-47
LOS ALAMOS NATIONAL LABORATORY
EPA ID#NM0890010515
HWB-LANL-MISC-GW**

Dear Messrs Maggiore and Mousseau:

The New Mexico Environment Department (NMED) is in receipt of the United States Department of Energy (DOE) and the Los Alamos National Security, L.L.C.'s (collectively, the Permittees) document entitled *Drilling Work Plan for Regional Aquifer Well R-47 (Plan)* dated November 8, 2012 and referenced by EP2012-0254.

NMED has reviewed the Permittees' Plan, and hereby issues this approval with the following modifications.

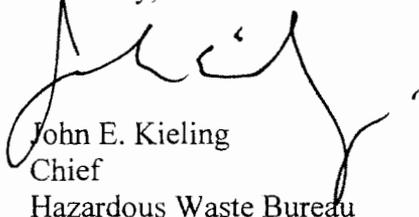
1. The Permittees must make a valid attempt to collect representative groundwater samples at the first occurrence of perched saturation. Groundwater samples shall be collected using a portable pump (e.g., submersible piston pump) placed in the borehole soon after groundwater is encountered. Samples shall be submitted for explosive compounds, volatile organic compounds, trace metals, and major-ion chemistry (e.g., nitrate as nitrogen).



2. When backfilling the well above the screened interval with sealant, the Permittees must take care not to allow bentonite sealant to migrate downward into the screened interval, such as what may have occurred at well R-64. This may warrant the placement of the fine-grained sand collar above the top of regional saturation.
3. The Permittees must take a more aggressive effort at developing well R-47 than for previously installed regional-aquifer wells. This approach may require additional swabbing and/or jetting followed by the removal of water in excess of the normal amount pumped from a newly installed regional well which usually equates to the estimated amount of drill-water injected into the regional aquifer.
4. The final location for R-47 must be selected subject to NMED consultation and approval.

Should you have any questions, please contact Michael Dale of my staff at (505) 661-2673.

Sincerely,



John E. Kieling
Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
N. Dhawan, NMED HWB
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File: Reading and LANL 2012, Drilling Work Plan for Regional Aquifer Well R-47