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**NEW MEXICO
ENVIRONMENT DEPARTMENT**

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Director
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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

December 21, 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
WORK PLAN TO RECONFIGURE WELL CdV-16-4ip
LOS ALAMOS NATIONAL LABORATORY
EPA ID#NM0890010515
HWB-LANL-12-022**

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 *Work Plan to Reconfigure Well CdV-16-4ip* (Plan) dated November 15, 2012 and referenced by EP2012-0255.

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

1. The Permittees propose the placement of a 50 foot cement plug, from 1025 feet (ft) below ground surface (bgs) to 1075 ft bgs, to act as a barrier between screens 1 and 2. Given the strong downward hydraulic gradient between the two screens, a 50 ft plug may not be adequate to isolate groundwater within the well casing. Therefore, the Permittees must set a 100 ft cement plug, from 975 ft bgs to 1075 ft bgs.



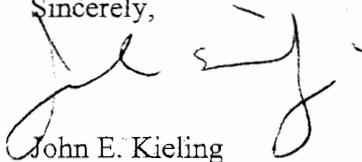
2. After reconfiguring the well, the Permittees must redevelop screen 1 by swabbing and jetting, while simultaneously pumping an adequate volume of groundwater from the well, so that turbidity and hydrochemical conditions at the screened interval are representative of the upper-deep perched aquifer.

3. The Permittees are required to conduct interim measures designed to obtain hydraulic containment of dissolved high explosives (e.g., Hexahydro-1,3,5-trinitro-1,3,5-triazine) and volatile organic compounds (e.g., Tetrachloroethylene) in the vicinity of deep-perched intermediate well CdV-16-4ip screen 1. The Permittees' must submit an Interim Measures Work Plan that details the removal, treatment, and disposal of contaminated groundwater from CdV-16-4ip screen 1 and long-term monitoring and maintenance of the remediation system. The work plan must also provide a completion date for installation of the remedial system and an operational start-up date. Section VII.B.2, Interim Measures Work Plan, of the March 1, 2005 *Compliance Order on Consent*, requires the Permittees to submit the Interim Measures Work Plan within 90 days of notification that interim measures are required.

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The Permittees are required to complete the reconfiguration of well CdV-16-4ip no later than June 30, 2013 and submit a summary report of reconfiguration activities no later than **August 31, 2013**. The Permittees are required to submit the Interim Measures Work Plan no later than **March 22, 2013**. 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
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File: Reading and LANL 2012, Work Plan Reconfigure Well CdV-16-4ip