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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

January 11, 2010

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Michael J. Graham
Associate Director Environmental Programs
Los Alamos National Security, L.L.C.
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**RE: APPROVAL WITH MODIFICATIONS
LOS ALAMOS AND PUEBLO CANYONS
SEDIMENT TRANSPORT MONITORING PLAN
LOS ALAMOS NATIONAL LABORATORY
EPA ID # NM0890010515
HWB-LANL-09-059**

Dear Messrs. Rael and Graham:

The New Mexico Environment Department (NMED) is in receipt of the United States Department of Energy and Los Alamos National Security, LLC (collectively, the Permittees) *Submittal of the Monitoring Plan for Los Alamos and Pueblo Canyons Sediment Transport Mitigation Project* (Plan), received on October 15, 2009 and referenced by EP2009-0520. NMED hereby approves the Plan with the following modifications.

1. Monitoring Geomorphic Changes, page 1.

The Permittees propose to document geomorphic changes "associated with unique runoff events." The criteria for determining a unique runoff event is not defined. The Permittees must develop such criteria and inspect for geomorphic changes in those portions of Los Alamos and Pueblo Canyons where storm water controls are present after floods containing flow rates greater than 50 cubic feet per second (cfs) or floods that exceed the channel-forming flow rate.

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2. Monitoring Geomorphic Changes, Pueblo Canyon, page 2.

The Permittees must inspect erosion and sediment control structures and monitoring stations after significant storm events (*e.g.*, storm events resulting in flows sufficient to trigger sample collection at the sampling stations listed in the Plan or as defined in Item 1 above) and make repairs as necessary to ensure such structures and other storm water mitigation features continue to function as intended.

3. Monitoring Geomorphic Changes, Los Alamos Canyon, page 2.

The Permittees must measure the level of infilling that occurs in each of the basins located behind the Los Alamos Canyon Low-head Weir annually in November or December of each year beginning in 2010. This may be accomplished either by installing gauges in the center of each retention basin that will allow measurement of sediment accumulation or by surveying the elevation of the center of each retention basin.

The Permittees must document the infilling that occurs annually in the retention basins located at the base of the LA-SMA-2 drainage using the same method as that used for the Los Alamos Canyon Low-head Weir.

4. Monitoring Storm Water Runoff, page 3.

The Permittees must collect samples beginning ten minutes after sufficient flow exists to trip the samplers. NMED approves of collection of samples during the initial increase in flow and the initial recession of flow rates at the monitoring stations as proposed.

5. Table 1, Sample Locations and Analytical Suite, page 9.

In addition to the sample analytical suites proposed in Table 1, the Permittees must add the analyses listed below in accordance with the requirements of Consent Order Section VIII.C (to meet the requirements of 20.6.4.900.J NMAC):

1. Los Alamos Canyon Monitoring Group (locations E038, E039, E040, E026, E030, E042): gross alpha, isotopic uranium and target analyte list (TAL) metals.
2. Pueblo Canyon Monitoring Group (locations E055.5 E055, E056, E059): dioxins/furans.
3. LA-SMA-2 (sampling location directly below the spillway from the lower retention basin): polychlorinated by phenyls (PCBs), suspended sediment concentration (SSC), gross alpha/beta, isotopic uranium and TAL metals.

The Permittees must ensure that the sampling equipment installed at each monitoring location is capable of collecting sufficient sample volume during each sampling event to complete all the required analyses included in Table 1 and this Item (5). The sampling equipment must be

maintained in good working order so that all significant storm events at each location can be sampled at each monitoring location where there is sufficient flow to trigger the samplers.

6. Table 2. Sampling Design, page 10.

Table 2 applies only to the extent that the actions listed contribute to the objectives for sample collection listed in Page 3 (Sampling) and Tables 1 and 3 of the Plan.

7. Table 3. Analytical Requirements, page 11.

1. Chemical analysis for PCBs must be conducted using EPA Method 1668A or EPA Method 1668 as updated if the method is improved.
2. Chemical analysis for dioxins and furans must be conducted using EPA Method 1613B.
3. Method detection limits must comply with the requirements of Consent Order Section IX.C.
4. Samples collected for metals analyses must be analyzed for both total metals and dissolved phase metals.

All alternate laboratory analytical methods must be approved by NMED prior to use.

NMED approves of the Permittees' proposed schedule for reporting. As proposed in the Plan, the initial report documenting baseline geomorphic conditions must be submitted by **May 30, 2010**. A report documenting all geomorphic changes in Pueblo and Los Alamos Canyons including sediment accumulations behind storm water retention structures must be submitted by **May 30 of each year beginning in 2011**. An annual monitoring report that summarizes analytical and flow measurement data obtained during the previous year must be submitted by **February 28th of each year beginning in 2011**. The flow measurements must be reported in cfs and obtained at a minimum frequency of once every five minutes during significant storm events to allow for development of storm event hydrographs. The annual report must also describe any damage to monitoring stations and storm water control structures and the actions taken or proposed to repair any damage that occurred during the previous year. The monitoring plan shall be updated, as necessary, and submitted to NMED for review by **March 31 of each year beginning in 2011**.

Messrs. Rael and Graham
January 11, 2010
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Should you have any questions or comments, please contact Dave Cobrain at (505) 476-6055.

Sincerely,



James P. Bearzi
Chief
Hazardous Waste Bureau

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file: Reading and LANL Los Alamos and-Pueblo Canyons Sediment Monitoring Plan (Los Alamos-Pueblo Canyons Surface Water)