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EP2012-5086

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

April 16, 2012

Pete Maggiore,
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: NOTICE OF DISAPPROVAL**
**2012 MONITORING PLAN FOR LOS ALAMOS AND PUEBLO CANYONS SEDIMENT TRANSPORT MITIGATION PROJECT**
**LOS ALAMOS NATIONAL LABORATORY (LANL)**
**EPA ID #NM0890010515**
**HWB-LANL-12-016**

Dear Messrs. Rael and Graham:

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) *2012 Monitoring Plan for Los Alamos and Pueblo Canyons Sediment Transport Mitigation Project* (Work Plan), dated March 2012 and referenced by LA-UR-12-1080/EP2012-0044. NMED has reviewed the Work Plan and hereby issues this Notice of Disapproval (NOD). The Permittees must address the following comments.

## GENERAL COMMENTS:

1) Based on the multiple missed sampling opportunities in 2011, in the future, stormwater samples must be removed from the sampler and the samplers restored to ready condition within one business day after any event that triggers the sampler. In addition, during dry periods with no appreciable precipitation, field crews must inspect all gages and samplers on a weekly basis in order to repair any observed malfunctions (e.g., accidental triggering of the sampler or silting of the sampling line). If field crews are unable to repair damaged equipment at the time of sample retrieval or sampler inspection, the equipment must be repaired within two business days of discovery of the need to make repairs.

2) In Section 2.4, Damage and Repairs, of the *2011 Los Alamos/Pueblo Watershed Stormwater Performance Monitoring Report* (2011 Report) the Permittees state, "[t]he flume at E109.9 was cleared of sediment 19 times during the 2011 monitoring season." In addition, the Permittees list at least eight events at E109.9 that were negatively affected by silting of the sampler intake. The Permittees must evaluate the effectiveness of the flume at E109.9 and determine if modifications to the flume will help to avoid sediment trapping in the future.

   The Permittees must also evaluate the effectiveness of the 5-cfs triggering flow criteria to determine if a higher flow trigger, i.e., 10-cfs, 20-cfs, 30-cfs, is more appropriate for this location. In 2010 and 2011 combined, only one sample was collected during a flow of less than 30-cfs at E109.9. Increasing the flow trigger criteria would allow raising the sample intakes further from the surface of the stream, thereby reducing the chances of sampler intake silting.

   The Permittees must perform similar evaluations, and possibly implement modifications, at other stations that have silting issues in order to minimize missed sampling opportunities. In the future, the Permittees must identify recurring problems and develop solutions to mitigate the problems within the same stormwater sampling season.

3) In Section 3.2, Water and Sediment Transmission, of the 2011 Report, the Permittees state that, "the wide open channel makes it difficult to develop a reliable rating curve" for Guaje Canyon. Although difficult, it is possible. The Permittees must establish a rating curve for the E099 gage in order to estimate flow discharge from Guaje Canyon.

## SPECIFIC COMMENTS:

4) **Section 3.0, Monitoring Stormwater Runoff, Page 4, 1st paragraph**

   **Permittees' Statement:** "As directed in the approval with modifications for the 2011 monitoring plan (NMED 2011, 203705), sampling was conducted in Graduation Canyon during 2011. The results of these analyses were reported in the March 2012 "Stormwater Performance Monitoring in the Los Alamos/Pueblo Watershed during 2011" (LANL 2012, 211396). Continued monitoring at this location is not proposed."

**NMED Comment:** The data from this location was not evaluated in the Report and no reason is given in the Plan to discontinue sampling. The average level of PCBs in the suspended sediment at this location in 2011 is the second highest of all the locations monitored and is second only to that below SWMU 01-001(f). Continue to monitor at this location. The Permittees may reduce the analytical suite to PCBs and SSC.

5) **Section 3.2, Sampling and Analysis, page 5, 2nd paragraph**

**Permittees' Statement:** "Evaluation of stormwater data from the LA/Pueblo watershed and other parts of the Pajarito Plateau (e.g., LANL 2011, 207316) indicate that gross alpha, gross beta, radium-226, and radium-228 results are dominated by background conditions and are not useful for monitoring potential Laboratory impacts on stormwater quality. Therefore, the Laboratory proposes to discontinue these analyses in 2012 for the evaluation of sediment transport mitigation."

**NMED Comment:** Continue to monitor for gross alpha, gross beta, radium-226, and radium-228 only at E050.1, E060.1, and 109.9. Continue monitoring for filtered radionuclides, including Sr-90, at E0109.9 only. The need to monitor for radionuclides may be re-evaluated after the DOE-Buckman Direct Diversion Board memorandum of understanding discontinues the requirement and the effects of the Las Conchas fire have been adequately assessed.

6) **Section 4.0, Reporting, page 6**

**Permittees' Statements:** "Previous plans proposed reporting analytical and discharge data for each water year (October to September) and accompanying discussion, annually on February 28. Beginning in 2011, the Laboratory also included runoff events in October in the annual report because fall storms can be important in the total sediment transport in some years, and providing a complete set of calendar-year events seemed more appropriate than waiting to report on October events until the following year's report. Because the monitoring period has been extended by 1 mo, the Laboratory proposes to extend the reporting date by 1 mo as well, to March 31 of each year, to allow a more complete evaluation of data. This report delivery schedule will allow time to combine analytical data from off-site laboratories with finalized discharge data from the gage stations, the latter of which typically requires 3 mo for data processing (e.g., January 31 for discharge data obtained in October of the previous calendar year) and sufficient time for data evaluation."

"Because of the proposed changes to the annual report date to March 31, the Laboratory proposes also to change the date for the annual update of the monitoring plan to April 10. This later date to submit the plan will allow insights gained from evaluation of the previous year's data to be better incorporated into the plan."

**NMED Comment:** The submittal dates for both the annual report and the annual update to the monitoring plan were negotiated with the Permittees in 2011. The dates were selected based on the ability of NMED and the Permittees to review and revise the updates to the

monitoring plan based on the information from the previous year's monitoring report within a timeframe that allowed the Permittees to implement changes before the start of the next sampling season.

Later submittal dates would return both NMED and the Permittees to the same situation that initiated the change in submittal dates in 2011. The Permittees must submit the annual monitoring report by February 28 of each year and the annual update to the monitoring plan by March 10 of each year.

The Permittees must address the comments herein and submit a revised 2012 Monitoring Plan for Los Alamos and Pueblo Canyons Sediment Transport Mitigation Project by **April 30, 2012.** 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. In addition, the Permittees must submit a redline-strikeout version that includes all changes and edits to the Report (electronic copy) with the response to this NOD. The Permittees must also address all comments herein for the 2012 stormwater sampling season and subsequent report.

Please contact Ben Wear at (505) 476-6041 should you have any questions.

Sincerely,

John E. Kieling
Acting Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
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File: LANL 2012, Los Alamos/Pueblo Watershed