State of New Mexico
ENVIRONMENT DEPARTMENT

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CERTIFIED MAIL – RETURN RECEIPT REQUESTED

June 29, 2018

Doug Hintze, Manager
Environmental Management
Los Alamos Field Office
P.O. Box 1663 MS-M984
Los Alamos, NM 87545

Nick Lombardo, Program Manager
Newport News Nuclear BWXT-LA (N3B)
600 Sixth Street
Los Alamos, NM 87544

RE: APPROVAL
2017 MONITORING REPORT FOR LOS ALAMOS/PUEBLO WATERSHED SEDIMENT TRANSPORT MITIGATION PROJECT
LOS ALAMOS NATIONAL LABORATORY
EPA ID #NM0890010515
HWB-LANL-18-021

Dear Messrs. Hintze and Lombardo:

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) *2017 Monitoring Report for Los Alamos/Pueblo Watershed Sediment Transport Mitigation Project* (2017 Monitoring Report) dated and received April 24, 2018, and referenced by LA-UR-18-23237/EP2018-0014. This document satisfies the fiscal year 2018 milestone #4 of the Appendix B, Milestones and Targets, of the 2016 Consent Order. Subsequent to submittal of the 2017 Monitoring Report, DOE transferred this effort from LANS to DOE's contractor Newport News Nuclear BWXT-LA (N3B), which is also a Permittee under the Los Alamos National Laboratory Hazardous Waste Facility Permit, EPA ID#NM0890010515. Hereafter, DOE and N3B are collectively referred to as the Permittees.

The Permittees have met their obligation to monitor the performance of the Los Alamos/Pueblo Watershed for 2017. The Permittees' bank and thalweg surveys appear to demonstrate stability in banks and channels, and the Permittees report minor geomorphic change in 2017. The Permittees report a reduction in peak discharge and suspended sediment migration in 2017,

indicating that the grade control structures and willow plantings and associated floodplains performed as designed.

NMED has completed its review and hereby approves the 2017 Monitoring Report with the following comments:

1. **Section 5.0 Changes from the 2016 Report, page 15**

   Permittees Statement: The difference between measured and estimated total metals concentrations is analyzed at E050.1, the only gaging station where total metals were analyzed in 2017 (no runoff event larger than 5 cfs, the sampler trip level, was measured at E060.1). Unfortunately, the sediment content of the two samples collected at E050.1 was not enough to analyze TAL metals in the sample sediment fraction on a dry weight basis.

   NMED Comment: In NMED's Response to 2015 Monitoring Report NMED agreed that the Permittees could discontinue this SSC analysis, provided that the Permittees continue to verify their expected results as stated in their 2016 Monitoring Plan (dated April 28, 2016) to "collect storm water in two 1-L bottles from each storm event at E050.1 and E060.1." The Permittees have attempted to verify these results in 2016 and 2017 but were unsuccessful both years. The Permittees must attempt to collect samples from E050.1 and E060.1 in future monitoring.

2. **Table 2.3-1 Maximum Daily Discharge and Storm Water Sampling in the LA/P Watershed during 2017, page 56**

   NMED Comment: NMED notes that the Permittees have improved their overall sample collection efficiency in 2017. The Permittees have reduced the number of events below gage station trigger threshold where no sample was collected from 97/130 (~74%) in 2016 to 94/143 (~65%) in 2017; and have increased the number of events where a sample was collected from 24/130 (~18%) in 2016, to 33/143 (~23%) in 2017.

3. **Table 4.4-2 Relative Percent Difference between Measured and Estimated Metals Concentrations at E050.1, pages 125-126**

   NMED Comment: The order of columns (estimated vs measured) is inconsistent between pages 125 and 126. Please use consistent column order in future monitoring reports.

4. **A3-5.0 Conclusions and Recommendations, page A3-8**

   Permittees Statement: One recommendation is to evaluate the use of unmanned aerial vehicles for the collection of LiDAR data with the LA/P watershed. Both cost reduction (as compared with scanning the entire Laboratory) and response time (e.g., quicker deployment) are benefits of this now well-established technology.

NMED Comment: During the January 22, 2018 meeting, NMED stated that it "generally agrees with this change but requests that information regarding data resolution and the margin of error for drone-based LiDAR surveys be provided first. NMED also requested a discussion comparing drone-based LiDAR surveys to data collected from previous LiDAR surveys." The Permittees have not provided this information in the 2017 Monitoring Report and must provide this information to NMED, and obtain approval prior to implementing this change.

The next annual monitoring report must be submitted to NMED no later than **April 30, 2019**.

If you have any questions regarding this letter, please contact Siona Briley at (505) 476-6049.

Sincerely,

John E. Kieling
Chief
Hazardous Waste Bureau

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