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CERTIFIED MAIL – RETURN RECEIPT REQUESTED

August 7, 2015

Christine Gelles, Acting Manager
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Michael Brandt, Associate Director
Environment, Safety, Health
Los Alamos National Laboratory
P.O. Box 1663, MS K491
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**RE: REQUEST FOR CERTIFICATE OF COMPLETION
SOLID WASTE MANAGEMENT UNIT 01-002(B)-00
PUEBLO CANYON AGGREGATE AREA
EPA ID #NM0890010515
HWB-LANL-14-066**

Dear Ms. Gelles and Mr. Brandt:

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) *Request for Certificate of Completion with Controls for One Solid Waste Management Unit in the Pueblo Canyon Aggregate Area* (Request), dated September 30, 2014 and referenced by EP2014-0462.

Solid waste management unit (SWMU) 01-002(b)-00 consists of a former radioactive liquid waste outfall in the South Fork of Acid Canyon and the canyon drainage below the outfall. Reaches ACS and AC-3 comprise the drainage area for SWMU 01-002(b)-00. SWMU 01-002(b)-00 is part of consolidated unit (CU) 45-001-00. The consolidated unit was associated with past wastewater treatment and disposal activities at technical area (TA)-45 which served as the Laboratory's first radioactive liquid waste treatment facility. This outfall was used to discharge untreated radioactive liquid waste generated in laboratories and research facilities from 1943 through 1951. The outfall pipe and affected tuff located around the outfall were removed during demolition activities conducted at TA-45. In 2001, an interim action was conducted in the South Fork of Acid Canyon, downstream from the outfall to reduce the potential radiation exposure to recreational users of the area.

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The Permittees state that “[T]he data evaluation in the investigation work plan concluded that the nature and extent of contamination was defined for SWMU 01-002(b)-00 and that no additional sampling was necessary at this site as part of the Pueblo Canyon Aggregate Area investigation.” It is not clear if a risk evaluation was conducted for the outfall area after it was concluded that the nature and extent of contamination was defined.

The *Phase II Investigation Report for Pueblo Canyon Aggregate Area* (September 30, 2010) indicates that additional sampling at CU 45-001-00 was limited to defining the nature and extent of mercury and silver contamination at SWMU 45-004. Risk assessments were conducted for the entire CU 45-001-00 that indicated no potential unacceptable risk to human health or ecological receptors. The Approval with Modification letter for the Phase II Investigation Report for Pueblo Canyon Aggregate Area, dated December 23, 2010, directed the Permittees to evaluate the vapor intrusion pathway into indoor air under a residential scenario. It is not clear if this evaluation was conducted for the CU and results provided to NMED. In addition, SWMU 01-002(b)-00 is listed on the permit as an individual unit and to make a determination of corrective action complete, the Permittees must demonstrate that SWMU 01-002(b)-00 (outfall area and associated drainages) does not pose unacceptable risk to human health and the environment.

The data for the samples collected in the reaches ACS and AC-3 were presented in the 2004 *Los Alamos and Pueblo Canyons Investigation Report* (LAPCIR) and the 2005 *Los Alamos and Pueblo Canyons Supplemental Investigation Report* (Supplemental Report). Section 9 of the LAPCIR (page 9-1) states that “[R]each AC-3 has the highest calculated RME risk of 3×10^{-5} for the trail user exposure scenario and 2×10^{-5} for the extended backyard exposure scenario,” which exceed the NMED target risk of 1×10^{-5} . The residential land use target risk and dose also were exceeded. The Permittees revised the risk assessments for the reaches in Los Alamos and Pueblo Canyons including reaches ACS and AC-3 based on comments received from NMED, and presented them in the Supplemental Report. The Supplemental Report (*see* page 12) also states that the combined exposure risk from sediment and water in reach AC-3 for the trail-user and extended-backyard scenario is greater than acceptable limits.

The data used to justify a certificate of completion with controls for SWMU 01-002(b)-00 had been reported in various documents (i.e., work plans and reports for aggregate areas and canyons). In the future, the Permittees must provide references to the documents where the analytical results from samples collected as part of an interim action in the South Fork of Acid Canyon were reported. The aggregate area investigation work plan concluded that the nature and extent of contamination was defined for the site; however, it is not clear if risk assessments were conducted and reported. The Permittees need to provide references to the document where results of the vapor intrusion pathway assessment were reported. The risk evaluations for the canyon reaches were reported in the canyons reports, but were not specific to the outfall area. The risk screening approach used for canyons in general is different from the approach used for corrective action sites. Evaluate risk for the entire site using data from the outfall area and the drainages and present a clear picture of the risk posed by the residual contamination at the site. References to all relevant documents with appropriate page numbers must be provided to

U1501820

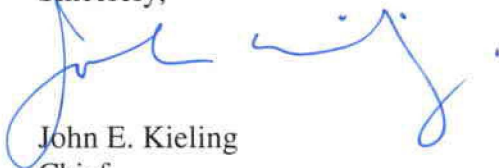
Ms. Gelles and Mr. Brandt
August 7, 2015
Page 3

facilitate review of the Request.

Submit a risk evaluation as a separate document prepared in general accordance with Consent Order Section XI.E and NMED's 2014 Risk Assessment Guidance for Site Investigations and Remediation using all available data that includes outfall area and drainages and present it in a manner that demonstrates that the entire SWMU does not pose any unacceptable risk to human health or the environment. At this time, NMED cannot make a determination whether the site qualifies for a certificate of completion without this information. After the Permittees have demonstrated the SWMU as a whole passes the acceptable risk for the anticipated land use, the Request can be resubmitted for NMED review.

Please contact Neelam Dhawan at (505) 476-6042, if you have any questions.

Sincerely,



John E. Kieling
Chief
Hazardous Waste Bureau

cc: K. Roberts, NMED RPD
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