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Date: APR 22 2016
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John Kieling, Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Subject: Implementation Plan for the New Mexico Environment Department's New Groundwater Background Values for the Regional Aquifer

Dear Mr. Kieling:

This letter proposes a path forward for addressing the use of groundwater background values that stemmed from the New Mexico Environment Department's (NMED's) letter, "Response to the New Mexico Environment Department's Letter, 'Establishment of Groundwater Background for the Regional Aquifer,' dated October 16, 2015." On November 19, 2015, the U.S. Department of Energy (DOE) and Los Alamos National Security, LLC (LANS) personnel met with NMED staff to clarify the direction NMED provided in its October 16, 2015, letter. At the meeting, it was agreed that the technical and regulatory implications warranted further discussions before a final decision was made regarding the application of the proposed background values to DOE/LANS's groundwater program. On January 15, 2016, DOE/LANS submitted a letter to NMED requesting to continue to use the current background values, as presented in the Groundwater Background Investigation Report, Revision 3, and proposed to have a series of technical meetings with NMED staff to determine a mutually acceptable path forward. In the past few months, several technical discussions have been held with DOE/LANS and NMED staff to determine the path forward.

The parties agreed that DOE/LANS will prepare a revised groundwater background report, titled "Groundwater Background Investigation Report, Revision 5." The parties also agreed to several specific technical details outlined below that will be incorporated into the revised report.

- The U.S. Environmental Protection Agency's (EPA's) ProUCL software package will be used to analyze the statistics for the report.

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- The report will incorporate the set of background locations presented in NMED's October 16, 2015, letter. Some additions or deletions (e.g., R-44 screen 2) of background locations may be appropriate based on NMED's criteria that a background location must have less than 2 pCi/L tritium and less than 3 mg/L chloride. Additions or deletions of locations will be discussed with NMED before the report is finalized. Use of NMED's criteria for selecting background locations will obviate the need for various statistical approaches that would otherwise be performed to qualify a background location.
- The data set will include data from Los Alamos National Laboratory's (the Laboratory's) groundwater monitoring program conducted under the Interim Facility-Wide Groundwater Monitoring Plan from 2010 to 2015 to capture the most recent data from background locations and also to incorporate recent improvements in analytical detection limits.
- Statistical treatment for nondetects will utilize method detection limits rather than practical quantitation limits.
- Statistical tests for normality and outliers will be conducted using the ProUCL software package and will be consistent with the methodology set forth in NMED's letter dated October 16, 2015.
- The report will present background values for the regional aquifer and for perched-intermediate groundwater. No background values will be calculated for alluvial groundwater.

DOE/LANS propose to submit the "Groundwater Background Investigation Report, Revision 5" to NMED by October 30, 2016. Pending NMED's approval of the Revision 5, the Laboratory will continue to use background values from the "Groundwater Background Investigation Report, Revision 3." DOE/LANS request a response from NMED confirming the agreements and decisions from the meetings and described in this letter.

If you have any questions, please contact Danny Katzman at (505) 667-6333 (katzman@lanl.gov) or Hai Shen at (505) 665-5046 (hai.shen@em.doe.gov).

Sincerely,

John P. McCann, Acting Division Leader
Environmental Protection & Compliance Division
Los Alamos National Laboratory

Sincerely,

David S. Rhodes, Director
Office of Quality and Regulatory Compliance
Environmental Management
Los Alamos Field Office

JM/DR/BR/SP:sm

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