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Mr. John E. Kieling, Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

Subject: Transmittal of Analytical Results of the Second Pre-treatment Sample for the Los Alamos National Laboratory Hazardous Waste Facility Permit

Dear Mr. Kieling:

The purpose of this letter is to report analytical results as required by the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit issued to the Department of Energy (DOE) and Los Alamos National Security, LLC (LANS), collectively the Permittees, in November 2010. Permit Section 7.6(2) and Section C.3.2.4 of Permit Attachment C (*Waste Analysis Plan*) require the collection of pre-treatment solid waste samples from six remediated nitrate salt-bearing waste containers and pre-treatment liquid waste samples from two unremediated nitrate salt-bearing waste containers. Analytical results from LANL on-site laboratory testing must be provided to the New Mexico Environment Department Hazardous Waste Bureau (NMED-HWB) within 60 days of the sample collection. The second pre-treatment composite sample (from container 69490) was collected on July 13, 2017.

Enclosure 1 includes a memorandum detailing the analytical results from the on-site analytical laboratory to the waste generating organization. Enclosure 2 includes a table with a column indicating expected ranges for each analyte based on the Permittee's surrogate waste testing. Most constituents and properties were comparable to the expected ranges for the waste stream. The expected ranges for the remediated nitrate salt-bearing waste stream were developed by the Permittees from the ranges of the surrogate materials utilized while developing the treatment method for nitrate salt waste.

The concentration of nitrate within the sample was 11.4% and less than the expected concentration range. While the expected concentration of nitrates (20-70%) is based on the anticipated processes that were used in creating the remediated nitrate salt-bearing waste, the sophistication of the mixing and associated record-keeping was of low quality. As a result, it is possible that the mixing was not adequate, leading to samples

