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FEB 2011
NMED Hazardous Waste Bureau

National Nuclear Security Administration
Los Alamos Site Office, MS A316
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Los Alamos, New Mexico 87544
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Date: FEB 08 2011
Refer To: EP2011-0042

James Bearzi, Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Subject: Submittal of the Disposal Documentation for Material Disposal Area B Low-Level Waste at Technical Area 54

Dear Mr. Bearzi:

Per the New Mexico Environment Department's (NMED's) request during the January 10, 2010, conference call between Gordon Dover and Kathryn Lynnes and Dave Cobrain and Neelam Dhawan of NMED, this letter is submitted to provide written documentation of the telephone conference for NMED's files. As stated in the October 2006 Investigation/Remediation Work Plan for Material Disposal Area B, Solid Waste Management Unit 21-015, at Technical Area 21, Revision 1 (IRWP), the U.S. Department of Energy (DOE) and Los Alamos National Security, LLC (collectively, the Laboratory) reserved the right to dispose of Material Disposal Area (MDA) B low-level waste (LLW) generated during the remediation at Technical Area 54 (TA-54).

NMED's January 31, 2007, approval with modifications of the IRWP (Approval with Modifications) requested that the Laboratory provide a courtesy notification to NMED and the Pueblo of San Ildefonso before disposing of LLW on-site. On January 6, 2011, DOE initiated government-to-government contact with Governor Martinez of the Pueblo of San Ildefonso to describe the Laboratory's plans to dispose of MDA B LLW at TA-54. Also on January 6, 2011, the Laboratory met with the Director and staff of Pueblo of San Ildefonso's Department of Environmental and Cultural Protection to discuss the Laboratory's waste disposal plans, including the benefit of reduced truck traffic across Pueblo lands.

The MDA B LLW that will be disposed of at TA-54 is consistent with the risk assumptions in the October 2008 "Performance Assessment and Composite Analysis for Los Alamos National Laboratory Technical Area 54, Area G, Revision 4" (PA/CA). This waste is also compliant with the waste acceptance criteria at TA-54. As discussed during the January 10, 2010, conference call, the Laboratory will use soil excavated from MDA B primarily to fill voids and "attic space." The LLW soil will be used to fill the voids and attic space above the LLW buried in Pit 37, thereby facilitating the closure of Pit 37. This LLW may also be used as fill at other LLW disposal sites at TA-54 and potentially as operational waste.

As described in section 4.0 of the IRWP, characterization of the waste from MDA B is performed based on a combination of acceptable knowledge, field screening, and laboratory analysis in accordance with 40 Code of Federal Regulations 262.11. Attachment 1 is a representative data package of the extensive sampling that has been performed on soils excavated at MDA B.

Before waste soil is placed in containers, any anomalies, unknowns, or chemicals encountered during excavation activities at MDA B are segregated for special sampling and evaluation of disposal options. Samples are analyzed as necessary for radionuclides, and a broad list of hazardous constituents, including, but not limited to, total metals, volatile organic compounds, and semivolatile organic compounds. If any toxicity characteristic constituent concentration approaches the "20 times rule of thumb," the toxicity characteristic leaching procedure (TCLP) is used to determine if the sample is characteristically hazardous. As of the date of this letter, only three several hundred samples have exceeded the 20 times rule of thumb, and the respective concentrations of the constituent of concern in the TCLP extract were all well below regulatory levels.

This sampling data are then grouped based on a number of factors, including the enclosure generating the waste, relative sample data consistency, and waste content. A conservative bounding calculation using the highest analytical values for each of the analytes among the selected sampling groups is used to characterize a set of containers. This method includes using the highest analytical values for toxicity characteristic analytes and radioisotopes. By performing this bounding, a conservative and representative characterization can be developed for larger groups of containers. This approach reduces the number of characterization calculations that must be performed and adds an additional level of conservatism to the overall characterization of the waste generated from MDA B that ensures only LLW will be taken to TA-54 for disposal.

Thank you for your consideration of this matter. If you have any questions, please contact Gordon Dover at (505) 665-4897 (gldover@lanl.gov) or Everett Trollinger at (505) 667-0281 (etrollinger@doeal.gov).

Sincerely,

Bruce Schappell, Executive Director
Environmental Programs – Recovery Act Projects
Los Alamos National Laboratory

Sincerely,

Everett Trollinger, Federal Project Director
Environmental Projects – ARRA
Los Alamos Site Office

BS/ET/GD:sm

Attachment 1: Two hard copies with electronic files – Disposal Documentation for Material Disposal Area B Low-Level Waste at Technical Area 54 (LA-UR-11-0397)

Cy: (w/enc.)
Neil Weber, San Ildefonso Pueblo
Everett Trollinger, DOE-LASO, MS A316
Gordon Dover, EP-TA-21 Closure Project, MS C348
RPF, MS M707 (w/ two CDs)
Public Reading Room, MS M992

Cy: (Letter and CD and/or DVD only)
Laurie King, EPA Region 6, Dallas, TX
Steve Yanicak, NMED-DOE-OB, MS M894
William Alexander, EP-BPS, MS M992

Cy: (w/o enc.)
Tom Skibitski, NMED-OB, Santa Fe, NM
Annette Russell, DOE-LASO (date-stamped letter emailed)
Michael J. Graham, ADEP, MS M991 (date-stamped letter emailed)