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Date: JAN 0 4 2013
Refer To: EP2012-0299

John Kieling, Bureau Chief
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New Mexico Environment Department
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Jerry Schoeppner, Bureau Chief
Groundwater Quality Bureau
New Mexico Environment Department
Harold Runnels Building, Room N2261
1190 St. Francis Dr.
P.O. Box 26110
Santa Fe, NM 87502

Subject: Results of the Evaluation of the Use of Potable Water for Dust Suppression and Equipment Decontamination during Disposal of Bulk Low-Level Waste at Pit 37, Material Disposal Area G, Technical Area 54

Dear Messrs. Kieling and Schoeppner:

The November 15, 2012, letter from the U.S. Department of Energy and Los Alamos National Security, LLC (DOE/LANS) stated that the process of evaluating the potential impacts of the use of potable water for dust suppression and equipment decontamination during the 2011 bulk low-level waste (LLW) disposal campaign at Pit 37 was ongoing and the results of this investigation would be provided to the New Mexico Environment Department when completed. This letter and the attached report summarize the results of the evaluation.

The 1990 Solid Waste Management Units Report, Volume IV (TA-51 through TA-74) (LA-UR-90-3400) lists Pit 37 as one of the pits that make up Solid Waste Management Unit (SWMU) 54-018 within Technical Area 54 (TA-54). SWMU 54-018 was included in the 1990 SWMU Report because of its history of solid and potentially hazardous waste disposal. SWMU 54-018 and eight other SWMUs make up Consolidated Unit 54-013(b)-99 (i.e., Material Disposal Area [MDA] G), which is subject to the requirements of the March 2005 Compliance Order on Consent (the Consent Order).

The disposal of the bulk LLW from TA-21 described in the November 15, 2012, letter began in March 2010 and continued through May 2011. These wastes included debris from the demolition of buildings at TA-21 and soil from the remediation of the historical waste trenches at MDA B.

As described in the attached report, the use of water for in-pit dust suppression and equipment decontamination began in January 2011 and ended in May 2011. A total of 172 bins of bulk LLW was disposed of in Pit 37 over a period of 44 days. The estimated water used in the pit during this time period was 352,000 gal. based upon an estimated 8000 gal. per day.

This water use was evaluated to determine if it could have resulted in a newly discovered release from this SWMU beyond what was previously identified in the MDA G investigation report. The use of water related to the disposal of this bulk LLW did not result in a newly discovered release because these wastes did not contain any constituents that were not already present in the existing waste inventory, and the addition of the water did not create a new release mechanism. Therefore, no notification is required under Section V.D of the Consent Order, and no additional investigation is recommended.

The two transport pathways to groundwater (i.e., leaching of water-soluble contaminants and vapor-phase transport of volatile organic compounds) identified in the MDA G corrective measure evaluation (CME) were also evaluated to determine if this water use significantly changed any of the assumptions underlying the recommended remedy in the MDA G CME. This evaluation determined that while this water use will enhance leaching rates of water-soluble contaminants beyond what has already occurred because of precipitation, the projected future risk from leaching remains very low. This evaluation also determined that while the additional water may displace the current vapor plume laterally and downward relative to its current position, it would not increase vapor concentrations to above screening levels. Therefore, no change in the proposed remedy is warranted.

Three feet of crushed tuff was placed on Pit 37 at the conclusion of the TA-21 bulk waste disposal activities in 2011. No further disposal of bulk LLW is anticipated at Pit 37.

If you have any questions, please contact Kathryn Roberts at (505) 665-0006 (kroberts@lanl.gov) or Ed Worth at (505) 606-0398 (edwin.worth@nnsa.doe.gov).

Sincerely,

Daniel R Cobb for JM

Jeff Mousseau, Associate Director
Environmental Programs
Los Alamos National Laboratory

Sincerely,

Peter Maggiore

Peter Maggiore, Assistant Manager
Environmental Projects Office
Los Alamos Site Office

JM/PM/TG:sm

Attachment: Evaluation of Water Use in Bulk Low-Level Waste Disposal Operations at Pit 37 in 2011 (LA-UR-12-26992)

Cy: (w/att.)
Laurie King, EPA Region 6, Dallas, TX
Steve Yanicak, NMED-DOE-OB, MS M894
Tom Skibitski, NMED-OB (date-stamped letter emailed)
Jennifer Fullam, NMED-WQB (date-stamped letter emailed)
Annette Russell, DOE-LASO (date-stamped letter emailed)
Roberto Torres, DOE-LASO (date-stamped letter emailed)
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David Rhodes, DOE-LASO (date-stamped letter emailed)
Alison Dorries, ENV-DO (date-stamped letter emailed)
Michael Saladen, ENV-RCRA (date-stamped letter emailed)
Robert Beers, ENV-RCRA (date-stamped letter emailed)
Tori George, EP-REG (date-stamped letter emailed)
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