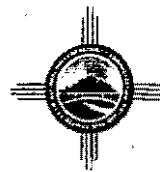




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Date: **MAR 15 2011**
Refer To: EP2011-0067

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 Periodic Monitoring Report for Vapor-Sampling Activities at Material Disposal Area H, Solid Waste Management Unit 54-004, at Technical Area 54, First Quarter Fiscal Year 2011

Dear Mr. Bearzi:

Enclosed please find two hard copies with electronic files of the Periodic Monitoring Report for Vapor-Sampling Activities at Material Disposal Area H, Solid Waste Management Unit 54-004, at Technical Area 54, First Quarter Fiscal Year 2011.

The analytical results continue to confirm the presence of low concentrations of volatile organic compounds (VOCs) in pore-vapor (e.g. pore gas) samples. During the first quarter of fiscal year (FY) 2011 as well as the previous nine quarters of sampling, all VOCs detected had maximum vapor concentrations below the New Mexico Water Quality Control Commission groundwater screening levels. The most recent five quarters of data have been collected using stainless-steel sampling systems, whereas previous sampling was performed with a Flexible Liner Underground Technology (FLUTE) sampling membrane, and all concentrations have been well below the Henry's law screening value. This conservative screening evaluation assumes VOC vapors are in contact with groundwater, but they are located more than 700 ft above the water table in the unsaturated zone.

A corrective measures evaluation (CME) report was submitted to the New Mexico Environment Department in December 2010. Appendix E of the CME report provides a present-day mass estimate for the total mass of VOCs found at MDA H. The estimated mass, based on June 2010 vapor-monitoring results, is 2.1 kg. Most of the estimated mass is associated with alcohols (~69%) and ketones (~24%), while less than 5% of the total mass (~0.1 kg) is associated with the halogenated VOCs, which are generally of the most concern with respect to groundwater contamination because they are generally more toxic at lower concentrations. Halogenated VOCs include trichloroethene (TCE), tetrachloroethene (PCE), and trichloroethane (TCA). The source of the VOC vapors at MDA H is thought to be residual contamination from cleaning solvents on machined parts, given that MDA H was not used to dispose of VOCs. The CME report did not identify VOC vapors as a potential threat to groundwater given the historically low concentrations compared with the Henry's law screening values.

Because VOC concentrations have been consistently very low compared with the Henry's law screening limits and because MDA H was not used to dispose of VOCs, Los Alamos National Laboratory proposes to submit the second quarter FY2011 periodic monitoring report as scheduled in May 2011 and then proceed to an annual sampling and reporting cycle. The annual sampling will be performed in the second quarter of each fiscal year until the final remedy for MDA H is selected and implemented.

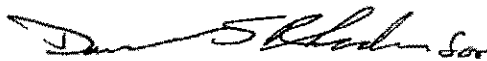
If you have any questions, please contact Jarrett Rice at (505) 665-3874 (wjrice@lanl.gov) or Suzy Schulman at (505) 606-1962 (sschulman@doeal.gov).

Sincerely,



Michael J. Graham, Associate Director
Environmental Programs
Los Alamos National Laboratory

Sincerely,



George J. Rael, Manager
Environmental Projects Office
Los Alamos Site Office

MG/GR/AB/JR:vt

Enclosures: Two hard copies with electronic files – Periodic Monitoring Report for Vapor-Sampling Activities at Material Disposal Area H, Solid Waste Management Unit 54-004, at Technical Area 54, First Quarter Fiscal Year 2011

Cy: (w/enc.)
Neil Weber, San Ildefonso Pueblo
Suzy Schulman, DOE-LASO, MS A316
Jarrett Rice EP-TA-54 Closure Project, MS J910
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
Daniel Romero, EP-ET, MS C349 (w/ MS Word files on CD)
William Alexander, EP-BPS, MS M992

Cy: (w/o enc.)
Tom Skibitski, NMED-OB, Santa Fe, NM (date-stamped letter emailed)
Annette Russell, DOE-LASO (date-stamped letter emailed)
Andy Baumer, EP-TA-54 Closure Project, MS C348 (date-stamped letter emailed)
Michael J. Graham, ADEP, MS M991 (date-stamped letter emailed)