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Los Alamos
NATIONAL LABORATORY
EST. 1943

Environmental Programs
P.O. Box 1663, MS M991
Los Alamos, New Mexico 87545
(505) 606-2337/FAX (505) 665-1812



National Nuclear Security Administration
Los Alamos Field Office, MS A316
Environmental Projects Office
Los Alamos, New Mexico 87544
(505) 667-4255/FAX (505) 606-2132

Date: APR 04 2013
Refer To: EP2013-0062

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

Subject: Response to Approval with Modifications for the 2011 Interim Facility-Wide Groundwater Monitoring Plan, Revision 1

Dear Mr. Kieling:

On May 21, 2012, the New Mexico Environment Department (NMED) provided an approval with modifications (AWM) for the 2011 Interim Facility-Wide Groundwater Monitoring Plan, Revision 1 (Interim Plan). To address comment 10 of the AWM, Los Alamos National Laboratory (the Laboratory) proposes the following, based on a meeting held with NMED staff on March 11, 2013. This response supercedes the Laboratory's earlier response, dated August 10, 2012, to the AWM.

In AWM comment 10, NMED required the analysis of 26 volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs) at least once by analytical methods with detection limits that are lower than the Compliance Order on Consent (the Consent Order) groundwater cleanup levels. To address the NMED's requirement, the Laboratory proposes the following analytical approach for all locations in the Interim Plan where VOCs and SVOCs are included in the analytical suite:

- Two of the 26 constituents [2,2'-atrazine and oxybis(1-chloropropane)] are currently sampled at sufficiently low levels such that their method detection limit (MDLs) are at or below regulatory screening levels. No additional action is proposed for these constituents.
- For analysis of nine organic constituents, the following U.S. Environmental Protection Agency (EPA) methods will be used:

  - ❖ EPA Method 8310 for benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; dibenz(a,h)anthracene; and indeno(1,2,3-cd)pyrene)
  - ❖ EPA Method 8011 for dibromo-3-chloropropane[1,2-] and dibromoethane[1,2-])
  - ❖ EPA Method 8151 for pentachlorophenol
  - ❖ EPA Method 8081 for hexachlorobenzene

For the remaining 15 constituents discussed in comment 10, the Laboratory will work closely with its contract laboratory during the remainder of fiscal year 2013 to refine their technical capabilities to implement the selected ion monitoring (SIM) method or other analytical methods for analysis of VOCs and SVOCs. The Laboratory anticipates that significantly lower MDLs will be achieved by implementing SIM and expects that most of the MDLs obtained using SIM will be near or below Consent Order groundwater cleanup levels.

The analytical methods with lower detection limits identified above will be implemented with the sampling and analysis schedule in the Interim Facility Groundwater Monitoring Plan for Monitoring Year 2014 (in preparation). Sampling will be conducted according to the schedule that includes the most comprehensive (typically the annual) event for each of the monitoring groups. The Laboratory proposes to identify the SIM method for each for each of the applicable wells in tables and the analytical methods in Appendix B of the 2104 Interim Plan.

In consultation with NMED, the Laboratory will review the results and use them to develop an out-year sampling schedule that will include the wells/monitoring groups to be monitored and the frequency at which they will be monitored. The review will also assess the sufficiency of the SIM and other methods used to lower the MDLs for these constituents.

If you have any questions, please contact Steve Paris at (505) 606-0915 (smparis@lanl.gov) or Hai Shen at (505) 665-5046 (hai.shen@nnsa.doe.gov).

Sincerely,

Jeff Mousseau, Associate Director
Environmental Programs
Los Alamos National Laboratory

Sincerely,

for

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

JM/PM/CD/SP:sm

Cy: Laurie King, EPA Region 6, Dallas, TX (date-stamped letter emailed)
Tom Skibitski, NMED-Resource Protection (date-stamped letter emailed)
Steve Yanicak, NMED-DOE-OB (date-stamped letter emailed)
Steven Rydeen, San Ildefonso Pueblo
Joe Chavarria, Santa Clara Pueblo
lasomailbox@nnsa.doe.gov (date-stamped letter emailed)
Annette Russell, DOE-NA-00-LA (date-stamped letter emailed)
Hai Shen, DOE-NA-00-LA (date-stamped letter emailed)
David Rhodes, DOE-NA-00-LA (date-stamped letter emailed)
Steve Paris, EP-CAP (date-stamped letter emailed)
Danny Katzman, EP-ET (date-stamped letter emailed)
Craig Douglass, EP-CAP (date-stamped letter emailed)
Jeff Mousseau, ADEP (date-stamped letter emailed)
Wendy Staples, EP-BPS (date-stamped letter emailed)
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