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Date: JUN 15 2011
Refer To: EP2011-0207

John Kieling, Acting 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 May 2011 Monthly Progress Report Corrective Measures Evaluation/Corrective Measures Implementation for Consolidated Unit 16-021(c)-99

Dear Mr. Kieling:

Enclosed are two hard copies with electronic files of the May 2011 Monthly Progress Report Corrective Measures Evaluation/Corrective Measures Implementation for Consolidated Unit 16-021(c)-99. The report is submitted according to the approved corrective measures study plan for Consolidated Unit 16-021(c)-99.

If you have questions, please call John McCann at (505) 665-1091 (jmccann@lanl.gov) or Woody Woodworth at (505) 665-5820 (lwoodworth@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/DM/JM/DH:sm

Enclosures: Two hard copies with electronic files – May 2011 Monthly Progress Report Corrective Measures Evaluation/Corrective Measures Implementation for Consolidated Unit 16-021(c)-99 (LA-UR-11-2967)

Cy: (w/enc.)
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Monthly Progress Report
Corrective Measures Evaluation (CME)/Corrective Measures Implementation (CMI) for Consolidated Unit 16-021(c)-99
May 2011

This report summarizes Los Alamos National Laboratory (LANL) activities completed during May of fiscal year 2011 on the CME/CMI for Consolidated Unit 16-021(c)-99, the Technical Area 16 (TA-16) 260 Outfall. Activities outlined in the corrective measures study (CMS) plan ([LA-UR-98-3918] approved by the New Mexico Environment Department [NMED] Hazardous Waste Bureau [HWB] on 9/8/99) and other related activities are described herein.

Description of Activities and Contacts – A meeting with NMED representatives Jim Davis (Resource Protection Division Director), Glen Saumes and Richard Powell (Surface Water Quality Bureau [SWQB]), John Kieling, David Cobrain, and Michael Dale (HWB) was held on May 5, 2011, to discuss issues associated with aluminum in the TA-16 springs. The high naturally occurring aluminum concentrations have stymied turning on the storm filters deployed in the springs to remove high explosives (HE). LANL representatives presented (1) background information on the CME/CMI for Consolidated Unit 16-021(c)-99, (2) aluminum and iron data from both TA-16 springs and TA-09 springs that suggest the aluminum is naturally occurring, and (3) possible paths forward for turning on the storm filters. The preferred option involves reengineering of the storm filters to a "French drain" design, which might obviate the need for National Pollution Discharge Elimination System (NPDES) permitting. NMED representatives agreed to discuss the presented options internally and with the U.S. Environmental Protection Agency (EPA) and provide clarification on its position to LANL and the U.S. Department of Energy (DOE).

Surface CME/CMI

Best Management Practices (BMPs) – BMPs are inspected quarterly and following significant precipitation events. Two very small events occurred in May; none exceeded 0.5 in.

CME Hydrogeologic Investigations – Hydrogeologic investigations include periodic water sampling as outlined in the Phase II Resource Conservation and Recovery Act facility investigation (RFI) work plan as well as continuing investigations delineated in the CMS plan. The ongoing spring sampling program, conducted under the auspices of LANL's interim facility-wide groundwater monitoring plan, includes biannual sampling at Martin, SWSC, and Burning Ground springs.

Flow in the TA-16 canyons remained low in May because of minimal spring runoff. Martin Spring is flowing at a rate of < 0.08 L/s, Burning Ground Spring is flowing at a rate of < 0.3 L/s, and SWSC Spring did not flow over the weir-box exit.

The 90s Line Pond remains wet but is very small in extent. Surface water is present in Cañon de Valle from upstream of the 260 Outfall channel to beyond the former location of Material Disposal Area P. Most alluvial wells in Cañon de Valle and Martin Spring Canyon are wet, but those in Fishladder Canyon are dry.

CMI – Permitting for CMI activities continues to proceed slowly. It was previously determined the storm-filter systems in the springs required NPDES permits because of elevated levels of aluminum (see discussion above under "Description of Activities and Contacts"). As noted above, the problem is that naturally occurring levels of aluminum in the spring water exceed current water standards.

TerranearPMC continued water-level monitoring activities for the PRB in May. NMED approved reconfiguring the PRB to include granular activated carbon (GAC) rather than zero-valent iron (ZVI) and to increase the amount of zeolite in an email dated May 3, 2011. Further details are provided in the April CME report.

Subsurface CME/CMI

RFI/Investigation Report and CME for Deep Groundwater – Well R-25c, completed in September 2008, is not producing water.

Well CdV-16-4(ip) was drilled to a depth of 1150 ft in August 2010 (NMED complete on August 23, 2010).

Data analysis and report writing for the recent hydrologic tests in CdV-16-4ip and R-25b continued.

Public and Stakeholder Involvement – None.

Problems Encountered/Actions to Rectify Problems

The status of aluminum under potential NPDES permits for the storm-filter systems is problematic, as noted above. A meeting with NMED SWQB was held in May as part of the ongoing efforts to resolve this issue.

The ZVI cell in the PRB has problems with clogging. The media in the HE-removal cell will be adjusted from ZVI/sand to GAC.

Key Personnel Issues – None

Projected Work for June 2011

Surface CME/CMI

BMPs

- Continue inspection of existing BMPs following significant precipitation events

CME Hydrogeologic Investigations

- Maintain the TA-16 trailers
- Check for the presence and levels of water in Cañon de Valle alluvial system
- Continue precipitation monitoring

CMI

- Continue NPDES permitting discussions with NMED
- Continue monitoring water levels and field parameters in PRB wells
- Reconfigure PRB cells (as described above)
- Continue waste management activities for water at CMI remedy sites

Subsurface CME/CMI

- Analyze data from pump tests
- Complete pump test report

Public and Stakeholder Involvement – Continue discussions with NMED personnel regarding aluminum in springs issue