Monthly Progress Report
Corrective Measures Study (CMS)/Corrective Measures Implementation (CMI) for
Consolidated Unit 16-021(c)-99
April 2010

This report summarizes Los Alamos National Laboratory (LANL) activities completed during April of fiscal year 2010 on the CMS/CMI for Consolidated Unit 16-021(c)-99, the Technical Area 16 (TA-16) 260 Outfall. Activities outlined in the CMS plan ([LA-UR-98-3918] approved by the New Mexico Environment Department [NMED] Hazardous Waste Bureau on 9/8/99) and other related activities are described herein.

Description of Activities and Contacts – None

Best Management Practices (BMPs) – BMPs are inspected quarterly and following significant precipitation events. Several small precipitation events occurred in April, two of which exceeded 0.5 in. BMPs were maintained in both the 260 Outfall area and permeable reactive barrier (PRB) installation area in support of the CMI.

CMS 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, currently focused on capturing high-flow events, includes biannual sampling at Martin, SWSC, and Burning Ground Springs. These activities are now conducted under the auspices of LANL's interim facility-wide groundwater monitoring plan. Sampling of all of these sites within the Water/Cañon de Valle watershed was completed between April 1 and April 21.

Flow in the TA-16 canyons was strong during April. Localized surface flow is present in mesa-top drainages. Martin Spring is flowing at a rate of >0.1 L/s, Burning Ground Spring is flowing at a rate of 1.5 L/s, and SWSC Spring is flowing at a rate of 0.3 L/s.

The 90s Line Pond contains approximately 2 ft of water. Surface water is present in Cañon de Valle from upstream of the outfall channel to beyond the former location of Material Disposal Area P.

RFI and CMS/Corrective Measures Evaluation (CME) for Surface System – The following activities have been completed.

RFI/Investigation Report (IR) and CMS/CME for Deep Groundwater – Well R-25c, which is not producing water, was completed in September 2008, and the well was constructed at that time. Well R-25b was drilled and constructed in October 2008. The well completion report for R-25c was submitted in September 2008, and the well completion report for R-25b was submitted in October 2008.

Well CdV-16-3(i) (renamed R-48) was deepened in September 2009. Well construction was completed in late September (NMED complete on November 25, 2009).

Well R-47i at TA-14 was completed in November 2009 (NMED complete on November 15, 2009).

CMI

Permitting for CMI activities is proceeding slowly. It was determined that the storm-filter systems in the springs required National Pollutant Discharge Elimination System (NPDES) permits; LANL's permitting group is working this issue. The status of aluminum in the NPDES permitting process for these systems is also problematic; negotiations with the U.S. Environmental Protection Agency (EPA) are ongoing.

TerranearPMC continued water-level monitoring activities in April. Several of the monitoring wells containing piezometers distal from the stream channel are dry. The water level behind the cutoff wall at the PRB reached the intake pipe in late March. The valve to the vessel was opened on April 2, 2010. Background water-chemistry data were collected before the PRB valve was opened.

Soil removal and confirmatory sampling at the bottom of the cliff in the 260 Outfall drainage were completed on April 30, 2010.

The "Long-Term Monitoring and Maintenance Plan for the Corrective Measures Implementation at Consolidated Unit 16-021(c)-99" was completed and submitted on April 23, 2010.

Public and Stakeholder Involvement – None

Percentage of CMS Completed

LANL estimates 100% of the surface CMS has been completed.

Problems Encountered/Actions to Rectify Problems

R-25c is not producing water, and the current level remains below the screen; R-25b is still showing high turbidity. LANL will continue to monitor the well screens.

The status of aluminum under potential NPDES permits for the storm-filter systems is problematic, as noted above in the CMI section.

Bentonite present in R-47 necessitated completion of this well as an intermediate well. It is almost certain a new deep well at this site will be required.

Key Personnel Issues – None

Projected Work for May 2010

BMPs

- Continue inspection of existing BMPs following significant precipitation events
- Inspect new BMPs to support CMI

CMS Hydrogeologic Investigations

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

Groundwater CME/CMI

- None

CMI

- Continue NPDES permitting and discussions with EPA
- Continue monitoring water levels in PRB wells
- Continue sampling PRB wells
- Continue site restoration and waste management activities at CMI remedy sites

Public and Stakeholder Involvement – None