

Monthly Progress Report
Corrective Measures Study (CMS)/Corrective Measures Implementation (CMI)
for Consolidated Unit 16-021(c)-99
May 2008

This report summarizes Los Alamos National Laboratory (LANL) activities completed during May of fiscal year (FY) 2008 on the CMS/CMI for Consolidated Unit 16-021(c)-99, the TA-16-260 Outfall. Activities outlined in the CMS plan ([LA-UR-98-3918], approved by 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: LANL initiated several phone conversations and e-mails with NMED personnel to discuss the Notice of Disapproval (NOD) on the "Corrective Measures Evaluation Report, Intermediate and Regional Groundwater Consolidated Unit 16-021(c)-99" (LA-UR-07-5426) received April 22, 2009. The most substantive phone conversation occurred on May 19, 2008. Key results of this conversation included: 1) NMED verbally approved use of a streamlined outline for the Supplemental Investigation Work Plan (SIWP) for Intermediate and Regional Groundwater (due June 30, 2008). They followed up the verbal approval with a May 20, 2008 e-mail. 2) NMED requested LANL and Department of Energy (DOE) cite previous TA-16 documents in the cover letter accompanying the SIWP, to ensure background material would be adequately captured in their Administrative Record. 3) NMED requested LANL propose a schedule for the work in the SIWP in the document cover letter. 4) NMED and LANL agreed that two key aspects of the SIWP would be a proposal for a long-screen pumping well to evaluate the feasibility of a pump and treat remedy and a literature review of HE degradation processes. LANL suggested that further interactions on the SIWP in mid June would be useful; NMED agreed.

RCRA Facility Investigation (RFI) Phase II Report and CMS Plan— No activities this month

Best Management Practices (BMPs) – BMPs are inspected quarterly and following significant precipitation events. There were five small precipitation events in May, one greater than 0.5 in; none required BMP repair in the 260 outfall area.

CMS Hydrogeologic Investigations— Hydrogeologic investigations include periodic water sampling as outlined in the Phase II RFI 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 the interim facility-wide groundwater monitoring plan.

The hydrologic system in Cañon de Valle remains wet following the spring snowmelt. Martin Spring is flowing at < 0.1 L/sec.; Burning Ground Spring is flowing at a rate of ~ 0.6 L/ sec. After several years of being dry, SWSC Spring continues flowing at a rate of < 0.2 L/sec.

The 90s Line Pond remained wet throughout May. Downgradient surface locations in Martin Spring Canyon and Cañon de Valle remain wet. The alluvial wells in lower Cañon de Valle and lower Martin Spring Canyon are wet. Surface water in Cañon de Valle is present from Burning Ground spring to beyond MDA-P.

Ecological Risk Pilot– The ecological risk pilot study is complete; results are presented in the Phase III RFI Report.

CMS Bench and Pilot Studies– Write-up of bench and pilot studies, many of which were conducted under the auspices of the Innovative Technology Remediation Demonstration (ITRD) program, have been completed. The ITRD HE program was focused on two DOE sites: LANL and Pantex. Ongoing studies, mainly consisting of monitoring in support of the previous studies, include:

1. A study of the passive barrier technology of Stormwater Management, Inc., potentially useful for removing HE and barium from waters (LANL).
2. A study of in situ anaerobic bioremediation of HE using gas-phase carbon additions (Pantex).
3. Oxidation, reduction, and in-situ bioremediation studies of groundwater contamination (Pantex).

The CMS Report from Pantex detailing these studies has been reviewed and results are incorporated in the CME report submitted to NMED on August 31, 2007.

RFI and CMS/CME for Surface System– The surface system CMS Report was completed and submitted to NMED on November 26, 2003; the RFI Report was completed and submitted in September 2003. A response to the NOD on the RFI Report was submitted on January 28, 2004, and an addendum to that NOD response was submitted on February 25, 2004. An approval with modifications for the RFI was received June 23, 2004, and a response to the approval was submitted to NMED on July 23, 2004. The RFI text modifications were completed during December 2004 and submitted to NMED. An NOD on the CMS Report was received May 16, 2005. A response to that NOD was submitted on June 15, 2005.

NMED issued the “Intent to Public Notice Remedy Selection for the Solid Waste Management Unit 16-021(c)” on May 15, 2006. Public comments on this notice were due to NMED by July 14, 2006. LANL provided comments on this public notice. The remedy was approved by NMED in a letter dated October 13, 2006.

RFI/IR and CMS/CME for Deep Groundwater- The Investigation Report (IR) for TA-16 groundwater was completed and submitted to NMED on August 31, 2006; an approval with direction dated November 29, 2006 was received by e-mail the same day. This approval requires an additional report assessing the quality of the wells in and around TA-16. Additional information, including borehole videos and X-ray diffraction data, requested in this approval was provided to NMED in a letter dated January 17, 2007.

The TA-16 Well Evaluation Report was submitted to NMED on April 30, 2007 and an NOD was received on August 17, 2007. The response to that NOD and a revised report were provided to NMED on September 30, 2007. NMED approved the Revised TA-16 Well Evaluation Report on February 11, 2008. A response to this approval was submitted on March 15, 2008. Two drilling work plans (CdV-R-15-1 and CdV-16-3(i)) were submitted as part of this approval response and were approved in an NMED letter dated March 28, 2008. An approval of the drilling work plan for the R-25b well, which was submitted in June 2007, was received in November 2007; this document requires drilling and development of this well to be completed by April 30, 2008. A letter from NMED requiring

completion of the CdV-16-3(i) as a regional well by July 30, 2008 was received in December. The drilling work plan for R-25(c) was submitted during February, 2008 and approved in a letter dated March 11, 2008. Contracting activities for these wells are ongoing.

The Groundwater CME Report was submitted to NMED on August 31, 2007, and an NOD requiring submittal of a supplemental investigation work plan by June 30, 2008 was received on April 22, 2008. Work has been initiated on the supplemental investigation work plan.

Corrective Measures Implementation (CMI) Plan – The CMI Plan was submitted to NMED on May 10, 2007. A NOD was received on June 29, 2007; the response was submitted on July 30, 2007. NMED approved the CMI Plan in a letter dated August 17, 2007.

Public and Stakeholder Involvement – None

Percentage of CMS Completed

LANL estimates 100% of both the surface CMS and the groundwater CME have been completed. This estimate does not include additional work that will be completed following submittal of the supplemental work plan due June 30, 2008.

Problems Encountered/Actions to Rectify Problems

Contracting for drilling the R-25 replacement wells is proceeding well; a notice to proceed was provided to the subcontractor. The drilling subcontractor is working on preparatory documents.

Key Personnel Issues

None

Projected Work for June 2008

BMPs

- Continued inspection of existing BMPs following significant precipitation events

CMS Hydrogeologic Investigations

- Site maintenance at the TA-16 trailers
- Checking for presence and levels of water in Cañon de Valle alluvial system
- Precipitation monitoring

Groundwater CME/CMI

- Field planning for R-25b and R-25c redrilling.

- Initiation of site preparation activities at the R-25b and R-25c site
- Continuation of supplemental investigation work plan for groundwater.

CMS Bench and Pilot Studies

- None

CMI

- Contracting for CMI Implementation

Public and Stakeholder Involvement

None