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SEP 2008
NMED Hazardous Waste Bureau

TA16

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

Date: September 22, 2008
Refer To: EP2008-0493

James P. 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 August 2008 Progress Report Corrective Measures Study for Potential Release Site 16-021(c)-99

Dear Mr. Bearzi:

Enclosed are two hard copies with electronic files of the August 2008 Corrective Measures Study (CMS) Progress Report for Potential Release Site (PRS) 16-021(c)-99, the 260 Outfall. The report is submitted according to the approved CMS plan for PRS 16-021(c)-99.

If you have questions, please call Don Hickmott at (505) 667-8753 (dhickmott@lanl.gov) or Woody Woodworth at (505) 665-5820 (lwoodworth@doeal.gov).

Sincerely,

Susan G. Stiger, Associate Director
Environmental Programs
Los Alamos National Laboratory

Sincerely,

David R. Gregory, Project Director
Environmental Operations
Los Alamos Site Office

30239

SS/DG/DM/DH:sm

Enclosures: 1) Two hard copies with electronic files – August 2008 Corrective Measures Study Progress Report for Potential Release Site 16-021(c)-99, the 260 Outfall (EP2008-0493)

Cy: (w/enc.)
Neil Weber, San Ildefonso Pueblo
Don Hickmott, EES-6, MS D462
RPF, MS M707 (two CDs)
Public Reading Room, MS M992

Cy: (Letter and CD only)
Laurie King, EPA Region 6, Dallas, TX
Steve Yanicak, NMED-OB, White Rock, NM
Woody Woodworth, DOE-LASO, MS A316
Jeff Heikoop, EES-6, MS D462
Kristine Smeltz, WES-DO, MS M992
EP-CAP File, MS M992

Cy: (w/o enc.)
Tom Skibitski, NMED-OB, Santa Fe, NM
Alison Bennett, DOE-LASO (date-stamp copy emailed)
Susan G. Stiger, ADEP, MS M991
Alison M. Dorries, WES-DO MS M992
Dave McInroy, EP-CAP, MS M992
IRM-RMMSO, MS A150 (date-stamp copy emailed)

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

This report summarizes Los Alamos National Laboratory (LANL) activities completed during August 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: None

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 numerous small precipitation events in August, of which four were 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 is extremely wet due to the significant monsoon rains of August. 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 August; this is the first year in many years in which this pond did not dry out. 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. Alluvial wells in Fishladder Canyon are finally wet. Surface water in Cañon de Valle is present from Burning Ground spring to well 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 of 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 required 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 [for 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. Drilling of R-25(c) reached total depth during August and the well was completed almost to the surface. The drilling operations were stuck for close to a week during August and cable breaks halted drilling operations.

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

Corrective Measures Implementation (CMI) Plan – The CMI Plan was submitted to NMED on May 10, 2007. An 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 covered by the work plan submitted on June 30, 2008.

Problems Encountered/Actions to Rectify Problems

R-25 drilling is behind schedule. Further difficulties with tools being hung up in the borehole and with cable breaks occurred during August 2008. As of the end of August, drilling was on standby due to safety concerns.

Key Personnel Issues

None

Projected Work for September 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

- Drilling at the R-25b and R-25c site
- Initiation of well completion report

CMS Bench and Pilot Studies

- None

CMI

- Preparation for contracting for CMI Plan

Public and Stakeholder Involvement

None