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Date: February 22, 2007
Refer To: EP2007-0118

Mr. John Young
Permits Management Program
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

**Subject: January 2007 Monthly Progress Report Corrective Measures Study for
Potential Release Site 16-021(c)-99, February 2006**

Dear Mr. Young:

Enclosed are two hard copies with electronic files of the January 2007 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,

Andrew K. Phelps, Associate Director
Environmental Programs
Los Alamos National Laboratory

Sincerely,

George J. Rael, Assistant Manager
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Los Alamos Site Office

AKP/DM/DG/DH:ew



Enclosure: Two hard copies with electronic files - Monthly Progress Report Corrective Measures Study (CMS) for Potential Release Site (PRS) 16-021(c)-99, January 2007 (EP2007-0120)

Cy: (w/enc)

D. Hickmott, EES-6, MS D462 (w/ CD)

W. Woodworth, DOE LASO, MS A316 (w/CD)

CAP File, MS M992 (w/CD)

RPF, MS M707 (w/two CDs)

Public Reading Room, MS J591 (w/CD)

Cy: (letter and CD only)

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ADEP File

Monthly Progress Report
Corrective Measures Study (CMS)/Corrective Measures Implementation (CMI) for
Consolidated Unit 16-021(c)-99
January 2007

This report summarizes Los Alamos National Laboratory (LANL) activities completed during January of fiscal year (FY) 2007 on the CMS/CMI for Consolidated Unit 16-021(c)-99, the TA-16-260 Outfall. Both the activities described in the CMS plan ([LA-UR-98-3918], approved by NMED-HWB on 9/8/99), and other related activities are described herein.

Description of Activities and Contacts

High Performing Team (HPT) – The HPT did not meet during January 2007; the next meeting is scheduled for February 12, 2007.

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 two significant precipitation events in January; however, these did not require repair of BMPs 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 stable isotope sampling at Martin and Burning Ground Springs. These sampling activities are now being accomplished under the auspices of the interim facility-wide groundwater monitoring plan.

The Water Stewardship Program completed sampling of the alluvial and deep wells and the springs in and around TA-16 during January.

The hydrologic system in Cañon de Valle remains wet following the higher-than-average intensity monsoonal rains and significant November through January snows. Martin Spring is flowing at ~ 500 mL/min., Burning Ground Spring is flowing at a rate of ~200 mL/ sec., and SWSC Spring remains dry. There are approximately two feet of snow in the canyon so there should be extensive spring runoff.

The 90s Line Pond and downgradient surface locations in Martin Spring Canyon and Cañon de Valle are wet and frozen. The alluvial wells in lower Cañon de Valle, Fishladder Canyon, and lower Martin Spring Canyon are wet. Surface water in Cañon de Valle remains present from Burning Ground spring to MDA-P. In the non-perennial reaches of Cañon de Valle, Martin Spring canyon, and Fishladder canyon there are intermittent pockets of ponded water (ice) present at the surface.

Conditions in the deep wells, CdV-R-15-3, CdV-R-37-2, CdV-16-1(i), and CdV-16-2(i)r are similar to previous sampling rounds. There were no anomalous field parameters noted in these wells.

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 is focused on two DOE sites: LANL and Pantex. Ongoing studies include:

1. A study of the passive barrier technology of Stormwater Management, Inc., potentially useful for removing HE and barium from waters (LANL). Monitoring of barrier effectiveness has recommenced after several quarters of drought conditions during which Martin spring was dry.
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).

Interim Measure (IM) –

The IM Report was approved by NMED in a letter dated January 13, 2003. No new activities occurred during this reporting period.

RFI and CMS Reports –

The 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 on 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 on 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.

The Investigation Report for TA-16 groundwater was completed and submitted to NMED on August 31, 2006. An approval with direction of this IR dated November 29, 2006 was received by e-mail on 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.

Work on the TA-16 Well Evaluation Report has begun. A data pull of new well data obtained since January 2006 was requested.

A draft outline for the Groundwater CME Report was completed. Modeling to support that report is ongoing.

Corrective Measures Implementation (CMI) Plan –

An annotated outline was completed and initial engineering drawings are in work. LANL engineering was contacted to confirm the requirements for the engineering designs. Locations for Stormfilter units were flagged. A set of 60% design drawings was completed by the subcontractor. Batch and column studies to support the permeable reactive barrier (PRB) design are continuing. Initial batch studies suggest that there are several media, including gypsum, a zeolite and “fishbone” that are appropriate for removal of barium from groundwater.

Public and Stakeholder Involvement – None

Percentage of CMS Completed

LANL estimates 100% of the surface CMS has been completed (please note this percentage does not reflect either the deep or intermediate boreholes being drilled per the CMS plan addendum)

Problems Encountered/Actions to Rectify Problems

None

Key Personnel Issues

None

Projected Work for February 2007

Investigation Reports and CMS/CME Reports

- Discussions regarding the Groundwater Investigation and CME Reports with NMED personnel
- Continuation of Groundwater Modeling for the Groundwater CME Report
- Finalization of CME report outline

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

Ecological Risk Pilot

- None

CMS Bench and Pilot Studies

- None

CMI

- Continuation of batch and column studies for designs of barrier materials for use in the PRB
- Locating and surveying sites for possible installation of permeable reactive barriers and Stormfilters
- Initial engineering designs and 60% design review
- Completion of draft outline
- Drilling of three boreholes to support grouting of TA-16-260 Pond area

Public and Stakeholder Involvement

None