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Los Alamos
NATIONAL LABORATORY
EST.1943
Environmental Programs
Corrective Actions Project
PO Box 1663, Mail Stop M992
Los Alamos, New Mexico 87545
(505) 667-0819/FAX (505) 665-4747

National Nuclear Security Administration
Los Alamos Site Office, MS A316
Environmental Restoration Program
Los Alamos, New Mexico 87544
(505) 667-7203/FAX (505) 665-4504

Date: January 22, 2007
Refer to: EP2007-0008

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

SUBJECT: DECEMBER 2006 MONTHLY PROGRESS REPORT FOR CORRECTIVE MEASURES STUDY FOR POTENTIAL RELEASE SITE 16-021(c)-99

Dear Mr. Young:

Enclosed are two hard copies with electronic files of the December 2006 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 Phelps, Associate Director
Environmental Programs
Los Alamos National Laboratory

Sincerely,

David Gregory, Federal Project Director
Department of Energy
Los Alamos Site Office

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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, December 2006 (EP2007-0016)

Cy: (w/enc)
D. Hickmott, EES-6, MS D462 (with CD)
W. Woodworth, DOE LASO, MS A316 (with CD)
CAP File, MS M992 (with CD)
RPF, MS M707 (with CD)
Public Reading Room, MS J591 (with CD)

Cy: (letter and CD only)
P. Reneau, EP-ERSS, MS M992
J. Heikoop, EES-6, MS D462
L. King, EPA Region 6

Cy: (w/o enc)
A. Dorries, ERSS-DO, MS M992
G. Dover, EP-CAP, MS M992
D. Gregory, DOE LASO, MS A316
C. Mangeng, ADEP, MS J591
A. Phelps, ADEP, MS J591
T. Skibitski, NMED-OB
IRM-RMMSO, MS A150

Monthly Progress Report
Corrective Measures Study (CMS)/Corrective Measures Implementation (CMI) for Consolidated Unit 16-021(c)-99
December 2006

This report summarizes Los Alamos National Laboratory (LANL) activities completed during December 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 December 2006.

The next HPT meeting is tentatively scheduled for January.

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 four significant precipitation events in December; 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 hydrologic system in Cañon de Valle remains wet following the higher-than-average intensity monsoonal rains and significant November and December snows. Martin Spring is flowing at ~ 1000 mL/min., Burning Ground Spring is flowing at a rate of ~300 mL/ sec., and SWSC Spring remains dry.

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

Slug tests were performed in the alluvial wells in Cañon de Valle and Martin Spring Canyon in November and these data were analyzed in December. These will provide hydrologic property data for the canyon alluvium that will support the engineering designs for the Corrective Measures Implementation (CMI).

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. LANL has responded to several recent NMED queries concerning the CMS Report.

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 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.

Corrective Measures Implementation (CMI) Plan –

Initial engineering drawings are being completed. LANL engineering was contacted to confirm the requirements for the engineering designs. Locations for Stormfilter units were flagged.

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 January 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

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
- Data analysis – slug tests

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

Public and Stakeholder Involvement

None