

**Environmental Programs**

Corrective Actions Project  
PO Box 1663, Mail Stop M992  
Los Alamos, New Mexico 87545  
(505) 667-0819/FAX (505) 665-4747

TA 16



**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: June 16, 2006  
Refer to: ER2006-0539

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



**SUBJECT: MAY 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 May 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 Security, LLC

Sincerely,

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



DM/DG/DH/jr

Enclosure: Two hard copies with electronic files - Monthly Progress Report Corrective Measures Study (CMS) for Potential Release Site (PRS) 16-021(c)-99, May 2006 (ER2006-0420)

Cy: (w/enc)

D. Hickmott, EES-6, MS D462 (with CD)  
D. Gregory, DOE LASO, MS A316 (with CD)  
T. Trujillo, DOE LASO, MS A316 (with CD)  
Corrective Actions File, MS M992 (with CD)  
RPF, MS M707 (with CD)  
S-7, MS F674 (without CD)

Cy: (CD only)

J. Heikoop, EES-6, MS D462  
L. King, EPA Region 6  
P. Reneau, ENV, MS M992

Cy: (w/o enc)

A. Dorries, ENV-ERSS, MS M992  
D. McInroy, ENV-CA, MS M992  
C. Mangeng, ADEP, MS J591  
A Phelps, ADEP, MS J591  
D. Pepe, NMED-OB  
IM-9, MS A150

**Monthly Progress Report**  
**Corrective Measures Study (CMS) for Potential Release Site (PRS) 16-021(c)-99**  
**May 2006**

This report summarizes Los Alamos National Laboratory (LANL) activities completed during May of fiscal year (FY) 2006 on the CMS for PRS 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) Activities*** – The HPT did not meet during May 2006.

The next HPT meeting is tentatively scheduled for mid-June. Topics will include a TA-16-260 update, a discussion of groundwater modeling, a discussion of notice for public comment on the CMS report, and further discussion of the upcoming Investigation Report for deep groundwater.

***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 no significant precipitation events in May.

***CMS Hydrogeologic Investigations***– Investigations include ongoing Phase II RFI sampling as well as continuing investigations outlined in the CMS plan.

The ongoing Phase II RFI sampling program, currently focused on capturing high-flow events, includes quarterly stable isotope sampling at Martin and Burning Ground Springs.

The hydrologic system in Cañon de Valle continues drying out due to a lack of precipitation from December through May. Martin Spring is flowing at ~1000 mL/min., Burning Ground Spring is flowing at a rate of ~200 mL/ sec., and SWSC spring is dry.

The 90s Line Pond and downgradient surface locations in Martin Spring Canyon and Cañon de Valle are dry. The alluvial wells in lower Cañon de Valle and lower Martin Spring Canyon are wet. Surface water in Cañon de Valle was present from Burning Ground spring to just east of MDA P and water was present at the Cañon de Valle headwaters. The three alluvial wells, installed in Fishladder Canyon as part of the TA-16-340 Complex investigations, are all dry.

Sampling of well CDV-16-2(i)r was completed during May. Field parameters were consistent with previous sampling rounds.

### ***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 completed 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.

Work on additional sections for the Investigation Report for TA-16 groundwater due in August 2006 are continuing. A rough draft of this document was completed in May.

***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 June 2006**

### ***RFI Reports and CMS Report***

- Discussions regarding the CMS Report with NMED personnel.

### ***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 alluvial wells.
- Precipitation monitoring.
- Data analysis.
- Groundwater modeling.
- Work on groundwater investigation report, including completing the peer review.

### ***Ecological Risk Pilot***

- None

### ***CMS Bench and Pilot Studies***

- None

***Public and Stakeholder Involvement***

None planned.