

TA-116



Los Alamos National Laboratory/University of California
Risk Reduction & Environmental Stewardship (RRES)
Remediation Services (RS), MS M992
Los Alamos, New Mexico 87545
(505) 667-0808/FAX (505) 665-4747



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

Date: February 17, 2004
Refer to: ER2004-0080

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



SUBJECT: JANUARY 2004 CORRECTIVE MEASURES STUDY (CMS) PROGRESS REPORT FOR POTENTIAL RELEASE SITE (PRS) 16-021(C), THE 260 OUTFALL

Dear Mr. Young:

Enclosed are two copies of the January 2004 CMS Progress Report for PRS 16-021(c), the 260 Outfall. This report is being submitted as part of the reporting conditions outlined in Section R, scope of work for Resource Conservation and Recovery Act CMS at the Laboratory, Task IV, Reports, Part A, Progress Module VIII of the Laboratory's Hazardous Waste Facility Permit.

If you have any questions, please call Dave McInroy at (505) 667-0819 or Lance Woodworth at (505) 665-5820.

Sincerely,

David McInroy, Deputy Project Director
Remediation Services
Los Alamos National Laboratory

Sincerely,

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



Mr. John Young
ER2004-0080

-2-

February 17, 2004

DM/DG/NR/th

Enclosures: January 2004 CMS Progress Report (ER2004-0079)

Cy:(w/enc)

A. Dorries, RRES-ECR, MS M992
T. Grieggs, RRES-SWRC, MS K490
D. Hickmott, EES-6, MS M992
N. Quintana, RRES-ECR, MS M992
N. Riebe, RRES-ECR, MS M992
C. Rodriguez, RRES-ECR, MS M992
L. Sohlt, RRES-ECO, MS M887
D. Stavert, RRES-EP, MS J591
D. Gregory, LASO, MS A316
L. Woodworth, LASO, MS A316
S. Yanicak, NMED-OB, MS J993
J. Schoepner, NMED-GWQB
J. Kieling, NMED-HWB
M. Leavitt, NMED-SWQB
L. King, EPA Region 6
RRES-RS File, MS M992
IM-5, MS A150
RPF MS M707

Cy:(w/o enclosure)

D. McInroy, RRES-RS, MS M992
J. Johnson, ADO, MS A104
S. Martin, NMED-HWB
C. Voorhees, NMED-OB

Monthly Progress Report
Corrective Measures Study (CMS) for Potential Release Site (PRS) 16-021(c)-99
January 2004

This report summarizes Los Alamos National Laboratory (LANL) activities completed during January of fiscal year (FY) 2004 on the CMS for PRS 16-021(c)-99, the 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 260 HPT met briefly on January 12, 2004. Agenda items included a 260 update, a discussion of ongoing drilling activities, an outline of the strategy for sampling at the TA-16-340 complex, and a brief discussion of the notice of deficiency (NOD) on the Phase III RFI Report.

LANL representatives provided updates on the CMS sampling investigations, including a discussion of intermediate-well drilling activities and an update on the status of the Canon de Valle hydrologic system. Additional details on these projects are provided below in this monthly progress report and in the December 2003 progress report.

LANL reviewed the interim measure (IM) soil removal and sampling strategies for PRSs associate with TA-16-340, the Fish Ladder. This facility is going to be removed by the Decontamination and Decommissioning (D&D) group during FY 04. There are opportunities to accelerate cleanup by working closely with the D&D group. Based on RFI data, key constituents present at levels that may require cleanup include RDX, polyaromatic hydrocarbons (PAHs), and arsenic. It is also likely that HE contaminated soil will be exposed by D&D during sump removal. LANL plans to remove highly contaminated soils prior to implementing Phase II sampling. Phase II sampling will include: 1) samples to verify cleanup and to better constrain the nature and extent of contamination. It was noted that the V-Site drainline sampling approach would be used; 2) alluvial well construction and sampling in Fish Ladder canyon; and 3) intermediate depth (up to 200 ft) boreholes to determine if released volatiles have migrated to depth in the Fish Ladder canyon. NMED noted that lateral bounding samples in the drainages would be important in order to evaluate splashing from the Fish Ladder. It was noted that a 'no-longer-contained-in' determination for low-level F-listed solvents would probably be requested to support the project.

LANL asked several questions concerning the notice of deficiency (NOD) for the Phase III TA-16-260 RFI Report. NMED representatives provided clarification both during the meeting and in subsequent e-mail communications.

The next HPT meeting is tentatively scheduled February 9, 2004. Topics will include a 260 update, a discussion of implications of the RFI NOD for the CMS Report, a

presentation on the geochemical analysis method proposed in the Phase III RFI Report, and updated information on drilling.

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. No BMP repairs were required in January.

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

The ongoing Phase II RFI sampling program includes collecting samples at Martin and Burning Ground spring for stable isotopes. This sampling is now focused on capturing high-flow events. Martin spring and SWSC spring remain dry.

The alluvial and intermediate wells were checked for presence and level of water. The lower four out of five alluvial wells in Canon de Valle contained water, as did one of three of the alluvial wells in Martin Spring Canyon. All of the intermediate depth boreholes were dry.

Canon de Valle was wet from Burning Ground spring to MDA-P. The 90s Line pond, Fish Ladder seep, and Water Canyon at the Canon de Valle confluence were dry.

No precipitation samples were collected during this reporting period.

Quarterly sampling was completed at well CDV-R-15-3. No unusual field parameters were noted.

Drilling was completed at the third intermediate depth borehole location, southeast of TA-16-340 on the road to Nakamu. Schlumberger completed a full suite of open-hole geophysical analyses of the borehole. The total depth of this borehole was ~ 1400 ft. No water was present in this borehole, even though it extends more than 100 ft deeper than the extrapolated depth of the regional aquifer. In addition, the second intermediate-depth borehole, in which a two screen well had been completed in December 2003, was virtually dry during January 2004. LANL discussed these findings with NMED in a conference call on January 22, 2003 and decided that these wells would be sounded periodically for approximately six months, at which time a decision on how to proceed would be made.

Ecological Risk Pilot–

The ecological risk pilot is complete and 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, is complete. 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).
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) –

No activities. The IM Report was approved by NMED in a letter dated January 13, 2003.

RFI and CMS Report –

The CMS Report was completed and submitted to NMED on November 26, 2003. The RFI Report was completed and submitted to NMED in September. A response to the NOD on the RFI Report was submitted on January 28, 2004.

Public and Stakeholder Involvement– None.

Percentage of CMS Completed

LANL estimates 100 % of the surface CMS has been completed to date. Note this percentage does not reflect the deep and intermediate boreholes that are being drilled per the CMS plan addendum. LANL estimates that 60% of the deep groundwater CMS has been completed.

Problems Encountered/Actions to Rectify Problems

The fact that CDV-16-2(i) and CDV-16-3(i) are not producing water is of concern. This means that nature and extent of groundwater contamination remains poorly constrained. LANL/DOE will continue to sound these boreholes and decide how to proceed in approximately six months. Additional boreholes may be required.

Key Personnel Issues

None.

Projected Work for February 2004

RFI Reports and CMS Report

- Incorporation of NOD comments into RFI Report text.

BMPs

- Continued inspection of existing BMPs following significant precipitation events.

CMS Hydrogeologic Investigations

- Site maintenance at the TA-16 trailers.
- Maintenance of autosamplers
- Checking for levels and presence of water in alluvial and deep wells. Sounding CDV-16-2(i) and CDV-16-3(i)
- Precipitation monitoring
- Zonge geophysics investigations write-up
- Data analysis.

Ecological Risk Pilot

- None

CMS Bench and Pilot Studies

- None

Public and Stakeholder Involvement

A presentation to the LANL Citizens' Advisory Board (CAB) will be made on February 11, 2004.