

TA-113

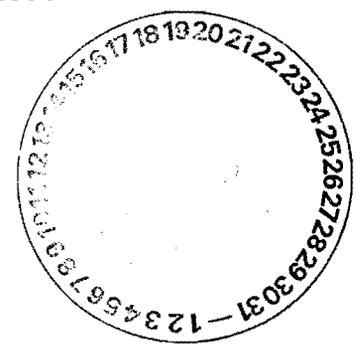


Los Alamos National Laboratory/University of California
Risk Reduction & Environmental Stewardship (RRES)
Remediation Services (RS), MS M992
Los Alamos, New Mexico 87545
(505) 667-0808/FAX (505) 665-4747



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: September 16, 2003
Refer to: ER2003-0588



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

SUBJECT: AUGUST 2003 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 August 2003 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, Project Manager
Department of Energy
Los Alamos Site Operations

DM/DG/NR/am



An Equal Opportunity Employer/Operated by the Uni

Printed on Recycled Paper



6439

Enclosure: August 2003 CMS Progress Report (ER2003-0587)

Cy:(w/enc)

A. Dorries, RRES-ECR, MS M992
T. Grieggs, RRES-SWRC, MS K490
D. Hickmott, EES-6, MS M992
D. McInroy, RRES-ECR, MS M992
N. Quintana, RRES-RS, 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
J. Schoeppner, NMED-GWQB
J. Kieling, NMED-HWB
V. Maranville, NMED-HWB
S. Yanicak, NMED-OB
M. Leavitt, NMED-SWQB
S. Yanicak, NMED-OB
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
B. Ramsey, RRES-DO, MS J591
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)
August 2003

This report summarizes Los Alamos National Laboratory (LANL) activities completed during August of fiscal year (FY) 2003 on the CMS for PRS 16-021(c), 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 on August 25, 2003.

Agenda items included an update of ongoing 260 activities, a discussion of ecological risk assessment results, a discussion of the conceptual model section of the upcoming RCRA Facilities Investigation (RFI) Report, an overview of anticipated public involvement activities for the upcoming fiscal year, issues that have arisen with the CMS Report, and what LANL and the Department of Energy (DOE) anticipated will be included in next year's work.

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 July 2003 progress report.

The results of the ecological risk assessment were summarized. Most of these data had been presented previously in earlier HPT meetings; formatting issues with Appendix L for the RFI Report were discussed. LANL/DOE noted that the conceptual model section of the RFI Report would briefly summarize the existing (1998 RFI Report) conceptual model and then discuss key updates to that model based on the new data.

Strategies for public involvement for the CMS Report were discussed. Public meetings will likely be needed after submittal of the report, in concert with the statement of basis, and in association with the Permit Modification. It was also noted that a site tour for the public would probably be provided during the spring of 2004. LANL and NMED agreed to discuss permit modifications for the CMS with their colleagues and that this would be an agenda item at the next HPT meeting.

LANL/DOE noted that due to the low level of site-specific risk in Canon De Valle a best management practice (BMP) approach to RDX and barium contamination in surface, spring, and alluvial groundwater would likely be proposed in the CMS Report. This would probably involve barrier systems. It was also noted that soil removal to reduce unacceptable levels of risk in the source region would likely be proposed.

LANL/DOE reiterated that the CMS report would handoff to the groundwater CMS further investigation of the TA-16 vadose zone and deep groundwater at the soil-tuff interface (except for the surge bed located directly beneath the removed TA-16-260 pond). Similarly, further investigations of lower Canon de Valle would be handed off to Canyons investigations near the Bandelier tuff unit 2/unit 3 contact.

LANL/DOE noted that activities anticipated for TA-16 in the upcoming fiscal year include: 1) public involvement for the CMS Report; 2) drilling of three intermediate-depth wells; 3) ongoing monitoring for the TA-16-260 CMS; 4) formulation of the corrective measure implementation (CMI) plan for TA-16-260; 5) an investigation work plan for the TA-16-340 complex (Fish Ladder) that would likely include a proposal to remove soil in concert with the D&D program; 6) RFI fieldwork (based on the EPA-approved 1993 workplan) for the 90s Line and 30s Line ponds, to scope out the size of potential cleanup activities at these sites.

The next HPT meeting was scheduled for September 29, 2003. Topics will include a 260 update, CMS decision strategies, public involvement, and a discussion of other issues that have arisen during the writing of the RFI and CMS reports.

RCRA Facility Investigation (RFI) 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 August.

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

Quarterly sampling was initiated following late August precipitation.

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. SWSC spring remains dry. Martin spring is producing a small amount of water.

The alluvial and deep wells were checked for presence and level of water. All five alluvial wells in Canon de Valle contained water. Water was present in the all three of the alluvial wells in Martin Spring Canyon, although there was only enough water to sample in the lowermost well. All of the intermediate depth boreholes were dry.

The headwaters of Canon de Valle contained water. The new seep in the headwaters of Canon de Valle (see September 2002 CMS Monthly) continues to flow. Canon de Valle was wet from Burning Ground spring to MDA-P. Canon de Valle downgradient from the Fish Ladder Canyon was wet. Water Canyon remains wet.

Samples from two precipitation event were collected and archived for analysis during this reporting period.

Quarterly sampling continued for CDV-R-15-3 and CDV-R-37-2. The uppermost screen at CDV-R-37-2 continues to exhibit high turbidity.

Data analysis for the RFI Report has been proceeding at a high level of effort. The peer review of the RFI Report was completed. Peer review comments are being addressed.

Ecological Risk Pilot–

Ecological risk results were presented to the HPT.

CMS Bench and Pilot Studies– Write-up of bench and pilot studies continued (formerly in collaboration with the Innovative Treatment Remediation Demonstration (ITRD) Program. The ITRD HE program is focused on two DOE sites: LANL and Pantex. Studies have included:

1. A study of the passive barrier technology of Stormwater Management, Inc., which is potentially useful for removing HE and barium from waters.
2. A study of chemical treatment of HE-contaminated soil using zero-valent iron (ZVI). The LANL portion of this study has been completed.
3. At Pantex, a study of in situ anaerobic bioremediation of HE using gas-phase carbon additions.
4. A study of ex situ anaerobic bioremediation of HE-contaminated soils using the W. R. Grace process, which combines anaerobic bioremediation with a ZVI treatment. The LANL portion of this study has been completed.
5. A study of HE composting. Amendments appropriate to northern New Mexico were tested on both clean and contaminated soils. The LANL portion of this study has been completed. The internal report was completed on these studies.
6. A study of immobilization of barium-contaminated sediments from Cañon de Valle. A preliminary study has been completed and study write-ups are ongoing.
7. Phytoremediation studies in Cañon de Valle. Native plants were being evaluated for their ability to remove HE from surface waters. Results suggest that low levels of phytoremediation are occurring in the Burning Ground spring area.
8. Oxidation, reduction, and in-situ bioremediation studies of groundwater contamination at Pantex.

Write-up of the stabilization studies continued.

Interim Measure (IM) –

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

RFI and CMS Report –

Work continued on sections of these reports. The peer review of the RFI Report was completed.

Public and Stakeholder Involvement– LANL representatives presented an update on the TA-16-260 CMS to the Citizens' Advisory Board (CAB). CAB members expressed a strong interest in the investigation and it was agreed that a tour would be scheduled for October.

Percentage of CMS Completed

LANL estimates 97 % of the CMS has been completed to date. Note that this percentage does not reflect the deep and potential intermediate boreholes that will be drilled per the CMS plan addendum.

Problems Encountered/Actions to Rectify Problems

General Problem: The inability of the HPT to meet regularly earlier in the year had a detrimental impact on the activities associated with generation of the CMS Report.

Key Personnel Issues

None.

Projected Work for September 2003

RFI Report and CMS Plan

- None.

BMPs

- Inspection of existing BMPs following significant precipitation events will continue.

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.
- Continued precipitation monitoring.
- Quarterly sampling
- Zonge geophysics investigations

- Intermediate depth borehole drilling
- Data analysis.
- Writing of RFI and CMS reports. Incorporation of peer review comments on RFI Report.

Ecological Risk Pilot

- Incorporation of peer review comments on RFI Report.

CMS Bench and Pilot Studies

- Stabilization studies write-up.

Public and Stakeholder Involvement

A tour will be provided to personnel from the Risk Assessment Corporation.