

SNL MWL 05

05-002



National Nuclear Security Administration
Sandia Site Office
P.O. Box 5400
Albuquerque, New Mexico 87185-5400



JAN 27 2005

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. James Bearzi, Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Road
Building E
Santa Fe, NM 87505



Dear Mr. Bearzi:

Enclosed is one of two NMED copies of the Quarterly Report for the Corrective Measures Study for the Mixed Waste Landfill at Sandia National Laboratories/New Mexico for the period of October through December 2004. Per our verbal agreement, the second NMED copy is being sent directly to the Albuquerque Group Manager.

If you have any questions, please contact John Gould at (505) 845-6089.

Sincerely,


Patty Wagner
Manager

Enclosure

cc w/enclosure:

M. Gardipe, SC, ERD
C. Voorhees, NMED-OB (Santa Fe)
J. Volkerding, NMED-OB
W. Moats, NMED-HWB (via Certified Mail)
L. King, EPA, Region 6 (via Certified Mail)

cc w/o enclosure:

F. Nimick, SNL, MS 1087
D. Miller, SNL, MS 1089
K. Thomas, EPA Region 6

CERTIFICATION STATEMENT FOR APPROVAL AND FINAL RELEASE OF DOCUMENTS

Document title: Mixed Waste Landfill Quarterly Report October – December
Fiscal Year 2004

Document author: Tim Goering, Department 6147

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.

Signature: Pete B. Davies
Peter B. Davies
Director
Geoscience & Environment Center
Division 6100
Sandia National Laboratories/New Mexico
Albuquerque, New Mexico 87185
Operator

1/25/04
Date

and

Signature: for Patty Wagner
Patty Wagner
Manager
U.S. Department of Energy
National Nuclear Security Administration
Sandia Site Office
Owner and Co-Operator

1/27/05
Date

Sandia National Laboratories, New Mexico (SNL/NM)

Environmental Restoration Project

A Department of Energy Environmental Cleanup Program

Quarterly Report

For The

Mixed Waste Landfill

Corrective Measures Study

October – December 2004

Sandia is a multi-program laboratory operated by Sandia Corporation, a Lockheed Martin Company for the United States Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.

1.0 Introduction

This report satisfies a requirement in the HSWA (Hazardous and Solid Waste Amendments) Module (Section IV. S.6) to the SNL/DOE RCRA (Resources Conservation and Recovery Act) Part B Operating Permit, EPA ID No. NM5890110518-1, that quarterly reports be submitted for the duration of a Corrective Measures Study (CMS).

2.0 Work Completed on the CMS

2.1 CMS Work Plan

On October 11, 2001, the New Mexico Environment Department (NMED) directed the U.S. Department of Energy (DOE) and SNL/NM to conduct a Corrective Measures Study (CMS) for the MWL. A CMS Workplan was written by the SNL/NM Environmental Restoration Project in accordance with requirements set forth in Module IV (Hazardous and Solid Waste Amendments) of the DOE and SNL/NM RCRA Permit. The CMS Workplan was submitted to the NMED on December 19, 2001. The CMS Workplan included a description of the general approach of the investigation and potential remedies, a definition of the overall objectives of the study, specific plans for evaluating remedies, schedules for conducting the study, and the proposed format for the presentation of information. The CMS Workplan was approved with conditions by the NMED on October 10, 2002.

2.2 CMS Report

The Mixed Waste Landfill CMS Report was submitted to the NMED on May 21, 2003. The CMS Report evaluated 16 corrective measures technologies based on corrective action objectives and criteria specified by the EPA and NMED. Four candidate corrective measures alternatives were determined to be suitable for the MWL. These alternatives included No Further Action with Institutional Controls, Vegetative Soil Cover, Vegetative Soil Cover with Bio-Intrusion Barrier, and Future Excavation. The CMS report recommended the Vegetative Soil Cover as the preferred corrective measure for the MWL. The CMS Report incorporated comments provided by the Waste Energy Resource Consortium (WERC) review group and informal comments from the NMED.

2.3 Notice of Deficiency

The NMED completed their review of the MWL CMS Report and issued a Notice of Deficiency (NOD) on November 5, 2003. DOE/SNL developed and prepared responses to the NOD and submitted them to the NMED on December 19, 2003.

2.4 Class 3 RCRA Permit Modification and Public Hearing Process

The NMED completed their review of the DOE/SNL responses to the NMED NOD, and issued a formal notification letter to the DOE/SNL on January 5, 2004, stating that the MWL CMS report was determined to be administratively complete.

On January 23, 2004, DOE submitted a Class 3 Permit Modification Request to the NMED proposing a vegetative cover as the final remedy for the MWL. The DOE issued a public notice of a Request for a Class 3 Permit Modification to the HSWA Module of the RCRA Permit. The public notice was published in the January 30, 2004 edition of the Albuquerque Journal and was mailed to all addressees on the facility mailing list.

This public notice initiated a 60-day public comment period, which ended on March 30, 2004. A public meeting was held on February 26, 2004 to discuss the proposed Class 3 Permit Modification and the results of the MWL CMS. At the meeting, nine posters were presented showing the various alternatives evaluated during the CMS, the methodology, and the results of the CMS. SNL technical staff and DOE/SNL management were available for direct dialogue with the public, and to answer questions from the public. Written comments were solicited at the meeting, and for the remainder of the 60-day public comment period. These comments were compiled and transmitted to the NMED on April 19, 2004 for their evaluation.

The NMED submitted a Notice of Administrative Completeness for the MWL Class 3 Permit Modification Request on June 28, 2004. On August 10, 2004 the NMED notified DOE/SNL of the NMED-initiated public comment period for the Class 3 permit modification process and of a public hearing on the MWL Corrective Measures Study scheduled for December 2004. The NMED issued a draft permit for the MWL recommending a vegetative soil cover with bio-intrusion barrier as the preferred MWL alternative.

The MWL team spent considerable effort preparing for the hearing during the months of September through November 2004. Planning meetings were held with the Sandia/DOE legal team, and testimony was prepared for the hearing.

On November 1, 2004 DOE/SNL submitted their draft testimony in their “*Notice of Intent to Present Technical Testimony*” to the NMED Hearing Clerk. Supporting information, including resumes and exhibits, was also provided.

The Public Hearing was held December 3rd, 4th, 8th and 9th. Parties providing technical testimony included the Department of Energy, Sandia National Laboratories, Citizen Action, WERC, Dr. Eric Nuttall, and NMED. In addition, various members of the public provided their input and opinions on the Mixed Waste Landfill and the proposed remedy.

3.0 CMS Work To Be Completed

3.1 Remedy Selection

Transcripts of the Hearing were received January 12, 2005. Findings of Facts and Closing Arguments are due from each party by February 9, 2005. The Hearing Officer will then have 30 days to prepare her draft report and recommendations; all parties will then have 15 days to comment on the report; the report will then be finalized and sent to the Secretary of the New Mexico Environment Department (Ron Curry). The Secretary will review the Hearing Officer's recommendations and will then select the final remedy for the Mixed Waste Landfill.

The NMED will issue a final permit decision and their responses to comments. The responses will specify which provisions, if any, of the draft Permit have been changed in the final permit decision, and the reasons for the change. The approved remedy will be incorporated into the Compliance Order on Consent, with compliance schedules for remedy implementation.

3.2 Corrective Measures Implementation (CMI) Plan

The next stage of the CMS is the development and submittal of a Corrective Measures Implementation (CMI) Plan. The CMI Plan was originally due to the NMED on September 30, 2004 based on the schedule presented in the Compliance Order on Consent. The deliverable date for the MWL CMI Plan has been extended until August 12, 2005 to allow time for the remedy selection process.

3.3 Corrective Measures Implementation Report

After the final remedy has been implemented, a CMI Report will be prepared that will document that the final remedy was implemented according to all criteria identified in the approved CMI Plan. The CMI Report was originally due to the NMED on January 20, 2006 based on the schedule presented in the Compliance Order on Consent. The deliverable date for the MWL CMI Report has been extended to September 29, 2006.

3.4 Long Term Monitoring and Maintenance Plan

Following submittal of the CMI Report, DOE/SNL will prepare a Long Term Monitoring and Maintenance Plan for the MWL. This plan will be developed in consultation with the NMED and must be submitted for approval within 180 days of the NMED's approval of the CMI Report. The plan will address monitoring, maintenance, and physical and institutional controls for the MWL. The plan will also include contingency procedures that must be implemented by DOE/SNL if the final remedy fails to be protective of human health and the environment.

4.0 Related Work During this Quarter (October through December 2004)

Quarterly sampling of perchlorate was conducted in monitoring wells MWL-BW1 and MWL-MW1 in September and November 2004. No perchlorate was detected in these wells during either sampling event. Sampling was conducted to meet the requirements of Sandia's Compliance Order on Consent.

Quarterly vadose zone monitoring of the MWL was conducted in November 2004. Three angled boreholes completed beneath the MWL were logged using a neutron moisture meter to measure the water content of the vadose zone. Current plans are for collecting moisture content data quarterly until a remedy is implemented at the site and a Long-Term Monitoring and Maintenance Plan is approved by the NMED.

The MWL team is completing documentation to be used in support of the Corrective Measures Implementation (CMI) Plan. The MWL Vegetation Study was finalized as a SAND Report. The MWL team is working with Shaw to complete the MWL Calc Set SAND report, which will also be referenced in the CMI Plan.

A visit was paid to the Encino Gravel Pit to assess potential rock sources and crushing facilities for the proposed MWL biobarrier. The haul distance for this rock is approximately 100 miles one-way, but there is a possibility that this pit may be mothballed before the rock can be acquired. Other potential rock sources are also being assessed.

5.0 Relevant External Contacts

- External presentations on the MWL during this quarter included:
 - New Mexico Chapter of Air and Waste Management Association (October 5).
 - University of New Mexico Chemical and Nuclear Engineering Department (October 6).
 - Levitan Club (October 29).
 - Albuquerque Geological Society (November 3).
 - New Mexico Society of Hazardous Materials Managers (November 16).
 - Unitarian Church (November 21).