



Department of Energy
National Nuclear Security Administration
Albuquerque Operations Office
Office of Kirtland Site Operations
P.O. Box 5400
Albuquerque, New Mexico 87185-5400



JUL 1 2 2002

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. John Kieling, Manager
Permits Management Program
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Road
Building E
Santa Fe, NM 87505

Dear Mr. Kieling:

Enclosed is one of two NMED copies of the Environmental Restoration Quarterly Report for Sandia National Laboratories/New Mexico (SNL/NM), ID Number NM5890110518-1, for the period of March 2002, through May 2002.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Michael J. Zamorski".

Michael J. Zamorski
Director

Enclosure



JUL 19 2002

J. Kieling

(2)

cc w/enclosure:

M. Gardipe, AL, ERD

J. Parker, NMED-OB

R. Kennett, NMED-OB

W. Moats, NMED-HWB (via Certified Mail)

L. King, EPA, Region 6 (2 copies via Certified Mail)

cc w/o enclosure:

J. Estrada, OKSO/AIP

F. Nimick, SNL, MS 1087

J. Bearzi, NMED-HWB

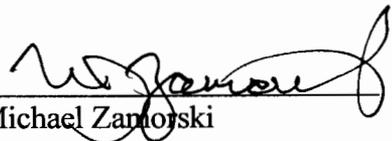
Quarterly Report
March - May
Fiscal Year 2002
Sandia National Laboratories, New Mexico
Environmental Restoration Project

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure 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 as complete as possible at this time. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



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

6/25/02
Date Signed



Michael Zamorski
Director
Office of Kirtland Site Operations
U.S. Department of Energy
Albuquerque Operations Office
National Nuclear Security Administration
Owner and Co-Operator

7/18/02
Date Signed

Sandia National Laboratories, New Mexico (SNL/NM)

Environmental Restoration

A Department of Energy Environmental Cleanup Program

Quarterly Report

March – May 2002

QUARTERLY REPORT

March – May 2002

SANDIA NATIONAL LABORATORIES, New Mexico (SNL/NM)

ENVIRONMENTAL RESTORATION PROJECT

DOE: ALBUQUERQUE OPERATIONS OFFICE/OFFICE OF KIRTLAND SITE OPERATIONS

CONTRACTOR: SANDIA CORPORATION

PROJECT MANAGER: FRANCIS NIMICK

NUMBER OF POTENTIAL RELEASE SITES SUBJECT TO THIS PERMIT: 95

SUSPECT WASTE: RADIONUCLIDES, METALS, ORGANICS, and EXPLOSIVES

1.0 Introduction

The technical status of each ongoing activity in the Environmental Restoration (ER) Project is discussed in an Activity Data Sheet (ADS), which corresponds to an Operable Unit (OU) for assessment and remediation, or to a specific functional area of the project in the case of Project Management and Technical Support.

2.0 Work Completed in This Quarter (March through May 2002)

2.1 ADS 1285 Technical Support

2.1.1 ER Site Tracking (ERST)

- Completed and submitted ER information for three land use permits to Nadine Williams (SNL/NM, 10854).
- Reviewed, corrected, and updated information in IPABs database.
- Began entry into database of building identifications associated with ER sites for Emergency Management.
- Initiated negotiations concerning site tracking for SWMU 2, Classified Waste Landfill future land use and restrictions.

2.1.2 Risk Assessment

Risk assessments and/or risk-related support were provided in the following areas:

- Risk assessments for Batch 17 NFA proposals are in management review.
- Risk screening assessments for the soil piles, drummed soil, the spoils area, and the excavated area have been completed and submitted to the regulators for the Chemical Waste Landfill (CWL).
- Several risk-screening assessments in response to RSIs have been completed or are in final review.
- Residential risk screens are being performed for SWMUs that could potentially be included in the next Class 3 permit modification.

2.1.3 Environmental Restoration Field Office (ERFO) Support

- Second quarter groundwater monitoring was completed for the Tijeras Arroyo Groundwater (TAG) project.
- Third quarter groundwater monitoring was completed for the TA3-5 and Canyons (CYN) groundwater projects.
- First half of the twice-yearly groundwater monitoring was completed for the CWL.
- Annual groundwater monitoring was completed for the Mixed Waste Landfill (MWL)
- Monthly water levels were monitored on all groundwater projects (TAG, MWL, CWL, TA3-5, CYN and SWMUDSS [Solid Waste Management Unit & Drains and Septic Systems])
- SWMUDSS screening soil-vapor sampling was completed.
- SWMU 66 soil sampling was completed.
- Supported Department 3121 in mobilizing and demobilizing equipment for drilling and developing and waste management for two monitoring wells.
- TA 3-5 and TA 1 sites' postings were corrected and sites inspected.
- Quarterly samples were collected from the Corrective Action Management Unit (CAMU) Vadose-zone Monitoring System (VZMS).
- Waste management was supported in discharging well purge water and decon water to the sanitary sewer (approx. 30 drums) and in spreading to grade soil piles from four wells.
- IP site (MWL) backhoe and support for reinstrumentation and calibration was completed.
- Monitoring well repair and maintenance activities continued.

2.1.4 Environmental Restoration Chemistry Lab (ERCL)

- The number of CWL samples has been reduced; concentration now is on groundwater monitoring samples.

- ERCL will be shut down as of June 30, 2002 due to lower off-site costs, higher internal loads, and an expected decrease in sample load.

2.1.5 Geographic Information System (GIS) Program

Requests received (March 1, 2002-May 31, 2002)

GPS: 11
 Data: 1
 Maps: 218
 Total: 230

Requests completed (March 1, 2002 – May 31, 2002)

GPS: 8
 Data : 1
 Maps: 214
 Total: 223

- A revised geology bed rock map was completed for the site-wide hydrogeologic project. A complete set of documentation on the GIS data layers for the Sitewide Hydrogeologic report was developed and printed.
- A revision of the "ER Closure Atlas" was completed in two forms, black and white and color. The color version will be used as part of closure files, and the black and white version is going through review and approval to be released as a Sandia SAND document.
- Surveying and mapping of the SWMUDSS fieldwork is approximately 50% complete.
- Three-dimensional mapping of the Chemical Waste Landfill excavation was completed; the data are being processed for incorporation into reports.
- A set of revised maps for the RCRA permit renewal was completed.
- The entire mapping backlog has been completed.

2.1.6 Environmental Restoration Data Management System (ERDMS)

- Data tables and files were provided to project participants in support of NFAs and risk assessments.
- The groundwater reporting system is undergoing modifications based on input from project participants.
- Work on documentation for the ERDMS continued.
- Support for programming tasks for CAMU continued.
- There are now 1,772,349 data records in the ERDMS.

2.1.7 Records Management Information System

- 282 ER records were received and 312 records were processed into the records management system. The difference is due to records received at the end of one month but not processed until the next month.
- 139 customer requests were received. Of these, 3 records were not found because they were never received. 3,227 pages were copied and 29 requests were e-mailed.
- Database and Computers: Issues/problems associated with conversion to Office 2000 continue to be worked, but so far have had no impact on production.
- Imaging: There have been no complete service interruptions of SHEARS-on-the-IRN and the back-ups and reconciliation continue to work well. With the time change, the backup programs had to be re-created. Upgrades to the interfacing software should prevent this from happening again.
- NFA References: ISS-RC personnel continue to work with ER staff to identify NFA references that still need to be submitted to the RC. Status: Unchanged from last report.
- Legacy Records: At the beginning of March, the ER legacy (submitted records) count was at 53.83 feet. During this quarter, 1.00 ft. was submitted, and 4.00 feet of legacy material were processed.
- Site Closure: A listing was provided to facilitate a search of the SNL inactive records for ER-related boxes and the relevance to ER and site closure, which is a continuing process.

2.2 ADS 1289 Mixed Waste Landfill (MWL)

- A Corrective Measures Study (CMS) for the MWL has been initiated by SNL at the direction of the New Mexico Environment Department (NMED). A CMS Plan was submitted to the NMED on December 19, 2001 for review and approval. The CMS Report has been initiated even though the NMED has not responded to the CMS Plan.
- The groundwater monitoring report for the years 1990 to 2001 is complete and ready for publication. It is undergoing management review.
- The annual MWL groundwater monitoring report has been completed.
- The MWL team continues to address public requests and concerns about the MWL and the proposed closure pathway, including long-term environmental stewardship.

2.3 ADS 1295 Septic Tanks and Drainfields Assessment (ST&D)

- Field work preparations and permits for system location and passive soil-vapor sampling were completed.

- Goresorber passive soil-vapor sampling was completed at 29 SWMU Drain and Septic Systems.

2.4 ADS 1302 Technical Area I

- A draft NFA proposal was written and peer reviewed for SWMU 190.
- Sampling was completed at 26 of the locations identified in the Sampling and Analysis Plan for SWMUs 96 (Storm Drain System), 187 (Sanitary Sewer Line) and 226 (Old Acid Waste Line).

2.5 ADS 1303 Technical Area II

- Demilitarization/disassembly of material from SWMU 2 continued but at a reduced rate due to decreased budget.
- Surveys and sorting of disassembled material from SWMU 2 continued but at a reduced rate due to decreased budget.
- Characterization of waste streams (thermal batteries, explosives, capacitors, and radioactive material) continued but at a reduced rate due to decreased budget.
- Draft of the 40 CFR 761 notification to the EPA for SWMU 2 was completed and informally reviewed by the EPA.
- RSI reporting for septic and drain system sites (SWMUs 48, 135, 136, 159, 165, 166, and 167) continued.
- Submittal of additional information to the NMED on SWMU 114 is being finalized.
- Heavy cutting and disassembly of SWMU 2 artifacts is complete and the area was demobilized.

2.6 ADS 1306 Technical Areas III and V

- A meeting was held with NMED/HWB regarding the status of SWMU 4, the Liquid Waste Disposal System (LWDS) Surface Impoundments. As a reply to an RSI request from NMED/HWB, Sandia submitted a risk assessment in 1998. This risk assessment showed that SWMU 4 met industrial risk standards. The risk assessment was revised this quarter and the final numerical results for industrial risk were the same. As part of this effort a residential risk assessment was completed; SWMU 4 does not pass risk standards for a residential scenario. Based on this information, the proposal to NMED/HWB was that (a) no further work would be done and (b) the SWMU would be included on the list for long-term stewardship. NMED/HWB agreed to review all of the information presented to them in the meeting and provided to them previously to provide feedback. A proposal to abolish the Radioactive Material Management Area (RMMA) at SWMU 4 was also sent to DOE; it included calculations based on (a) the maximum radionuclide concentrations from soil samples at the site, and (b) backfilling of the surface impoundments to grade.

- Poster write-ups were drafted and peer-reviewed for SWMUs 26 (Burial Site), 35 (Vibration Facility Oil Spill), 107 (Explosives Test Area), and 241 (Storage Yard).
- A draft letter summarizing information to support an NFA proposal for SWMU 5, the LWDS Drainfield was written. The letter pulls together pertinent soil sample analytical results obtained from a groundwater monitoring well and previously NFA-provided soil sample analytical results. It includes cross-sections with all the soil sample results and a revised risk assessment.
- The RMMA for SWMU 26 (Burial Site) was abolished.

TA-V Groundwater

- Analysis of second quarter (FY02) groundwater samples was completed. Samples were collected from monitoring wells AVN-1, AVN-2, LWDS-MW1, LWDS-MW2, TAV-MW1, TAV-MW2, TAV-MW3, TAV-MW4, TAV-MW5, TAV-MW6, TAV-MW7, TAV-MW8, and TAV-MW9. Laboratory results for the second quarter are preliminary, as the data validation has not been completed at this writing. TCE was detected above the MCL of 5.0 micrograms per liter (ug/L) in LWDS-MW1, the duplicate for TAV-MW1, TAV-MW7, and the sample split for TAV-MW8 at concentrations of 17 ug/L, 5.7 ug/L, 7.5 ug/L, and 6.09 ug/L, respectively. Nitrate plus nitrite was detected above the MCL of 10 milligrams per liter (mg/L) in LWDS-MW1 at 12 mg/L.

2.7 ADS 1309 Tijeras Arroyo

- First drafts of NOD/RSI responses for SWMUs 230, 231, 232, 233, and 234 were written.
- Risk assessment and analytical data table work continued for the NOD/RSI responses.
- Risk assessments for SWMUs 230, 231, and 232-1 were reviewed.
- The first quarter (FY02) of soil-vapor sampling from vapor wells at SWMUs 46 and 227 was completed. Sample results were consistent with previous quarters. Significant concentrations of chlorinated solvents were restricted to 65 to 165 feet below ground surface.

Tijeras Arroyo Groundwater Assessment Activities

- Routine groundwater sampling was performed.
- Three high-performing team meetings were held to continue work on the data quality objectives. Attendees included representatives from SNL, DOE, Kirtland Air Force Base, the NMED (Hazardous Waste Bureau and Groundwater Bureau), City of Albuquerque, and Bernalillo County. Agreement was reached on the format and content of the TAG Work Plan.
- Vadose-zone groundwater flow modeling progressed.

2.8 ADS 1326 Project Management

- Normal project management activities were carried out.
- Significant effort has been invested in preparing materials in support of SNL and local DOE efforts to obtain funding commitments related to the Cleanup Reform Account. This effort included development of plans to accelerate the Project Completion date from 2009 to 2006.

2.9 ADS 1330 Site-Wide Hydrogeologic Characterization

- Base-wide geologic mapping was entered into the GIS.

2.10 ADS 1332 Foothills Test Area

- The draft RSI response report for SWMU 66 was completed. A risk assessment was performed and incorporated into the RSI response report.

2.11 ADS 1333 Canyons Test Area

- The SWMU 94H NFA proposal was completed through management/legal/DOE review.
- Quarterly groundwater sampling was completed for the Canyons wells.
- Preliminary second quarter (FY02) groundwater results were evaluated. Nitrate as N was detected above the MCL of 10 mg/L in CYN-MW1D (22) and CYN-MW3 (13). NPN was detected in the CYN-MW3 sample split at a concentration of 12.5 mg/L.

2.12 ADS 1334 Central Coyote Test Area

- No activity during the quarter.

2.13 ADS 1335 Southwest Test Area

- The SWMU Assessment Report for the TNT site was completed through management/legal/DOE review.
- Completion of the SWMU 103 soil pile investigation was documented and submitted to the Records Center.

2.14 ADS 1345 Corrective Action Management Unit (CAMU)

- Waste storage operations at the CAMU continued. At the end of the reporting period, approximately 35,372 cubic yards (cy) of soil were stored in the Bulk Waste Storage Area (BWSA).
- There are currently three partially full wrangler bags and one full wrangler bag in a transportainer at the Containerized Waste Staging Area (CWSA). Partially full wrangler bags include one containing used sand bags weighing approximately 32 pounds (lb), one containing approximately 43 lb of used respirator cartridges, and one containing approximately 51 lbs of soiled PPE. The full wrangler bag contains soiled PPE and has a weight of approximately 210 lbs. Four rolloffs (RO-03, RO-04, RO-05, and RO-06) are also located in this area for accumulation of additional tarps from the BWSA; the contents from RO-04 were transferred to RO-03 in preparation to ship the waste for off site disposal.
- Approximately 960 cy of soil was hauled from the CWL site and placed into the Sprung™ structures during this reporting period.
- Two 500-gallon tanks were installed for the storage of decontamination water to replace the 55-gallon drums previously used. The tanks are installed on steel grating to allow visual inspections in lieu of continuous leak detection. The installation of the decontamination water tanks created a less than 90-day storage area at the CAMU.
- During this quarter, five 55-gallon drums (275 gallons) of decontamination water were generated at the CAMU. The drums of decon water generated were not discharged to the City of Albuquerque sanitary sewer system, but were instead transferred to one of the two new 500-gallon decon water storage tanks installed at the CAMU. The decon water tank to which the decon water drums were added is currently labeled as T1-051602-01. In addition, 11,300 gallons of storm water from the four storm water ponds at the CAMU were discharged. No discharges were made from the Containment Cell leachate collection system during this period.
- Decon water storage tank T1-051602-01 was sampled and is awaiting approval for discharge during this period. Decon water storage tank T2-052902-01 is accumulating.
- Replacement tents were installed at BWSA bays #1 and #6.
- The scheduled repairs to correct the pipe connections of the Primary Subliner Monitoring Subsystem were completed.
- Construction of the extension for a natural gas pipeline to the CAMU for use during treatment operations was initiated during this reporting period and is scheduled to be completed by mid June.
- On March 13, 2002, DOE and SNL/NM responded to the NMED approval of a Class 2 permit modification request for the CAMU permit. The request was submitted by DOE on October 11, 2001 and approved by the NMED, with conditions, on January 30, 2002. The DOE and SNL/NM response addressed the NMED conditions and included final replacement pages.
- On April 4, 2002, the NMED approved, with conditions, the Class 1 permit

modification request for changes to the Temporary Unit (TU) Permit submitted by DOE on February 19, 2002. On May 29, 2002, DOE and SNL/NM responded to the NMED conditions and provided a final, clean version of the TU Permit.

- On April 4, 2002, the NMED approved, with conditions, the Class 1 permit modification request for transfer of treatment standards language from the TU permit to the CAMU permit, submitted by DOE on February 19, 2002. On May 20, 2002, DOE and SNL/NM requested a 30-day extension to the response time to allow a newly formatted version of the CAMU permit to be prepared. The new due date for a response to the Class 1 approval is June 24, 2002.
- On May 6, 2002, DOE and SNL/NM requested concurrence from the NMED that continued storage of remediation wastes at the CAMU is acceptable. On May 17, 2002, the NMED approved extended storage of remediation wastes at the CAMU until July 30, 2003.
- On May 13, 2002, DOE and SNL/NM submitted a response to the NMED approval, with conditions, of the DOE and SNL/NM proposal to establish criteria for making contained-in determinations. The original request was submitted by DOE on August 1, 2001 and approved by the NMED, with conditions, on January 24, 2002. The DOE and SNL/NM response identified a number of concerns related to storm water management and requested a determination from the NMED on the proposed approach for storm water management.
- The CAMU Quarterly Report for January through March 2002 was submitted to the NMED on May 17, 2002.

3.0 Estimate of the percentage of work completed

- See discussions under each ADS.

4.0 Summaries of all Problems or Potential Problems:

- None.

5.0 Projected Work for the Next Quarter:

- Work will continue on those tasks not completed, as identified in Attachment A.

6.0 Summaries of Contacts Pertaining to Corrective Action:

March 2002

- No activity.

April 2002

- Sandia's ER Project and the Kirtland Air Force Base Installation Restoration Project hosted a joint quarterly public meeting April 18 at the Albuquerque Radisson Hotel and Conference Center. The joint format is designed to make the best use of time for interested citizens and this meeting attracted about 50 attendees. Among the subjects discussed were Sandia's CAMU project, an update on the status of the Corrective Measures Study for the Mixed Waste Landfill, and a presentation by several citizens on a trip to a DOE groundwater workshop held at the Savannah River site.
- A meeting with local stakeholders on the 25th of April reviewed current LTES funding, a community outreach program for high schoolers and sharing Landtitle data with the county.

May 2002

- Detailed coordination was held with another Sandia organization dealing with transferring LTES responsibilities from the ER Project to the Environmental Management Department when the ER Project concludes.

7.0 Summary of Changes to Project Implementation:

- No significant changes have been made to project implementation during this reporting period. However, implementation of Project acceleration will refocus many efforts and processes.

Attachment A

Sandia National Laboratories Environmental Restoration Projects Milestone Chart As Of May, 2002

MILESTONE DESCRIPTION	PROJECTED OR COMPLETION DATE
ADS 1267: CHEMICAL WASTE LANDFILL Complete Field Work, LE, VCM S74	12/02
ADS 1289: MIXED WASTE LANDFILL Submit CMS REPORT to NMED	01/03
ADS 1295: SEPTIC TANKS AND DRAINFIELDS FIRST SWMU Assessment Report for Non-ER Septic System	06/05
ADS 1302: TECHNICAL AREA I Submit VCM Plan to NMED, S30	01/99
ADS 1309: TIJERAS ARROYO Submit VCM NFA to NMED/EPA, S228B	03/01
ADS 1303: TIJERAS ARROYO GROUNDWATER Complete Field work for 8 Wells Complete Field Work for 4 Wells	12/98 12/98
ADS 1334: CENTRAL COYOTE TEST AREA Submit Confirmatory NFA Proposal to NMED, S68	06/05
ADS 1335: SOUTHWEST TEST AREA Submit VCM Report to NMED/EPA, S117	10/00

SUMMARY
OF
QUARTERLY REPORT

March – April – May
Fiscal Year 2002

1. General.

The Quarterly Report is a deliverable requirement stated in the Resource Conservation and Recovery Act (RCRA), Hazardous and Solid Waste Amendments Act (HWSA) Permit, Section F.1. The Quarterly Report discusses the technical status of each ongoing activity in the Environmental Restoration (ER) Project.

The progress for the past quarter is reported by Activity Data Sheet (ADS), which correspond to Operable Units (OUs) for assessment and remediation, or to a specific functional area of the project in the case of Project Management and Technical Support.

2. Contents.

a. The status for each ADS contains the following, if applicable:

- description of work completed, and
- summaries of all findings.

b. The general status items for the ER Project, which follow ADS status, contain the following:

- estimate of the percentage of work completed,
- summaries of all problems or potential problems,
- projected work for the next quarter,
- summaries of contacts pertaining to corrective action, and
- summaries of changes to project implementation.

3. Controversial Issues.

No potentially controversial issues are presented in this report that have not been identified previously to the regulatory agencies.