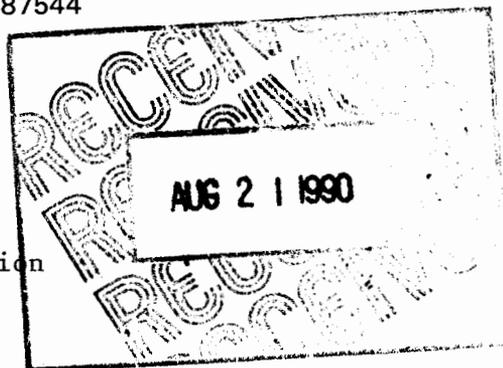


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**Department of Energy**  
Albuquerque Operations  
Los Alamos Area Office  
Los Alamos, New Mexico 87544

**AUG 17 1990**



Ms. Kathleen Sisneros  
New Mexico Environmental Improvement Division  
Hazardous Waste Bureau  
Harold Runnels Building  
1190 St. Francis Drive  
Santa Fe, New Mexico 87503

Dear Ms. Sisneros:

Enclosed for your information are two copies of the Los Alamos National Laboratory Environmental Restoration (ER) Program Quarterly Report, as well as two copies of the June 1990 monthly report. Should you have any questions, please call Dr. Paul Schumann of my staff at 665-5027.

Sincerely,

*Kenneth A. Sprankle*  
Kenneth A. Sprankle  
Acting Chief, ES&H Branch

**Enclosures:**

1. Environmental Restoration Program Quarterly Report (2)
2. Environmental Restoration Program Monthly Report (2)

LESH:PBS:0046

*Documents in magazine file - one copy of each*

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LA-UR-90-2114

Los Alamos National Laboratory  
**Environmental Restoration**  
A Department of Energy environmental clean-up program

**QUARTERLY REPORT**  
**JANUARY - MARCH**  
**FISCAL YEAR 1990**

[REDACTED]

1/1/90

QUARTERLY REPORT  
JANUARY - MARCH 1990  
LOS ALAMOS NATIONAL LABORATORY  
LANL ER PROGRAM OFFICE

ALBUQUERQUE FIELD OFFICE

CONTRACTOR: UNIVERSITY OF CALIFORNIA

ACTING PROGRAM DIRECTOR: THOMAS GUNDERSON

PROGRAM MANAGER: ROBERT VOCKE

NUMBER OF POTENTIAL RELEASE SITES: APPROXIMATELY 600

SUSPECT WASTE: RADIONUCLIDES, HIGH-EXPLOSIVES,  
METALS, SOLVENTS, ORGANICS

**INTRODUCTION**

The Laboratory has modified the current-year work plan (CYWP) to reflect the current budget of \$10609 K. If the remainder of the supplemental request (\$4550 K) is not provided the unfunded request will be carried into FY91.

The quarterly technical status of individual tasks listed in the CYWP is discussed below. Monthly management reports are prepared by the ER Program Office and not repeated as part of this quarterly technical progress report for the ER Program, including Task AL-LA-6, Assessment Management and Remediation Management.

**RCRA/CERCLA ASSESSMENT: Task Element Status**

**AL-LA-1 (Canyons) (Project Leader - Roger Ferenbaugh)**

Completion of monitoring well development and analysis of ground water samples from the monitoring wells has been delayed until this

spring or summer after the RCRA permit is formally issued and weather is more conducive to field activities.

**AL-LA-2 (TA-33, Material Disposal Areas)** (Project Leader - Paul Aamodt)

No activity this quarter. If resources permit, this task may begin next quarter.

**AL-LA-3 (TA-33, Buildings and Outfalls)** (Project Leader - Paul Aamodt)

No activity this quarter. If resources permit, this task may begin next quarter.

**AL-LA-4 (TA-33, Subsurface Structures)** (Project Leader - Paul Aamodt)

No activity this quarter. If resources permit, this task may begin next quarter.

**AL-LA-8 (TA-21 MDAs A, B, U, V, and T )** (Project Leader - Micheline Devaurs)

The major accomplishment in development of the TA-21 Work Plan this quarter was completion of the first internal milestone, consisting of Section 3 of the RCRA Facility Investigation (RFI) Work Plan (a compilation and analysis of existing data and an identification of data needs) for two representative solid waste management units at TA-21 (seepage pits and Material Disposal Area V).

Work is proceeding on completion of Section 3 of the TA-21 Work Plan for the other TA-21 SWMUs. Area T contour mapping of A411 (a special program for environmental surveillance of low-level radioactive waste management areas) data was completed and is being summarized. It is providing input to surface screening of the mesa top in that area. Additionally, drafts of Section 3 for several SWMUs, including material disposal areas U and A, are close to completion.

Supplemental funding will be required to complete preparation of the TA-21 Work Plan. The Work Plan is proceeding slightly behind schedule, however the project leader is seeking support from an outside contractor to get back on schedule.

**Material Disposal Area B Pilot Study**

Analysis of pilot study cap design data is completed. Documentation of the data analysis is on-going. Supplemental funding will be required to write the pilot study work plan section of the TA-21 Work Plan.

**AL-LA-9 (TA-21 Subsurface Structures)** (Project Leader - Micheline Devaurs)

Section 3 of the TA-21 Work Plan (compilation and analysis of existing data and an identification of data needs) was completed for one subsurface SWMU, the seepage pits.

ER and D&D considerations for subsurface SWMUs associated with buildings or structures were discussed with EPA Region VI at a meeting held February 14, 1990. ER Program personnel suggested deferring ER action (while maintaining institutional control) until the SWMU-related structures are ready for D&D. EPA indicated that deferral will require a firm DOE commitment for corrective action (i.e., schedule). This has prompted LANL discussion of future space utilization at TA-21; several meetings were held with Engineering personnel and the Laboratory Space Committee.

Supplemental funding will be required to complete preparation of the TA-21 Work Plan. The Work Plan is proceeding slightly behind schedule, however, the project leader is seeking support from an outside contractor to get back on schedule.

**AL-LA-10 (TA-21 Surface Contamination)** (Project Leader - Micheline Devaurs)

A general surface characterization strategy was discussed with EPA Region VI at a meeting held February 14, 1990. It was agreed that gridding the mesa-top and sample screening (specific analytical techniques and parameters undefined) was an appropriate way to address surface SWMUs, many of whose locations are unknown. The specifics of this surface gridding strategy are being developed by statisticians in group A-1.

Supplemental funding will be required to complete preparation of the TA-21 Work Plan. The Work Plan is proceeding slightly behind schedule, however, the project leader is seeking support from an outside contractor to get back on schedule.

**AL-LA-11 (TA-1, Townsite)** (Project Leader - Roger Ferenbaugh)

Work Plan has been initiated on this task during the second quarter of FY90.

**AL-LA-46 (TA-54, MDAs L, G, H, and J)** (Project Leader - John Krueger)

Results from the September quarterly sampling event became available in January. Analysis of the results showed that the vapor phase vadose zone plume can be bounded with the installation of four additional monitoring wells, bringing the total to 33. Quarterly sampling occurred in March; analytical results are still pending.

In March, it was decided to increase the ceiling for this task from \$25K to \$150K in order to fund the HSE-9 purchase of an instrument capable of automatically analyzing the pore gas collection tubes. A good deal of money will be saved in the long run through implementation of this new procedure. The submittal of revised cost estimates for the remainder of the work for this task also drove the change in ceiling.

## **AL-LA-57 (Interim Remedial Measures)**

**Central School Property** (Project Leader - Roger Ferenbaugh) - As part of the process to certify that the old Central School Property is free of contamination from historic laboratory operations, a number of samples were collected in January from the vicinity of an old acid waste sewer line that traversed one corner of the property. These samples were analyzed for hazardous waste constituents (rad-waste surveys were made in the 1970s when the system was removed). The analytical results confirmed that the site was clean. The final report was completed in March, and sent to DOE/LAAO for distribution to EPA, New Mexico EID and the Los Alamos School System. This activity is considered to be complete.

**Sanitary Sewer Line** (Project Leader - Roger Ferenbaugh) - Both the sanitary waste lines and the central treatment facility are in areas that are potentially impacted by SWMUs. The lines will have to be addressed on a site-by-site basis. Reconnaissance sampling is scheduled for the central treatment facility site to determine if it has been contaminated by drainage from surrounding SWMUs. The access road to the facility must also be evaluated relative to SWMUs.

**Area C** (Project Leader - Roger Ferenbaugh) - This is an area that is planned to be used for construction of a new waste handling facility. The concern is that there may be plumes of hazardous waste from previously closed burial trenches that might underlie the proposed construction area. In the next quarter, work will begin to: 1) delineate the old trench boundaries, and 2) possibly drill a number of relatively shallow holes near the trenches and shafts to collect soil, rock and gas samples at depth, and thereby ascertain whether or not migration and/or plume development has occurred.

**Materials Science Facility** (Project Leader - Roger Ferenbaugh) - There is a possibility that an access road planned for this new facility (still to be built), will cross and thereby impact a SWMU in upper Mortandad Canyon. Scoping reconnaissance sampling is being planned to ascertain what actions will be needed at this site to mitigate potential impacts - either by site remediation or relocating the access road.

## **AL-LA-60 (Installation Work Plan)**

This quarter, assignments were made by IWP section (as defined in the outline) and a schedule was developed based on the expected effective date of the HSWA permit. Preliminary draft sections will be due on May 11 unless the effective date changes. To date, little has been accomplished on the body of the document; the four ancillary plans are discussed below.

**Community Relations Plan** - (Project Leader - Roger Ferenbaugh) - The plan is on hold pending approval by appropriate parties LANL, LAAO, and DOE/AL). The new Community Relations Specialist will start in April.

**Technical Data Management Plan** - (Project Leader - Roger Ferenbaugh) - Work continues and a draft on this plan is due May 11, 1990.

**Quality Assurance Program** - (Project Leader - Larry Maassen) - Writing of the ER Quality Assurance Program Plan has begun. Interaction with the EPA QA staff (Kendall Young) ensures that we are meeting the EPA's requirements. Arrangements are being made to have ICF Kaiser Engineers help with the QA effort.

**Health and Safety Plan** - (Project Leader - Robert Vocke) - This plan will be developed by the new Project Leader for health and safety, to be appointed next quarter.

### **RCRA REMEDIATION - Task Element Status**

#### **AL-LA-57 (Interim Remedial Measures)**

**UST Removal** - (Project Leader - Roger Ferenbaugh) - There has been no action this quarter. We are awaiting a scope-of-work from HSE-7 for the tank removal.

**PCB Spill Cleanups** - (Project Leader - Roger Ferenbaugh) - This activity is considered complete.

#### **AL-LA-RC-1 (TA-16, Burning Ground Surface Impoundment) - (Project Leader - John Krueger)**

The approved closure plan for this site was received by the ER Program Office on February 21 from the State of New Mexico through LAAO. It included a rigorous schedule starting on February 12 for completion of closure activities. One activity required by the approved plan is a repetition of the liner decontamination. However, since the liner has already been cut up and drummed, and due to the projected high analytical cost associated with another decontamination exercise, we requested from Dr. Elizabeth Gordon, NMEID, to simply incinerate the liner as hazardous waste. She agreed that this would be cheaper and simpler, so in March, the liner was shipped off-site for incineration.

Twelve verification samples of the bottom of the surface impoundment were taken in late February in a manner consistent with directions in the approved closure plan. In late March, the analytical results showed that all but one of the samples was clean. However, sample number 12 showed 29 ppb of TCE and the duplicate showed 16 ppb TCE. This was the only positive result in the entire batch. It is unclear at this time if this one result will be considered "significant" by the State and trigger a 1 foot excavation of the surface impoundment, and additional verification sampling. A conference call will be set up to resolve the issue early next quarter.

The scope of work, which included the additional excavation and sampling, estimated the total effort at about \$107K.

**AL-LA-RC-2 (TA-54, Area L Waste Oil Storage Tanks) -**  
(Project Leader - John Krueger)

A decision was made in the first quarter of FY90 to separate potentially contaminated soil areas associated with the former location of the waste oil storage tanks (Area L) from the tank closure, which will take place at Area G. Any contaminated soil will be addressed during the closure of Area L.

This reorganization has expedited closure of the tanks. A work order and statement of work for the tank closure was completed in February, setup occurred in March, and the bulk of the field work will occur in April.

**AL-LA-RC-3 (TA-35, Waste Oil Storage Pits) -** (Project Leader - John Krueger)

The underground storage tank connected to surface impoundment #85 was removed and associated lines grouted. Decontamination of the tank was originally scheduled for February, but due to the nature of the interior liner, it was determined to be infeasible. Instead, the tank was cut up in March for off-site incineration, which is planned for April.

Except for any verification sampling the State may require upon approval of the closure plan, field work at surface impoundment #125 was nearly completed in the first quarter of FY90. This quarter, the impoundment excavation was backfilled, graded, and reseeded. Remaining work on this task includes finalizing the closure plans to reflect activities exactly as they occurred in the field, and certifying the closure. In January, a new Team Leader for on-going closures was named for HSE-8.

**AL-LA-RC-4 (TA-16, Area P Landfill) -** (Project Leader - John Krueger)

At this point, it is unclear if the closure plan (which has already been submitted to NMEID) will be acceptable to the State, or if the design option it proposes is even desirable. Internal meetings and meetings with the State will help resolve the situation. During the FY90 rebaselining effort which occurred in late March, it was decided to reactivate Area P during the last three months of this fiscal year. The purpose of this effort will be to scope out the actual closure which will probably be initiated in FY91.

**AL-LA-RC-5 (TA-40, Scrap Detonation Site) -** (Project Leader - John Krueger)

It is our intent to revise the closure plan for this site by the end of this fiscal year in order to be prepared for implementation in FY91. Scoping meetings were held this quarter, and Roy F. Weston, Inc. has submitted a draft Scope of Work. The sampling scheme will be based on a radial design (instead of the grid-based design in the current plan), and the level of detail and format will be patterned after the State-approved TA-16 Surface Impoundment Closure Plan. The new closure plan will be ready for submittal to NMEID by the end of this fiscal year, and will cost

approximately \$50K. A meeting with the NMEID will be sought next quarter to facilitate their review of the plan and ensure approval in a timeframe consistent with implementation next fiscal year.

**AL-LA-RC-6 (TA-54, Areas L and H) (Project Leader - John Krueger)**

A decision was made in November to split the Area L closure from the Area H closure in order to expedite closure of Area H. Thus, the existing plan will have to be divided and revised. Provided the State agrees with this approach, a revised Area H closure plan will be submitted this fiscal year. Scoping of these changes is planned in the third quarter, so no work was completed on Areas L and H in the second quarter of FY90.

Development of the mobile GC/MS is on-going. This instrument is intended for use during both closure and corrective actions, and will provide us with a means to reduce the overall cost of site characterizations and corrective actions while obtaining timely sample results that are likely to be more representative of actual site conditions.

**AL-LA-RC-7 (TA-54, Area G) (Project Leader - John Krueger)**

Revision of the Area G closure plan has been postponed until next fiscal year based on a decision made in the first quarter. Concurrence with this delay will be sought from the State of New Mexico in a meeting to be held during the third quarter. Under the assumption that approval for the delay will be granted, Area G has been omitted from the Current Year Work Plan.

**AL-LA-RC-9 (RCRA Mixed Waste Disposal Facility) (Project Leader - Paul Aamodt)**

There was essentially no activity on the Mixed Waste Disposal Facility until the last week of the reporting period. At that time, the decision was made to have Merrick/Dames and Moore address the review comments received on the Siting and Alternative Designs Studies (drafts of both were completed last fall), and to finalize these reports. There are still some potentially serious issues regarding the suitability of the TA-49 site due to conflicts with (or from) other nearby projects. These issues are also being assessed as part of the Merrick/Dames and Moore work.