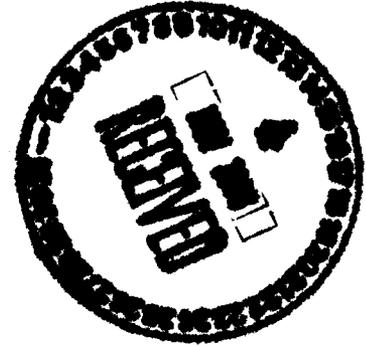




**Department of Energy**  
Albuquerque Operations Office  
Los Alamos Area Office  
Los Alamos, New Mexico 87544  
NOV 14 1996



CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Benito Garcia, Chief  
Hazardous and Radioactive Materials Bureau  
New Mexico Environment Department  
2044 Galisteo St., Bldg. A  
P. O. Box 26110  
Santa Fe, New Mexico 87505

Dear Mr. Garcia:

Subject: Los Alamos National Laboratory's (LANL) FY 1996 Fourth Quarter Progress Report, Consent Agreement for Compliance Orders NMHWA 93-01, 93-02, 93-03, 93-04

The purpose of this letter is to provide for your review the FY 1996 fourth quarter progress report for the Transuranic Waste Inspectable Storage Project (TWISP) at LANL. The report is required by Section IX.C of the referenced December 10, 1993 Consent Agreement. It is being submitted by the Department of Energy (DOE) and the University of California (UC).

The enclosed report addresses the activities related to the TWISP during the reporting period of August 1, 1996 through October 31, 1996. The following elements, as required by the referenced Consent Agreement, are addressed in the enclosed report:

- I. A brief description of activities completed during the reporting period to implement the requirements of the Consent Agreement.
- II. A brief description of activities scheduled for the following reporting period.
- III. A description of any change in key project personnel which occurred during the reporting period.
- IV. A description of problems encountered during the reporting period and mechanisms used or proposed for resolving the problems.
- V. Tables and figures summarizing all data, sampling and test results for the period.



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Benito Garcia

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Supporting documents will be retained at the Los Alamos Area Office and will be made available to your staff upon request. If you should have any questions, please feel free to contact Jody Plum of my staff at (505) 665-5042.

Sincerely,



Joseph C. Vozella  
Assistant Area Manager  
Office of Environment and Projects

LAAMEP:6JP-022

Enclosure

cc w/enclosure:

Stuart Dinwiddie

Hazardous and Radioactive Materials

Bureau

New Mexico Environment Department

2044 Galisteo Street, Bldg. A

P. O. Box 26110

Santa Fe, NM 87505

**LOS ALAMOS NATIONAL LABORATORY (LANL)  
TRANSURANIC WASTE INSPECTABLE STORAGE PROJECT  
FY 1996 FOURTH QUARTER PROGRESS REPORT  
AUGUST 1, 1996 - OCTOBER 31, 1996**

The Transuranic (TRU) Waste Inspectable Storage Project (TWISP) was initiated in February 1993 in response to the New Mexico Environment Department's (NMED's) Consent Agreement for Compliance Order NMHWA 93-03. The TWISP involves the recovery of approximately 16,865 TRU and TRU-mixed waste containers currently under earthen cover on Pads 1, 2, and 4 at Technical Area (TA)-54 Area G, and placement of that waste into inspectable storage. All waste will be moved into inspectable storage by September 30, 2003. Waste recovery and storage operations will emphasize protection of worker safety, public health, and the environment.

**I. Activities accomplished during the period August 1, 1996 - October 31, 1996**

**1. Summary**

- DOE-AL review and approval of the TWISP Final Safety Analysis Report (FSAR) and Technical Safety Requirements (TSRs) were completed (DOE-AL).
- The Safety Evaluation Report (SER) for the FSAR and TSRs was completed and approved (DOE-AL)
- The JCI cost estimate for Pad 1 retrieval was completed
- The Operational Readiness Review (ORR) Plan of Action was completed and approved.
- The Implementation Plan for the ORR of TWISP was completed and approved.
- The power upgrade in support of TWISP characterization equipment (Passive Active Neutron [PAN], Segmented Tomographic Gamma Scanner [S/TGS], Real-time Radiography [RTR], etc.) was completed and approved.
- The dry pipe fire suppression system for the storage domes, retrieval dome, and drum preparation dome was installed.
- The Detailed Operating Procedure (DOP) for Crate and Drum Retrieval Operations was completed. On the job training for the DOP was completed by all JCI TWISP workers.
- The Detailed Operating Procedure for the Drum Venting System (DVS) was completed and approved. A training program for the operation of the DVS was established. JCI DVS operators have been trained.
- The systems maintenance procedure for the DVS was completed and approved.

- The TWISP Joint Health and Safety Plan for Retrieval and Storage of TRU Waste at TA-54, Area G was completed and approved.
- The TWISP Project Management Plan for the Transuranic Waste Inspectable Storage Project for Pads 1, 2, and 4 was completed and approved.
- The LANL ORR team has conducted a pre-operational readiness review of the TWISP.
- The contractor (JCI) has initiated its site mobilization activities.
- JCI personnel training for TWISP retrieval operations has been initiated.

## **2. TWISP Facility Construction**

TWISP facility construction activities pertaining to the dry pipe fire suppression system was completed. Power requirements for the DVS were completed in the drum preparation facility.

## **3. Waste Analysis Plan (WAP)**

Waste Analysis Plan approval by NMED is now on the critical path for retrieval activities. A revised WAP and a specific waste analysis schedule were submitted to NMED on March 31, 1995. On May 24, 1996, LANL received a NOD, and responded formally to the NOD on July 12, 1996. Formal approval of the Waste Analysis Plan by NMED is still pending.

## **4. Sampling in Support of Eventual Closure**

Soil samples were collected from various locations as part of the TWISP. Analysis of these samples provided a baseline of information for comparison to be used in the future when the planned storage facilities are eventually closed.

The assessment of data received to date has not identified organic or metal concentrations exceeding site-wide background levels, except for a few constituents commonly associated with analytical laboratory extraction procedures.

## **5. Operational Readiness Review (ORR)**

A LANL pre-operational readiness review was completed. Pre-start findings will be addressed in order to prepare for the LANL ORR.

## **6. Drum Vent System**

The Drum Vent System (DVS) is complete. Cold testing was completed in order to verify all working components. Because this DVS was not able to be used at Rocky Flats as originally planned, LANL will incorporate the DVS into the TWISP Operational Readiness Review. Detailed operating procedures for the DVS were completed and approved. The DVS was staged at the Drum Preparation Facility, and is ready to be used.

## 7. Equipment Purchasing

A custom-designed forklift with custom boom/cage/hoist attachment was delivered. Training was provide in order to certify the operators.

## 8. Update on Waste Verification Facilities

Development of new waste characterization processes to supplement existing process knowledge is ongoing. A brief description of planned facilities and equipment is provided below:

- **Drum Prep Facility:** Upgrades to the Drum Prep Facility were completed. A final inspection of construction activities was performed as part of the close-out for construction. A "punch list" was generated and completed as part of the final inspection. All items identified were satisfactorily addressed. Construction activities are complete as part of the contractual agreement. The dry pipe fire suppression system has been completed.
- **Waste Characterization Glovebox, Phases I (sorting), II (coring), and III (head space analysis):** A glovebox is now on site for use in Phase I activities. Ancillary equipment design for the Phase II glovebox has been completed.
- **Waste Characterization, Reduction and Repackaging Facility (WCRRF) (formerly the Size Reduction facility) upgrades for verification of hazardous constituents:** The Safety Analysis Report has been approved, and is in the process of being implemented.
- **Real-time Radiography (RTR) for non-intrusive inspection of drum contents:** The mobile RTR was delivered in January of 1996. The mobile RTR system has been used successfully to inspect 630 drums currently stored in TA-54, Dome 48.
- **Segmented Tomographic Gamma Scanner (S/TGS) to quantify isotopic content of drums:** The Laboratory now has an operational mobile S/TGS that has been used at a variety of Laboratory sites. The S/TGS was augmented with additional software to give it tomographic gamma scanning capabilities.
- **Passive active Neutron Assay (PAN):** The PAN is fully operational for assaying Pu-239 and U-235.

## 9. RCRA Permit Application Activities

A permit modification classification request and proposed permit revision text was submitted December 22, 1995, to supplement the final draft RCRA Part B permit application of November 1, 1995. This application addressed nine container storage areas at the TA-50 Decontamination Facility, the TA-50 Waste Characterization, Reduction and Repackaging Facility, and the TA-54 Radioassay and Non-Destructive Testing Facility. Proposed permit revision text was also submitted on January 31, 1996 for the TWISP Storage Domes and Pads. NMED's final approval of this application and modifications is on the critical path for the TWISP project.

**II. Activities scheduled for the period November 1, 1996, thru January 31, 1997**

1. The JCI labor crew will be fully mobilized.
2. The enhanced environmental surveillance of the TRU Pad area will continue.
3. The LANL ORR team will complete their review.
4. The DOE-AL ORR team will complete their review.
5. Work will continue at the waste verification facilities.
6. Work will continue in preparation for the upcoming ORR.
7. Consent Agreement modifications will be proposed for NMED's approval.
8. Upon NMED's approval of Consent Agreement modifications, TWISP retrieval will start.

**III. Changes in key personnel during the period August 1, 1996 - October 31, 1996**

No changes occurred.

**IV. Problems encountered during the period August 1, 1996 - October 31, 1996**

No problems encountered.

**V. Summary of monitoring during the period August 1, 1996 - October 31, 1996**

No new survey data is available.