

Los Alamos National Laboratory

Environment, Safety And Health Division (ESH-19)

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Date: June 7, 2000
Refer to: ESH-19:00-048

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



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Dear Mr. Bearzi:

SUBJECT: SECOND QUARTER PROGRESS REPORT (2000) FOR CONSENT AGREEMENT FOR COMPLIANCE ORDERS NMHWA 93-01, 93-02, 93-03, and 93-04

The purpose of this letter is to submit the Department of Energy/Los Alamos National Laboratory Second Quarterly Progress Report (2000) for the Transuranic Waste Inspectable Storage Project (TWISP) at Technical Area 54, Area G. This report is required by Section IX.C of the December 10, 1993 Consent Agreement between the Department of Energy (DOE), the University of California (UC) and the New Mexico Environment Department (NMED).

The enclosed report addresses activities related to the TWISP during the reporting period of February 1, 2000 through April 30, 2000. The following elements, as required by the referenced Consent Agreement, are addressed in the 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 that 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. Information summarizing all data, sampling, and test results for the period.

As described in the Consent Agreement for Compliance Order's NMHWA 93-01, 93-02, 93-03, and 93-04, this quarterly progress report was due to your office by May 15, 2000.



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TA-54 '00
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TC

Mr. James Bearzi
ESH-19:00-048

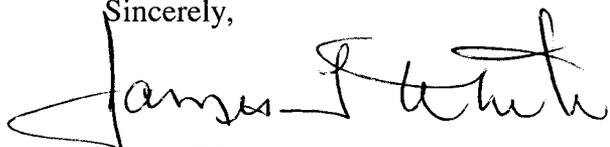
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June 7, 2000

In light of recent events related to the Cerro Grande fire in Los Alamos County, submittal of the report has been delayed. Be assured that future progress reports will be submitted in a timely manner in accordance with the schedule established in the Consent Agreement.

The TWISP Project is enthusiastic about the progress made to date. We will continue to keep you apprised of the progress in accordance with our agreement. If you should have any questions, please contact Sean French at (505) 667-5953.

Sincerely,

A handwritten signature in black ink that reads "James White". The signature is written in a cursive style with a large, sweeping initial "J".

James White
Group Leader

JW/SF/vh

Enclosure

cc w/enclosure:

Debby Brinkerhoff
Hazardous and Radioactive Materials Bureau
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Santa Fe, NM 87505

**TRANSURANIC WASTE INSPECTABLE STORAGE PROJECT
SECOND QUARTER PROGRESS REPORT (2000)
FEBRUARY 1, 2000 through APRIL 30, 2000**

The Transuranic Waste Inspectable Storage Project (TWISP) was initiated in May 1993 in response to the New Mexico Environment Department's (NMED's) Consent Agreement for Compliance Order's NMHWA 93-01, 93-02, 93-03, 93-04. 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 February 1, 2000 – April 30, 2000

1. Summary

- Retrieval operations were completed at Pad 4 on December 17, 2000.
- The Drum Venting System (DVS) remains fully operational. A double shift for drum venting was initiated in order to optimize retrieval operations. A total of 9411 (55)-gallon drums have been successfully vented from Pad 1 and Pad 4.
- The following procedures were updated:
 - 1) Maintenance of the Drum Venting System
 - 2) Operation of the Drum Venting System
 - 3) TWISP Industrial Hygiene Monitoring and Sampling,
 - 4) TWISP Project Management Plan
 - 5) TWISP Fall Protection Requirements
 - 6) Radiation Monitoring Instructions
- A total of 9411 drums were retrieved from Pad 1 and Pad 4.
- 1049 drums were overpacked.
- A total of 147 Fiberglass reinforced plywood (FRP) boxes were retrieved from Pad 1 and Pad 4.
- Real-time Radiography (RTR) of TWISP drums continues.
- The updated Remedial Action Plan (RAP-2000) was completed and submitted to NMED on January 31, 2000. NMED has approved the updated RAP.
- TWISP continues to prepare for Pad 2 retrieval.
- Mobilization of equipment to Pad 2 is complete.
- TWISP is preparing for a UC and DOE Pad 2 Readiness Assessment.

1. Summary (cont.)

- A Management Self Assessment was completed as part of the Pad 2 Readiness Assessment.

2. TWISP Facility Construction

- In accordance with the TA-54/FMU-64 Storm Water Pollution Prevention Plan, storm water run-on/runoff controls were maintained around Pad 4 for the duration of retrieval operations.
- In accordance with the TA-54/FMU-64 Storm Water Pollution Prevention Plan and the recent revision to the TWISP Remedial Action Plan (RAP-2000), storm water run-on/runoff controls were upgraded to include the Pad 2 retrieval site.
- Construction of a new dome (TA-54-375) for storage of retrieved TWISP containers is complete. Efforts to obtain a RCRA storage permit for this structure continue.

3. Drum Venting System

The Drum Venting System (DVS) remains operational. The TWISP project continues to procure spare parts for the DVS. The system engineer continues to evaluate ways to optimize operation of the system.

4. Equipment Purchasing

Two MART industrial drum washers are fully operational and performing beyond expectations.

5. Update on Waste Verification Facilities

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

- **Drum Prep Facility:** The DPF is fully operational and being used for drum washing, painting, and venting.
- **Waste Characterization Glovebox, Phases I (sorting), II (coring), and III (head space analysis):** A glovebox for sorting, repackaging and visual examination is now on site and will soon be used in Phase I activities. Headspace analysis equipment is operational and being used in the Waste Characterization, Reduction and Repackaging Facility (WCRRF).
- **Waste Characterization, Reduction and Repackaging Facility (WCRRF) upgrades for verification of hazardous constituents:** The Safety Analysis Report has been approved and implemented. An Operational Readiness Review was completed. This facility is operational.
- **Radioactive Materials Research, Operations and Demonstration Facility (RAMROD):** This facility is operational in a limited capacity.

5. Update on Waste Verification Facilities (cont.)

- **Real-time Radiography (RTR) for non-intrusive inspection of drum contents:** The Environmental Technology (ET) Division continues to conduct RTR for all TWISP drums retrieved from Pad 1 and 4. The mobile RTR system has been used successfully to inspect approximately 4,200 drums currently stored in TA-54, Domes 229, 231, and 232.
- **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. The system is currently being used at Technical Area 50 for WIPP drum characterization activities.

6. RCRA Permit Application Activities

NMED's final approval of RCRA permit modifications for TWISP and supporting operations remains on the critical path for the project. No date has been provided by NMED for completion of that review.

In April 1998, October 1998, and January 1999 LANL submitted Los Alamos National Laboratory's General Part A Permit Application (Revision 0.0), General Part B Permit Renewal Application (Revision 1.0), and Technical Area 54 Part B Permit Renewal Application, respectively. These documents work together to meet the requirements of the New Mexico Administrative Code, Title 20, Chapter 4, Part 1, Subpart IX, §§ 270.10(h), 270.30(b), and 270.50(a), as revised January 1, 1997, regarding the duration of and reapplication for hazardous waste permits. TWISP operations have been specifically addressed in these documents.

II. Activities scheduled for the period May 1, 2000 through July 31, 2000

- A Basis of Interim Operations document (BIO) will be completed to replace the TWISP Safety Analysis Report.
- A readiness assessment will be completed for Pad 2 retrieval.
- Retrieval of waste at Pad 2 will begin.
- Drum venting operations will continue.
- Environmental surveillance of the TRU Pad area will continue.
- Work will continue at the waste verification facilities.
- Drum washing activities will continue.
- RTR will continue.
- Maintenance of storm water runoff control measures will continue during retrieval operations at Pad 2.

III. Changes in personnel during the period February 1, 2000 – April 30, 2000

No changes to personnel.

IV. Problems encountered during the period February 1, 2000 – April 30, 2000

- The reliability of the DVS continues to challenge the project.
- Cerro Grande Fire has been a major impact to start up of Pad 2.
- The Basis of Interim Operations document has taken longer than anticipated to complete.

V. Monitoring during the period February 1, 2000 – April 30, 2000

Continuous Air Monitoring is ongoing in Domes 54-229, 54-230, 54-231, and 54-232 (Waste Storage Domes), Dome 54-33 (Drum Prep Facility), and during Pad 4 Retrieval Operations. No elevated readings above action limits have been detected.

Direct Penetrating Radiation (DPR) Monitoring conducted at the Area G perimeter is ongoing using Electret Ion Chambers (EICs). In addition, LANL continues the use of Thermo Luminescent Dosimeters (TLDs) for Consent Agreement Monitoring.

Due to use of TA-54-375 for storage of non-hazardous, transuranic waste retrieved from Pads 1 and 4, LANL has observed increased DPR readings as measured by the EIC at Station #606. This Station is located on the fence line west of AIRNET Stations #27 and #38 and just north of TA-54-375. The dose measured at Station #606 is approximately 118 mrem for the fourth quarter of 1999, which corresponds to a dose rate of less than 0.06 mrem/hr. Calculation of public dose using the DPR measurement at Station #606 is not appropriate because this monitoring location is not publicly accessible. However, LANL expects the dose rates from waste storage in TA-54-375 to be well below regulatory limits at LANL's boundary. As the volume of waste stored in TA-54-375 increases, LANL will continue to monitor and report any additional increased dose readings.