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Department of Energy
Albuquerque Operations Office
Los Alamos Area Office
Los Alamos, New Mexico 87544
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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Benito Garcia, Bureau 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: FY 1997 First Quarterly Progress Report, Consent Agreement for Compliance Order NMHWA 93-01, 93-02, 93-03, 93-04

Enclosed for your review is the FY 1997 first quarterly progress report for the Transuranic Waste Inspectable Storage Project (TWISP) at the Los Alamos National Laboratory (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).

We wish to call your attention to two items in the report that are of special importance to the schedule for the project. First, in I.1. (Summary), the importance of obtaining New Mexico Environment Department (NMED) approval for the Amendments to the Remedial Action Plan is noted, as this approval is critical for the Project to be able to start retrieval. Second, in I.3. Waste Analysis Plan (WAP), the need for obtaining NMED approval for the WAP is identified as being on the critical path for retrieval activities. Any assistance your office can provide in expediting the approval of these two matters would be greatly appreciated.

The enclosed report addresses the activities related to the TWISP during the reporting period of November 1, 1996 through January 31, 1997. 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.

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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.

Supporting documents will be retained at LAAO, and will be made available to your staff upon request. As you can see, there has been significant progress. We will continue to keep you apprised of the progress as per our agreement. If you should have any questions, please contact me at (505) 665-5042.

Sincerely,

Matt Johansen P.E.

H. L. "Jody" Plum for
Office of Environment
and Projects

LAAMEP:2JP-060

Enclosure

cc w/enclosure:
S. Dinwiddie
Hazardous and Radioactive Materials Bureau
New Mexico Environment Department
2044 Galisteo St.
P. O. Box 26110
Santa Fe, New Mexico 87505

TRANSURANIC WASTE INSPECTABLE STORAGE PROJECT
QUARTERLY PROGRESS REPORT
NOVEMBER 1, 1996 - JANUARY 31, 1997

The Transuranic (TRU) Waste Inspectable Storage Project (TWISP) was initiated in February 1993 in response to the New Mexico Environment Department's (NMED) 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 of November 1, 1996 - January 31, 1997

1. Summary

- The TWISP Joint Health and Safety Plan for Retrieval and Storage of TRU Waste at TA-54, Area G was revised and approved. A review with TWISP workers was completed.

- The TWISP Project Management Plan for the Transuranic Waste Inspectable Storage Project for Pads 1, 2, and 4 was revised and approved. Training has been completed.

- The LANL ORR team has completed the Operational Readiness Review of the TWISP. All Pre-Start findings were closed out in early January. One critical finding is the need to have the Amendments to the Remedial Action Plan approved by NMED for the Project to go forward on schedule.

- The contractor (JCI) has initiated its site mobilization activities.

- JCI personnel training for TWISP retrieval operations has been completed.

- Amendments to the TWISP Remedial Action Plan was submitted to NMED for approval. Approval of the Amendments are required prior to start-up of retrieval operations and is necessary for the Project to proceed on schedule.

2. TWISP Facility Construction

The dry pipe fire suppression system was completed. Testing and fine-tuning of the system continue.

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

Waste Analysis Plan status will be discussed with NMED on January 21, 1997. Formal approval of the Waste Analysis Plan by NMED is still pending subject to NMED's review.

4. **Operational Readiness Review (ORR)**

The LANL Operational Plan Readiness Review was completed. Pre-start findings will be addressed in order to prepare for the DOE-AL ORR. The approval of the NMED Remedial Action Plan is required prior to start-up of retrieval operations.

The following schedule has been agreed upon by LANL and DOE-AL, ORR Team Leaders based on availability of personnel:

LANL ORR Review Team, December 9 - 13, 1996 (Successfully Completed)
DOE-AL ORR Review Team, February 3 - 7, 1997

5. **Drum Vent System**

The Drum Vent System (DVS) is complete. 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. Training of DVS operators was complete.

6. **Equipment Purchasing**

No major procurements

7. **Update on Waste Verification Facilities**

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

- <u>Drum Prep Facility</u>:

  Upgrades to the Drum Prep Facility have been completed. The dry pipe fire suppression system has been completed. Testing and validation in on-going.

- <u>Waste Characterization Glovebox, Phases I (sorting), II (coring), and III (head space analysis)</u>:

  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) 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 Quantity Isotopic Content of Drums:

  LANL now has an operational mobile S/TGS that has been used at a variety of LANL 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.

8. RCRA Permit Application Activities

A permit modification request and proposed permit revision text were submitted December 22, 1995, to address nine container storage areas of the TA-50 Decontamination Facility, the TA-50 Waste Characterization, Reduction and Repackaging Facility, and the TA-54 Radioassay and Non-Destruction 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 these applications is on the critical path for the TWISP project. Additional waste characterization capacity has also been requested in the TA-50 Radioactive Materials Research, Operations, and Demonstration Facility permit modification request submitted to NMED in December 1996.

II. Activities Scheduled for the Period February 1, 1997 through April 30, 1997

Upon approval of the NMED Remedial Action Plan (ORR Pre-Start Finding):

1. The JCI labor crew will be fully mobilized and retrieval of waste from Pad I will begin.

2. The enhanced environmental surveillance of the TRU Pad area will continue.

3. The DOE-AL ORR team will complete their review.

4. Work will continue at the waste verification facilities.

5. Construction of storage domes C and D will begin.

6. Reliability of fire suppression system will be evaluated.

III. Changes in Key Personnel During the Period of November 1, 1996 - January 31, 1997

No changes occurred.

IV. Problems Encountered During the Period of November 1, 1996 - January 31, 1997

The dry pipe fire suppression system installed in Domes 226, 230, and 33 have experienced significant problems. Due to the flexibility of the structures themselves, the piping system has experienced movement at the joints which is allowing the nitrogen gas to escape, and as designed, when the gas escapes the system charges with water. This movement has resulted in pipes resting at a negative slope which has caused pipes to become frozen, requiring shut down of the system while repairs are made and the system is drained, re-pressure tested and refilled nitrogen. Depending on the outcome of these corrective measures, an estimate will be produced and a Baseline Change Proposal (BCP) submitted to cover the increase cost.

Corrective Actions:

A meeting was held on December 20, 1996 to address the problems with the system. Alliance Fire Protection Company (installation contractor) is working at correcting the slope in the piping so positive sloping can be maintained for adequate drainage. Upon resloping, the pipes will be spot checked (after a wind storm) to verify proper sloping . Flexible joints have been proposed to correct leakage of gas from the system; however, this type of joint had previously been proposed by the engineer of record, and rejected by FSS-21, Facilities Fire Protection, due to its lack of Underwriters Laboratory (UL) approval.

V. Summary of Monitoring During the Period of November 1, 1996 - January 31, 1997

No new survey data is available.