rec'd w/ltr dtd 4/16/97

Enclosure 1

WBS: 9.3.7
A: N/A

Civilian Radioactive Waste Management System
Management & Operating Contractor

Monthly Summary Report

November 1996

Prepared for:

U.S. Department of Energy
Office of Civilian Radioactive Waste Management
1000 Independence Avenue SW.
Washington, DC 20585

Prepared by:

TRW Environmental Safety Systems Inc.
2650 Park Tower Drive
Suite 800
Vienna, Virginia 22180

Under Contract Number
DE-AC01-91RW00134

9704210136 970416
PDR WASTE
WM-11 PDR

CONTENTS

Page

1. PROGRAM-LEVEL REPORT 1

2. YUCCA MOUNTAIN PROJECT REPORT 3

3. WASTE MANAGEMENT AND INTEGRATION REPORT 5

4. PROGRAM QUALITY ASSURANCE REPORT 7

INTENTIONALLY LEFT BLANK

1. PROGRAM-LEVEL REPORT

November was a month of steady progress. Among the major highlights: the TBM moved forward rapidly until encountering Category 3A rock during the second half of the month. The highly fractured rock made the date of the TBM "hole-out" uncertain, most likely slipping it from late January until well into February. Both dates are still ahead of the baselined hole-out schedule.

In Washington and Vienna, the M&O redirected staff activities to adapt to its new role in support of OCRWM's WM&I activities. A streamlined CRWMS requirements document was adopted to reduce the previous 1200-page document to a 50 page document. An audit performed by OCRWM's OQA resulted in an "effective" rating for QA activities related to design activities for a non-site-specific interim storage facility which are being undertaken for TSAR development.

INTENTIONALLY LEFT BLANK

2. YUCCA MOUNTAIN PROJECT REPORT

November was another progressive month toward achieving project annual objectives for the M&O Contractor. The TBM made good excavation advancement encountering Category 1 ground for the first half of the month and Category 3A ground for the second half of the month. The TBM is expected to reach "hole-out" in late February 1997 but geologic uncertainties make that tentative. The Thermal Test Facility Connecting Drift Extension and Plate Loading Niche excavations were completed as anticipated. In addition, excavation of the Northern Ghost Dance Fault Access Drift extension was completed to accommodate bore hole testing of the fault. Excavation of the Thermal Test Facility continued as planned with completion expected in February 1997 following excavation of the Heater Drift. Finally, excavation of the Southern Ghost Dance Fault Alcove, initiated in October, is on schedule for completion by July 1997.

Important information continues to be collected in the site investigations area. Approximately 5.5 liters of water were collected from a borehole associated with the Single Heater Test. Preliminary tests indicate that the water contains only a trace of lithium bromide drilling-fluid tracer and thus it is believed to have been produced by the induced heating and subsequent condensation in the rock matrix. Additional chemical and isotopic tests are underway to provide input to the drift-scale thermohydrologic models calibration process. Air injection tests were carried out in 14 boreholes originating from the Access/Observation Drift in the Drift Scale Test Area. Slow buildup and recovery of the interference pressure data in these boreholes suggest large rock porosity.

The materials necessary for radionuclide transport experiments at Lawrence Livermore National Laboratory were identified. The experiments will use ferric oxides, geothite and hematite as proxies for the corrosion envelope expected to form resulting from corrosion allowance overpack alteration prior to the breaching of the waste container.

Regulatory and engineering progress were also favorable. The Interactive Review draft of Progress Report No. 15 was completed and submitted to the DOE for final review. The first expert elicitation workshop supporting the development of the Unsaturated Zone Flow and Transport Model for the Total System Performance Assessment was completed. Long-term criticality issues for immobilized plutonium waste forms were addressed in a study submitted for DOE review. Studies of waste package materials and corrosion testing continue to progress on schedule.

HIGHLIGHTS

- Test drilling encountered the Ghost Dance Fault on November 6. Temperature measurements, water potentials, and responses to surface barametric pressure changes are being used to indicate how the fault functions as a flow and transport pathway.

- The Tunnel Boring Machine progressed 268.5 meters (880.9 feet) to Construction Station 70+76.2 meters (23,217 feet or 4.4 miles). Based on current progress and ground conditions, completion of the main tunnel excavation is projected for late February 1997.

- Completed excavation of the upper portion of the Thermal Testing Facility Connecting Drift in October. Advanced the lower portion of the Connecting Drift excavation to Station 0+34.5

meters (113.2 feet). Total progress on the lower portion of the Connecting Drift for November was 6.9 meters (23 feet) using drill-and-blast techniques.

- Completed planned excavation of the Thermal Testing Facility Connecting Drift Extension and Plate Loading Niche using drill-and-blast techniques; total excavated length for November was 10.7 meters (35 feet) and 6.9 meters (23 feet) respectively.

- Completed extension of the Northern Ghost Dance Access Drift an additional 29.2 meters (95.8 feet) to Station 1+34.4 meters (441.0 feet) to accommodate planned testing activity.

- Submitted Degraded Mode Criticality Analysis of Immobilized Plutonium Waste Forms in a Geologic Repository for review. This analysis addresses long-term criticality issues and assists waste form producers in product specification development for safe final disposition of plutonium in a geologic repository.

- Completed the first Expert Elicitation Workshop quantifying uncertainties in the Unsaturated Zone Flow and Transport Model in support of the Total System Performance Assessment for the Viability Assessment.

- Hosted an update for Official Tribal Contact Representatives from Native American Tribes and organizations involved with the YMP. Presented a YMP update and discussed the Native American Graves Protection and Repatriation Act and ethnobotany studies.

3. WASTE MANAGEMENT AND INTEGRATION (WM&I) REPORT

November was devoted to adapting to the new role defined for OCRWM headquarters organizations under the recent reorganization and the required support to the program by the M&O organizations in Vienna, VA and Washington D.C. including addressing some of the needs remaining as the staffing level of the OCRWM support services contractor is being reduced

.

A streamlined version of the CRWMS requirements document was adopted by the Program Change Control Board which describes in 50 pages what previously required 1200 pages. It also formally incorporates the requirement that 1/3 of the allocation for defense wastes, in the statutorily limited capacity of the initial repository, be in the form of DOE-owned SNF. The incorporation of this requirement into the MGDS baseline is now the responsibility of the Yucca Mountain Project.

Good progress continues on design activities for a non-site-specific interim storage facility for the acceptance of canistered fuel. A technical exchange meeting took place with the NRC staff, and an audit performed by OCRWM's OQA provided a rating of "effective" for A activities related to this design.

WASTE ACCEPTANCE, STORAGE AND TRANSPORTATION (WAST) HIGHLIGHTS

- The second ISF Phase I TSAR technical interchange with the NRC was conducted on November 20, 1996. This meeting was to inform the NRC of the ISF TSAR project status; describe the design approach; and discuss design basis events, design criteria, and nuclear analysis.

- Provided resolution of all DOE comments on the ISF DRD DOE Acceptance Draft and obtained baseline approval.

- Delivered a draft Statement of Work for the Request for Proposal for Waste Acceptance and Transportation Services to RW-44 for assembly into a package for review by RW-1 and RW-2.

- Briefed Jason Associates, the contractor for preparation of the Environmental Impact Statement for the MGDS, on the Regional Servicing Agent concept and the National Transportation Program.

- Delivered the draft Spent Nuclear Fuel Verification Plan for DOE baselining. This version of the plan does not include DOE-owned SNF.

PROGRAM MANAGEMENT AND ADMINISTRATION HIGHLIGHTS

- Delivered Systems Requirements Documents (Rev. 2 CRD, MGDS SRD, WA SRD, and Transportation SRD) that implement BCP-00-96-0005 addressing DOE SNF for PBCCB verification.

- Developed an outline of a paper that will describe the advantages and disadvantages of on-site disposal of repository site-generated wastes.

- Continued developing justification for the data items necessary to accept DOE-owned SNF; began incorporating comments on an internal draft of a sample of justifications to determine the best format for the final deliverable.

- Draft sections of the repository input to the INEL Task Force report were submitted to RW for review. The criticality and performance assessment appendices are in M&O review.

- The Program Baseline Change Control Procedure, Rev. 2 was approved by RW-2 on November 25, 1996.

- Delivered the final copy of the fall '96 issue of the *OCRWM Enterprise* for Front Office review and approval.

REPOSITORY ANALYSIS FOR PLUTONIUM DISPOSITION HIGHLIGHTS

- Submitted the Degraded Mode Criticality of Immobilized Plutonium Waste Forms deliverable to YMSCO on November 15. The Office of Fissile Materials Disposition favorably received the findings when presented at their November Monthly Management Meeting.

4. PROGRAM QUALITY ASSURANCE REPORT

HIGHLIGHTS

- OQA submitted the draft A Consolidation Plan for review November 7. The plan was distributed to affected organizations for comments.

- An M&O A Lab Manager's Meeting was held November 21 to discuss comments on the draft A Consolidation Plan, development of the Engineering Assurance Organization, and other M&O A issues.