Enclosure

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# Civilian Radioactive Waste Management System
# Management & Operating Contractor

## Monthly Summary Report

## March 1997

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## CONTENTS

# 1. PROGRAM LEVEL REPORT

The Ides of March were not good to the TBM. Working in poorly constituted rock for most of the month, the TBM made limited progress during much of the period. By mid-month, it was obvious that poor rock conditions would push TBM daylighting into mid-to-late April. The construction crews did yeoman work in dealing with the difficult conditions in the ESF as well as dealing with a balky Alpine Miner in their work in the alcoves. Alcove construction remained on schedule. Even with the construction problems, scientific studies continued on schedule in the ESF and the alcoves.

March was an excellent month for deliverables. The M&O completed the first six months of FY 97 in Nevada by delivering all 40 of its scheduled deliverables early or on time. Note: Two other deliverables had been scheduled for delivery, but were delayed with DOE concurrence.

M&O personnel in Washington, Vienna, and Las Vegas provided a significant amount of support to OCRWM headquarters in responding to questions posed by members of Congress and their staffs as the Congressional hearing process on authorization and appropriations bills progressed during the month.

## 2. YUCCA MOUNTAIN PROJECT REPORT

The TBM toiled in poorly constituted rock through much of the month, but there were indications that conditions would improve and still allow daylighting in mid-to-late April. Plans for a daylighting event for employees were modified from a large assemblage to a video taping of the event and a yet-to-be determined ceremony after the TBM is out of the tunnel. Work on the alcoves proceeded on schedule while continuing to deal with problems associated with old alpine miner equipment. Testing in the ESF also proceeded on schedule.

The M&O in Nevada ended the first 6-months of the fiscal year by completing all 40 deliverables early or on time, with the exception of two that were delayed with the concurrence of DOE.

A planning effort to accelerate construction of an east-west drift in the ESF from 1999 to 1998 was initiated. This activity is now officially named Enhanced Characterization of the Repository Block and may also include some additional surface based drilling. Acceleration was suggested by the Nuclear Waste Technical Review Board to increase the credibility of the 1998 Viability Assessment.

### HIGHLIGHTS

- Advanced main tunnel excavation to Construction Station 77+45.7 meters (4.8 miles). Progress for the month using the TBM was 211.6 meters (694.3 feet).

- Initiated Phase II of the Northern Ghost Dance Fault (NGDF) Alcove excavation. The final 65 meters (213 feet) of the NGDF Alcove is the NGDF Drill/Test Room. The total excavation of the NGDF Drill/Test Room during March was 9.1 meters (29.9 feet).

- Finished studying the presence of bomb-pulse chlorine-36 in the ESF. The report provides the pattern and amount of water movement between the surface and ESF level for performance assessment modeling. The presence of bomb-pulse chlorine-36 indicates that water moved from the surface to ESF levels in less than 50 years. Bomb-pulse chlorine-36 is confined to those locations where faults intersect the ESF.

- Finished interpreting the results of reactive tracer testing at the C-Hole complex. The results indicate flow along multiple pathways and support the usefulness of laboratory-derived sorption parameters predicting field-scale transport of radionuclides. These tests model radionuclide movement through the saturated zone.

- Finalized the E&I workscope to support the development of engineering data to bound the Repository Environmental Impact Statement (EIS) with additional inventory outside of the 70,000 MTHM baseline. A Change Request to perform this task is in process. Early start on a feasibility study to scope developing the EIS bounding data is pending approval. The feasibility study started on April 1 and will complete with a report submitted to DOE on June 13.

- Approved the South Portal Lightning Protection Analysis and Design Drawings. The analysis establishes the design basis for the lightning protection system which must be in place before the TBM can be removed from the South Ramp.

- Developed resource requirements and a schedule for analyzing all three phases of the nine high-priority DOE-owned fuel types. The results will be incorporated into the Disposal Criticality Analysis Methodology Topical Report by License Application.

- Submitted two Level 3 deliverables ahead of schedule. The Subsurface Engineered Barrier System (EBS) Design was submitted on March 26, and Subsurface Performance Confirmation Design on March 18. These deliverables provide performance confirmation of the Viability Assessment design document and will be used to prepare Systems Design Description Documentation.

- Completed and submitted to the Assistant Manager for Environmental Safety and Health (AMESH), the Draft Detailed Description of the Proposed Action, Implementing Alternatives, and Options. This report describes, for purposes of Environmental Impact Statement (EIS) analysis, how the repository will be constructed, operated and closed. This information will be used to assess potential impacts for inclusion in the repository EIS.

- Completed deliverables Thermohydrology Modeling Abstract/Testing Workshop Documentation, and Transport Model Workshop. These documents summarize issues, prioritization, and analysis plans to address issues associated with these models in the context of Total System Performance Assessment Viability Assessment.

- Completed the first Waste Package Degradation Expert Elicitation Workshop held March 25-26 to identify significant issues and available information for the Waste Package Degradation Expert Elicitation.

- Completed deliverables Issue Web-Based Information System (WBIS) Management Plan, Rev. 0., and Issue WBIS Navigation Guide. These documents will provide the approach for performing the WBIS Prototype effort, information, and direction on using the WBIS Test database.

- Completed the Waste Package Design Configurations Analysis. This analysis is a significant interface document for repository surface and subsurface designs, and systems engineering. It defines different waste package designs and specifies the number of waste packages that must be handled. The results will be incorporated into the Control Design Assumptions.

- Commenced 90-day planning for the Enhanced Characterization of the Repository Block to perform analysis, define the methodology, and develop the cost and schedule that will result in a Project cost and schedule baseline change.

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

This month saw the completion of three significant deliverables within the OWAST Program and a continued, focused level of support to the Acting Program Director in the form of analyses and briefings for discussions with the newly-confirmed Secretary of Energy.

Acceptance drafts were delivered for the Phase 1 CISF TSAR, Revision 1 to the Actinide-only Burnup Credit Topical Report, and the WAST Multi-year Cost and Schedule Baseline Update. All of these documents are currently undergoing DOE review.

Systems analyses and briefings were prepared concerning Program planning and strategies. Topics included analyses of costs to utilities associated with the continued at-reactor storage of spent fuel, impacts of possible additional early closures of operating nuclear powerplants, methods to permit acceleration of receipt of spent fuel shipments at a Federal facility, and the impacts of future budget constraints on future Program activities. These analyses are essential to advise DOE policy makers as they consider strategies for Program success in a rapidly changing external environment and under critical Congressional and external stakeholder scrutiny.

### WASTE ACCEPTANCE, STORAGE, AND TRANSPORTATION (WAST) HIGHLIGHTS

- Delivered the CISF TSAR Review Draft to DOE on March 18. M&O and DOE reviews began on March 19 with comments due by April 8.
- Completed several design analyses representing the design basis for the CISF TSAR.
- BCP-03-97-0006, Transfer of FY97 Budget from WAST Management Reserve to WBS 3.2.1.1, TSAR Phase 1, was approved by the WAST PLBCCB on March 11. This change transfers FY97 budget to support ISF TSAR development.
- Completed the M&O review draft of the revised Actinide-Only Burnup Credit Topical Report on March 31.

### PROGRAM MANAGEMENT AND ADMINISTRATION HIGHLIGHTS

- Presented an initial analysis of the impacts of early reactor shutdowns based on the recent INGAA study to RW-51.
- Delivered the Program Cost Estimate report to RW-50.

## REPOSITORY ANALYSIS FOR PLUTONIUM DISPOSITION HIGHLIGHTS

- A CR to apply the FY 96 Plutonium Disposition carryover to the expanded FY 97 work scope is being prepared with MD concurrence.

- Prepared a proposal at EM's request to evaluate DOE SNF for inclusion in a repository. The proposal was provided to YMSCO for evaluation and will be submitted to EM upon approval.