

**U.S. DEPARTMENT OF ENERGY
OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT**

NUCLEAR WASTE TECHNICAL REVIEW BOARD

**SUBJECT: INTRODUCTION: STATUS OF
PROGRAM ACTIVITIES**

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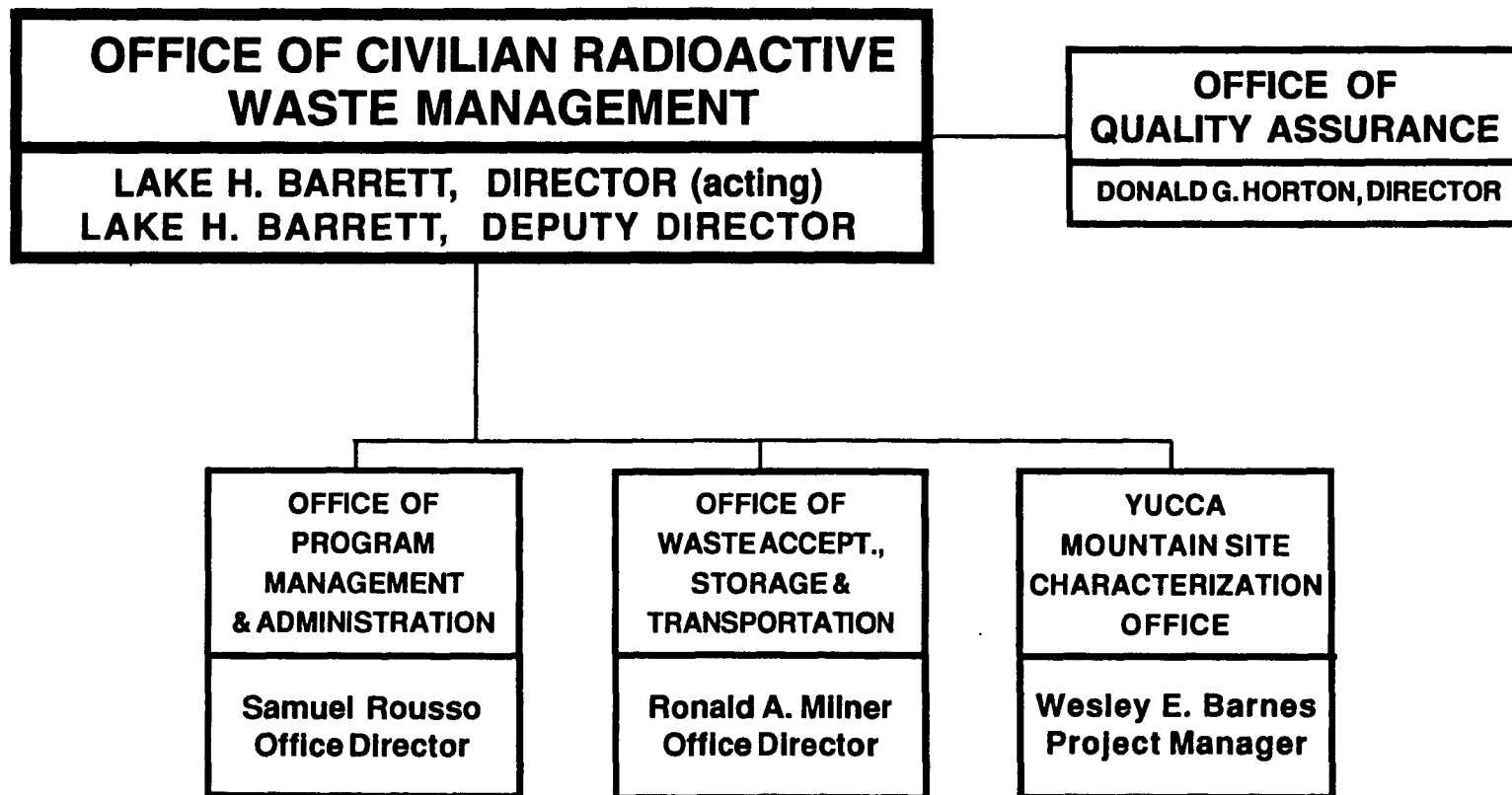
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**PAHRUMP, NV
JANUARY 28-29, 1997**

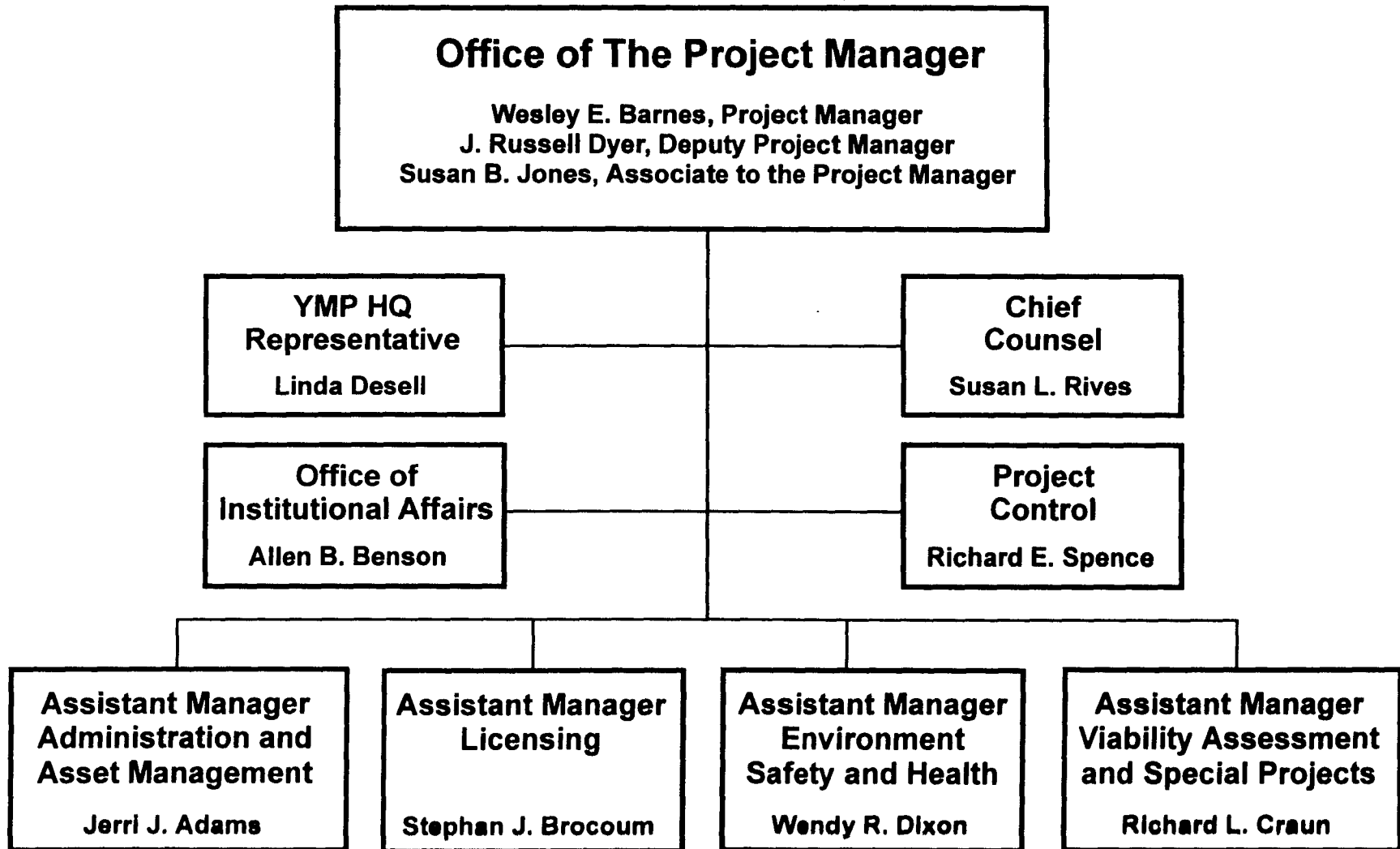
Outline

- **OCRWM reorganization**
 - HQ and YMSCO
- **Legislative update**
- **Yucca Mountain activities**
 - ESF construction and testing
 - 10 CFR 960 Siting Guidelines
 - Waste Containment and Isolation Strategy
 - EIS activities
- **Waste acceptance, storage, and transportation activities**
 - Regional Service Agents
 - Topical Safety Analysis Reports
 - Actinide Burn-Up Credit Topical Report

Office of Civilian Radioactive Waste Management



Yucca Mountain Site Characterization Office



Legislative Update

- **On January 21, the Nuclear Waste Policy Act of 1997 was introduced in the U.S. Senate by Senators Murkowski and Craig**
 - The bill is identical to S.1936 passed by the Senate last year
 - The first hearing on the bill is scheduled for February 4
- **The bill calls for**
 - Construction of an interim storage facility in Nevada
 - Transportation of spent nuclear fuel
 - Continued studies at Yucca Mountain
- **Confirmation hearing for Secretary-designate Federico Peña scheduled for January 30**

Program Focus

- **Several things could impact the direction of the OCRWM Program**
 - **New Secretary of Energy**
 - **New OCRWM Director**
 - **Congressional legislation**
- **However, the OCRWM Program remains focused on implementing the 1996 draft Program Plan**
- **We are on schedule for achieving**
 - **The 1998 Viability Assessment for Yucca Mountain**
 - **Implementation of the market-driven initiative for waste acceptance, storage, and transportation**

Yucca Mountain Activities

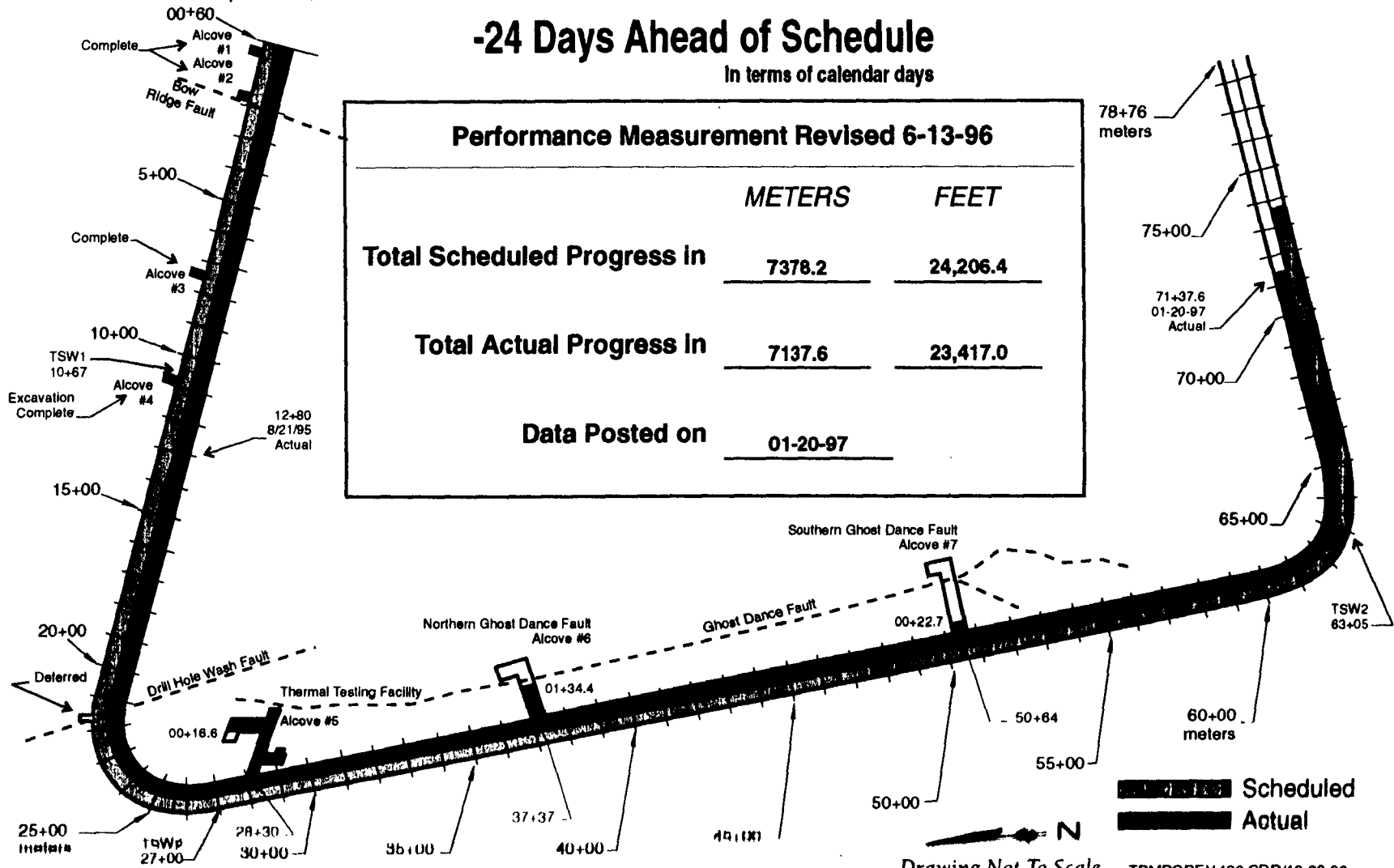
TUNNEL BORING MACHINE PROGRESS

North Portal
Starting Date
September 20, 1994

-3.3 % Ahead of Schedule
In terms of meters

South Portal

-24 Days Ahead of Schedule
In terms of calendar days



Performance Measurement Revised 6-13-96

	<i>METERS</i>	<i>FEET</i>
Total Scheduled Progress in	<u>7378.2</u>	<u>24,206.4</u>
Total Actual Progress in	<u>7137.6</u>	<u>23,417.0</u>
Data Posted on	<u>01-20-97</u>	

Scheduled
Actual

N
Drawing Not To Scale

TBMPGREV.126.CDR/10-28-96

Testing Activities

Thermal Testing

- **Alcove 5**
 - Testing is underway in the single-element heater test
 - Remaining construction for the drift-scale test to be completed by February 1997
 - 150 holes will be drilled and instrumented by November 1997
 - Heaters scheduled to be started in December 1997
- **Finishing preparation of the Large Block Test**
 - Scheduled to start heaters in February 1997

Testing Activities

(Continued)

Unsaturated Zone Hydrology

- **North Ghost Dance Fault Alcove**
 - Excavated up to 15 meters from the fault and penetrated the fault with drillholes
 - Drillhole testing is underway (to be completed by March 1997)
 - Full excavation into the fault to be completed by May 1997
- **South Ghost Dance Fault Alcove**
 - Constructed approximately 50 percent of the 135-meter drift
 - Construction to be completed in March 1997

Testing Activities

(Continued)

Saturated Zone Hydrology

- **At C-Well complex, conducted hydraulic testing of all flow-producing zones**
- **Completed conservative and reactive tracer testing of the most productive zone**
- **Expect to continue additional testing throughout FY97**

10 CFR 960 Siting Guidelines

- **Proposed revision published in the Federal Register on December 16, 1996**
- **Hearings conducted on January 23, 1997**
- **Final rule targeted for finalization by the end of FY 1997**
- **Comment period extended to March 17, 1997**
- **Comments on the proposed rule must be submitted in writing to DOE by March 17, 1997, in order to be considered**

Waste Containment and Isolation Strategy

System Attributes

- Rate of water seepage into repository
- Waste package lifetime (containment)
- Rate of release of radionuclides from a breached waste package
- Radionuclide transport through the engineered and natural system
- Dilution in the saturated zone below the repository

Waste Containment and Isolation Strategy

(Continued)

Status

- **A summary of the strategy (Highlights) was distributed at the NWTRB meeting in July 1996**
- **A comprehensive version of the strategy is in preparation and will include**
 - **The technical basis for the strategy**
 - **Information to be used in determining the priorities for testing and analysis**
- **The draft is being revised to include recent refinements in the conceptual model of the unsaturated zone**
- **The comprehensive strategy will be completed in late FY 97**

EIS Activities

- **EIS contractor (Jason Associates) fully on board**
- **EIS public scoping period ended December 5, 1995**
- **Comments received from the EIS scoping process are currently being evaluated**
- **A comment summary document is to be completed by May 1997**
- **The Draft EIS is scheduled to be issued for comment in July 1999**

Waste Acceptance, Storage, and Transportation Activities

Regional Service Agents

- **This OCRWM initiative would result in contracts with private industry to provide waste acceptance, transportation, and delivery services for commercial spent nuclear fuel**
- **Federal Register notice issued on December 27, 1996, requesting comments on draft RFP**
- **Comments due on March 31, 1997**
- **Pre-solicitation conference scheduled for February 25, 1997**

Topical Safety Analysis Reports (TSAR)

- **TSARs are part of the generic work to support waste acceptance**
- **TSAR for dry transfer system**
 - Submitted to NRC for review in September 1996
 - DOE awaiting comments
 - NRC Safety Evaluation Report expected by April 1998
- **TSAR for interim storage facility (Phase 1)**
 - Phase 1 TSAR being prepared
 - Phase 1 TSAR scheduled to be submitted to NRC for review in May 1997
 - NRC Safety Evaluation Report expected by November 1998

Actinide Burnup Credit Topical Report

- **Burnup credit is considered to be a cost-effective criticality control option for the DOE**
- **DOE is seeking to obtain early NRC review and acceptance of the concept**
- **Topical Report submitted to NRC in May 1995**
- **NRC's second round of questions are currently being addressed**
- **Revised Topical Report scheduled to be submitted to NRC in March 1997**

Summary

- **The OCRWM Program remains focused on implementing the 1996 draft Program Plan**
- **We are on schedule for achieving**
 - **The 1998 Viability Assessment for Yucca Mountain**
 - **Implementation of the market-driven initiative for waste acceptance, storage, and transportation**