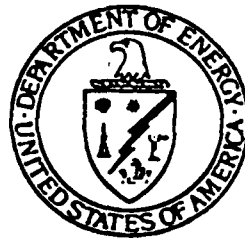


**Monitored Retrievable Storage/Transportation
Status and Activities**

**Ronald Milner, Associate Director
for Storage and Transportation**

Office of Civilian Radioactive Waste Management



Presented to

Nuclear Waste Technical Review Board

January 5, 1993

Discussion Topics

Organization

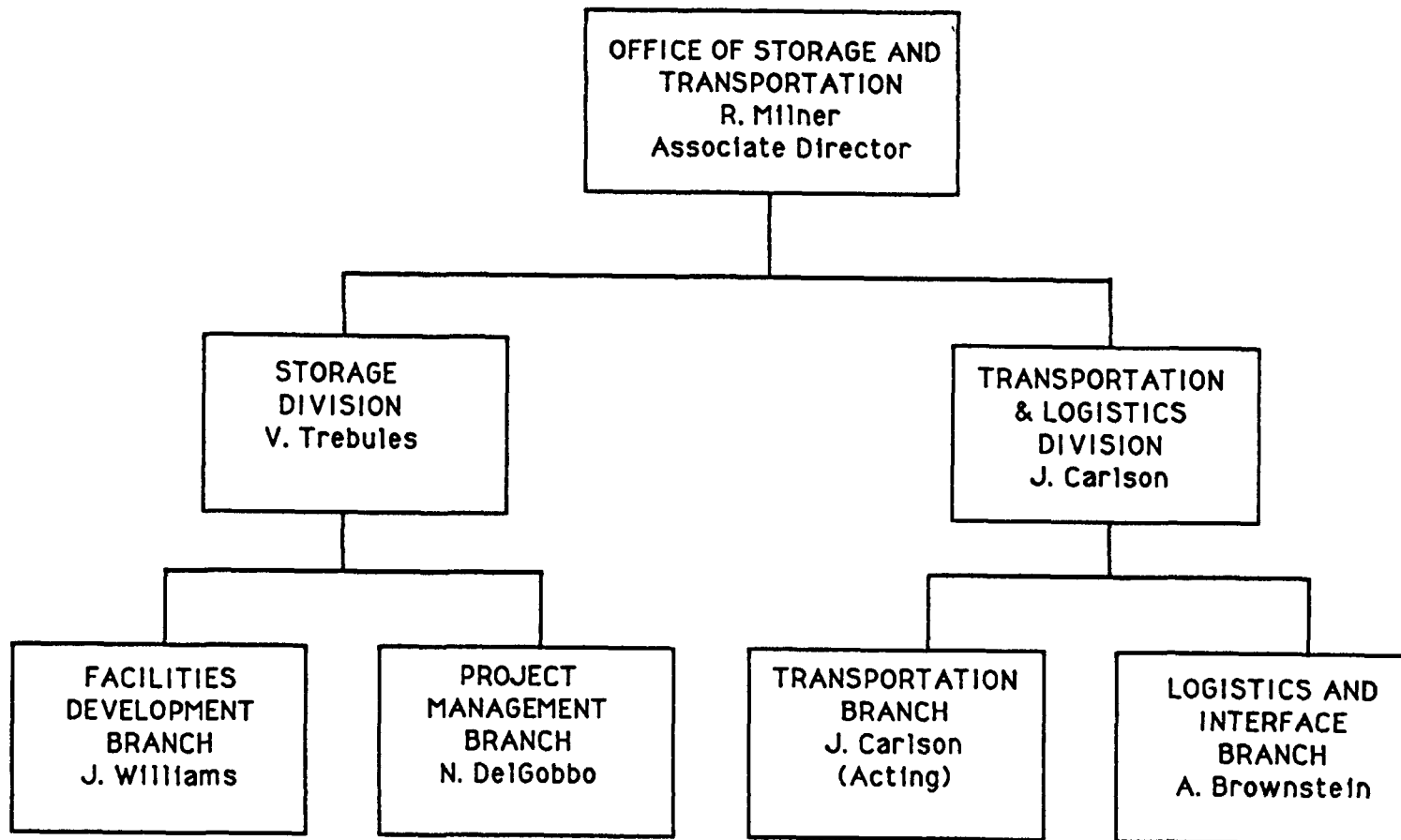
Funding

Total System Life Cycle Cost

Status of MRS Activities

Status of Transportation Activities

Office of Storage and Transportation Organization



Funding

FY 93 funding is level with FY 92:

- **\$13.75 MM MRS**
- **\$19.66 MM Transportation**
- **\$3.66 MM Waste Acceptance**
- **Congress has placed greater emphasis on Yucca Mountain Site Characterization**
- **MRS site not yet identified**

Total System Life-Cycle Cost

- **MRS in system increases Nuclear Waste Fund costs**
- **Increase is less than costs incurred by utilities if no MRS**
- **The earlier an MRS comes on line, the greater the cost savings**

Status of MRS Activities

Active Grants

| | |
|---|--|
| Mescalero Apache Tribe (NM) | Completed Phase I Currently in Phase IIA |
| Skull Valley Goshute Tribe (UT) | Completed Phase I Phase IIA Award Pending |
| Prairie Island Indian Nation (MN) | In Phase I |
| Eastern Shawnee (OK) | In Phase I |
| San Juan County (UT) | In Phase I |
| Ponca Tribe (OK) | In Phase I |
| Ft. McDermitt Indian Reservation (OR/NV) | In Phase I |

Design

Conceptual Design Report (CDR) complete:

- **Six MRS Design Concepts**
 - **Vertical Concrete Cask Storage**
 - **Modular Vault Storage**
 - **Horizontal Module Storage**
 - **Metal Cask Storage**
 - **Transportable Storage Cask**
 - **Wet Pool Storage**

Design (Cont'd)

- **Conceptual design now available**
- **Advanced design work being deferred until site identified**
- **Cask Maintenance Facility (CMF)**
 - **CMF being integrated into facility design**
 - **Report to be issued 2/93**

Multi-Purpose Canister (MPC) Feasibility Study

Conclusions

- **System benefits accrue from use of canisters:**
 - **Facilitate compatibility of at-reactor dry storage with system**
 - **Allow direct acceptance of SNF without repackaging**
 - **Minimize waste handling**
 - **Reduce LLW generation**
- **System cost with canisters may be lower:**
 - **At-reactor Storage + MRS + Transportation System + Repository = Waste Management System**

Multi-Purpose Canister Feasibility Study (Cont'd)

- **Potential for additional cost savings as designs mature:**
 - **Development of MPC Conceptual Design**
 - **Refinement of MRS system design to incorporate MPC concept**
- **NRC staff generally supportive**

Simplified MRS with MPC

- **Reduced spent fuel handling**
- **Fewer transfer cells**
- **Simplified Cask Maintenance Facility**

Human Factors Engineering (HFE)

- **Incorporated HFE into Design Requirements by adding it to SRD**
- **Performed preliminary HFE review of MRS Conceptual Design**
- **Next steps:**
 - **Implement HFE plan during SAR design phase**
- **GOAL:**
HFE + Operating Experience (design personnel)
= Facility Compatible with HFE Requirements

Environmental Planning

- **Environmental Assessment (EA) Technical Guide (draft) complete:**
 - **Describes scope of EA**
 - **Provides guidance to DOE and host preparers**
- **Initiating preparation of other environmental documents:**
 - **Environmental Management Plan**
 - **Site Investigation Plan**

Licensing Support

License Application (LA) Annotated Outline (AO)

- **To facilitate timely licensing and pre-licensing interactions with the NRC**
- **Provides a vehicle for issue identification and resolution**
- **Revision 2 scheduled to be sent to NRC in July 1993**

Status of Transportation Activities

Two-Phase Cask Program

- **Phase 1 (Near-Term): Acquire Proven Technology Casks**
 - **New casks which use proven technology with RFP issued October 93**
 - **Enhancements to existing casks**
 - **Existing casks**
- **Phase 2 (Long-Term): CSDP Casks with High Capacity using Advanced Technology**
 - **GA: Legal Weight Truck**
 - **B&W: Rail/Barge**

Independent Management Review Group (IMRG)

- **IMRG has issued first report evaluating casks against program requirements**
- **Review included analysis of:**
 - **Compatibility with shipping sites**
 - **Operational capabilities**
 - **Feasibility of meeting schedule and costs**
- **Responses are being formulated**
- **M&O is developing tracking system to assure that IMRG and all other comments are considered and resolved**

Institutional Activities

Section 180(c) of the 1987 amendment to the NWPA requires the DOE to provide funds and technical assistance to the States for training in emergency response and procedures for safe routine transportation.

After receiving public comment and inputs from interested groups, document DOE/RW-0347P - "Strategy for OCRWM to Provide Training Assistance to State, Tribal, and Local Governments" was published in November 1992.

Support Systems

Facility Interface Capability Assessment (FICA) and Near-Site Transportation Infrastructure (NSTI) studies have been completed.

A Service Planning Document (SPD) is being prepared for each shipping site. Basis is FICA and NSTI results. Forty have been completed.

Site Specific Servicing Plans will be prepared for each site. These will contain detailed information and procedures required for SNF shipments.

Durability testing of the General Atomics trailer.

1. 21 applicants in 21 jurisdictions - made applications.
2. 2 applications have proceeded to Phase II.
3. Get copies of repts fr. N.D. + Wyoming.
4. made a deal with govt. so the govt. better get moving
6. Artificial deadlines (stupid)
7. Deadline killing app. for success
 - a. optimistic for utilities.
 - b. unfair to the DOE
 - c. perception to do it no matter how
8. We need to slow down.
9. SEAB Task Force rept. out soon.