



U.S. Department of Energy  
Office of Civilian Radioactive Waste Management



# Office of National Transportation Update

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Presented by:

**Gary Lanthrum, Director  
Office of National Transportation**

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# Introduction

- The Office of National Transportation (ONT) has made steady progress in establishing the infrastructure to support transportation to the repository.
- There are four ONT project areas:
  - Institutional
  - Nevada Rail
  - Fleet Acquisition
  - Operations Planning
- Two of these project areas have activities regulated by the Nuclear Regulatory Commission (NRC).



# Transportation under the Nuclear Waste Policy Act (NWPA)

- **Transportation casks must be certified by NRC;**
- **DOE must provide advance notification to states per NRC regulations;**
- **The Department of Energy (DOE) must use private industry to the fullest extent possible in each aspect of transportation;**
- **Under Section 180(c), DOE must provide technical assistance and funds to states and Tribes for training in safe, routine transportation and emergency response procedures.**



# Project Area

- **Fleet Acquisition**
  - **Rail Car Acquisition;**
    - ◆ Meetings with the rail car manufacturing industry representatives were held to solicit their views on how to proceed with eventual rail car design, manufacture, and testing.
  - **Facility Acquisition;**
  - **Cask Acquisition,**
    - ◆ Meetings were held with the cask vendors; their reports on current capabilities have been submitted.
    - ◆ Senior management has formally approved the first stage of the transportation team's project proposals.



# Cask System Requirements

- **ONT is focused on maximizing the use of available cask designs and NRC Certificates of Compliance (CoC) for transport casks.**
- **ONT has a preference for cask systems that provide the maximum flexibility in terms of facility and fuel compatibility.**
- **Coordination efforts are underway to ensure transportation casks are compatible with the Yucca Mountain Surface Facilities.**
  - **Size and weight parameters have been bounded for facility design work;**
  - **Cask handling considerations are being integrated with facility design efforts.**



# Cask Capability Assessment Reports

- **Purchase orders to perform cask capability assessments were placed with vendors possessing NRC Certificates;**
- **Vendors are now familiar with DOE's spent nuclear fuel (SNF) and high-level radioactive waste (HLW) data;**
- **Meetings held in late August and early September provided an opportunity for vendors to discuss the data and their ability to meet ONT's needs;**
- **Preliminary summaries of vendor data indicate that about 60 percent of the fuel available for shipment in 2010 could be accommodated by existing casks and Certificates;**
- **Casks exist today that are technically capable of transporting DOE waste material.**
  - **Generally, the thermal, structural, and shielding requirements for commercial SNF bound those of the DOE material.**





# Project Area

- **Operations Planning**

- **Will define, develop, implement, and demonstrate operational infrastructure to support waste transportation.**
- **Work is well underway in developing a Concept of Operations and Transportation System Requirements.**
  - ◆ **Stakeholders have been engaged in the development of route selection criteria for all transport modes.**
  - ◆ **ONT is supporting development/refinement of computer modeling tools including RADTRAN and TRAGIS.**
  - ◆ **State, tribal, local government, homeland security, and emergency response representatives are working on security issues under the aegis of the Transportation External Coordination Working Group.**



# Pre-notification of NWPA Shipments

- **Pre-notification of state governors and tribal points-of-contact is well established in DOE's *Radioactive Material Transportation Practices Manual, 460.2-1*;**
- **DOE, its contractors and carriers will provide advance notification of non-classified shipments of SNF and HLW;**
- **In addition to NWPA requirements, all shipments to the repository:**
  - **Will be tracked 24 hours a day while in transit;**
  - **Will have armed escorts.**





# Summary

- **ONT is working with cask vendors to maximize flexibility and use of existing casks with CoCs.**
- **Operations Planning is in its early stages.**
  - **Stakeholders are integral to the planning process.**
  - **Relationships with states and tribes will be well established before shipments take place facilitating the notification process.**
- **Meeting the requirements of the NWPA regarding transportation is achievable.**

