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

## Overview of Systems Engineering Activities



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Introduction William A. Lemeshewsky, DOE/OCRWM

Overview of Top-Level System Studies Program Frank Ridolphi, Manager, Systems Engineering, M&O

- Update of the Throughput study William Bailey, Manager, Systems Analysis, M&O
- Alternative Cask and Canister Concepts for Storage, Transportation, and/or Emplacement William Hollaway, Engineer/Scientist, Systems Analysis, M&O
- Update of the System Implications of the Repository Thermal Loading Study
   Peter Gottlieb, Senior Engineer, Systems Analysis, M&O

#### **OCRWM Systems Engineering Activities**

- Develop system requirements, interface requirements and baseline documents
- Update integrated logic for system decisions
- Identified and initiated needed system studies and assessments in support of Monitored Retrievable Storage, Transportation and Mined Geologic Disposal System
- Continued enhancement of system models and databases, as needed
- Initiated planning for system safety and human factors engineering

#### **Objectives of System Studies**

- Support requirements definition, documents and concept of evaluation
- Support design decisions and system planning effort
- Provide inputs to and support other OCRWM organizations

# Identification and Prioritization of OCRWM System Studies

- Effort was initiated in 1984 and accelerated with M&O arrival
- Reviewed relevant OCRWM documents identifying technical issues to be resolved
- Compiled System Studies Digest to record results of prior studies and unresolved issues
- Assessed current priorities through system element technical information exchanges and ongoing discussions, and considered inputs from NWTRB, industry, potential MRS host communities, and others
- Priority list of near-term studies developed with updates, as needed