



Office of Storage & Transportation Update

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U.S. Department of Energy

Office of Storage & Transportation



U.S. DEPARTMENT
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Nuclear Energy

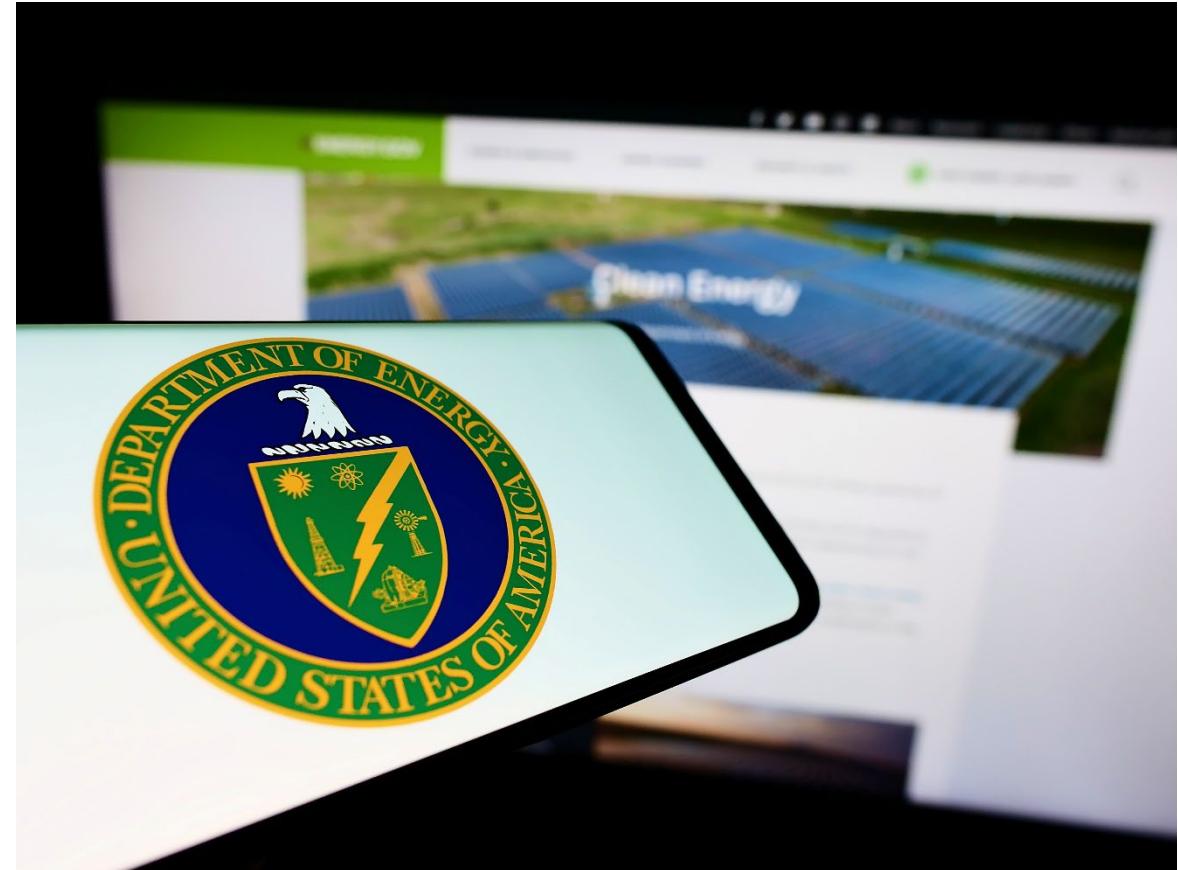
Spent Fuel and High-Level Waste Disposition

DISCLAIMER

This is a technical presentation that does not take into account contractual limitations or obligations under the Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste (Standard Contract) (10 CFR Part 961)

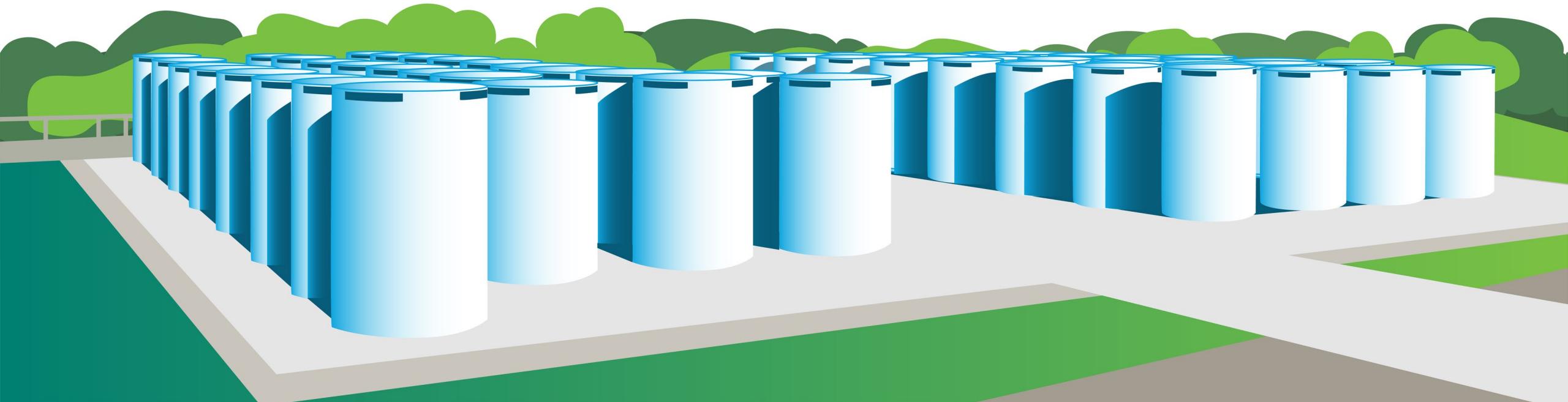
To the extent discussions or recommendations in this presentation conflict with the provisions of the Standard Contract, the Standard Contract governs the obligations of the parties, and this presentation in no manner supersedes, overrides, or amends the Standard Contract.

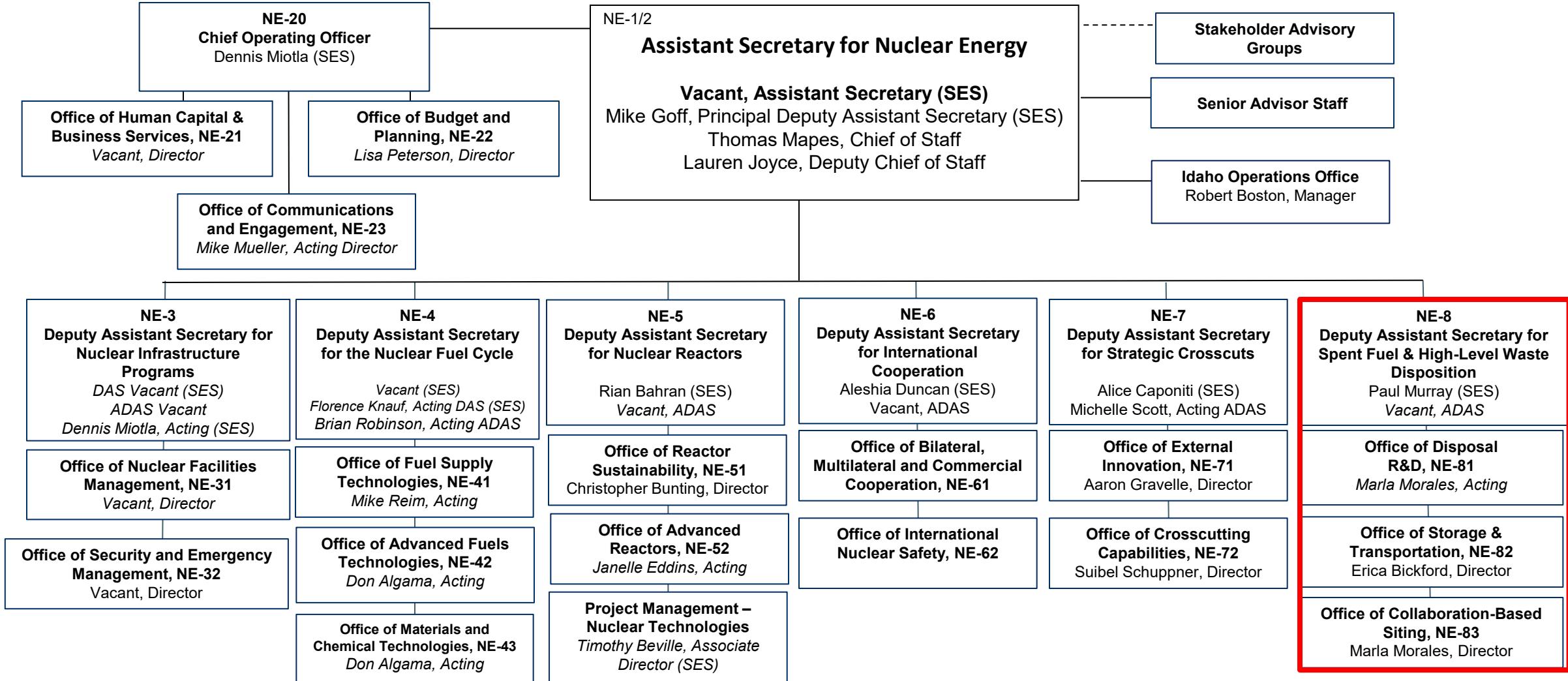
This presentation reflects technical work which could support future decision making by the U.S. Department of Energy (DOE or Department). No inferences should be drawn from this presentation regarding future actions by DOE, which are limited both by the terms of the Standard Contract and Congressional appropriations for the Department to fulfill its obligations under the Nuclear Waste Policy Act including licensing and constructing of a spent nuclear fuel repository.



Office of Spent Fuel & High-Level Waste Disposition

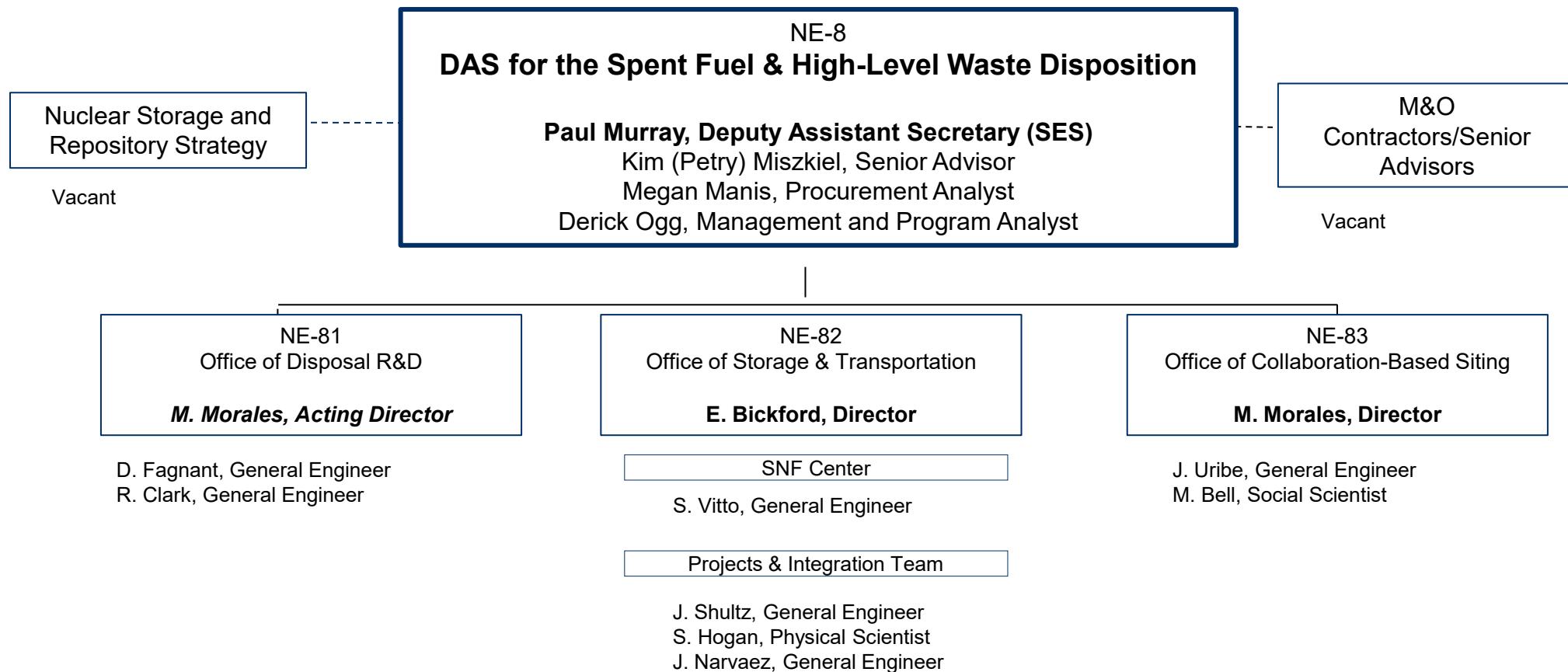
Mission: Develop and implement a plan for the safe and secure long-term management of the Nation's spent nuclear fuel (SNF) and high-level radioactive waste (HLW).



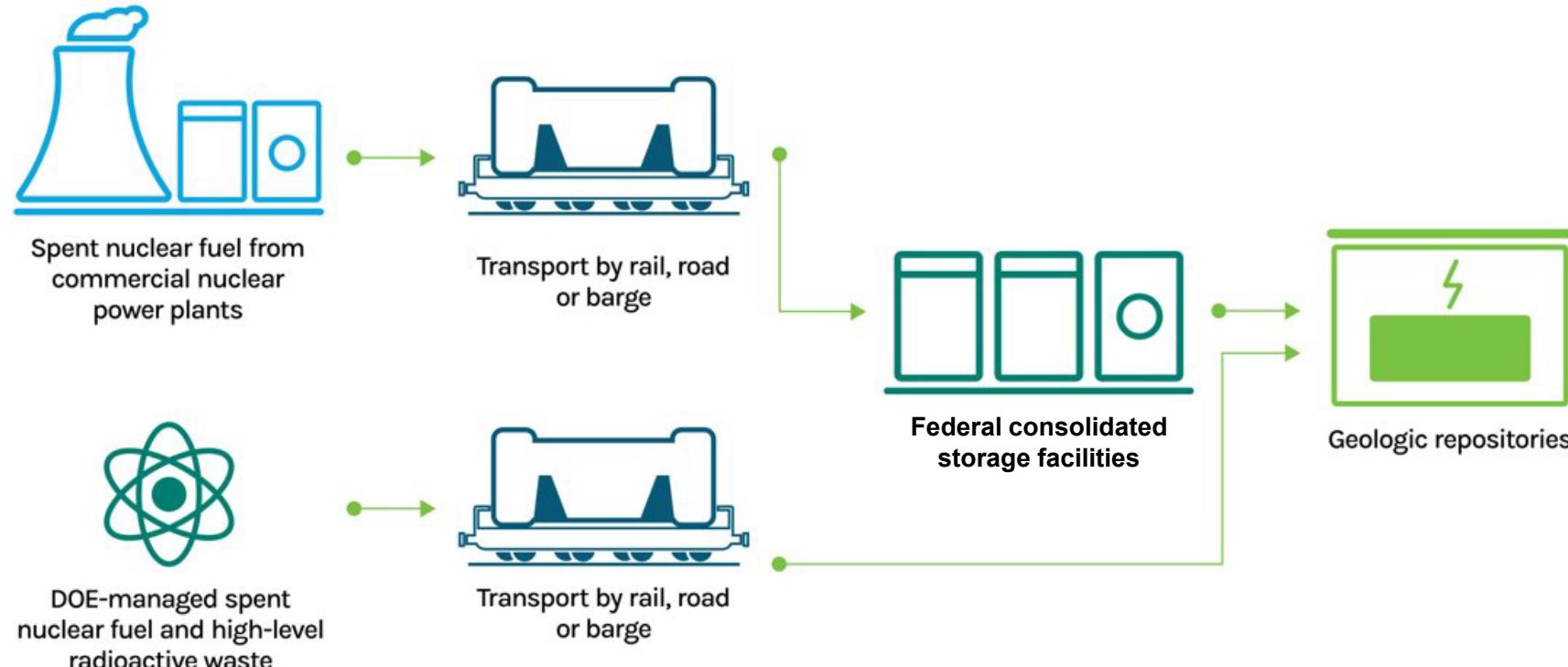




Deputy Assistant Secretary Spent Fuel & High-Level Waste Disposition, NE-8

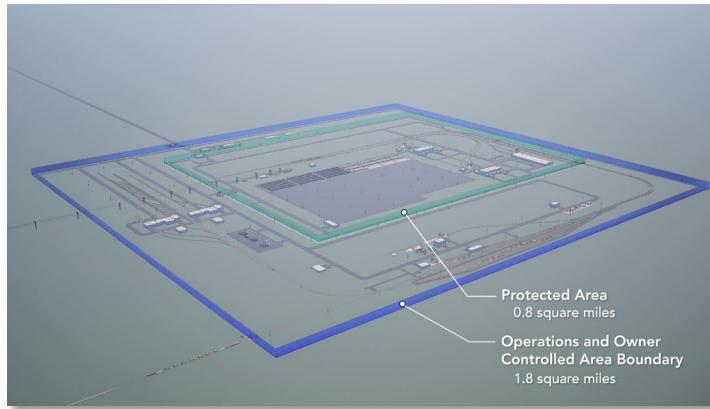


Integrated Waste Management System for SNF & HLW



- Storage Facility(ies)
- Transportation Capability
- Disposal Facility(ies)
- Interfaces

Office of Storage & Transportation Priorities



Federal consolidated storage facility (CSF)/capital acquisition CD-1 and supporting activities



The High Burnup Research Cask (HBURC) Project and supporting activities



SNF Center for Applied Research in Storage and Transportation

FY26 Draft Authorizing Language

House

- **Used Nuclear Fuels Disposition R&D.**—The Committee supports the Department's efforts to launch a Spent Nuclear Fuel Center for Applied Research in Storage and Transportation to collaborate with the nuclear industry to address challenges related to long-term storage of spent nuclear fuel, conduct research that supports near-term regulatory compliance, and ensure public confidence for storage and transportation of commercial and DOE-managed spent nuclear fuel and high-level waste. The Department is encouraged to demonstrate the safe transportation of spent nuclear fuel in large dual-purpose storage and transportation containers.
- No **Integrated Waste Management System** language.

Senate

- **Used Nuclear Fuel Disposition R&D.**—The Committee provides \$10,000,000 for the development of a Spent Nuclear Fuel Center for Applied Research in Storage and Transportation.
- **Integrated Waste Management System.**—The Department is directed to move forward under existing authority to identify a site for a Federal interim storage facility. The Committee was pleased to see the Mission Need Statement [CD-0] for the Federal Consolidated Interim Storage Facility, initiating the major acquisition project process for the Department. The Department is further directed to use a consent-based approach when undertaking these activities. The Department is reminded that the Nuclear Waste Policy Act provides for a wide variety of activities that may take place prior to the limitation in that act.

FY25 Key Activities – HBURC and Transportation Hardware

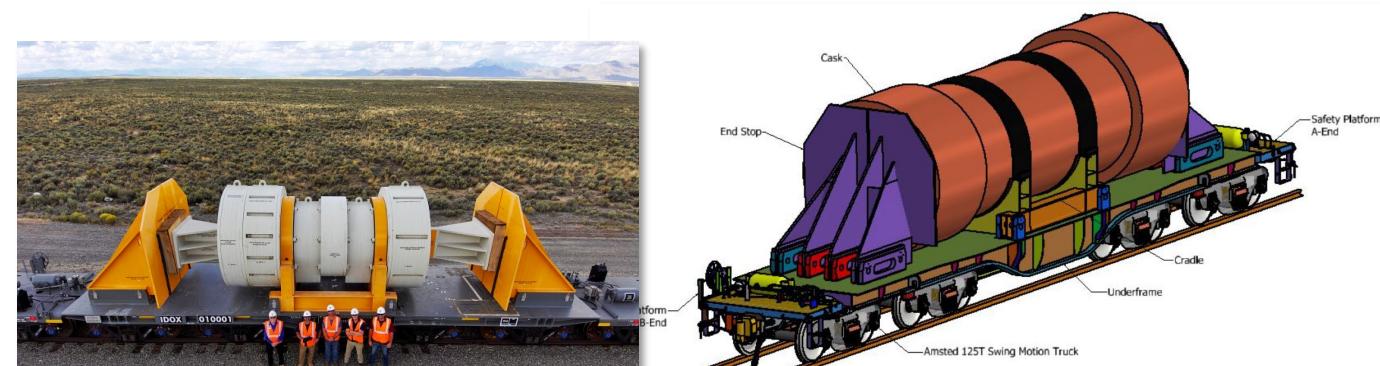
- **HBURC Shipment:**

- National Environmental Policy Act (NEPA) documentation development
- Integrated Safety and Security Monitoring System (ISSMS)
- Impact limiter and cradle fabrication



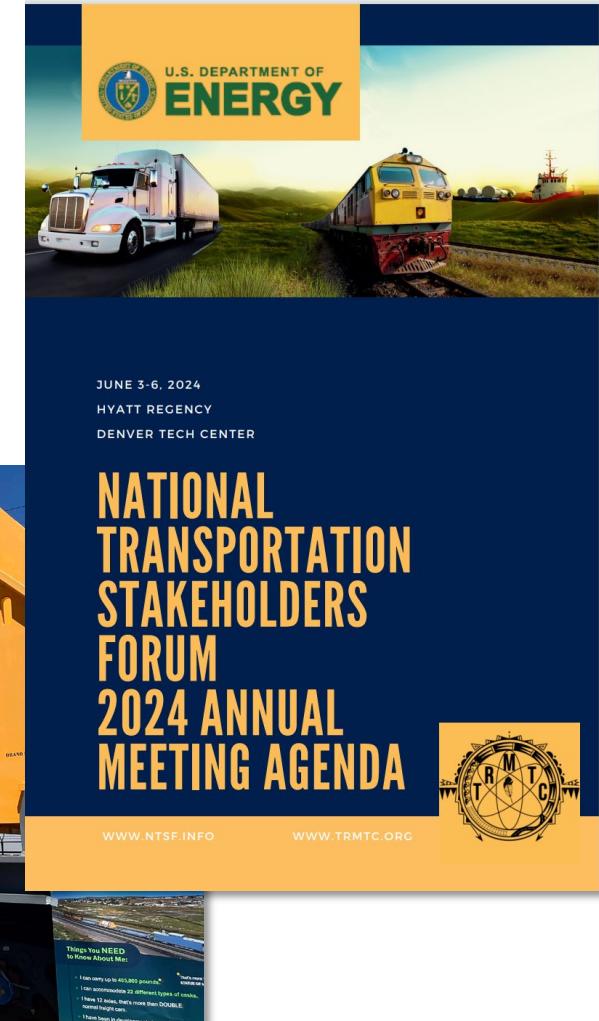
- **Transportation Hardware:**

- Atlas rail car supplemental testing
- Fortis rail car – continued fabrication
- FY26 plan to start procuring 4 more Atlas railcars



Tribal & State Engagement

- National Transportation Stakeholders Forum (NTSF)
Ad Hoc Working Groups:
 - Section 180(c)
 - HBURC Shipment
- Transportation Core Group
 - March 18-19, 2025, Washington, DC
 - August 20-21, 2025, Crystal City, VA



FY26 Priority Activities

- Federal CSF:
 - Conducting engineering design work for the reference concept facility
 - Preparing documentation for Critical Decision-1 Conceptual Design approval next year
- Transportation hardware:
 - Fortis – car body fabricated
 - Plan to procure 4 more Atlas railcars
- HBURC Shipment
 - Coordinate with Tribal, State, and Federal Partners
 - Finalize approach for providing armed escorts
 - NEPA Documentation
 - Begin Transportation Emergency Preparedness Program (TEPP) training with Tribes and States
 - Consider options for transportation exercises



Path Forward for Office of Disposal and Collaboration-Based Siting

- Office of Disposal Research:
 - Looking to investigate generic site characterization
 - Planning to release an RPF FY26 to evaluate generic geologies
- Office Collaboration-Based Siting:
 - Continue to work with communities and collaborate with Offices of Disposal Research and Storage & Transportation

University Research Reactor SNF Shipments, 2026-2030

- 24 U.S. universities have low-power research reactors
- SNF from U.S. university research reactors is sent to Idaho National Laboratory (INL) or the Savannah River Site (SRS) for storage, depending on the type of fuel
- MIT and University of Missouri-Columbia regularly ship to SRS
- UC Davis, Penn State, Texas A&M, and NC State will ship SNF to INL between 2026 and 2030.
- Each SNF shipment is 1-2 trucks using a NAC-LWT transportation package (or “cask”)





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