

U.S. DEPARTMENT OF  
**ENERGY**

Office of  
**NUCLEAR ENERGY**

# Office of Integrated Waste Management (IWM) Overview

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On behalf of Erica Bickford, PhD (Director)

Office of Integrated Waste Management

US Department of Energy

CINR and University Program Webinar

May 31<sup>st</sup>, 2023

Virtual

# Office of Integrated Waste Management

## Mission

**To implement Federal interim storage for commercial spent nuclear fuel following a consent-based siting process.**





H. R. 2617

One Hundred Seventeenth Congress  
of the  
United States of America

AT THE SECOND SESSION

Began and held at the City of Washington on Monday,  
the third day of January, two thousand and twenty-two

An Act

Making consolidated appropriations for the fiscal year ending September 30, 2023,  
and for providing emergency assistance for the situation in Ukraine, and for  
other purposes.

Be it enacted by the Senate and House of Representatives of  
the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Consolidated Appropriations  
Act, 2023".

SEC. 2. TABLE OF CONTENTS.

- Sec. 1. Short title.
- Sec. 2. Table of contents.
- Sec. 3. References.
- Sec. 4. Explanatory statement.
- Sec. 5. Statement of appropriations.
- Sec. 6. Adjustments to compensation.

DIVISION A—AGRICULTURE, RURAL DEVELOPMENT, FOOD AND DRUG  
ADMINISTRATION, AND RELATED AGENCIES APPROPRIATIONS ACT, 2023

- Title I—Agricultural Programs
- Title II—Farm Production and Conservation Programs
- Title III—Rural Development Programs
- Title IV—Domestic Food Programs
- Title V—Foreign Assistance and Related Programs
- Title VI—Related Agency and Food and Drug Administration
- Title VII—General Provisions

DIVISION B—COMMERCE, JUSTICE, SCIENCE, AND RELATED AGENCIES  
APPROPRIATIONS ACT, 2023

- Title I—Department of Commerce
- Title II—Department of Justice
- Title III—Science
- Title IV—Related Agencies
- Title V—General Provisions

DIVISION C—DEPARTMENT OF DEFENSE APPROPRIATIONS ACT, 2023

- Title I—Military Personnel
- Title II—Operation and Maintenance
- Title III—Procurement
- Title IV—Research, Development, Test and Evaluation
- Title V—Revolving and Management Funds
- Title VI—Other Department of Defense Programs
- Title VII—Related Agencies
- Title VIII—General Provisions

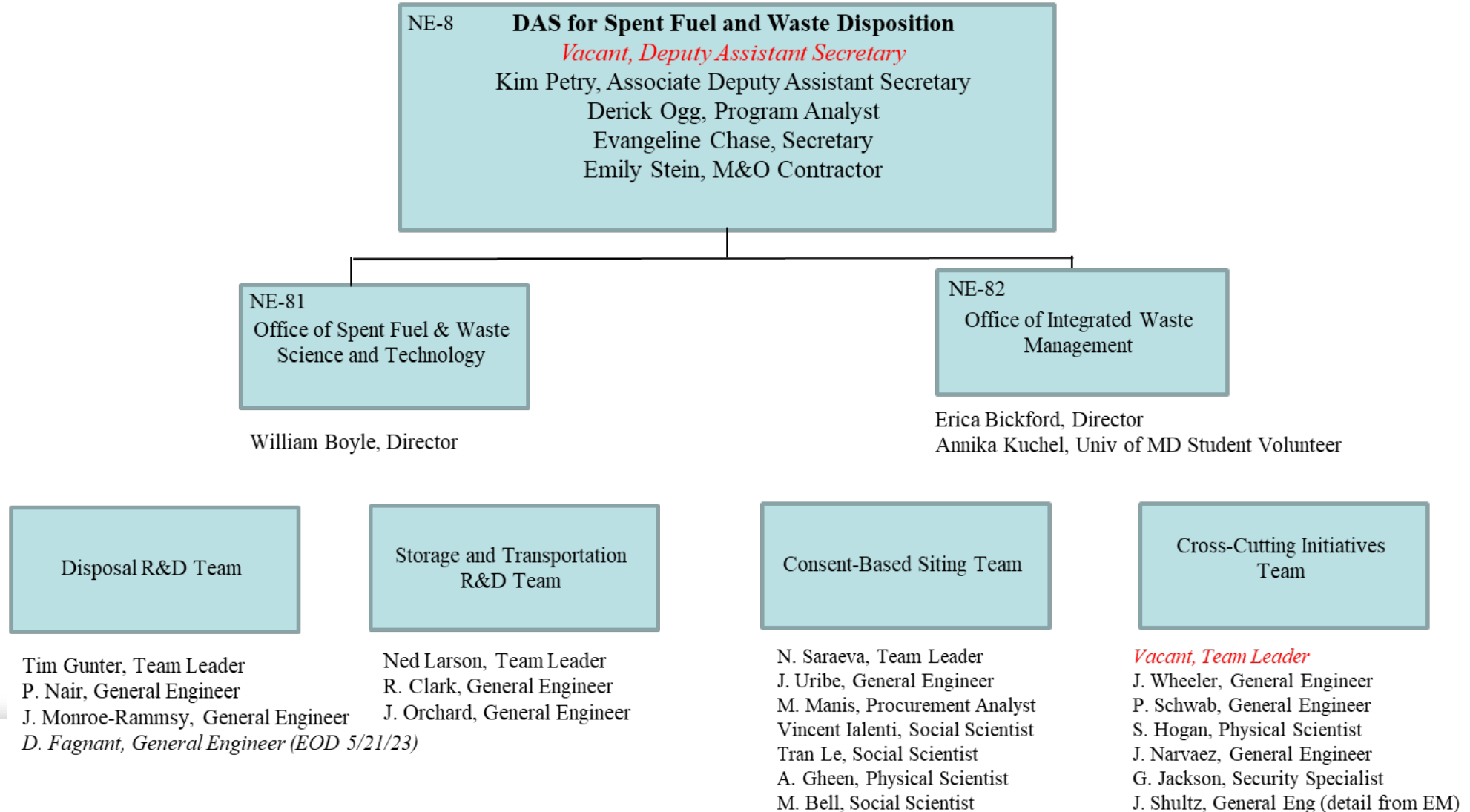
DIVISION D—ENERGY AND WATER DEVELOPMENT AND RELATED  
AGENCIES APPROPRIATIONS ACT, 2023

- Title I—Corps of Engineers—Civil
- Title II—Department of the Interior
- Title III—Department of Energy

# FY23 Appropriations

- **IWM Funded at \$53 million**
- Note funding in FY21 and FY22 was split between two pots of funds (for Interim Storage and IWMS) and in FY23 they were combined at DOE’s request. The net increase in funding is \$15 million.
- Explanatory statement for Integrated Waste Management Systems:
  - The Department is directed to move forward under existing authority to identify a site for a federal interim storage facility. The Department is further directed to use a consent-based approach when undertaking these activities.
  - The Department is directed to continue site preparation activities at stranded sites, to evaluate the re-initiation of regional transport, and to undertake transportation coordination efforts.

## Deputy Assistant Secretary for Spent Fuel and Waste Disposition, NE-8

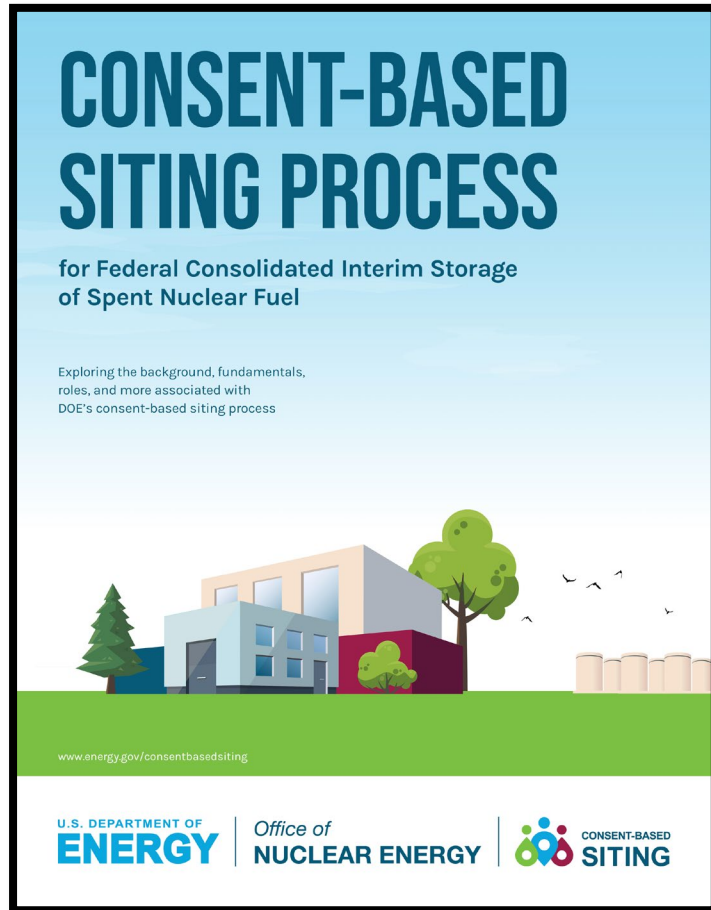




# Consent-Based Siting



# The Consent-Based Siting Process



- Prioritizes people and communities
- Centers equity and environmental justice
- Collaborative, phased, and adaptive

# Process Stages



## Stage 1: Planning and Capacity Building

Build relationships, encourage mutual learning, develop a common understanding of nuclear waste management-related topics.

Phases 1A & 1B

ANTICIPATED REMAINING

DURATION 2-3 YEARS

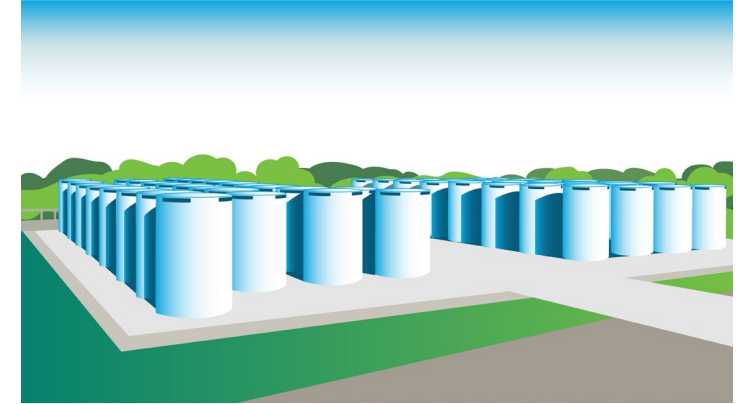


## Stage 2: Site Screening and Assessment

Issue screening and assessment criteria, community-led development of additional criteria; put out a call for volunteers; preliminary and detailed assessments.

Phases 2, 3, & 4

ANTICIPATED DURATION 4-7 YEARS



## Stage 3: Negotiation and Implementation

Negotiate agreements with willing and informed host communities with licensing, construction, and operation activities to follow.

Phases 5, 6A, & 6B

ANTICIPATED DURATION TO INITIAL

OPERATION READINESS 4-5 YEARS

# Funding Opportunity Announcement

- ~~\$16 million~~ **\$26 million**; 6-16 awards; performance period is 18-24 months.
- **Eligible awardees include:**
  - Higher-education institutions (colleges, universities, and other institutions of higher learning)
  - Tribal, State, and local governments (municipalities, towns, cities, and counties)
  - Community foundations
  - Non-governmental organizations (trade associations, 501(c)(3) organizations, and other public groups)
- **Geographically and institutionally diverse awardees**
  - Across the continental United States
- **Builds capacity for future engagement**
  - Establishes a community of practice
  - Strengthens involvement and mutual learning aimed at building trust
  - Special focus on environmental justice
- **Awardees expected to be announced in late spring 2023**







# Cross-Cutting Initiatives



# Transportation Project

# Railcar Development



- **Atlas** (12-axle) railcar: continuing multiple railcar testing– expected to be completed in 2023
- **Buffer railcar**: developed in conjunction with the Atlas railcar and will be part of multiple-railcar testing along with Rail Escort Vehicle (**REV**)
- **Fortis** (8-axle) railcar: contract signed and design and fabrication kick-off events (Sept 2022)
- Continue developing integrated security & safety monitoring system (**ISSMS**) for railcars

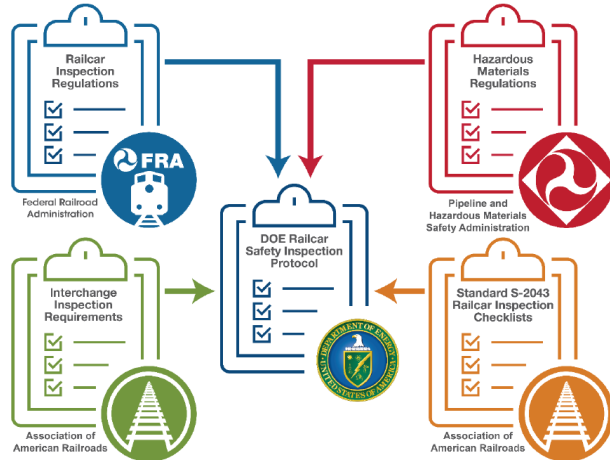
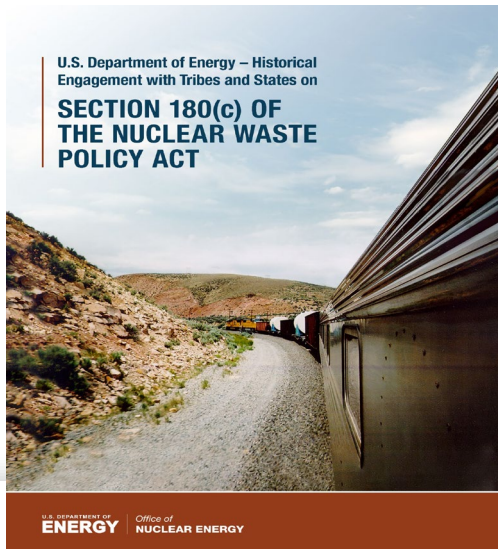


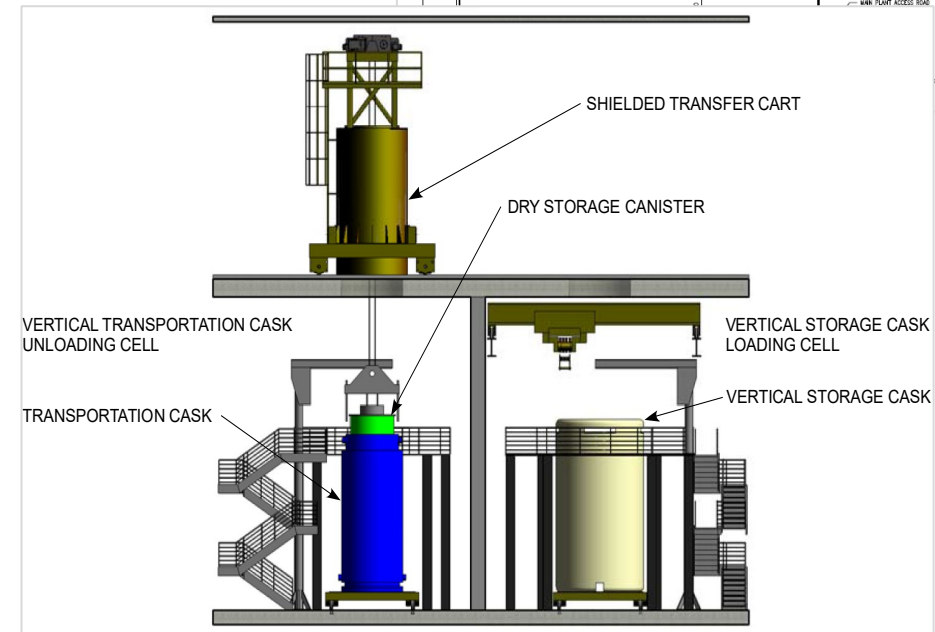
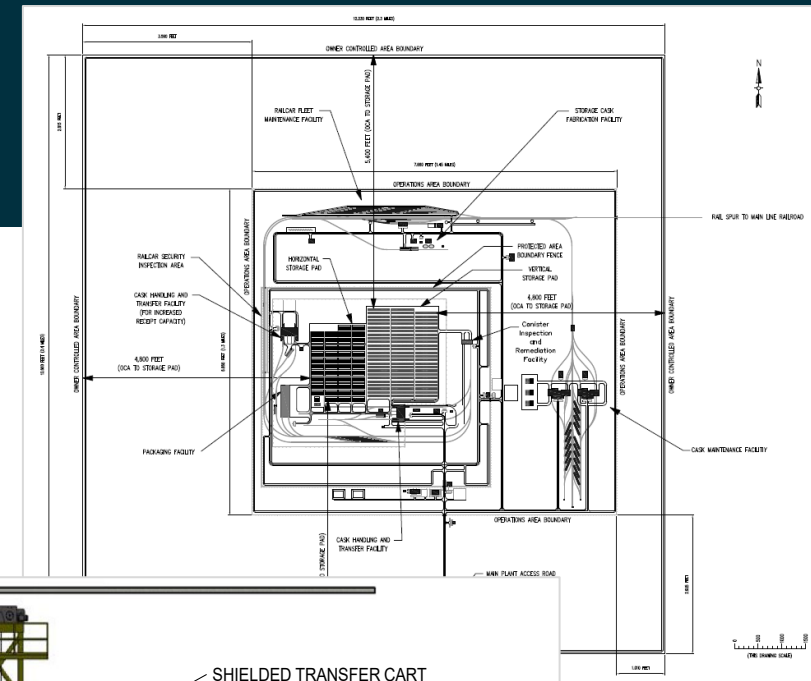
Figure S-1. Components of DOE Railcar Safety Inspection Protocol

- **IWM funds 5 cooperative agreements with State Regional Groups and the Tribal Radioactive Materials Transportation Committee**
  - Supports regional and Tribal committee operations and staff support
  - Supports mid-year meetings
  - Supports participation in DOE’s National Transportation Stakeholders Forum (NTSF) Annual Meeting and other DOE-hosted meetings
  - Supports travel to relevant trainings and technical meetings
- **Activities**
  - **IWM federal staff lead three NTSF ad hoc working groups**
    - Section 180(c) ad hoc working group
    - SNF Rail/Routing ad hoc working group
    - SNF Management communications and outreach ad hoc working group
  - **IWM leads a Transportation Core Group**
    - Comprised of chairs/co-chairs/executive committees of State Regional Groups and Tribal Radioactive Materials Transportation Committee



# Storage Facilities & Equipment

- **Project management for a federal consolidated interim storage facility**
  - DOE critical decision process under Order 413.3B
  - Mission Validation Independent Review (kick-off April 2023)
- **Storage Facility Design**
  - Functions and requirements
  - Reference design concepts
- **Canister inspection and remediation concepts**
  - Helium leak testing



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