

Program Update from DOE-NE: Office of Integrated Waste Management (IWM)

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Tribal/State Committee Meetings
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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). For example, under the provisions of the Standard Contract, spent nuclear fuel in multi-assembly canisters is not an acceptable waste form, absent a mutually agreed to contract amendment.

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 DOE. 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 completing a spent nuclear fuel repository.

Transportation Planning Activities



- Leadership Updates
- IWM Staffing Updates
- Recent IWM Work Products
- FY22 Program Plans
 - Appropriations
 - Transportation
- Transportation Project Updates
- Consent-based Siting/Interim Storage

NE Leadership Updates

- Dr. Kathryn (Katy) Huff became Acting Assistant Secretary and Principal Deputy Assistant Secretary for DOE's Office of Nuclear Energy in May 2021. She was previously a professor at the University of Illinois at Urbana-Champaign.



- Dr. Kimberly (Kim) Petry became Acting Deputy Assistant Secretary for Spent Fuel & Waste Disposition in July 2021. She also remains Acting Office Director for the Office of Integrated Waste Management (IWM).

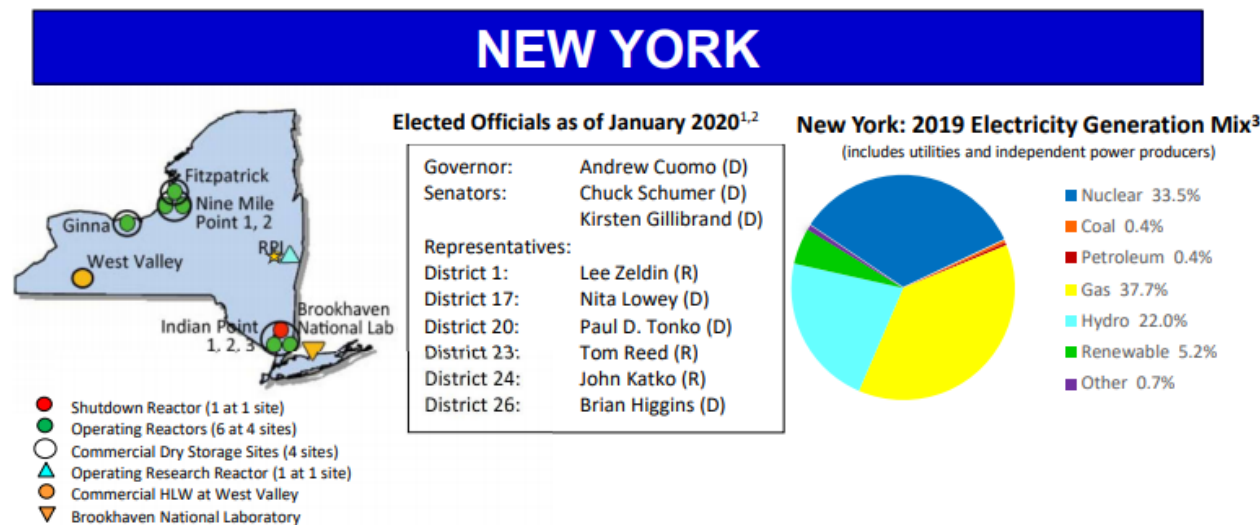
IWM Staffing Updates

- Jorge Narvaez joined IWM in October. He is a nuclear engineer and will be supporting IWM work related to interim storage design and program integration.
- Natalia Saraeva, currently with Pacific Northwest National Laboratory, will be detailed to DOE headquarters in late Fall to support IWM's consent-based siting and interim storage projects.
- IWM is also planning to bring in more staff this fall to backfill positions that are vacant due to retirements and promotions, and to add social science expertise to support consent-based siting related communications and outreach activities.



Recent IWM Work Products

- **Spent Nuclear Fuel and Reprocessing Waste Inventory, Rev. 8** report expected to be released Fall 2021
 - Annual inventory of commercial spent nuclear fuel (SNF) and high-level radioactive waste in the United States, as well as non-commercial SNF and reprocessing waste in the DOE complex.
 - Actual or estimated quantitative values for current inventories are provided along with inventory forecasts derived from examining different future commercial nuclear power generation scenarios.
 - Includes State summary data



FY22 Program Plans – Appropriations

- FY22 Draft House and Senate Appropriations Bills:
 - Both propose the following budget for spent nuclear fuel management-related programs:
 - \$27.5M for Nuclear Waste Disposal [including interim storage], of which \$7.5M will be from the Nuclear Waste Fund
 - \$18M for Integrated Waste Management System [DOE-IWM]
 - Matches funding provided in FY21
 - Senate bill additionally includes language authorizing DOE “to conduct a pilot program to license, construct, and operate 1 or more Federal consolidated storage facilities to provide interim storage as needed for spent nuclear fuel and high-level radioactive waste, with priority for storage given to spent nuclear fuel located on sites without an operating nuclear reactor.”

FY22 Program Plans - Transportation



- Railcar Development

- Continue **Atlas** (12-axle) railcar testing – expected to be completed in 2023
- Place contract for **Fortis** (8-axle) railcar fabrication and testing
- Develop integrated security & safety monitoring system (**ISSMS**) for railcars

- Security

- Identify options for DOE to provide **armed escorts for SNF rail shipments** in accordance with federal regulations and DOE Orders

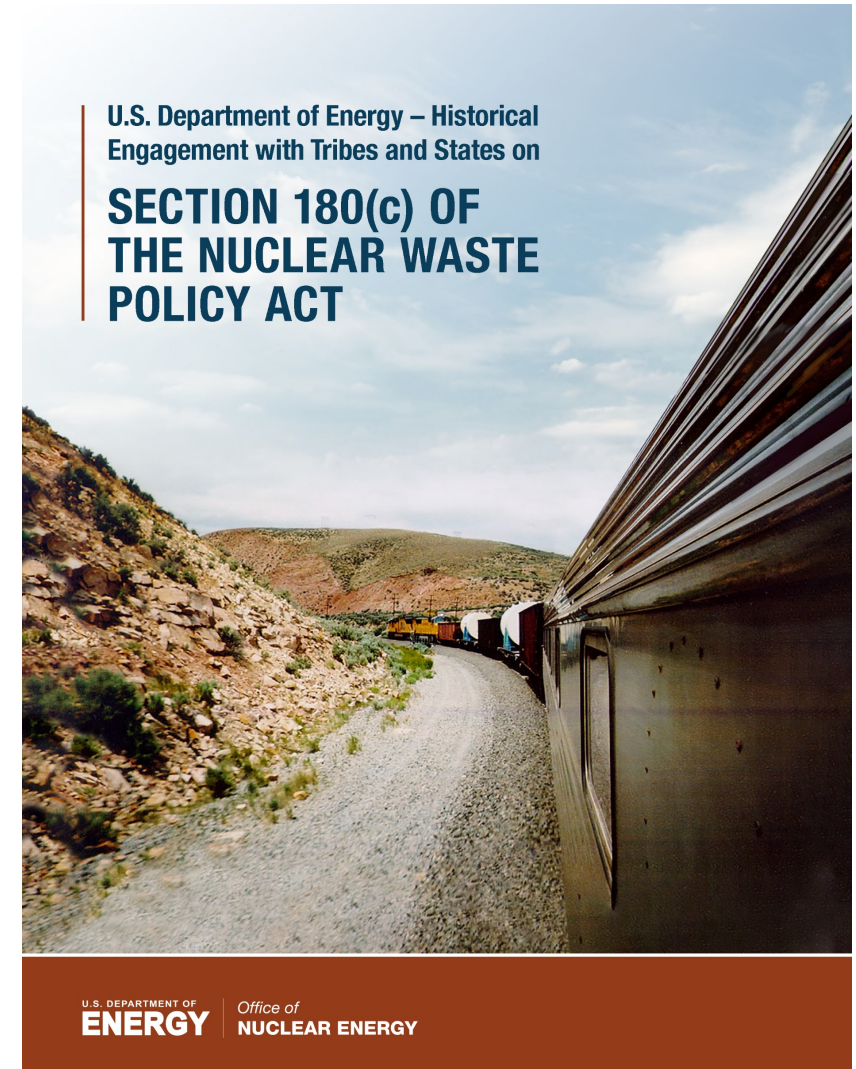
FY22 Program Plans - Transportation

- Spent Nuclear Fuel Transportation Knowledge Management
 - Ready to continue **nuclear power plant infrastructure evaluations** once travel resumes. Possible next sites include Dresden and Morris in IL, Three Mile Island in PA, Duane Arnold in IA, Indian Point in NY, Ginna and Nine-Mile Point in NY, and Byron in IL.
 - Updated DOE **history of SNF transport** report – expected to be released Fall 2021.
 - Expect resumption of the **NTSF Section 180(c) ad hoc working group** in 2022.
- Communications and Analysis
 - Continuing migration of the Stakeholder Tool for Assessing Radioactive Transportation (**START**) to a new hosting environment to improve functionality and performance – expected to be completed Fall 2021.
 - Developing preliminary plans for a **full-sized rail cask package test** (actual testing will depend on funding).



Transportation Project Updates

- **Section 180(c) Historical Summary Report.** IWM is working on summarizing activities conducted between 1983 and 2017 by DOE and various DOE-supported working groups to examine issues related to implementation of Section 180(c) of the Nuclear Waste Policy Act of 1982, as amended (NWPA).
- The intention would be to document and track Section 180(c) issues, including summarizing prior discussion of options, identifying pivotal work products, and summarizing issues for which further discussion might be useful.
- The summary could serve as a knowledge management resource for the nuclear waste program.



Transportation Project Updates cont.

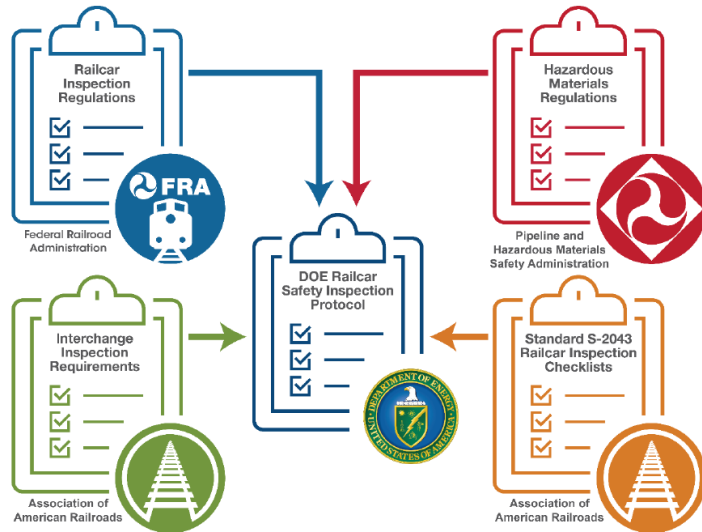


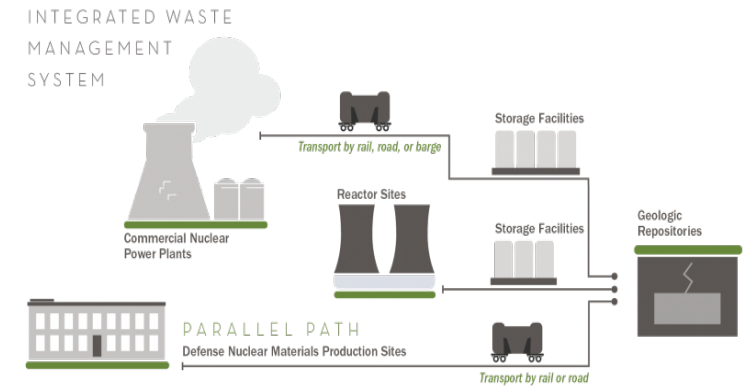
Figure S-1. Components of DOE Railcar Safety Inspection Protocol



- **Draft Railcar Safety Inspection Protocol** developed through the NTSF Rail/Routing ad hoc working group was shared with State Regional Group and TRMTC support staff in August 2021 for distribution to their committee members for further discussion and review.
 - DOE requests comments back by Feb. 1, 2022
- **Buffer railcar** that was developed in conjunction with the Atlas railcar received single-car approval from the Association of American Railroads in August 2021. Next step is multi-car testing.
- **Cooperative Agreements**
 - New staff support for TRMTC, North Wind Site Services

Consent-Based Siting/Interim Storage

- Congress provided funds to the Department in FY 2021 for interim storage activities.
- As an initial step, DOE plans to issue a Request for Information (RFI) that will seek public input on how to site a federal interim storage facility for spent nuclear fuel using a consent-based approach.
- We will welcome responses to the RFI from your committee and committee members. DOE-IWM will notify Committee Co-Chairs and SRG/TRMTC support staff about public meetings, webinars, and other virtual events related to consent-based siting.



Questions?