SPENT NUCLEAR FUEL PACKAGE PERFORMANCE DEMONSTRATION (PPD)



Office of NUCLEAR ENERGY

WHAT IS IT?

The U.S. Department of Energy (DOE) is making preliminary plans to conduct physical demonstrations on a full-sized spent nuclear fuel (SNF) transportation rail cask, inspired by a history of similar testing endeavors worldwide and recommended by the National Academy of Sciences and the Blue Ribbon Commission. DOE is currently considering both demonstrations prescribed in regulations for cask certifications and non-regulatory demonstrations. The DOE's PPD plans will be informed by responses to its Request For Information (RFI), released on July 31, 2024. Interested parties are encouraged to respond to the RFI to share their views on how DOE should design and conduct a PPD.

WHY ARE WE DOING IT?

The PPD is intended to:

- Build public trust and confidence in the safety of SNF transportation, particularly by rail.
- Provide the foundation for a broader public information sharing campaign and discussion about the future of SNF and SNF transportation safety.
- Strengthen relationships between DOE and stakeholders, creating "shareable confidence" among involved parties.
- Allow DOE to gather technical data and further inform computer models.

WHEN ARE WE DOING IT?

The PPD will undergo a phased development schedule, preliminarily planned from 2024 to 2028. The demonstration date will depend on authorization, funding, and availability of materials and services for the demonstration(s).

Phase 1:

Preliminary Outreach

- Advises overall project development
- Focus on existing nuclear transportation community (State, Tribal, Federal, Industry)

Spring 2024 through Summer 2024

Phase 2:

Request for Information (RFI) and Comment Period

- RFI published, gather responses, review feedback
- · Increase breadth of outreach
- Informs PPD protocols and the materials and services DOE may need to procure

Summer 2024 through Spring 2025

Phase 3:

Request for Proposals (RFP) through PPD Implementaion

- · Broadest outreach
- Informs PPD design and DOE communications

Spring 2025 through 2028 (target)

HOW CAN I PARTICIPATE, AND WHO DO I CONTACT?

A link to the RFI, RFI background information, and updates on the project are available at https://curie.pnnl.gov/DOE-PPD. DOE will offer webinars and listening sessions to answer questions and seek feedback. To receive more information about the PPD, subscribe to our mailing list or contact:

Gerard Jackson, DOE, Security Specialist and Federal Manager (gerard.jackson@nuclear.energy.gov)

Miriam Juckett, Pacific Northwest National Laboratory, Advisor, Intergovernmental and External Engagement (miriam.juckett@pnnl.gov)

