

Updates from the Office of Regulatory & Policy Affairs (EM-4)

Mark Gilbertson

**Associate Principal Deputy Assistant Secretary
for EM Regulatory & Policy Affairs**

March 24, 2021

Per- and polyfluoroalkyl substances (PFAS)

- In the process of assessing current or past use, as well as supporting programs that monitor for PFAS at sites to inform policy development.
- Actively engaged with federal partners (including DoD and EPA) to track research, technical aspects, and potential regulatory actions.

Packaging & Transportation

- FY 2020 → Over 1,400 first responders trained in 92 courses through the Transportation Emergency Preparedness Program (TEPP)
- Issued Nationwide Low-Level Waste (LLW) Treatment Services, providing turnkey services for treatment, processing, and transportation of LLW
- FY 2021 → Finalizing DOE Order 460.2, *Departmental Materials Transportation Management*

Regulatory Compliance

- Waste Incidental to Reprocessing (WIRs) → NRC consultation and development of Final WIR Evaluations for Closure of Hanford Vitrified Low Activity Waste Disposal and Waste Management Area C at the Hanford Site in progress.



Regulatory | National Environmental Policy Act (NEPA)

- Support of NNSA Surplus Plutonium Disposition Program EIS and NE Versatile Test Reactor EIS
- Implementation of CEQ Final Rule

High-Level Radioactive Waste (HLW) Interpretation

- EM issued Federal Register notices announcing intent to draft environmental assessment on the commercial disposal of SRS contaminated process equipment, and a limited change to DOE Manual 435.1-1, *Radioactive Waste Manual*, to incorporate DOE's interpretation of the statutory definition of HLW.

Waste Isolation Pilot Plant (WIPP)

- FY 2020 → WIPP received 180 shipments (300 expected over the next year, with waste shipments increasing to 7-8 per week)

National Intergovernmental Groups

- 2020 Combined Intergovernmental Meeting held virtually (NGA, NCSL, STGWG, NAAG, ECOS, ECA---groups hosting special topic webinars)
- Local community group meetings with EM leadership (e.g., Ohio, NM, KY)

Tribal

- DOE Tribal Energy Steering Committee/ Administration Tribal Engagement
- Long-Term Stewardship → EM, LM and NNSA standing up DOE-wide LTS Working Group to focus on land transfer/ data coordination/ communications/ info sharing

Advisory Boards

- Site-Specific Advisory Board meetings held virtually

International

- Trilateral collaboration (US-UK-CA)
 - Decommissioning Workshop, joint technology projects, lessons learned

Consortium for Risk Evaluation with Stakeholder Participation (CRESP)

- Ongoing and independent technical review and analysis from academia

Overview of DOE Reprocessing Waste and DOE Spent Nuclear Fuel Inventories

DOE Reprocessing Waste Locations

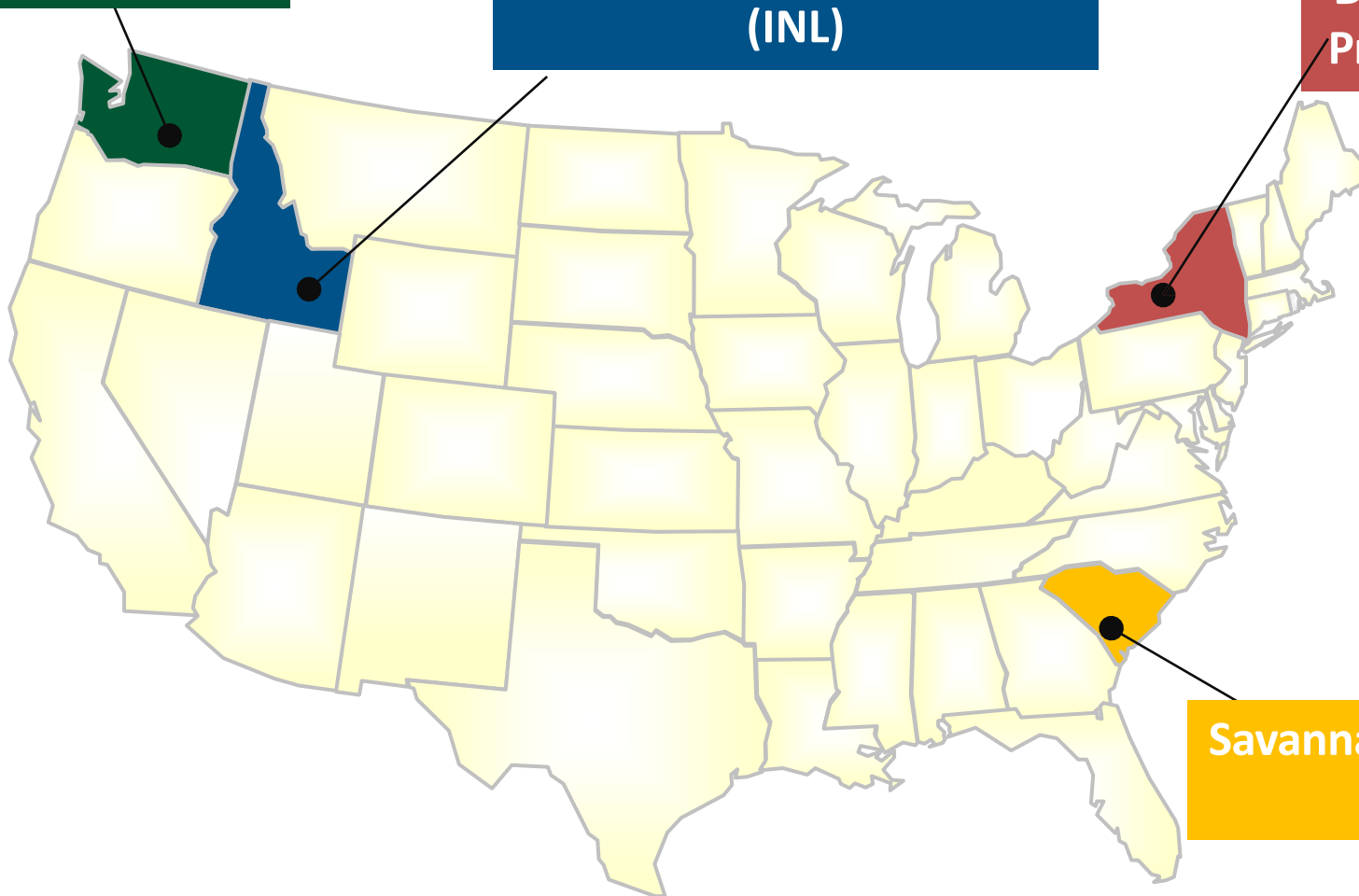
Hanford Site

Idaho National Laboratory
(INL)

***West Valley
Demonstration
Project (WVDP)**

*West Valley
reprocessing
waste was
generated from
commercial
activities and are
not of defense
origin.

Savannah River Site
(SRS)



Reprocessing Waste Inventories

Site	Inventory	Key Facilities
Hanford	<ul style="list-style-type: none"> • 56 million gallons of tank waste 	<ul style="list-style-type: none"> • 177 Tanks • Waste Treatment and Immobilization Plant • Integrated Disposal Facility (low-activity waste)
INL	<ul style="list-style-type: none"> • 900,000 gallons of sodium-bearing waste • 4,4000 cubic meters of calcine 	<ul style="list-style-type: none"> • Integrated Waste Treatment Unit • Bin sets 1-6 (calcine storage)
SRS	<ul style="list-style-type: none"> • ~4,190 glass canisters in storage • ~4,000 projected glass canisters 	<ul style="list-style-type: none"> • Glass Waste Storage Buildings • Defense Waste Processing Facility • Salt Waste Processing Facility
WVDP	<ul style="list-style-type: none"> • 278 glass canisters 	<ul style="list-style-type: none"> • Dry Cask Storage Area

3

Operating DOE & Commercial Disposal Facilities

Hanford Site

- Onsite LLW/MLLW and Naval Reactors LLW
- Integrated Disposal Facility awaiting commissioning (onsite vitrified low-activity waste)

- All waste is disposed in accordance with each waste disposal facility's waste acceptance criteria.
- Each waste disposal site is licensed to dispose of specific waste types (see map below for examples).



★ DOE Disposal Facility ■ Commercial Disposal Facility

CERCLA – Comprehensive Environmental Response, Compensation and Liability Act; RCRA – Resource Conservation and Recovery Act

Recent Site Accomplishments

Hanford



Construction completed at Low-Activity Waste Facility (vitrification)



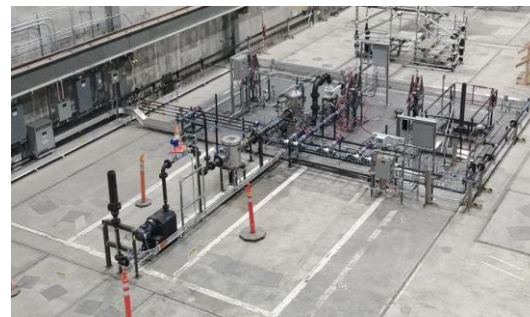
Hot Commissioning of Salt Waste Processing Facility

SRS

INL

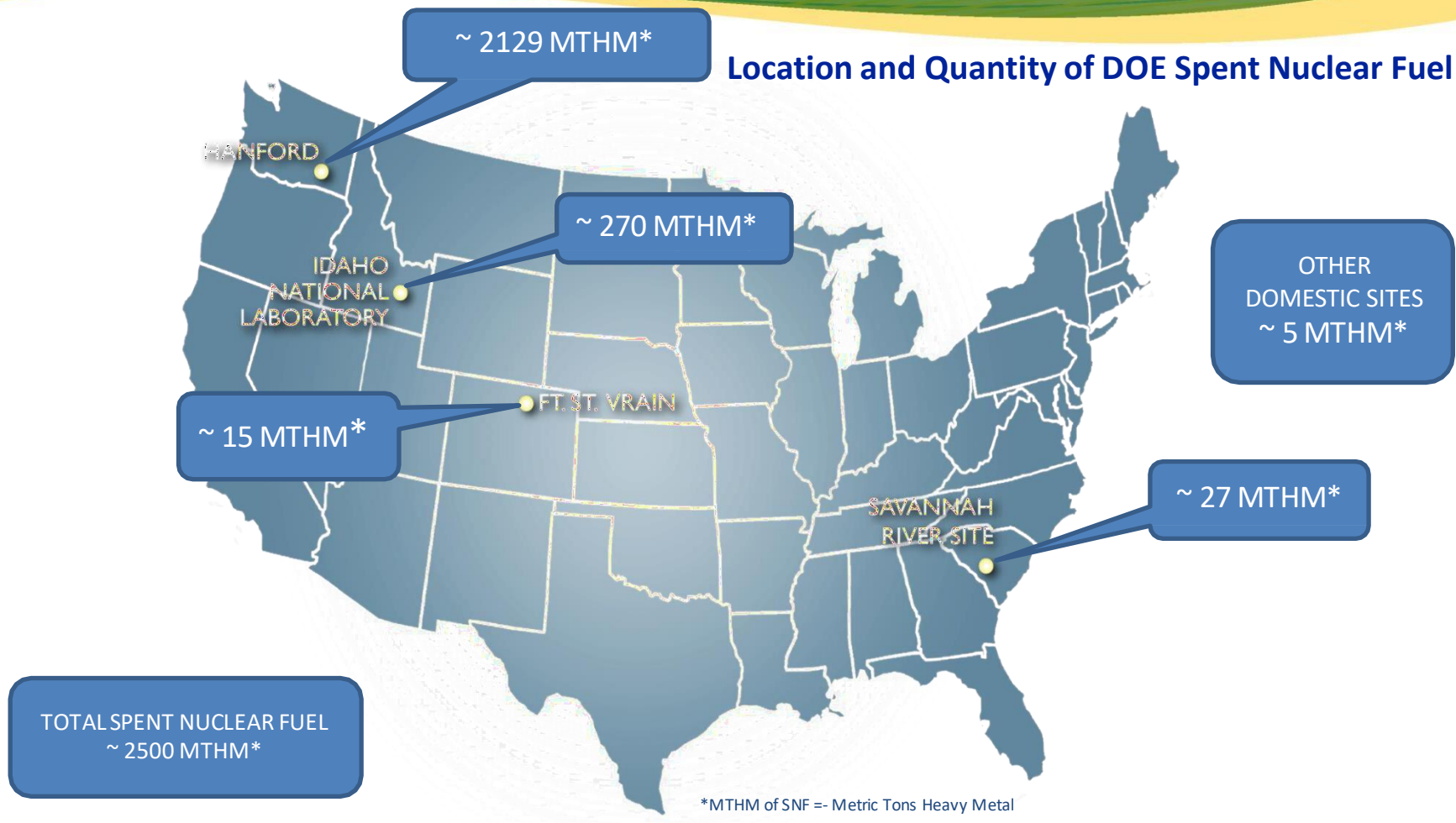


Progress toward start-up of Integrated Waste Treatment Facility



Calcine retrieval demonstration

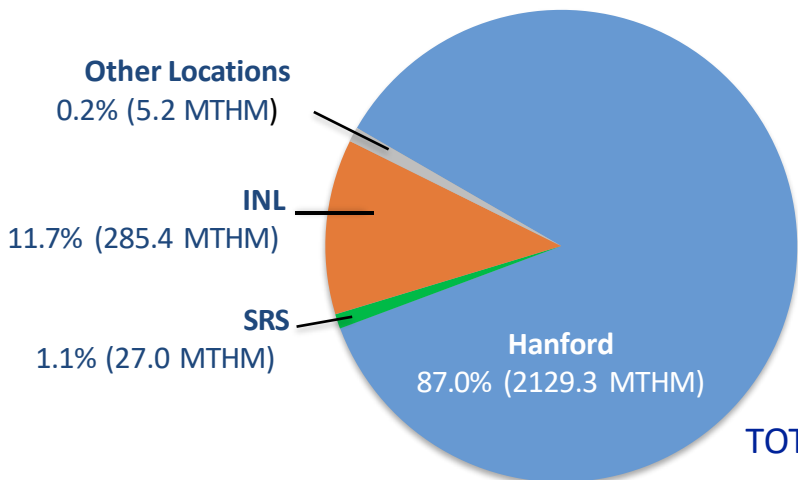
Spent Nuclear Fuel



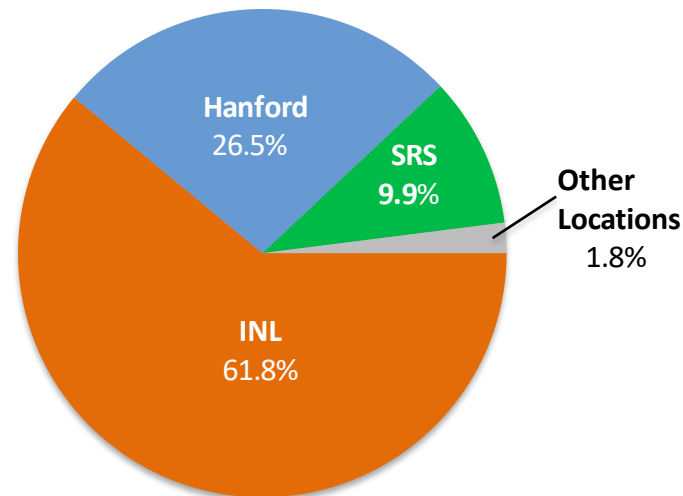
SNF is safely stored at four DOE sites. Minor amounts are stored at other locations, such as university research reactors.

Current SNF by Location

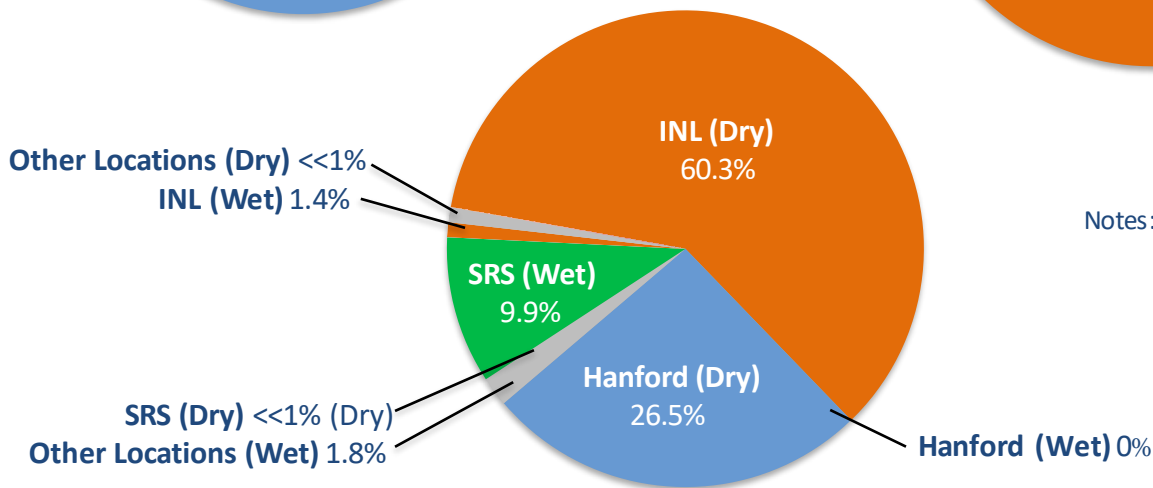
By MASS
TOTAL: 2446.9 MTHM



By VOLUME



By VOLUME
(Dry vs Wet)
TOTAL: Dry 87%, Wet 13%



Notes: Pie Chart data exclude naval fuel.
All Ft. St. Vrain fuel is included in
the INL numbers.

Most SNF by mass is stored at Hanford, by volume at INL, and the majority is in dry storage.

- Protection of the surrounding communities and the environment are paramount to the Department of Energy's Office of Environmental Management (EM).
- EM will work with the new Administration and the local communities on the path forward for these reprocessing wastes and DOE SNF.
- EM will continue to execute timely decisions and innovative solutions for reprocessing waste and SNF until a disposal facility is available.