

# U.S. Comprehensive Approach to Sealed Source End-of-Life Management



Abigail Cuthbertson- DOE/NNSA/GTRI  
Jennifer Tobin Wollenweber- NRC



# Contents

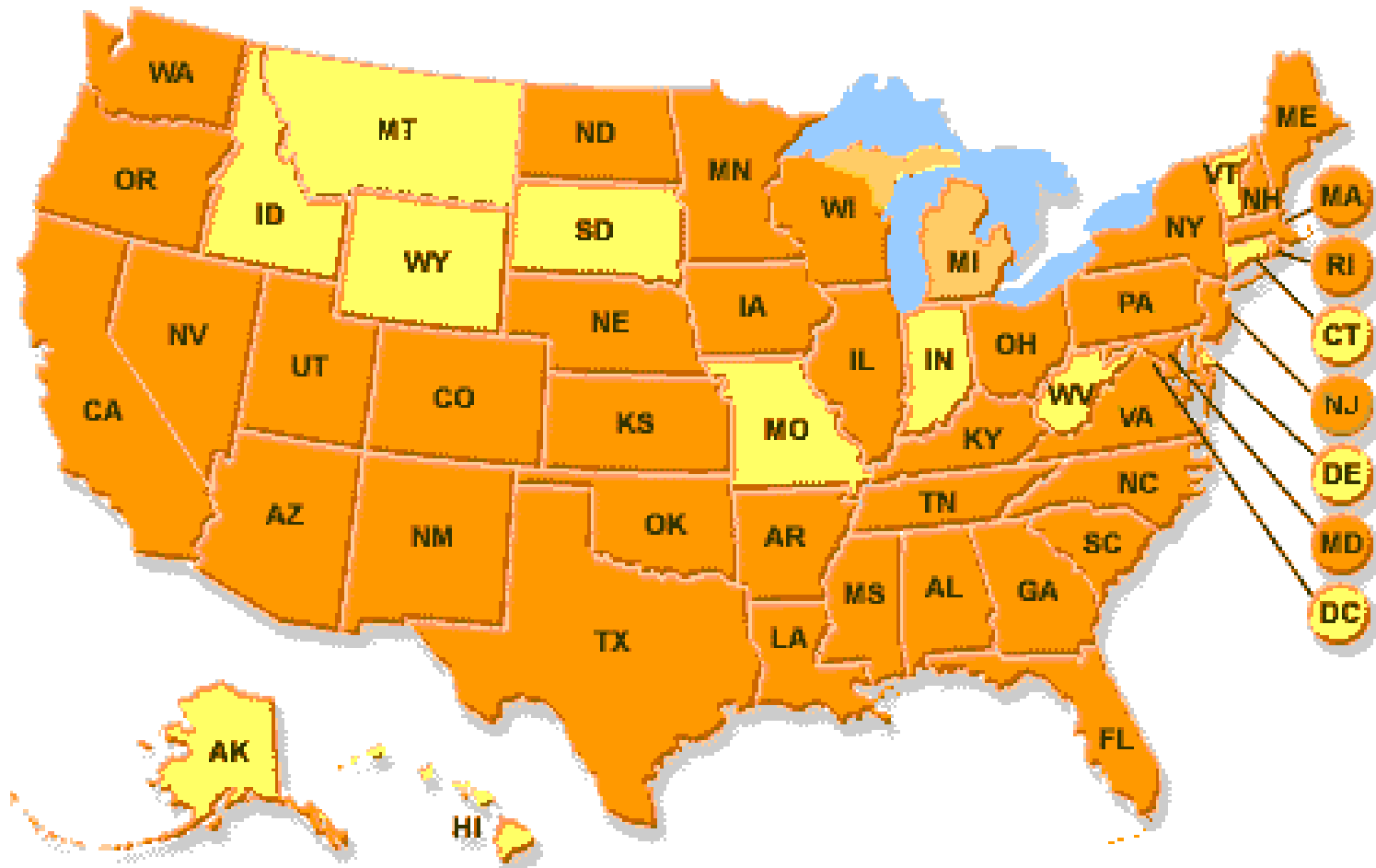
- Comprehensive Regulatory Program
- End-of-Life Management Options
- Progress and Future Considerations

# NRC Regulatory Approach

Regulatory requirements for possession/use including:

- Control of material
- Licensing and registration
- Inspections to verify compliance
- Enforcement for non-compliance
- Increased controls for Category 1 and 2 (including aggregated quantities)

# NRC Regulatory Approach- Agreement States



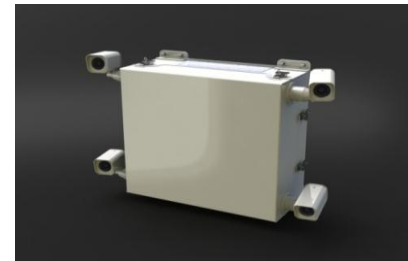
# NRC Regulatory Approach- Licensing Storage

- Identification of Waste to be Stored
- Plans for Final Disposal
- Physical Description of Storage Area
- Packaging and Container Integrity



# NRC Regulatory Approach- Licensing Storage

- Radiation Protection
- Training
- Financial Assurance
- Emergency Preparedness
- Increased Controls, as necessary



# NRC Regulatory Approach-Storage Inspection

- Inspect against regulations and terms/commitments in the license
- Three year frequency
- Enforcement, as necessary



# NRC Regulatory Approach-Commercial End-of-Life Management Options

- Long-term secure storage
- Disposal
- Reuse/Recycle
- Repatriation





# “Safety Net”

- Source recovery programs
- Repatriation
- Orphan and Legacy sources



# Challenges

- Limited commercial disposal pathways (restricted by geography, isotope and activity)
- Lack of approved Type B packages
- Cost of transport
- Lack of people licensed to work on devices
- Difficult to solve financial assurances and/or license requirements with out more access to commercial disposal and vice versa



# Future Work

- Work with regional (State) governments to expand commercial disposal options factoring in cost and accessibility
- Interaction with other countries on repatriation efforts
- Development and licensing of Type B packages

# Thanks for listening!

## Contacts:

- A. Cuthbertson- [abigail.cuthbertson@nnsa.doe.gov](mailto:abigail.cuthbertson@nnsa.doe.gov)

202-586-2391

- J.T. Wollenweber- [jennifer.tobin@nrc.gov](mailto:jennifer.tobin@nrc.gov)

301-415-2328