U.S. DEPARTMENT OF ENERGY | OFFICE OF ENVIRONMENTAL MANAGEMENT

3rd International Forum on the Decommissioning of Fukushima Dai-ichi Nuclear Power Station

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Topics

- Overview of Office of Environmental Management
  - Nuclear cleanup mission
  - Highlight nuclear facility decommissioning experience
- Keys to Decommissioning Success
  - Shared Safety Responsibility
  - Technological Solutions
  - Test Beds, Mockups and Training
  - Multi-Generational Teamwork
  - Stakeholder Involvement, Public Participation
  - Public Opinion

Overview of Nuclear Cleanup

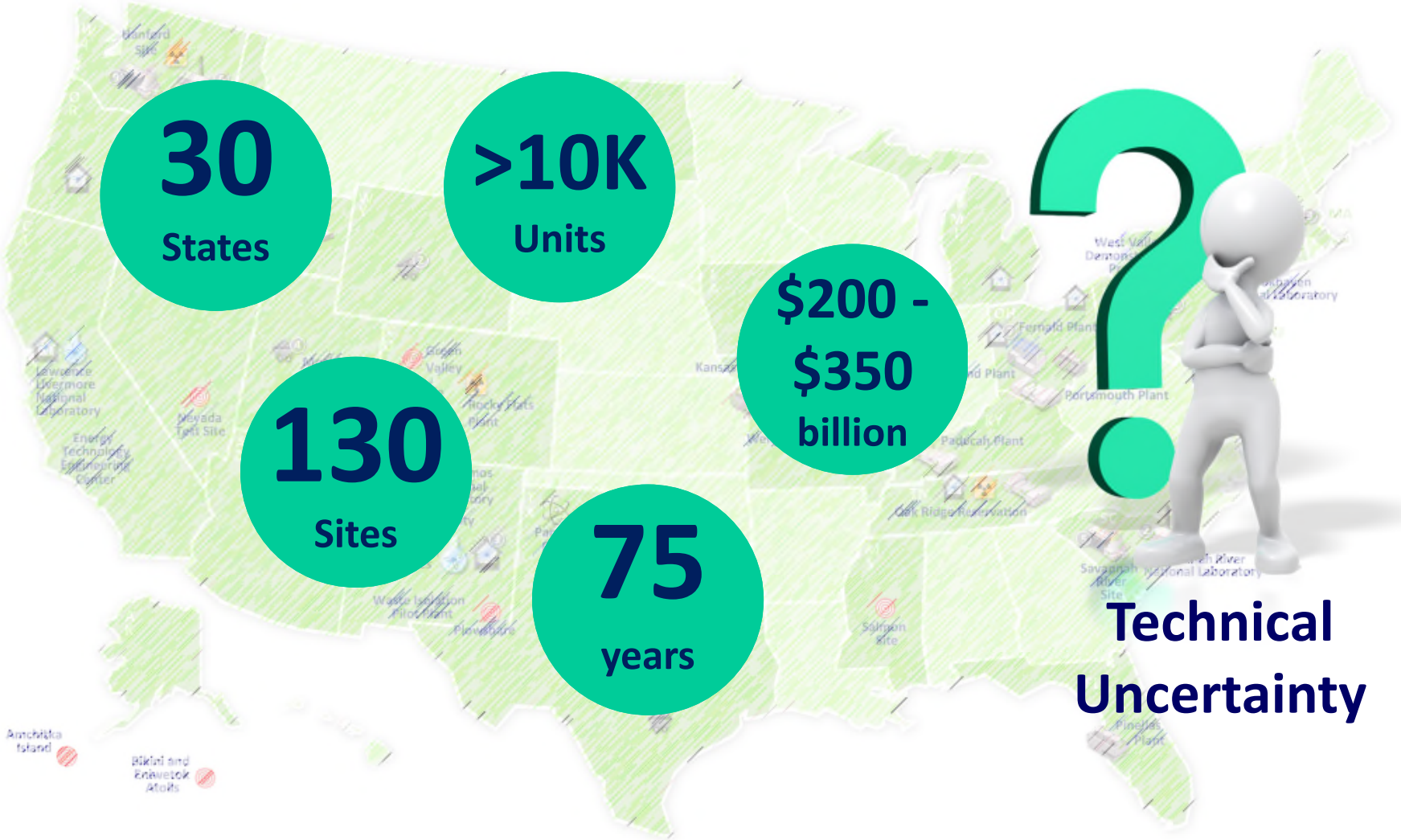
Decommissioning Experience and Successes

MISSION OF OFFICE OF ENVIRONMENTAL MANAGEMENT

Safe cleanup of the environmental legacy created by the Manhattan Project, the ensuing Cold War nuclear arms race, and the early years of federal government-sponsored nuclear science research and technology development

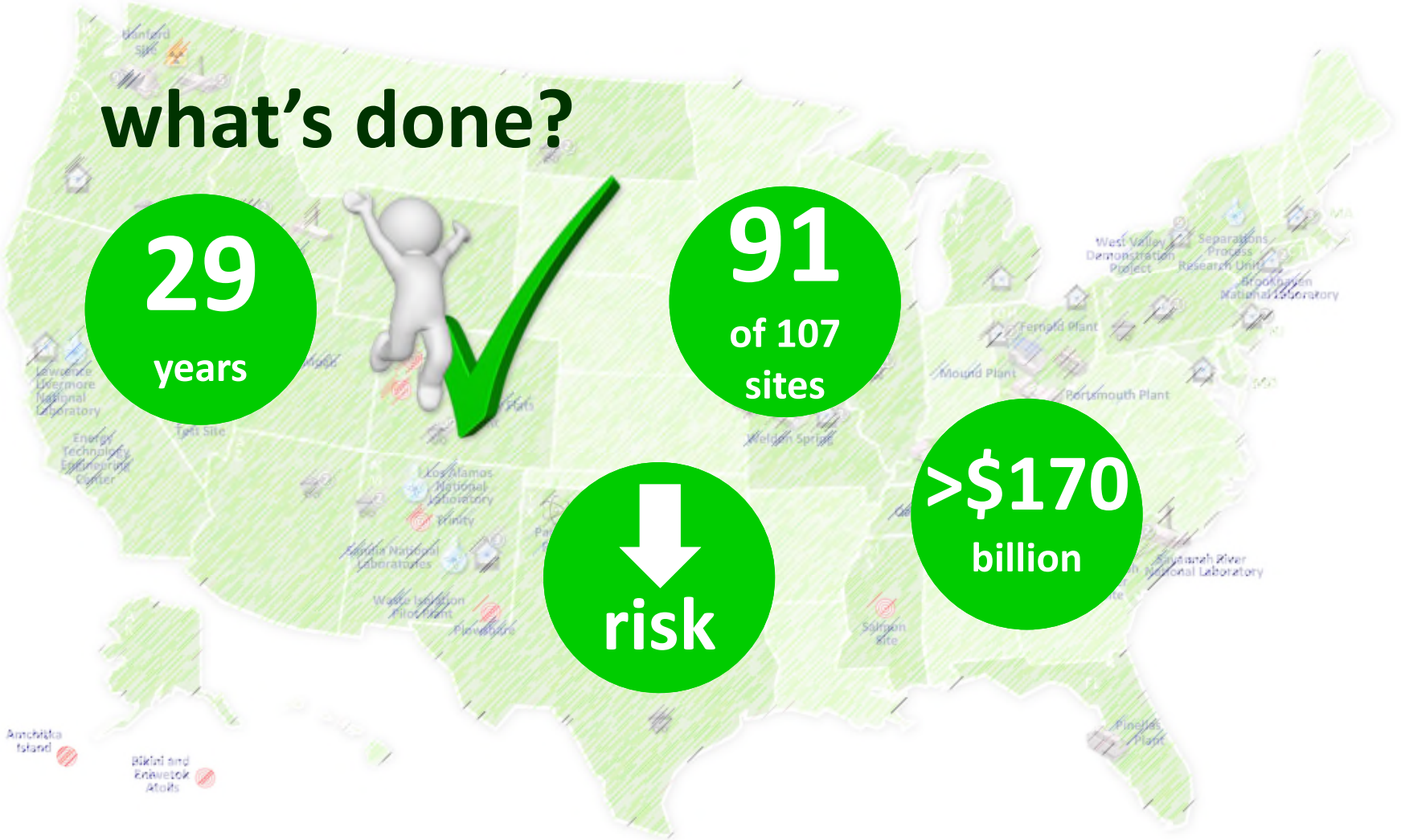
Cleanup Footprint

Initial Estimates



Nearly 30 Years of Successful Cleanup

what's done?



Decommissioning Successes: Hanford Site Reactors

6 of Hanford's nine production reactors have been placed in interim, safe storage allowing radioactive decay before final demolition

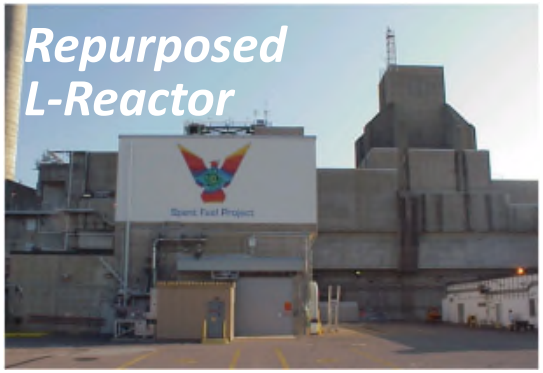
2 more reactors will be placed in safe storage in the next few years

1 reactor was configured to allow public access for tours because it was the world's first full-scale plutonium production reactor

Decommissioning Successes: Savannah River Site Reactors

2 of Savannah River Site's five reactors are entombed

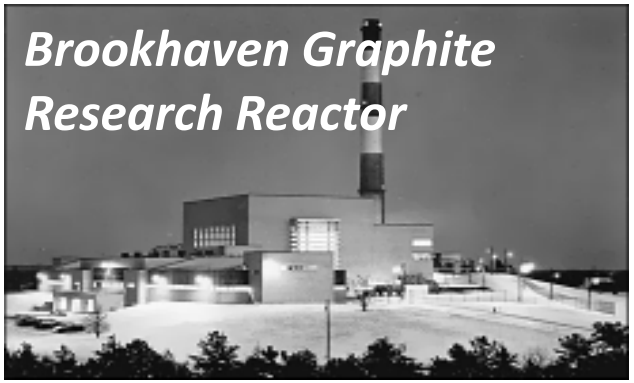
2 reactors are used for temporary storage of special nuclear materials and spent fuel



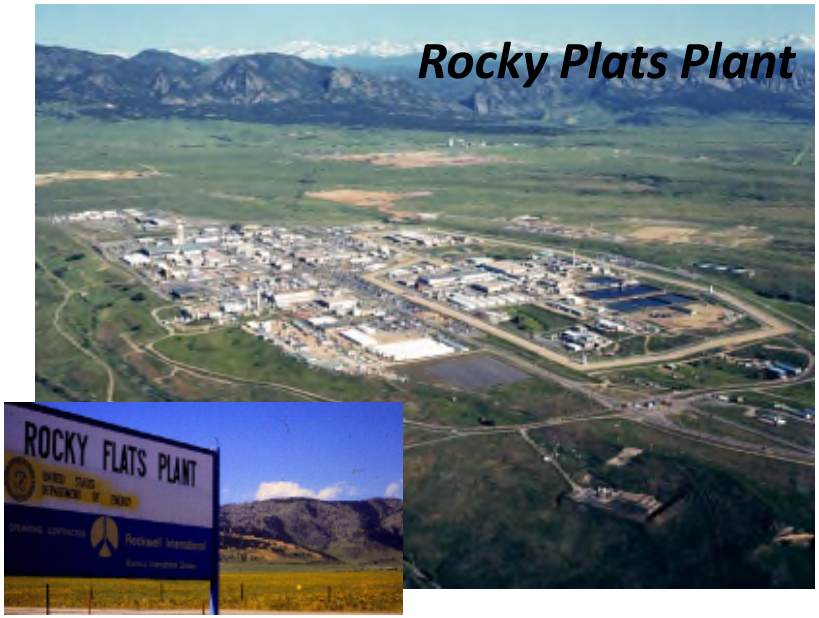
1 was converted to a decontamination facility

Decommissioning Successes: Test and Research Reactors

>75 research reactors of various designs across the DOE complex are in various phases of decommissioning



Decommissioning Successes: Other Nuclear Facilities



Rocky Plats Plant

Fernald Feed Materials Production Center

>715

nuclear and radioactive facilities have been decommissioned

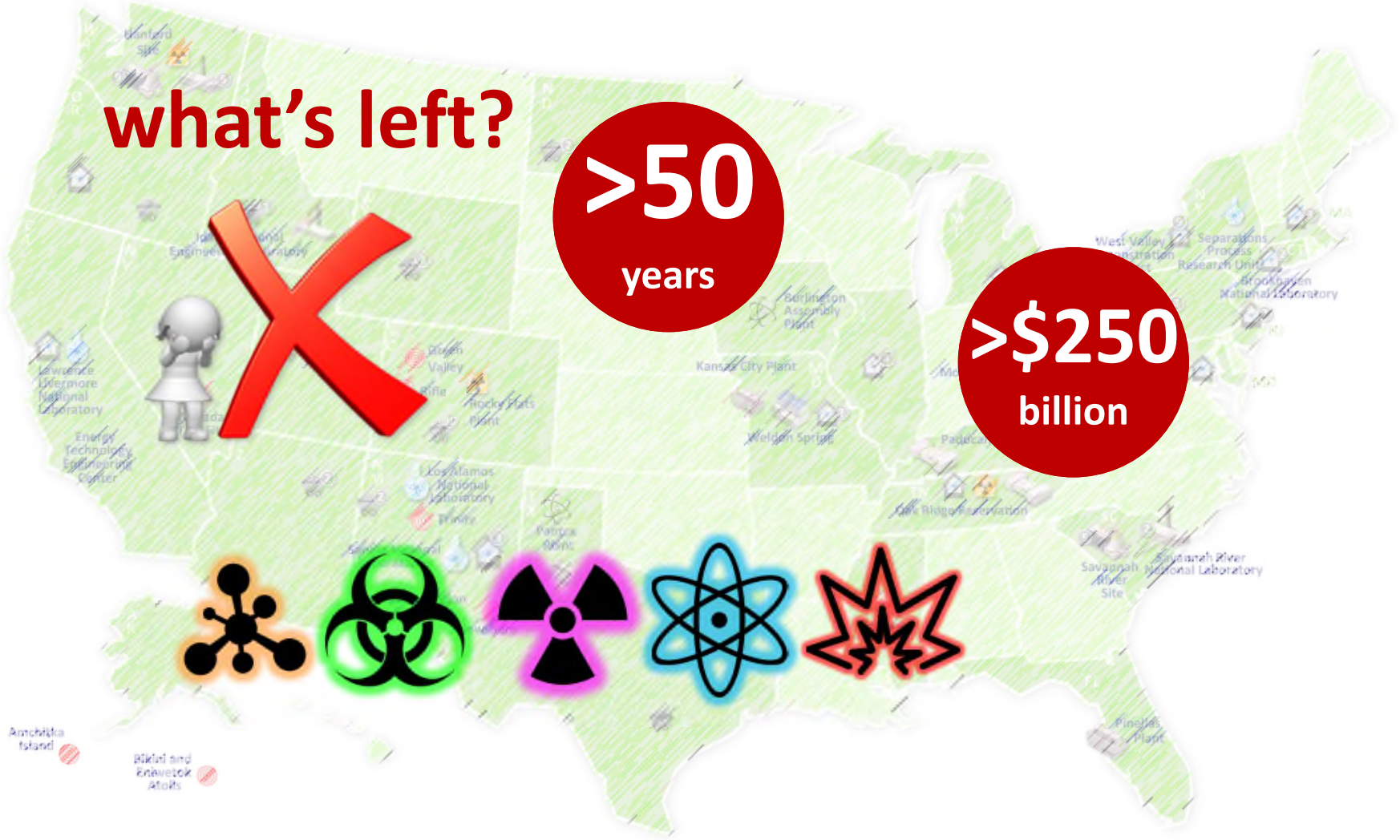
SRS K-Reactor Cooling Tower

Decommissioning Successes

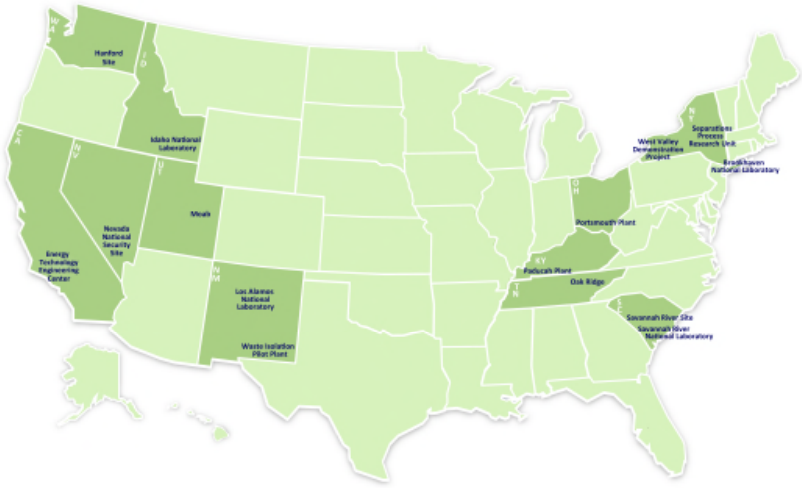
Heavy Water Test Reactor
Dome Removal
02/01/11

High Speed

Remaining Cleanup



Remaining Decommissioning



- Radioactive Materials Processing Facilities
- Underground Tank Closure
- Liquid Waste Processing Facilities
- Vitrification Plants

Keys to Successful Decommissioning

Decommissioning Experience and Successes

Safety: Shared Responsibility

Technological Solutions

Work SAFER

Advanced robotics and remote systems are key mission-enablers

Work SMARTER

DECOMMISSIONING SUCCESS

Test Beds, Mockups, Training

Footage of Actual Cleanup

Multi-Generational Teamwork

Stakeholder Involvement, Public Participation

Giving Voice

environmental justice: the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

Artwork courtesy of Environmental Justice Committee, West Side Community Organization, St. Paul, MN

Public Opinion, Social Media

Lessons from February 2014 Accidents at the Waste Isolation Pilot Plant

Summary

- U.S. Department of Energy's Office of Environmental Management has nearly 30 years of complex and complicated nuclear facility decommissioning
- Key to Success
  - Shared Safety Responsibility
  - Technological Solutions
  - Test Beds, Mockups and Training
  - Multi-Generational Teamwork
  - Stakeholder Involvement, Public Participation
  - Public Opinion

Enduring International Partnership

Japan and the U.S. continue to work closely together to assure the safe and protective decommissioning of the Fukushima Daiichi Nuclear Power Station