



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**

EM Site-Specific Advisory Board Chairs' Webinar

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Environmental Cleanup—a Key DOE Strategic Goal

- ❖ EM's mission is to complete the safe cleanup of the environmental legacy brought about from five decades of nuclear weapons development and government-sponsored nuclear energy research.
- ❖ EM supports DOE Strategic Goal #3: "Enhance nuclear security through defense, nonproliferation, and environmental efforts."
- ❖ The budget positions the EM program to meet all its FY 2014 enforceable cleanup milestones.

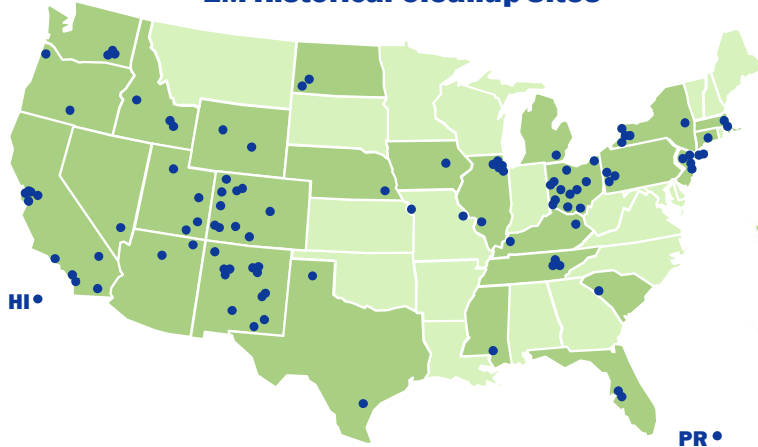


EM Has Significantly Reduced Risks to the Environment and Public

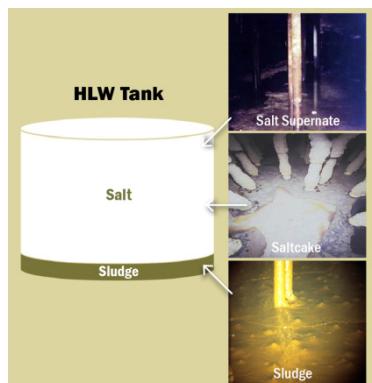
Completed cleanup on 90 of 107 former nuclear weapons and research sites

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EM Historical Cleanup Sites



Sites Remaining in 2012



Immobilized over 5 million gallons of radioactive liquid tank waste



Packaged 100% of EM's plutonium inventories for storage and permanent disposition

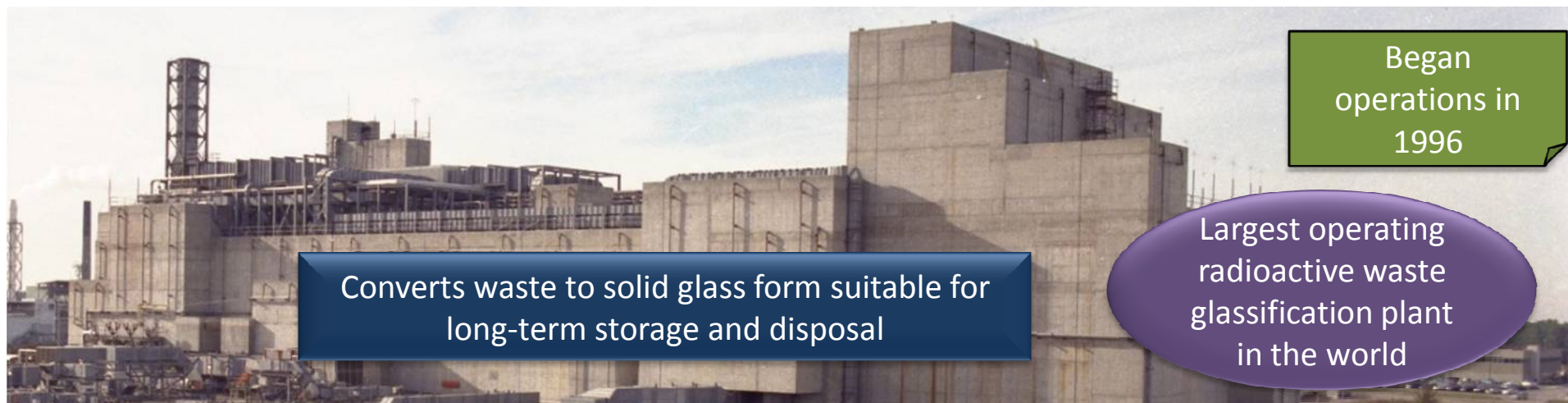
Former plutonium storage vaults

Safety is EM's Top Priority



- ❖ EM conducts cleanup within a “Safety First” culture.
- ❖ Worker injury rates for EM cleanup work are significantly lower than averages in comparable industries and have decreased by about one third from FY 2009 to FY 2012.
- ❖ EM is training over 850 senior federal and contractor managers in Leadership for a Safety Conscious Work Environment.

The Radioactive Liquid Waste Challenge: How EM is Making Progress Today



Began
operations in
1996

Converts waste to solid glass form suitable for
long-term storage and disposal

Largest operating
radioactive waste
glassification plant
in the world

Defense Waste Processing Facility – Aiken, SC

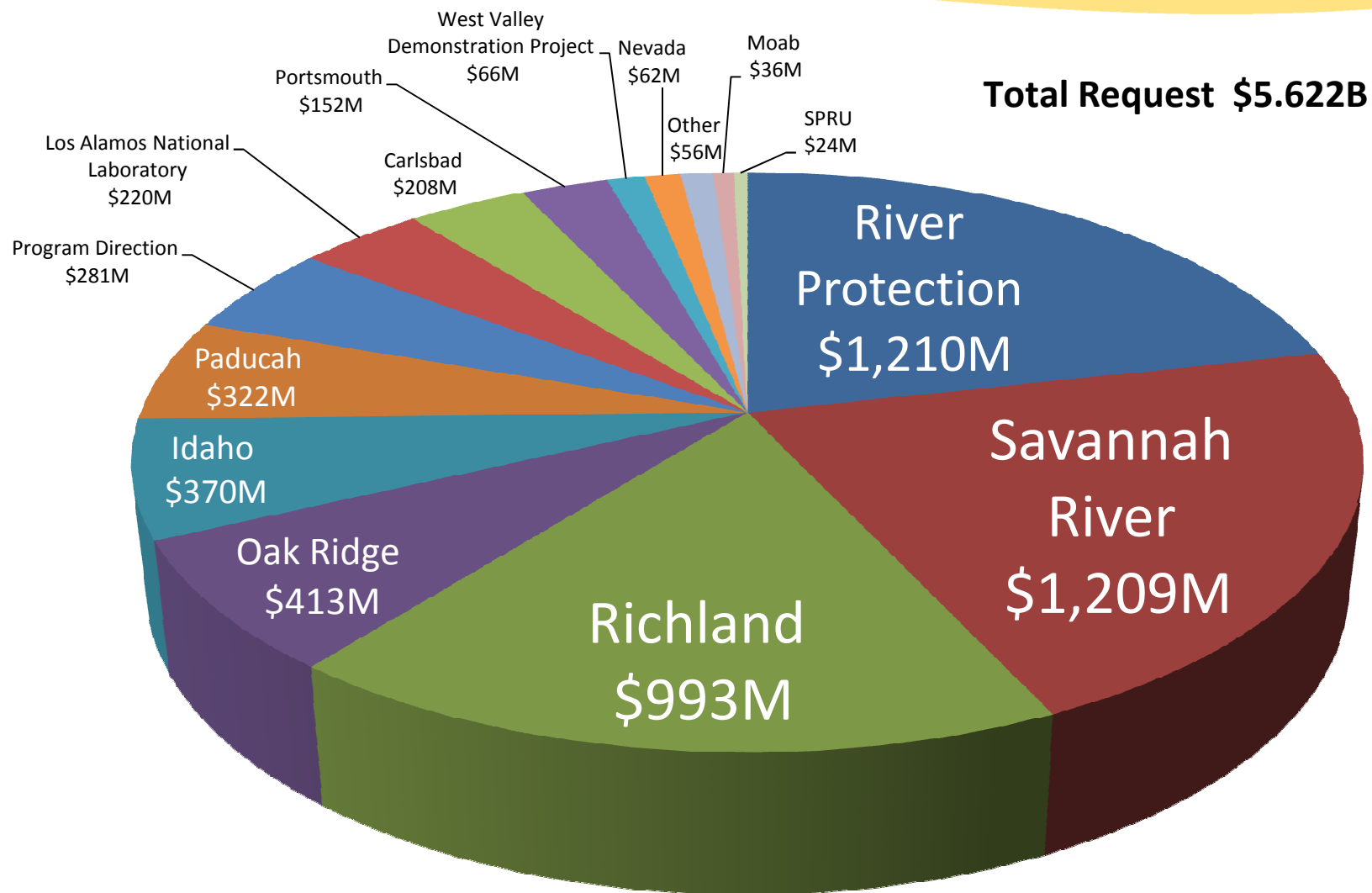


Construction
completed in 2012

Will treat Idaho's inventory of liquid tank waste –
approximately 900,000 gallons

Integrated Waste Treatment Unit – Idaho Falls, ID

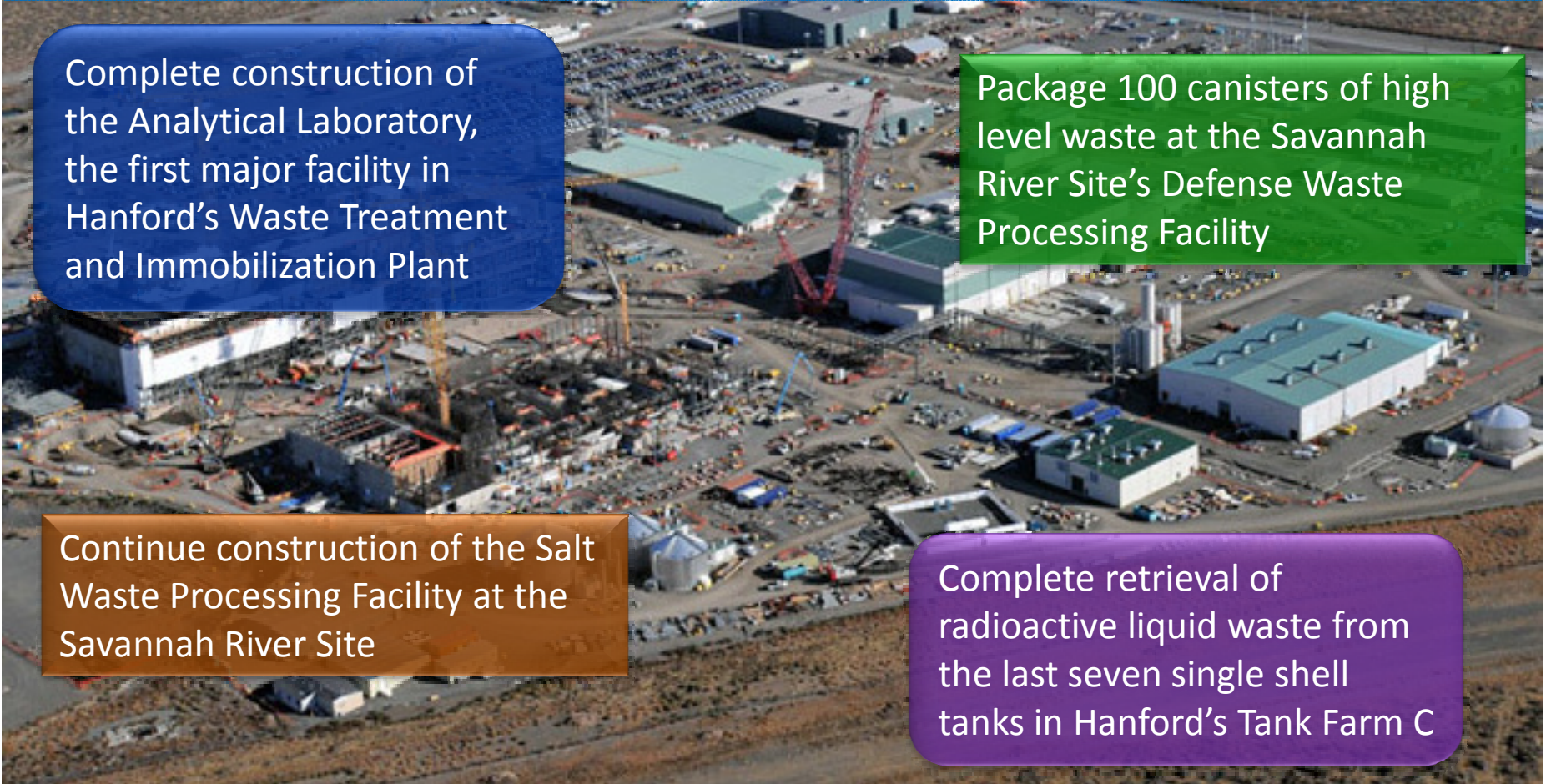
EM's FY 2014 Budget Request: Funding by Site



Radioactive Liquid Waste in FY 2014

FY 2014 Funding: \$1,933M (34% of EM Total)

Key Liquid Tank Waste Accomplishments Planned for FY 2014



Complete construction of the Analytical Laboratory, the first major facility in Hanford's Waste Treatment and Immobilization Plant

Package 100 canisters of high level waste at the Savannah River Site's Defense Waste Processing Facility

Continue construction of the Salt Waste Processing Facility at the Savannah River Site

Complete retrieval of radioactive liquid waste from the last seven single shell tanks in Hanford's Tank Farm C

Waste Treatment and Immobilization Plant – Richland, WA

Facility Decommissioning in FY 2014

FY 2014 Funding: \$1,095M (19% of EM Total)

Key Facility Decommissioning Accomplishments Planned for FY 2014

Complete deactivation and decommissioning of 36 nuclear, radioactive and industrial facilities across the country

Initiate decontamination and decommissioning of two key contaminated EM facilities: Oak Ridge's K-27 Building and Richland's Building 324

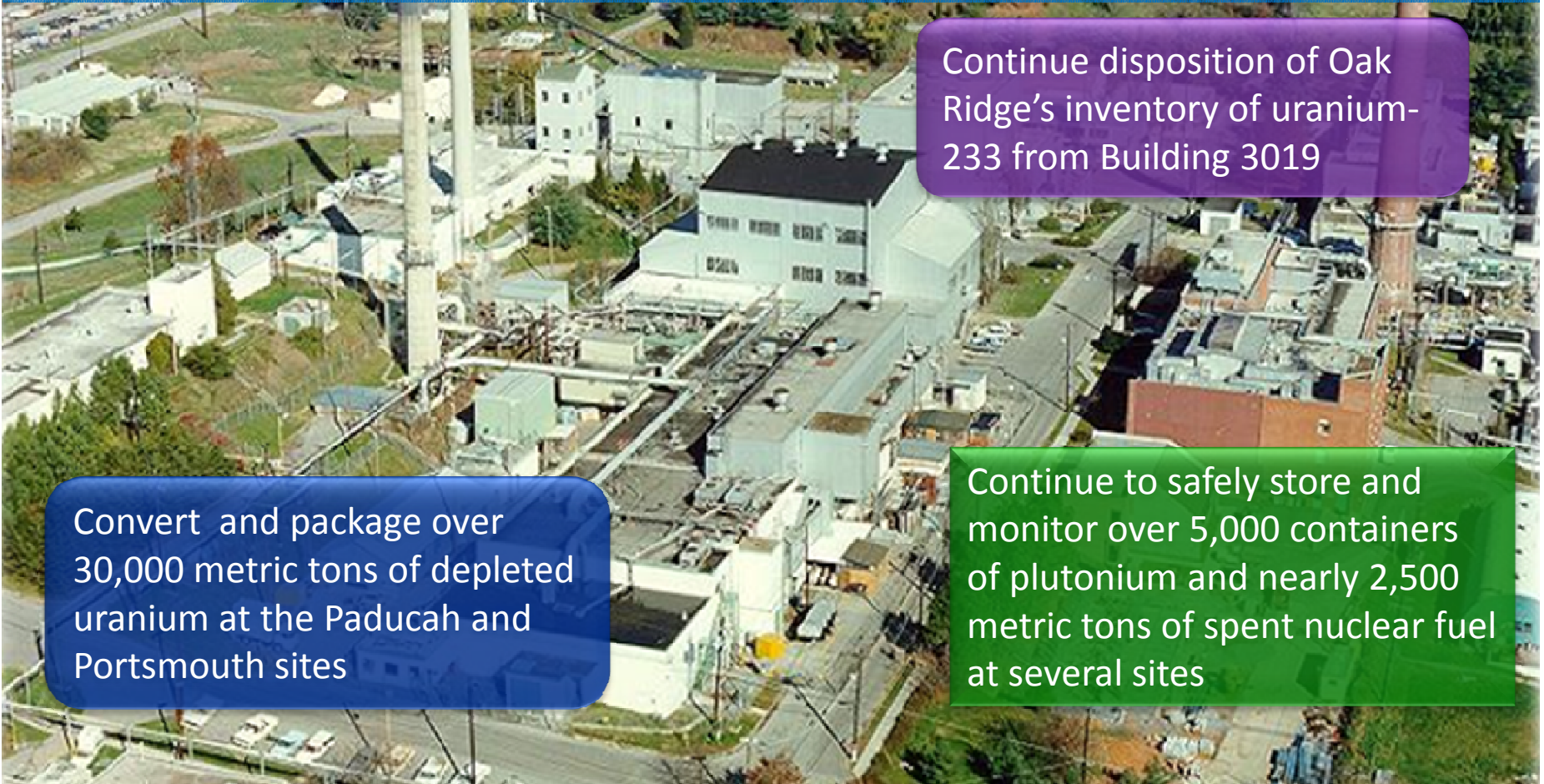


K-25 Facility – Oak Ridge, TN

Nuclear Materials and Used Fuel in FY 2014

FY 2014 Funding: \$906M (16% of EM Total)

Key NM and UNF Accomplishments Planned for FY 2014



Continue disposition of Oak Ridge's inventory of uranium-233 from Building 3019

Convert and package over 30,000 metric tons of depleted uranium at the Paducah and Portsmouth sites

Continue to safely store and monitor over 5,000 containers of plutonium and nearly 2,500 metric tons of spent nuclear fuel at several sites

Building 3019 – Oak Ridge, TN

Transuranic Waste in FY 2014

FY 2014 Funding: \$804M (14% of EM Total)

Key Transuranic Waste Accomplishments Planned for FY 2014

Support progress toward completion of processing and removal of 3,706 cubic meters of combustible, above-ground transuranic waste at the Los Alamos National Laboratory

Provide transportation services for shipments of transuranic waste to WIPP

Disposition transuranic waste from inventory

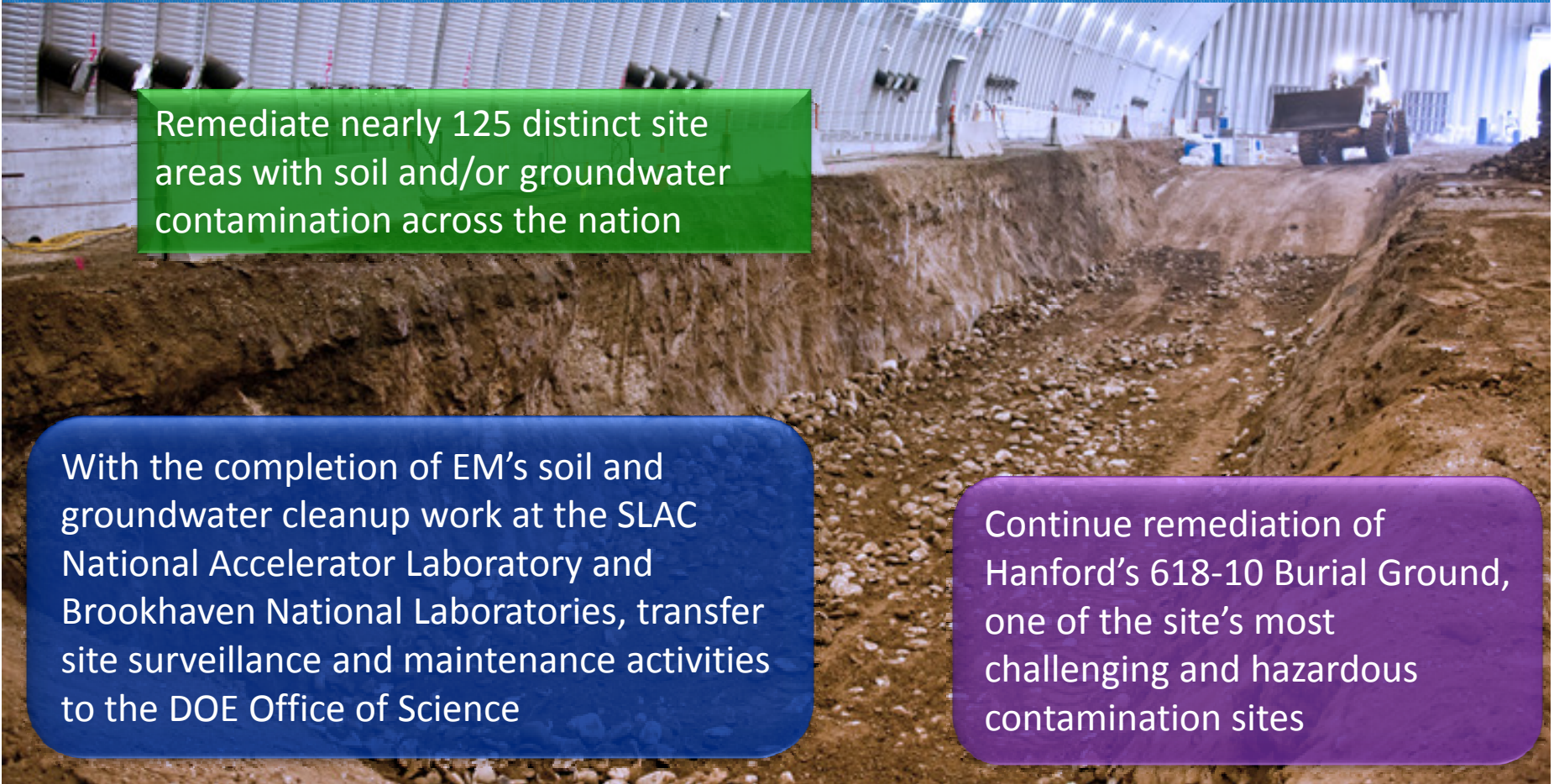


Waste Isolation Pilot Plant – Carlsbad, NM

Soil and Groundwater in FY 2014

FY 2014 Funding: \$492M (9% of EM Total)

Key Soil and Groundwater Accomplishments Planned for FY 2014



Remediate nearly 125 distinct site areas with soil and/or groundwater contamination across the nation

With the completion of EM's soil and groundwater cleanup work at the SLAC National Accelerator Laboratory and Brookhaven National Laboratories, transfer site surveillance and maintenance activities to the DOE Office of Science

Continue remediation of Hanford's 618-10 Burial Ground, one of the site's most challenging and hazardous contamination sites

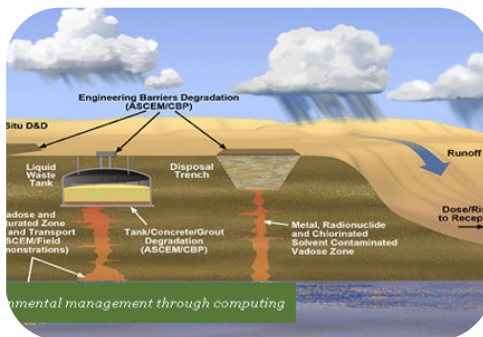
Material Disposal Area – Los Alamos, NM

Technology Development in FY 14 and Beyond

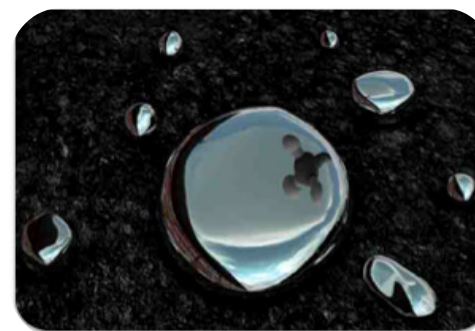
FY 2014 Funding: \$24M



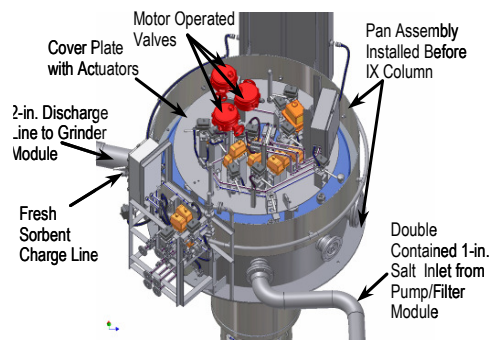
Maximizing waste
loading in glass



Groundwater
modeling



Mercury
remediation



Separations
technologies

Achieving Cleanup in a New National Environment

After 25 years of cleanup progress, the EM program's challenges have changed significantly. In response to this changing environment, EM must take the opportunity to strategically refocus our cleanup program, maximizing all of our resources to best serve the American people.

Key Challenges Facing EM

- ❖ Along with other federal programs, EM is facing an **uncertain fiscal environment**.
- ❖ Major **technical challenges** have emerged, particularly for large construction projects.

The Path Forward

- ❖ Partner with regulators, tribal nations and other stakeholders to **align cleanup priorities** and commitments with expected performance and funding levels.
- ❖ In close consultation with stakeholders, work to **optimize existing waste disposal** processes and systems.
- ❖ Improve project and contract **management**.
- ❖ Invest in **targeted, applied technology** development in areas where cleanup depends on the use of new technologies and where innovative technologies can reduce the risk and cost of cleanup.

EM SSAB Chairs' FY 2013 Focus

- ❖ Budget Priorities
- ❖ Identifying Community Expectations with Reduced Funding
- ❖ Broadening Community Participation in EM SSAB Membership, Meetings

