



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**

Update on Opportunities Assessment for Advanced Mixed Waste Treatment Project

Citizens Advisory Board

James Joyce
Office of Disposal Operations
Environmental Management

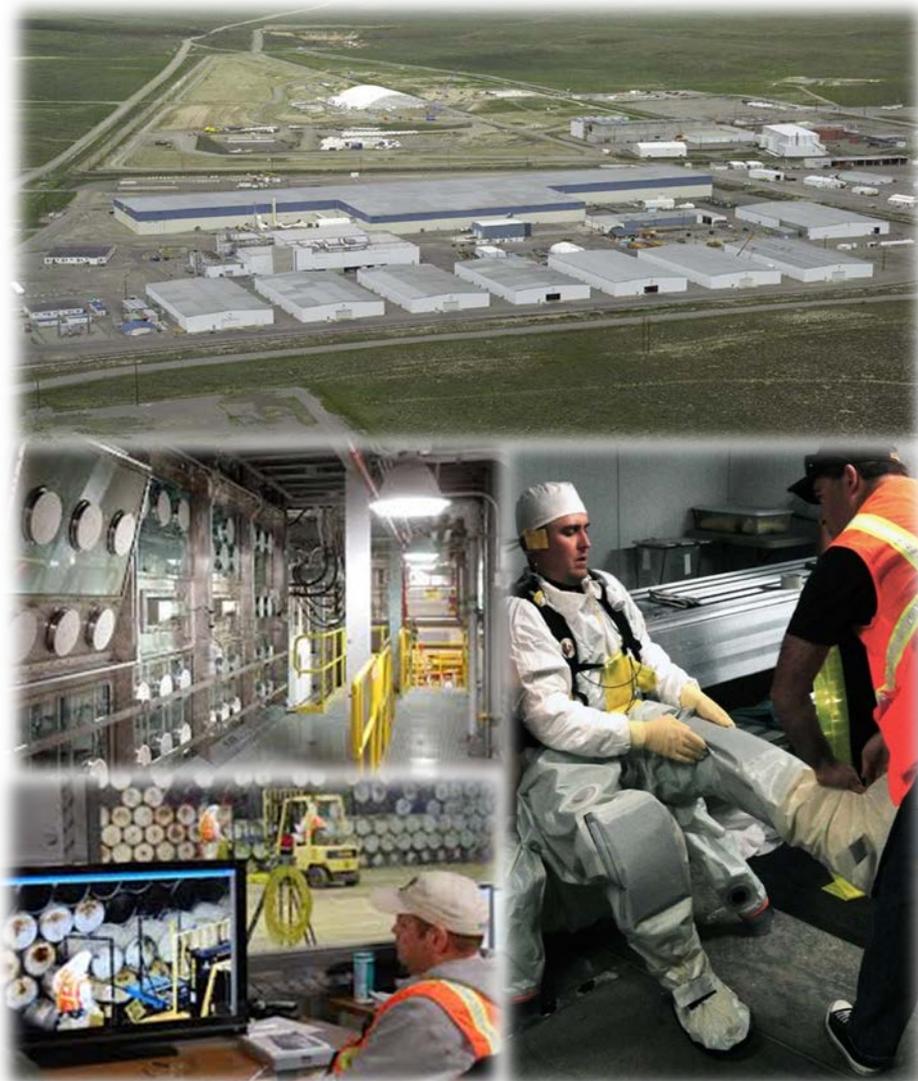
October 29, 2015

Purpose/Objectives

- Introduce other possible opportunities to use the Advanced Mixed Waste Treatment Project's (AMWTP) unique capabilities and assets
- Identify DOE complex-wide contact-handled (CH) transuranic (TRU) waste processing needs and baseline plans
- Assess potential opportunities for the AMWTP to process complex wide CH-TRU in accordance with Idaho Settlement Agreement after AMWTP completes processing of stored Idaho legacy waste
- Team is comprised of EM-HQ and Field Office subject matter experts

DOE and AMWTP workforce are focused on completing processing/certification of stored Idaho legacy waste for disposition outside the State of Idaho

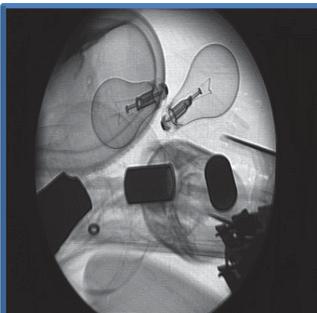
AMWTP: A National Asset



- ~600 highly skilled, accomplished, and dedicated employees performing some of the most challenging work in the DOE complex
- ~\$560M cost to construct
- Processed ~56,000 cubic meters of stored legacy waste (~275,000 55-gal drum equivalents) and waste from 15 other DOE sites



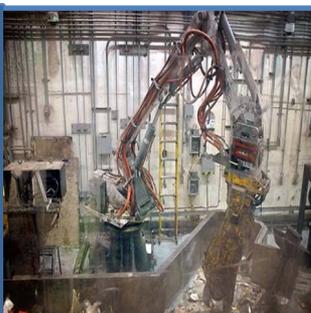
AMWTP's Unique Capabilities



Can effectively process most types of CH TRU waste and MLLW with few exceptions



Highly skilled and innovative workforce



Automated processes and remotely operated equipment provides worker safety and treatment efficiencies



Operates DOE's only compactor



Only facility to process and/or certify CH TRU waste from other sites

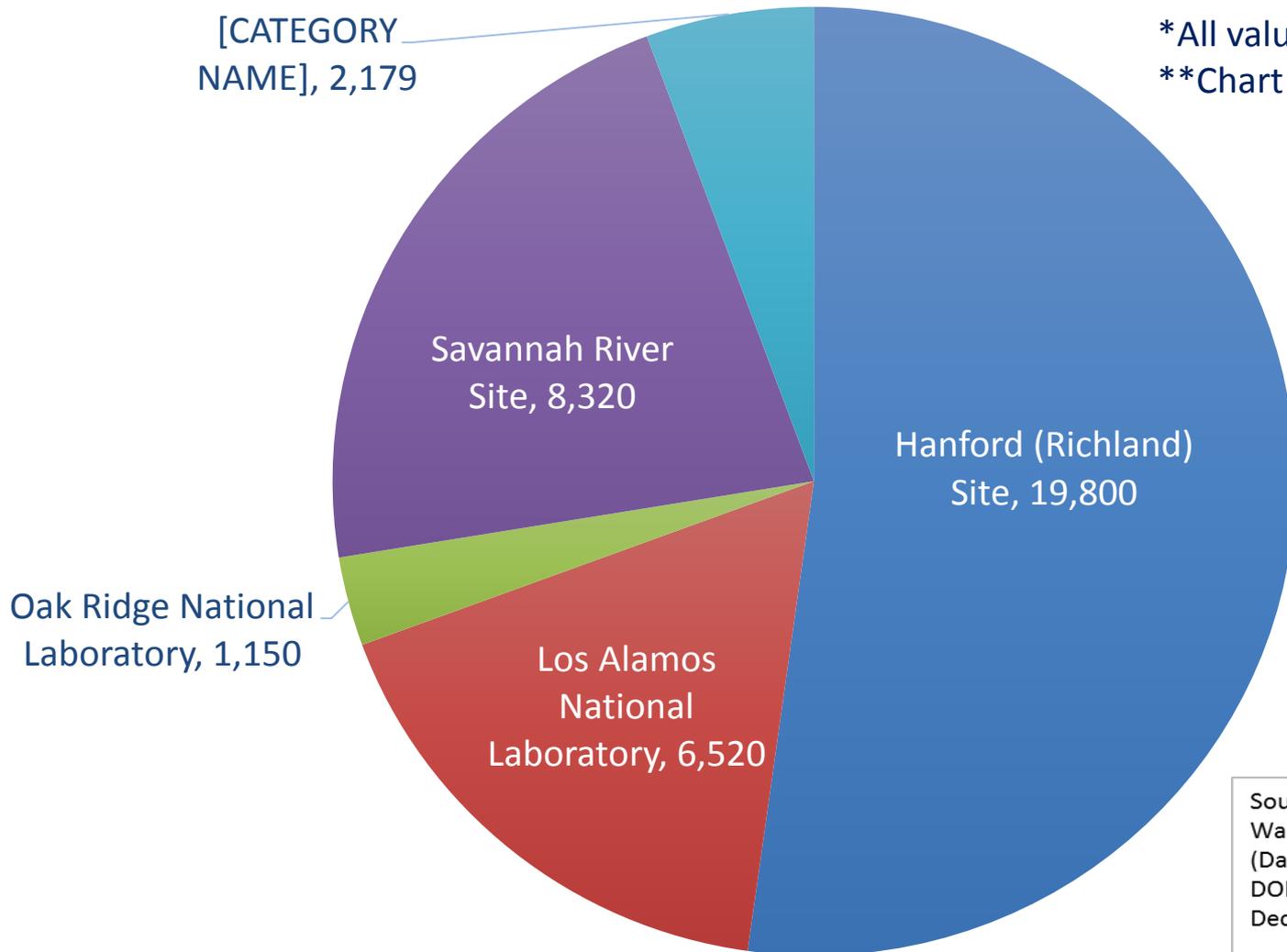


Mature, proven capabilities with a successful record of safely receiving, processing, and shipping waste

Total Stored and Projected Defense CH TRU Waste

[CATEGORY NAME], 2,179

*All values in cubic meters
**Chart excludes INL CH TRU



Source: Annual Transuranic Waste Inventory Report – 2014 (Data Cutoff Date 12/31/2013) DOE/TRU-14-3425, Revision 0 December 2014

Potential CH TRU Opportunities

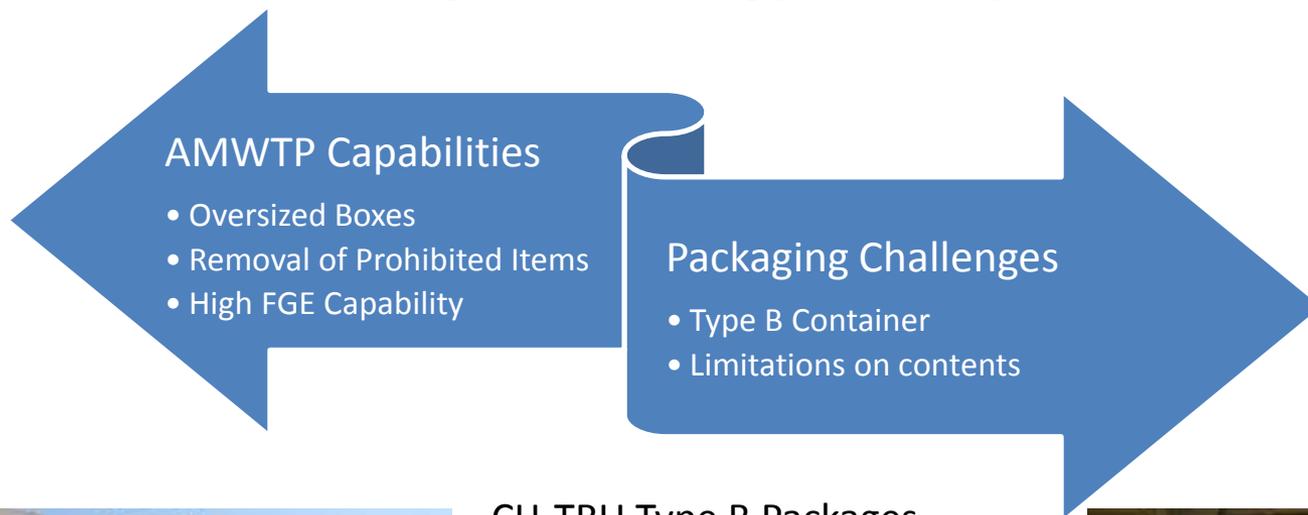
- AMWTP has capability to process offsite CH TRU waste *if revised packaging solutions can be implemented*
- Greatest potential opportunities are at Hanford (Richland) Site, Los Alamos National Laboratory, and Small Quantity Generator Sites
 - Potential Benefits: Accelerates site cleanup, avoids/reduces costs of starting up or establishing new capabilities, uses AMWTP processing efficiencies, and minimizes disposal volumes at WIPP
 - Potential Challenges: Packaging requirements and availability of transportation resources upon WIPP re-start
- Idaho Settlement Agreement allows for treatment of offsite waste if the waste is treated within 6 months of receipt and shipped out of Idaho within 6 months of treatment
- 2008 Record of Decision identified DOE's expectation to send offsite TRU waste to AMWTP for treatment and characterization

Packaging Considerations

Opportunity: Much of the offsite CH TRU waste that AMWTP could process is not WIPP compliant (e.g., contains prohibited items, high activity, oversized boxes)

Challenge: How to Get Waste to AMWTP?

Solution: Team is identifying and evaluating potential options



CH-TRU Type B Packages
TRUPACT-II Cask on left
10-160B Cask on right
TRUPACT-III (not shown)



Other Potential Opportunities

Examples of other potential opportunities that could be considered:

- Mixed low-level waste (MLLW) debris
- Asset revitalization

<http://energy.gov/ari/asset-revitalization-initiative>

<https://www.directives.doe.gov/news/new-doe-g-430.1-8>

Projected MLLW Debris Volumes to Offsite Disposal Facilities (cubic meters)

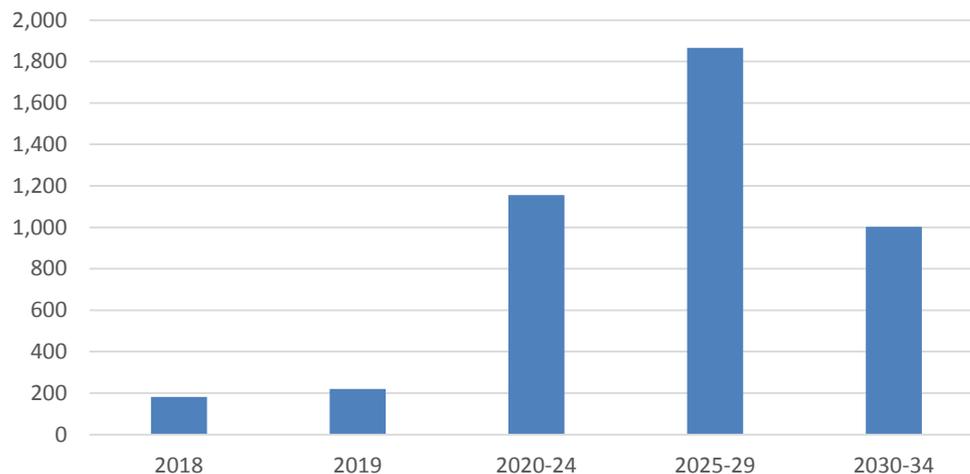


Chart Notes

- Volumes exclude the Idaho Site and MLLW disposed of at onsite facilities
- Uncertainty due to funding availability, regulatory decisions, and changes in scope and approaches, and other factors
- Source: DOE Waste Information Management System (<http://www.emwims.org/Default.aspx>)

Next Steps

- Complete Draft Opportunities Assessment
- Brief EM-Headquarters and Field Office Senior Management
- Finalize Opportunities Assessment
- Coordinate with Stakeholders

Thank you for your attention!
Questions, Comments, or Suggestions?