



U.S. DEPARTMENT OF  
**ENERGY**

OFFICE OF  
**ENVIRONMENTAL  
MANAGEMENT**

# Oak Ridge Environmental Management TRU Waste Update

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# Oak Ridge transuranic (TRU) waste is processed at the TRU Waste Processing Center for disposal at the Waste Isolation Pilot Plant

- The TRU Waste Processing Center (TWPC) was built in the early 2000s to process TRU debris and liquids
  - Supernate – 2004 (complete)
  - CH Debris – 2005
  - RH Debris – 2008
  - Sludge Processing – Future
- TWPC is operated by NorthWind Solutions, LLC
- Certification of TRU waste is conducted by the Nuclear Waste Partnership, LLC Central Characterization Program (CCP), managed by the Carlsbad Field Office (CBFO)



# TRU waste processing follows a prescribed approach

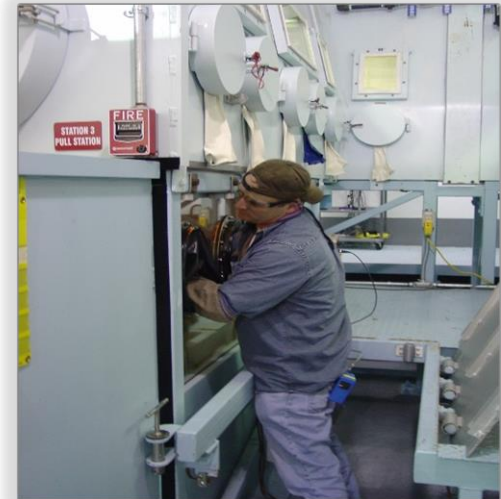


- TRU wastes are long-lived radioactive wastes that require disposal in a geologic repository
- TWPC is a Resource Conservation and Recovery Act-permitted facility that characterizes and packages TRU waste
- Wastes are sorted, characterized, and packaged to result in stable waste forms that can be permanently disposed at approved final repositories



# Significant progress has been made in processing and disposal of the Oak Ridge TRU waste

- Lifecycle CH Waste Inventory  $\sim 1,579 \text{ m}^3$ 
  - 95% processed
  - 66% shipped to permanent disposal
- Lifecycle RH Inventory  $\sim 671 \text{ m}^3$ 
  - 85% processed
  - 26% shipped to permanent disposal
- Remaining inventory includes small volume of difficult to process waste streams
  - CH: High Fissile, Pyrophoric, Potential Energetic Chemical Wastes
  - RH: High neutron and RH soils



TWPC CH TRU Glovebox Operation



TWPC RH Hot Cell Operation

# Uninterrupted processing and certification during WIPP shutdown has generated a backlog of ready-to-ship waste

- CH Waste
  - 3,177 CH drums previously certified under Waste Acceptance Criteria (WAC) Revision 7
  - 2,754 additional CH drums are ready for certification under new WAC Revision 8
- RH Waste
  - 58 RH drums previously certified under WAC Revision 7
  - 101 additional RH drums are ready for certification under WAC Revision 8



CH-TRU Waste Storage

- CH TRU Storage

- Capacity is available at TWPC and UCOR storage facilities to stage all processed waste awaiting shipment to WIPP

- RH TRU Storage

- OREM contractor designed a storage solution to stage RH inventory to enable uninterrupted processing
- Sufficient capacity is available at UCOR storage facilities to stage RH waste for shipment



TWPC Canister Storage Room



TWPC Storage



ROP Storage



# Oak Ridge is focused on making progress and preparing for shipping CH TRU waste

- Processing of CH and RH TRU waste continues to support progress towards meeting OREM goals and regulatory commitments
- Continued coordination of processing activities with CBFO TRU waste certification program to meet new WIPP WAC requirements
- Integrated with CBFO Mobile Load Team in preparation for resumption of CH TRU waste shipments
- Shipments from Oak Ridge are expected to begin in Summer 2017

