



U.S. DEPARTMENT OF
ENERGY



Legacy Transuranic Waste Update

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SRS Legacy Transuranic (TRU) Waste Topics

- SRS Legacy TRU Waste History
- SRS TRU Waste Operations
- SRS Recent Legacy TRU Waste Accomplishments
- SRS Legacy TRU Waste Challenges
- SRS Legacy TRU Waste Inventory
- HalfPact 506 Shipping Status Update
- Priorities
- Summary



SRS Legacy TRU Waste History

- **1999: Waste Isolation Pilot Plant (WIPP) opened**
 - Over 30,000 containers of TRU Waste at SRS in storage
 - Waste stored in drums, large steel boxes, concrete culverts, other containers
 - Over 9,000 drums were buried
 - Remediation and Repackaging for compliance with WIPP Waste Acceptance Criteria (WAC)
- **2001: SRS first shipment of TRU Waste to WIPP**
 - Over 1,700 shipments completed from SRS to WIPP (9/30/23)
 - Over 35,000 legacy containers shipped from SRS to WIPP (9/30/23)



SRS TRU Waste Operations at SRS

- TRU waste is stored in E-area on Resource Conservation and Recovery Act (RCRA) permitted TRU Pads
- TRU Waste requires characterization and certification by WIPP before it can be shipped
- Legacy TRU Waste Containers that were previously certified are now required to be recertified after WIPP event in 2014
- TRU waste mission at SRS can be divided into three distinguish programs
 - 1) Legacy TRU waste
 - 2) New Gen TRU waste
 - 3) Surplus Pu Disposition
- Implementing new packaging and shipping process for legacy Remote-Handled TRU waste



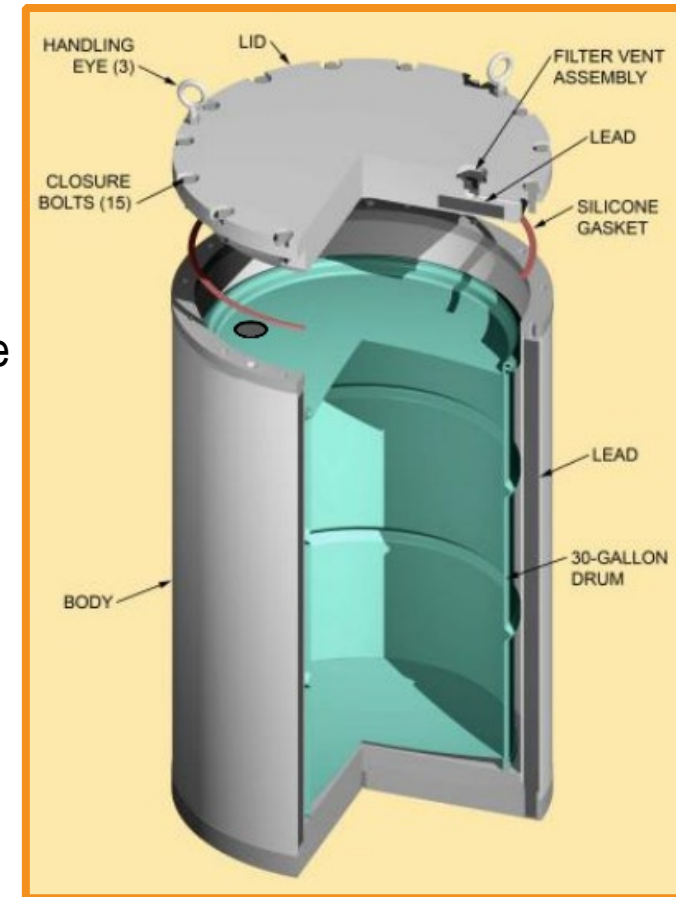
SRS Recent Legacy TRU Waste Accomplishments

- **Increasing Shipment Rate**
 - WIPP Incident (No shipments mid-2014 through 2016)
 - COVID (mid-2020 through 2021)
 - FY24 TRU waste shipments (As of 8/8/24)
 - *21 Legacy Shipments + 29 NewGen Shipments*
 - *Total 50 SRS Shipments*
 - **Highest shipping rate since WIPP Incident**



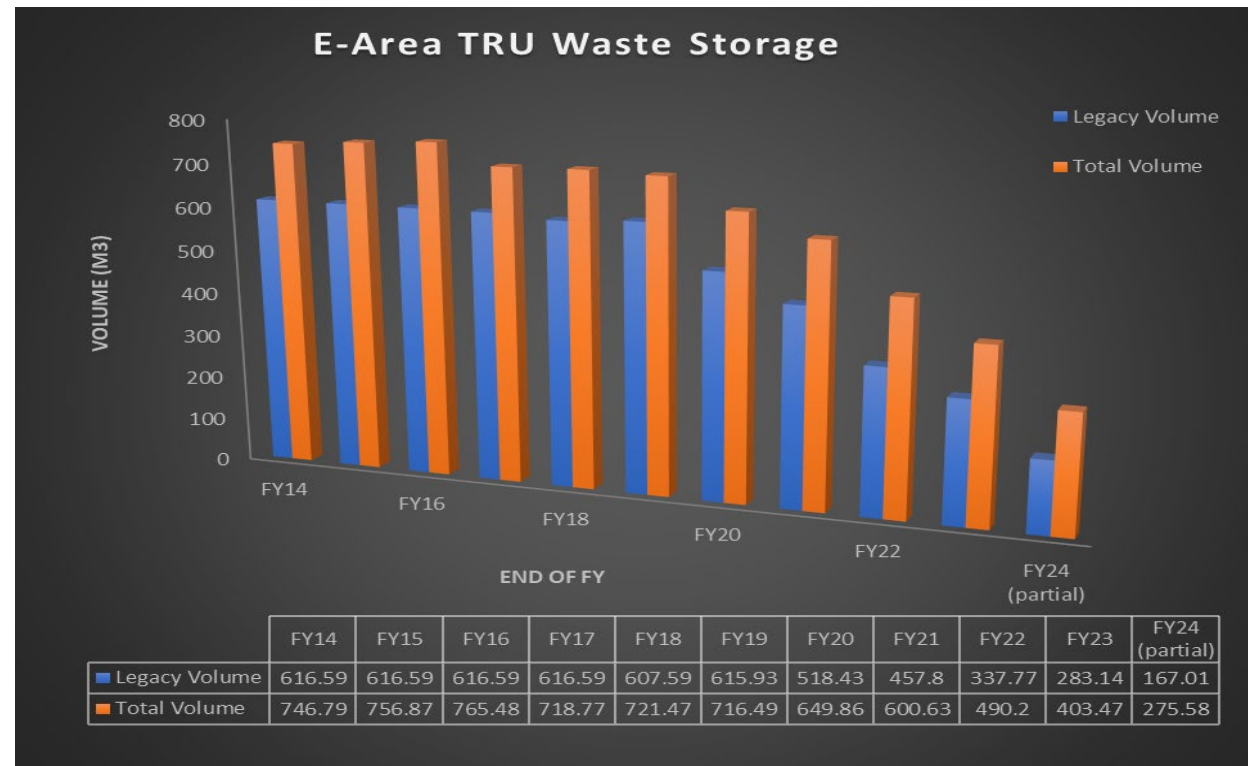
SRS Legacy TRU Waste Challenges

- **Updated WIPP Requirements**
 - Waste generated prior to current requirements
 - Documentation not always available
 - Prior characterization documentation not always viable
- **Overpacks**
 - Previously overpacked drums not re-certified at same time
 - Need for additional overpacking
 - Repacking will be needed for specific containers
- **Shipping Logistics**
 - Competing with other Sites
 - Requires coordination with State Agencies
- **Remote Handled (RH) Containers**
 - Shielded Container Assemblies (SCAs)
 - Borehole Emplacement



SRS Legacy TRU Waste Inventory

- **Remaining Legacy Inventory**
 - 182 Contact Handled (CH) Drums
 - 44 CH Standard Waste Boxes (SWBs)
 - 151 RH Drums



HalfPact 506 Shipping Status Update

- **Background**
 - SWB 12275 shipped to WIPP August 2022 via HP-506
 - Presence of transuranics (trace amount) found during routine RAF survey prior to opening of HP-506 ICV
- **Path Forward**
 - HP-506 shipped back to SRS (generator); opened October 2023; no contamination detected inside ICV/on SWB
 - Replaced filters/plugs on SWB 12275; extensive surveys of SWB gasketed surfaces; configuration control changes
- **Current Status**

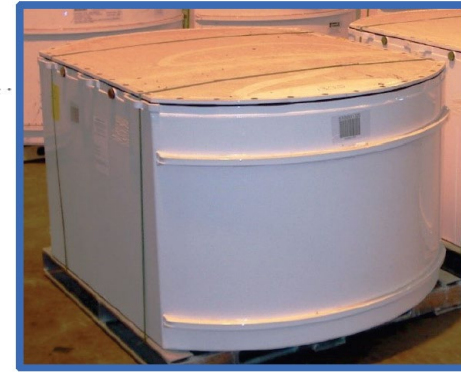


Figure - Typical Standard Waste Box



Figure – Use of RAF and Vent Tool



Figure – SWB 12275 unloading SRS

Priorities

- Continue the certification and shipment of Pu downblending surplus material to WIPP
- Continue to make progress on disposition of SRS Legacy TRU Waste inventory
- Implementation of the new Remote Handling disposition strategy using Shielded Container Assemblies.



Summary

- Majority of SRS Legacy TRU Waste has been shipped to WIPP
- Significant progress made in FY24 on disposition of SRS TRU Waste
- SRS continues to maintain a safe and compliant TRU Waste Program

