



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**

Resuming Idaho Waste Shipments To Waste Isolation Pilot Plant

Jim Malmo

Assistant Manager
Idaho Cleanup Project

February 23, 2017

Tasks Completed to Date by WIPP

- Addressed all Judgements of Needs from two 2014 events
- Completed DOE Operational Readiness Review
 - Resolved Pre-Start Findings
 - Authorized to Emplace Waste Underground
 - Developing Shipping Schedule
- Upgraded Several Underground Systems:
 - Battery Operated Fire Response Vehicles
 - Communications
 - Emergency Preparedness
 - Mine Safety (bolting issues)
 - Ventilation
- WIPP authorized to emplace waste Dec. 23, 2016; waste from on-site storage emplaced Jan. 4, 2017



Tasks Completed by Idaho Cleanup Project

- AMWTP Recertification Audit of the WIPP-Certified Program for CH-TRU Waste Conducted Dec. 12-16, 2016:
 - Five Corrective Actions Identified
 - 1 Area for Improvement Identified
 - Corrective Action Plans Submitted to CBFO on Jan. 19, 2017 for Review and Approval.
- Successful Completion of Generator Site Technical Review (GSTR):
 - 8 Issues Identified
 - 2 Resolutions Complete
 - Balance of Resolutions Sent to CBFO on Feb. 17, 2017
- Internal Interactive Review (IIR) – Mid February 2017
 - Conducted by DOE-HQ on CBFO Readiness to Ship; May Involve Idaho Site.

New WIPP WAC Impacts

- CBFO Issued Change to Waste Acceptance Criteria (WAC)
 - Issued July 5, 2016, Suspended All Certification of TRU Waste at All DOE Sites.
 - Replace the WAC Revision 7 (Rev. 7) with New WAC Rev. 8
- None of TRU Waste Certified Prior to July 5 Grandfathered
 - All Backlog of RH and CH TRU Waste will be Recertified to WAC 8.
- Main Differences Between Rev. 7 and Rev. 8:
 - Enhanced Acceptable Knowledge Process
 - Chemical Compatibility Evaluation on Each Waste Stream
 - Basis of Knowledge for Oxidizers on Each Waste Stream
 - Additional Checks by WIPP Contractor in Waste Database System for Each Container Before Populated Into Payload with Approval by CBFO.

Idaho Inventory (Contact-Handled TRU)



Left: 100-gallon product drums containing CH-TRU waste certified to ship to WIPP.

Settlement Agreement Waste

- CH-TRU Waste Remaining to be Treated: 8,561 cubic meters
- CH-TRU Waste Treated since June 1, 2016, to be Certified to Rev. 8: 875 Cubic Meters (About 242 shipments)
- CH-TRU Waste Certified to Rev. 7 (Backlog) Needs to be Recertified to Rev. 8: 2,912 Cubic Meters (About 695 Shipments).

Buried Waste

- CH-TRU Waste Remaining to be Retrieved and Treated:
 - 1.22 Acres Which Will Generate Estimated 2,123 cubic meters of CH-TRU
 - CH-TRU Waste Treated Since June 1, 2016 Remaining to be Certified to Rev. 8: 1,109 Cubic Meters (about 153 Shipments).
- CH-TRU Waste Certified to Rev. 7 (backlog) That Needs Recertified to Rev. 8: 886 Cubic Meters (About 125 Shipments)

Idaho Inventory: Remote-Handled TRU

- RH-TRU Waste Remaining to be Treated: 1 Cubic Meter (Additional Suspect Drums from AMWTP Retrieval).
- RH-TRU Waste Treated Since June 1, 2016 to be Certified to Rev. 8: 27 Cubic Meters (about 120 shipments).
- RH-TRU Waste Certified to Rev. 7 (Backlog) to be Recertified to Rev. 8: 18 Cubic Meters (About 90 Shipments).



Left: Remote-Handled Waste Shipment.

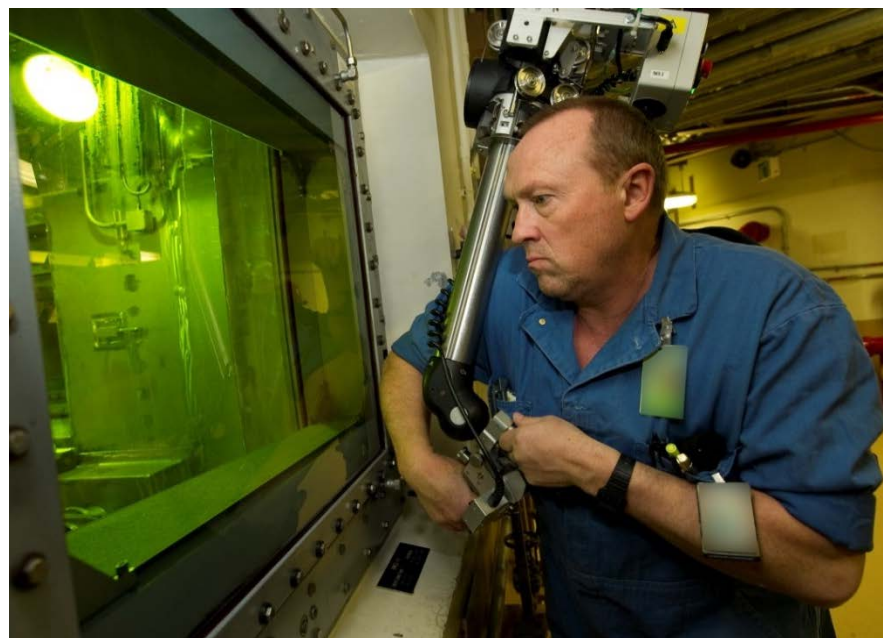
Pathway to First Shipment

- Program Documents Reviewed and Approved (Procedure Changes Due to Contract Consolidation, ISMS, Rev. 8): 11/25/16 -- **complete.**
- Re-Certification Audit on AMWTP Certified Program: 12/16/16 – **complete.**
- Generator Site Technical Review (GSTR) Conducted: 1/26/17 – **complete.**
- GSTR Final Report: 3/3/17.
- Re-Certification Audit on AMWTP Final Report: 4/27/17.
- Authorization to Ship CH-TRU Waste by CBFO: 5/15/17.

Back-Up Slides

ICP TRU Program Accomplishments

- Safely and Compliantly Shipping to WIPP Since 1999.
- 5,486 Shipments of CH-TRU and 364 Shipments of RH-TRU Have Been Sent to WIPP and Emplaced in the Repository with No Issues.



Definition of ISA Transuranic Waste

- Idaho Settlement Agreement (ISA) Waste Is: Material Stored in Idaho as TRU Waste in October 1995, Including:
 - All Material at AMWTP
 - Material from Other INL Locations Stored as TRU Waste in 1995
 - Material That Was Historically Managed as TRU Waste.
- ISA TRU Waste Is NOT:
 - Material Stored in Idaho as Something Other Than TRU Waste in October 1995, Including:
 - Accountable Material, Spent Nuclear Fuel or High-Level Waste
 - Low-Level Waste (Including Mixed)

Summary Idaho Impacts from WIPP Delays

- Risk Missing Idaho Settlement Agreement Milestones:
 - TRU Waste Cannot Leave State
 - Penalty: Suspend DOE Spent Fuel Shipments, Impacting NE Research: *Risk Realized*
 - Suspend FRR/DRR Fuel Shipments: *Risk Realized*
- Risk of Reduced Shipments When Operations Resume:
 - Continue Operating and Maintaining Facilities Longer than Planned at Additional Cost to the TRU Program.
- Risk of Waste Not Being Certified Due to WAC Change:
 - Changes to Treatment Process and Characterization/Certification Process Cause Additional Cost for Sampling, Repackaging.
 - Penalties Up to \$10,000/Day/Container if 4,500 cubic meters of Legacy TRU Waste Not Treated and Certified Annually.
 - Risk of Non-Shippable Inventories.
- Inability to Treat Waste From Other Sites Due to Non-Compliance with Current Agreements.