



Advanced Mixed Waste Treatment Project

*Citizens Advisory Board Meeting
May 18, 2011*



Jeff Mousseau, P.E.
President and General Manager
Bechtel BWXT Idaho



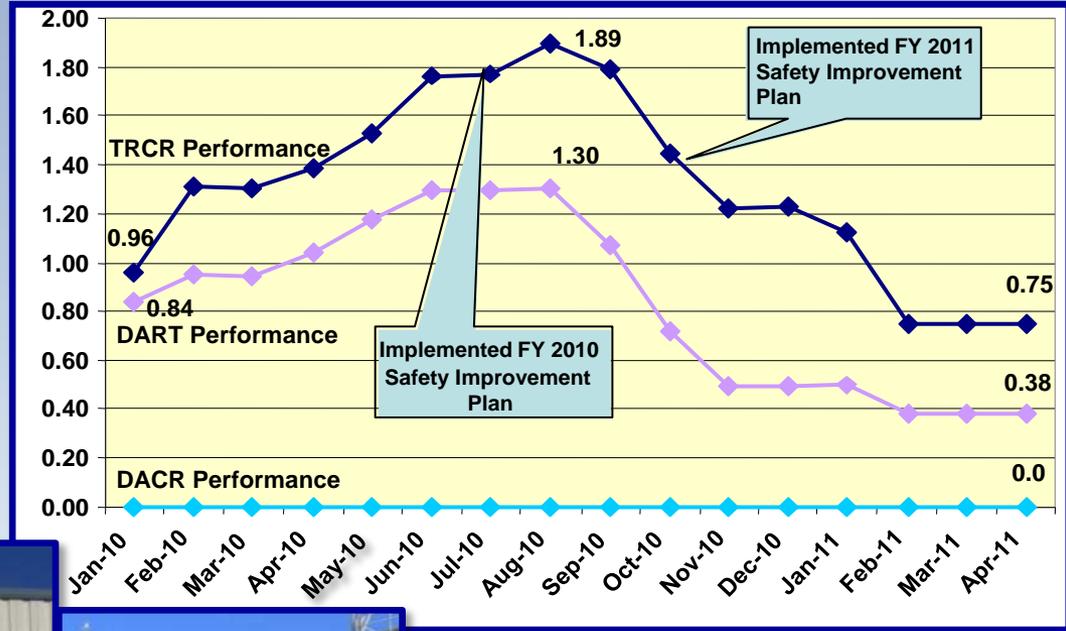


First Things First – Safety

AMWTP is a Voluntary Protection Program Star Site

Best In Class Safety Performance

- VPP Star Site
- ISMS process
- 11.8 million safe hours
- Employee-based safety programs
- Protection of the public, our workers and the environment



Safety improvements pay dividends



Zero is our goal!



The VPP Star Site Flag flies high at AMWTP





AMWTP Mission

Bechtel BWXT Idaho manages and operates the Advanced Mixed Waste Treatment Project for the U.S. Department of Energy at the Department's Idaho Operations site.

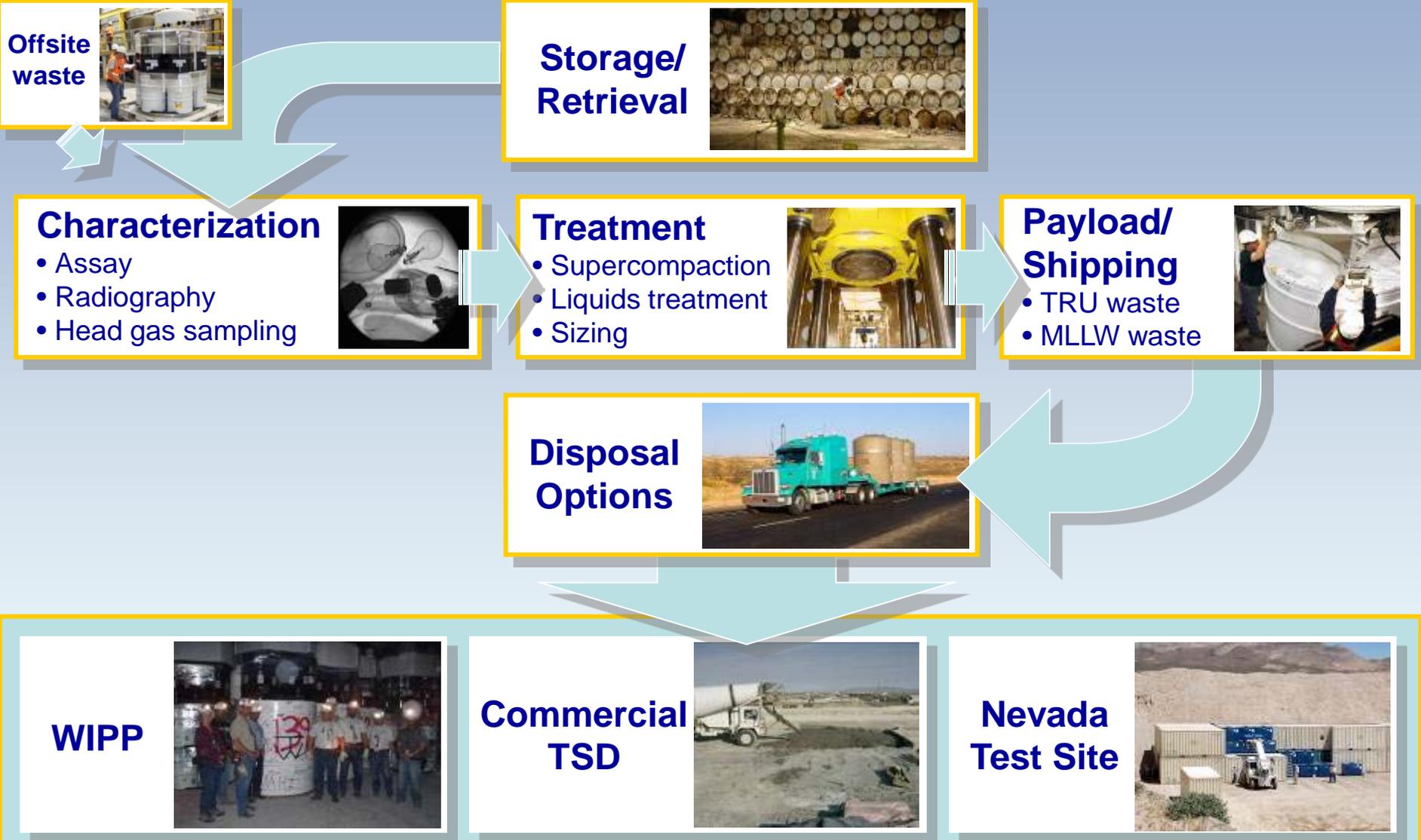


A transuranic waste shipment leaves AMWTP, the start of a 1,200 mile one-way trip to the Waste Isolation Pilot Plant.

- Legacy stored transuranic waste
- Offsite waste
- Buried waste shipments
- Settlement Agreement
- Site Treatment Plan



AMWTP Process Flow





Waste Characteristics

Sources

- Rocky Flats Plant, 1970-1985
- Mound, Bettis, INL, et.al.

Est. Remaining Inventory

- 3,200 TRU/MLLW boxes
- 48,500 TRU/MLLW drums
- 23,000 m³

Waste Composition

- TRU = ~60%
- MLLW = ~40%
- Debris = ~65%
- Sludges = ~35%

TRU = Transuranic Waste
MLLW = Mixed Low Level Waste



Retrieved waste boxes and drums in storage awaiting processing

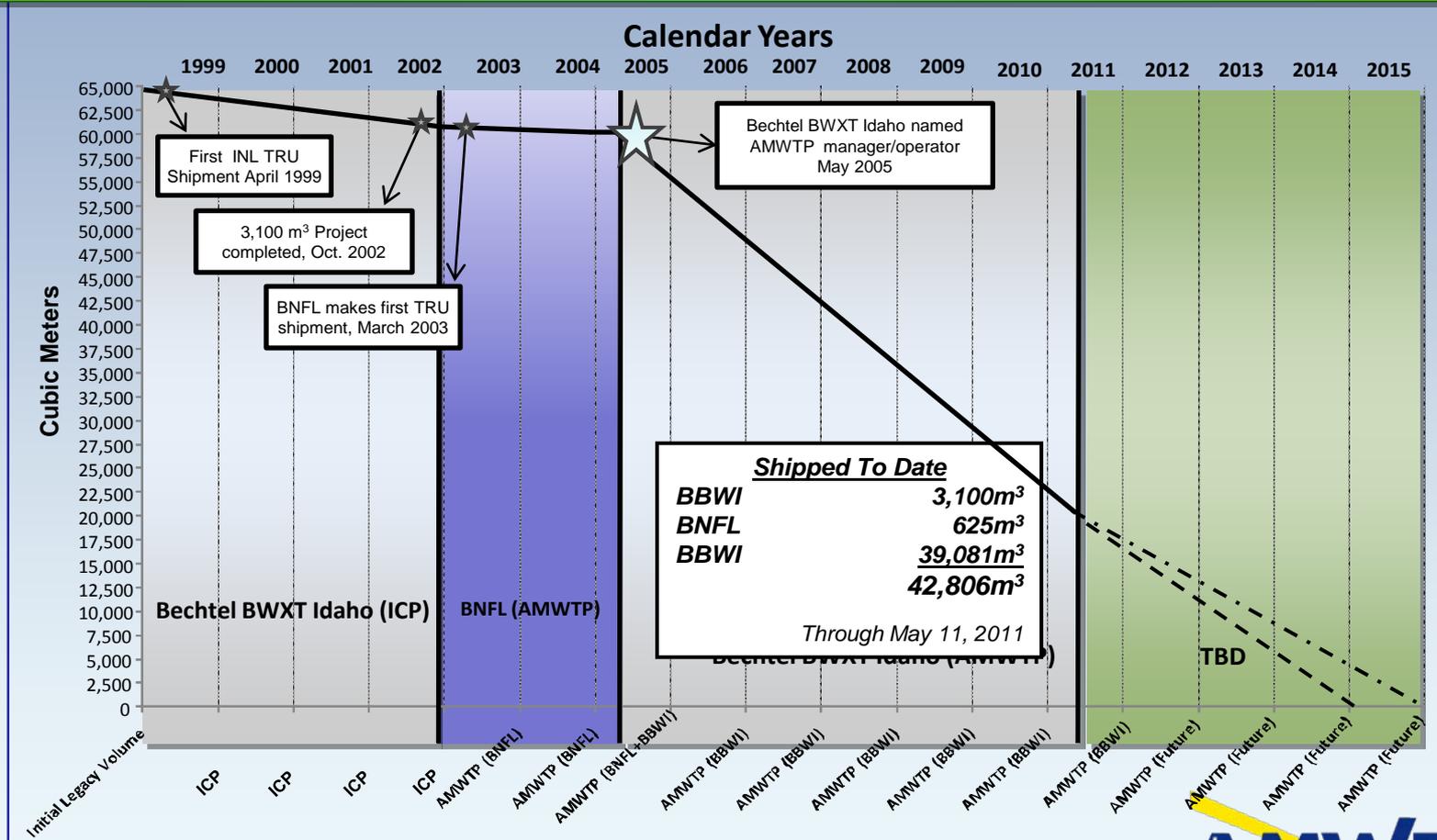


Retrieved waste with containers in poor condition



Optimized And Reliable Waste Disposition

Consistent Progress In TRU Waste Workoff

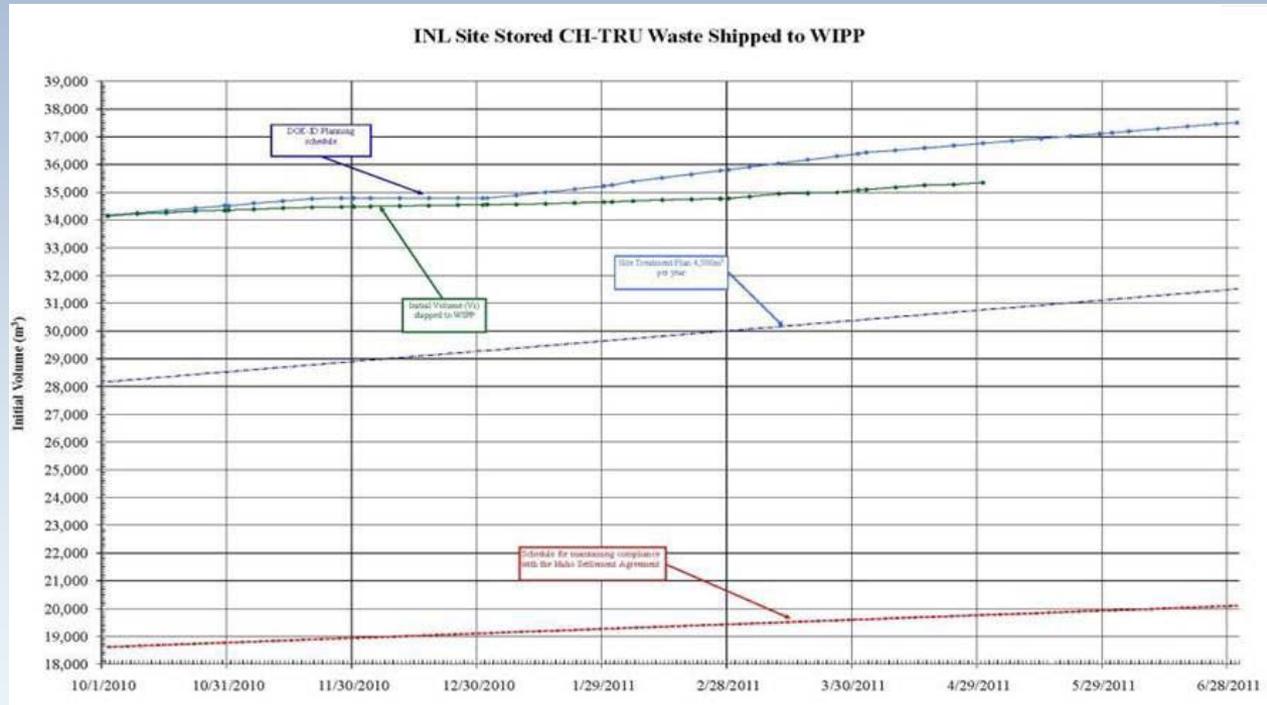




Maintaining Regulatory Commitments



- Three years ahead of Settlement Agreement production milestone
- Straight forward approach to performance measurement
- 8,038 m³ of MLLW historically managed as TRU has also been disposed out of state

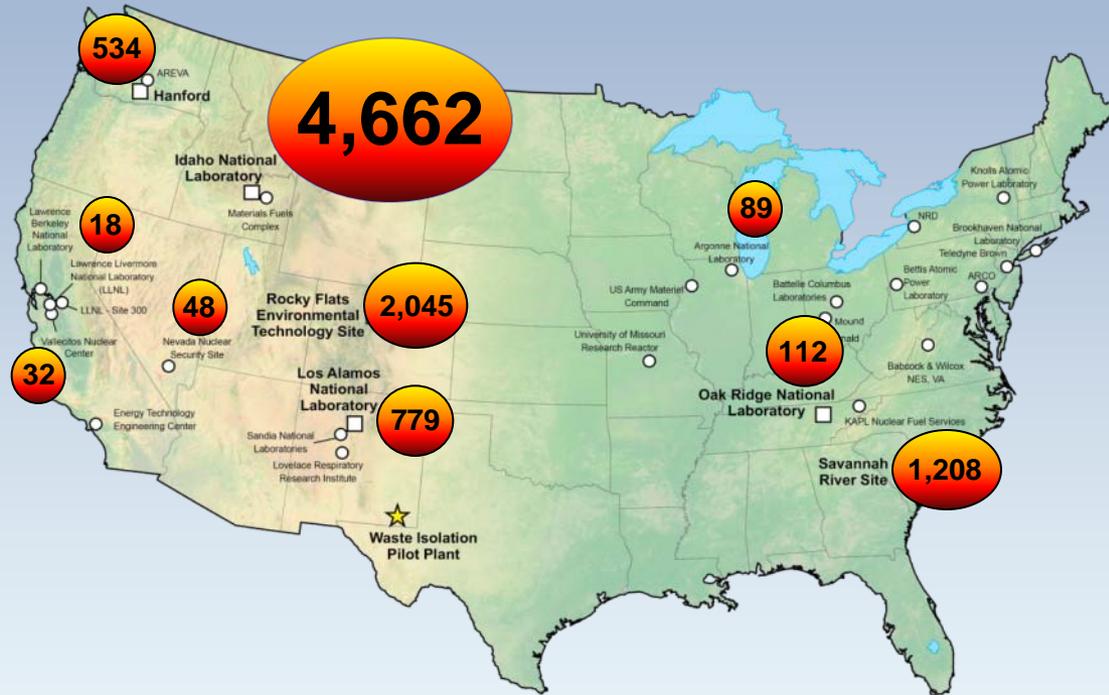




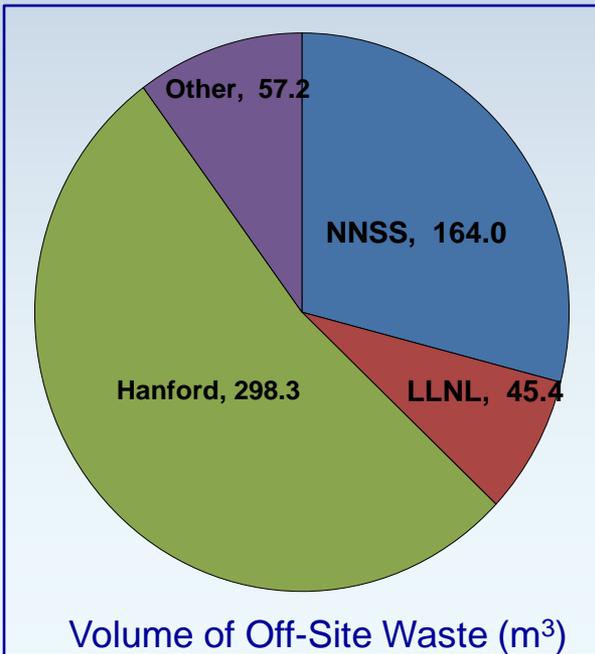
AMWTP Achievements

Cost, Schedule, Performance

- Number 1 shipper to WIPP
- More than 3,700 TRU waste shipments
- 477 MLLW shipments
- Receipt, validation, and processing of 565 m³ of off-site waste



Transuranic waste shipments from DOE sites to WIPP as of May 9, 2011. AMWTP has shipped 49 percent of the waste to WIPP, more than any other facility in the complex.





Transuranic Storage Area



Waste placement, Pad 1, Circa. 1971



Pad 1, August 2010



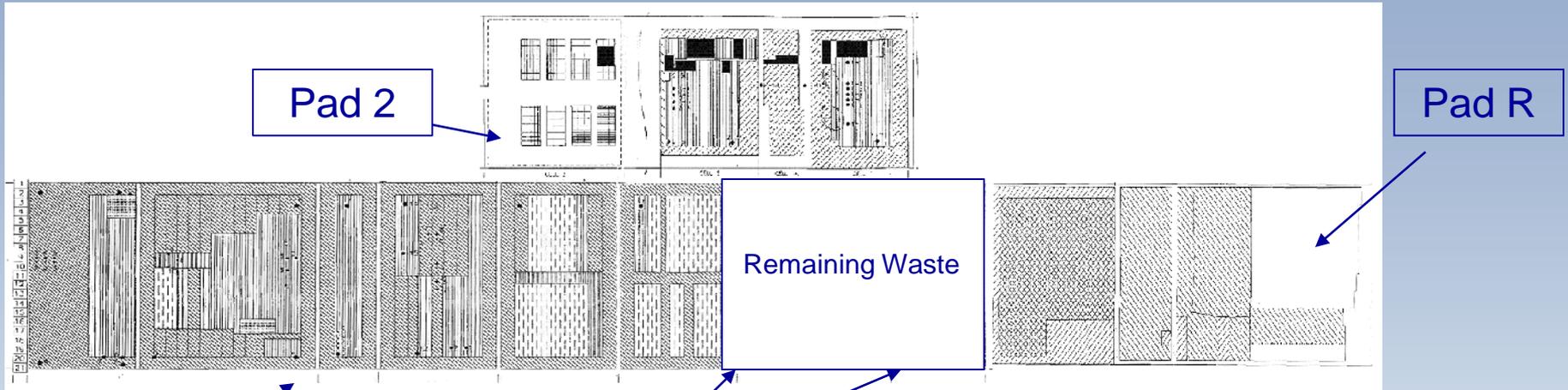
Waste Storage & Retrieval



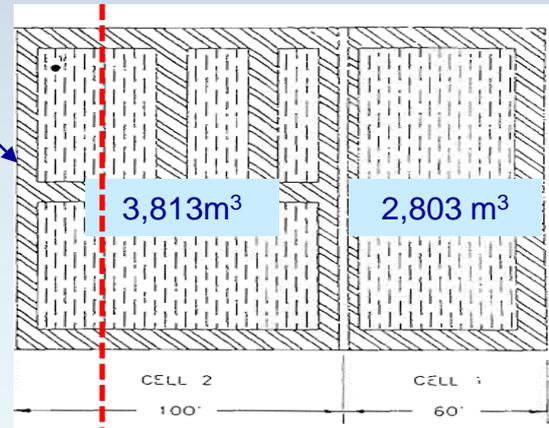
Nearly 90 percent of all radioactive waste stored at AMWTP has been retrieved. The final 10 percent, seen above, is waste that has been stored on site for 40 years and represents our greatest retrieval challenge.



TSA-RE Waste Retrieval



LEGEND	
	WOOD STORAGE BOXES
	FIBERGLASS COVERED WOOD STORAGE BOXES
	55 GAL. DRUMS STACKED HORIZONTAL
	55 GAL. DRUMS STACKED VERTICAL
	83 GAL. DRUMS STACKED VERTICAL
	METAL STORAGE BIN

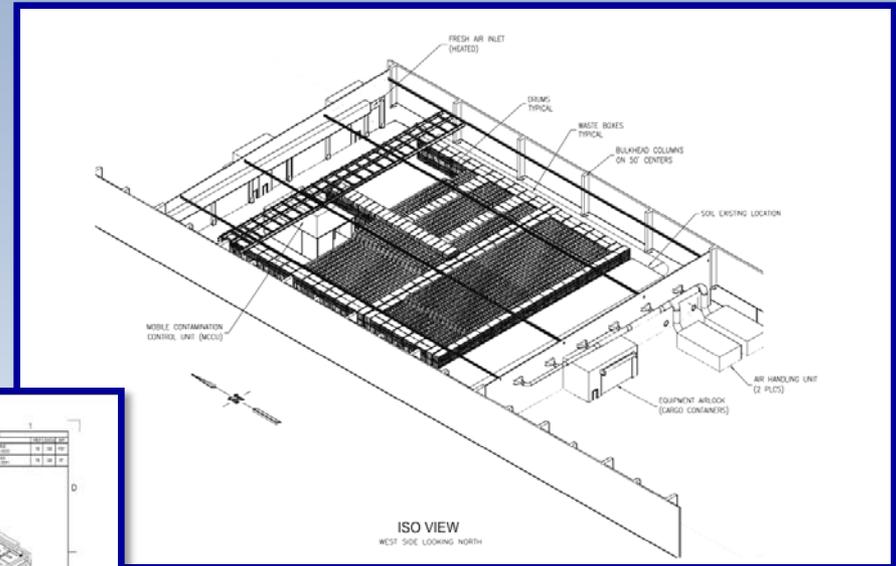




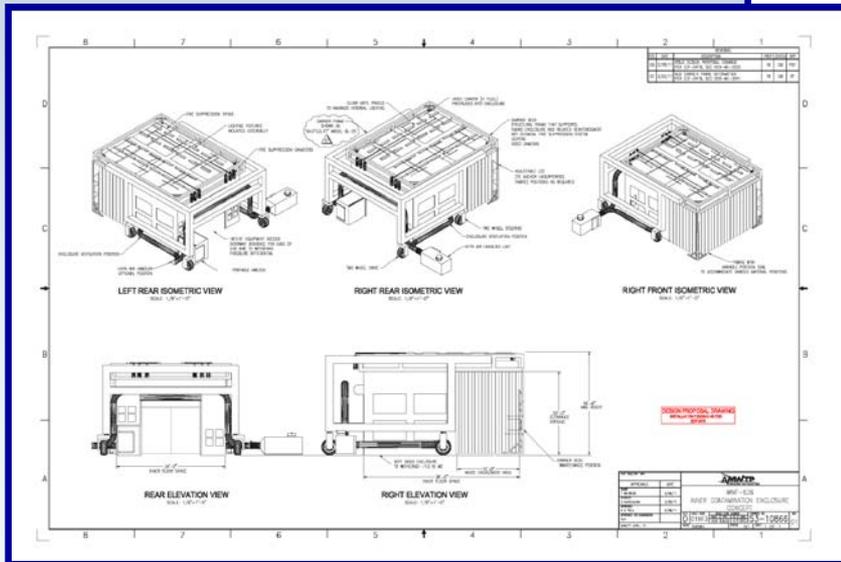
Engineered Improvements

Contamination Enclosures

- Constructing a 47,000 ft² enclosure around the remaining waste stack for contamination control
- Controlled air flow and HEPA filtered exhaust stack
- Upgraded PPE required
- Management self assessment and both contractor and DOE readiness assessments for start-up



Retrieval Contamination Enclosure



Inner Contamination Enclosure



Construction





Technology Improvements

Accelerating Production And Expediting Completion

Gas Generation Testing

- Installed 40 additional GGT units
- Accelerates organic sludge waste for shipment to WIPP



Onsite macroencapsulation

- Uses standard cargo container with stainless steel liner
- Proven process
- 60% cheaper



Empty, loaded, and sealed cargo container





Technology Improvements

Accelerating Production And Expediting Completion

Sludge Treatment

- Uses existing capabilities to process organic sludge waste
- Provides solution to disposal of PCB contaminated sludge waste
- Expedites sludge treatment



Sludge treatment process testing

Plasma Torch

- Size reducing large waste items
- New equipment allows for easy movement of items, reducing risk of injury from handling heavy, sharp objects
- Reduced sized items can be compacted and disposed in WIPP saving funds



Large pipe in boxline



"Live" plasma testing and employee in Level B protective suit



Cost and Schedule Achievements



Improved Operations

- Continuous process improvements resulted in savings of nearly \$11.4 million in 2010
- AMWTP 2010 operations reduced the waste volume by 2,053 m³, or 9,870 55-gallon drums, eliminating 360 shipments to WIPP, while saving more than 200,000 gallons of fuel

American Recovery and Reinvestment Act

- Completed all work ahead of schedule
- Created jobs for 52 new employees and integrated into workforce
- Shipped an additional 3,715 m³ of waste out of Idaho



Brandon Blackmon, former ARRA funded, now full-time AMWTP employee

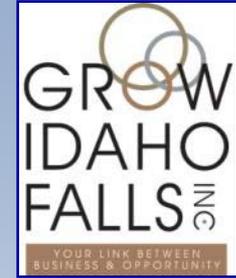
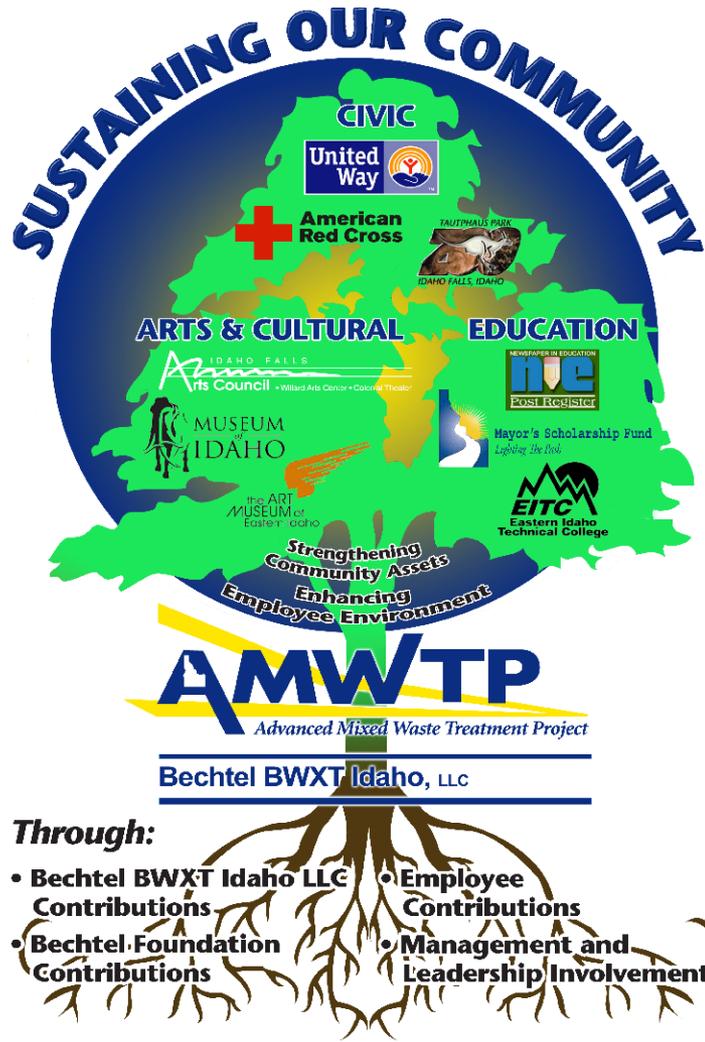


ARRA funded retrieval crew



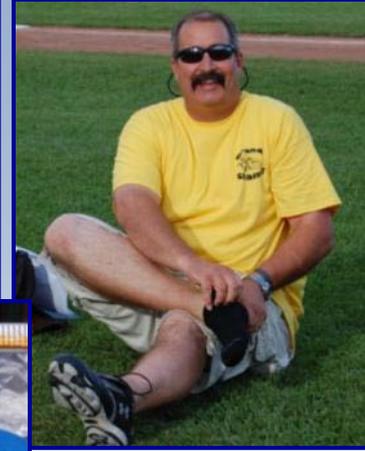


A Partner In The Community





AMWTP Pride: It's Our People





Meeting The Public's Interest

- Safe site for employees where work protects Idaho's environment
- Providing value to taxpayers with lowest waste processing costs
- DOE's regional resource for transuranic waste treatment
- Bottom line: We're getting the waste out of Idaho



First shipment of treated Hanford off-site waste leaves AMWTP for WIPP on Sept. 23, 2010



MLLW shipment leaving AMWTP

