Innovative Solutions to Material Disposition



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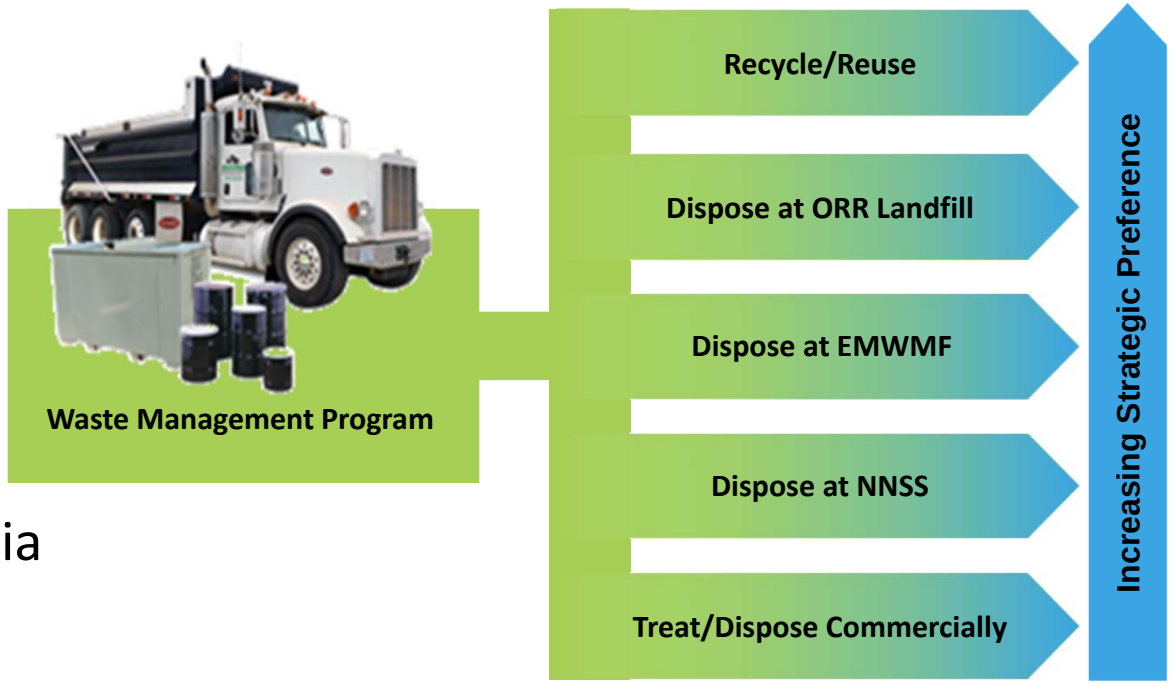
ETTP Waste Factory

Waste Disposition by the Numbers

- 60,812 shipments onsite
- 1,813 shipments offsite

The Approach

- Sound characterization
- Disposition path based on characterization results
- Specified packaging
- Waste acceptance criteria evaluated for selected repository
- Waste shipped immediately upon generation
- No double handling or storage



Differentiators

- Onsite waste disposal with dedicated haul road
- “Blue Pipe” waste segregation
- Truck loading optimization
- Reusable waste containers
- “Pack As You Go”

No-Path-to-Disposal Waste

- Assumed 8 no-path-to-disposal waste streams with UCOR contract award (August 2011)

Waste	Challenge
Classified MLLW Oil	Incineration capability for classified waste not available
Classified PCB Debris	Treatment capability for classified PCB waste not available at the time
Classified MLLW Solids	Treatment capability for classified MLLW not available at the time
Dioxin and Furan-coded MLLW	Treatment capability for dioxin and furan waste not available
Amalgamated Mercury MLLW	Elemental mercury did not meet Land Disposal Restriction (LDR) for PCB and certain other organics
Mercury-contaminated Roofing Material MLLW	Waste did not meet LDR for multiple Universal Treatment Standards (UTS) and retreatment would be very costly
Reactive MLLW	Treatment capability for mixed reactive waste not available

Example #1 of Innovative Solutions
Legacy Mercury Waste

Challenges:

- Generated from ETTP and Y-12 operations
- Previously treated via vacuum assisted thermal desorption
- All 34 containers failed Universal Treatment Standards (UTS) for PCBs
- 6 failed UTS for various hazardous constituents
- $4.7 million for retreatment
- Retreatment would result in 300 percent volume increase

Example #2 of Innovative Solutions
Remedial Action Soils

Challenge:

- 4,000 cubic yards of soil generated in 1987 as part of a Remedial Action
- Assigned F-listed solvent waste codes
- Characterized in 2000
- $83 million – Estimate for offsite treatment and disposal

Example # 3 of Innovative Solutions
Metal Recycling

Challenge:

- Scrap metal generated from D&D activities
- Recycling options limited due to CERLCA Offsite Rule
- Few recyclers have CERCLA Offsite Rule Authority and are reluctant to obtain it due to increased oversight

Conclusion

- Effective waste management program critical for major cleanup program
- “Waste Factory” approach extremely successful at ETTP
- Innovative solutions for legacy waste and newly generated waste have resulted in cost-effective paths for waste disposition