

WM2012 –Session 68

Portsmouth MLLW Update



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Overview

Decontamination and Decommissioning of the Portsmouth Gaseous Diffusion Plant in Piketon, Ohio

- **Contract Award:**
 - August 16, 2010
- **Multi-phased Transition:**
 - Initial – All LPP and partial USEC De-lease Complete March, 2011
 - Phase 2 – Remaining USEC De-lease Complete Sept. 2011



Who We Are



- The Fluor-B&W Portsmouth Team
 - LLC Partners
 - Fluor and B&W
 - Pre-selected Small Business Partner
 - Pro2Serve – S&M and Utilities support (Incumbent)
 - Protégés
 - Wastren Advantage, Inc. – Waste management and infrastructure (Incumbent)
 - Insolves, Inc. – Access to local retirees and laboratory support (Incumbent)

Contract Work Scope

- D&D 400+ facilities, associated material inventories and process equipment
- 133 buildings with 10,600,000 ft² of floor space
- Release suitable clean areas for reindustrialization
- Remediate groundwater and 600,000+ yd³ of contaminated soil
- (2) CERCLA RODs
- Option (subject to approval) for onsite disposal cell design, build, and operate



Mixed LLW Activities

- Completed a Site-wide inventory of containerized wastes and surplus chemicals, to support D&D planning
- RCRA Storage facility permit and operations - Currently in the early stages of being transferred to a permanent on-site facility, located outside the D&D scope.
- Building Characterization efforts are on-going, focusing on characterization in-place.
- Disposition of Legacy Mixed Waste on schedule to meet FY2012 Site Treatment Plan Milestones by 7/31/2012

Mixed LLW Activities (cont.)

- Initiated shipment of activated alumina and magnesium fluoride trap material wastes for commercial stabilization treatment and disposal (Meeting an STP Milestone)
- Completed shipment of;
 - Newly generated TCE contaminated spent carbon waste for Vacuum Thermal Desorption treatment.
 - Recovered TCE from Groundwater Pump and Treat facilities for Thermal treatment (Meeting an STP Milestone)
 - TCE-tainted Shoring Panels, for mixed waste disposal (ARRA waste)
 - F001 listed soil cuttings and debris, as LDR-Compliant material
 - Potassium Hydroxide waste for Elemental Neutralization/Stabilization treatment (ARRA waste)
- Completed sampling, analysis and disposal arrangements for legacy spent carbon from Groundwater Pump and Treat facilities (Disposal is a 2012 STP Milestone)

Mixed Waste Activities (cont.)

- Re-established Mixed Waste Site Treatment Plan Milestones with the Ohio EPA, for wastes assigned to these treatment technologies:
 - Chemical Stabilization
 - Macro-encapsulation
 - Mercury Amalgamation
 - Physical/Chemical Treatment
 - Vacuum Thermal Desorption
 - Compressed Gas Cylinder Evaluation and Off-Site Treatment
 - Incineration

FY 2012 STP Milestones

Treatment Technology	Volume (M ³)	Sept. 30, 2012 Milestone	2012 Milestone Qty (M ³)
Spent Carbon Treatment	9.1	Ship 100% of FY 2010 Inventory	9.1
Mercury Amalgamation	0.2	Ship 100% of FY 2010 Inventory	0.2
Macro-encapsulation	0.9	Ship 50% of FY 2010 Inventory	0.45
Physical/Chemical Treatment	6.2	Ship 20% of FY 2010 Inventory	1.24
Aerosol Can Puncture/Remove/Dispose	0.4	Ship 50% of FY 2010 Inventory	0.2
Compressed Gas Cylinder Evaluation and Off-site Treatment	0.4	Ship 60% of FY 2010 Inventory	0.24
Vacuum Thermal Desorption	1.1	Ship 25% of FY 2010 Inventory	0.275

Mixed Waste Issues/Barriers Being Addressed

- Several DOE-Ports Mixed Waste streams are problematic because of U-235 levels that are over DOT fissile material limits, and/or pCi/g activities that exceed the Waste Acceptance Criteria for commercial mixed waste treatment facilities.
 - Planning to split up the contents of problematic mixed waste containers, and add non-fissile mass to containers, to meet fissile exempt package limits and pCi/g activity limits for waste acceptance criteria.
- Several mixed waste streams currently in storage, as well as future D&D-generated mixed wastes, may be amenable to on-site in-container RCRA waste treatment. Macro-encapsulation, chemical stabilization, elemental neutralization, and mercury amalgamation treatments could be done cost effectively on-site, using on-site expertise and resources. The current RCRA Part B Permit only provides for storage of RCRA Mixed Wastes.