

Portsmouth/Paducah Project Office PORTS X-326 Process Building

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PPPO Portsmouth Site Overview



- The Portsmouth Gaseous Diffusion Plant site is located in South Central Ohio.
 - Plant occupies approximately 1,200 acres of a 3,777-acre federal site.
 - Uranium Enrichment Operations began in 1954 and ceased in 2001.
 - DOE cleanup mission began in 1989.

PPPO Portsmouth's Evolving Mission

- PORTS mission evolved over the years as uranium enrichment efforts moved from a focus on nuclear defense to a commercial nuclear power mission.
- PPPO began management of cleanup efforts in 2003.

COLD WAR

1954-1989

Nuclear Defense

POST COLD WAR

1989-2001

Commercial
Nuclear Power

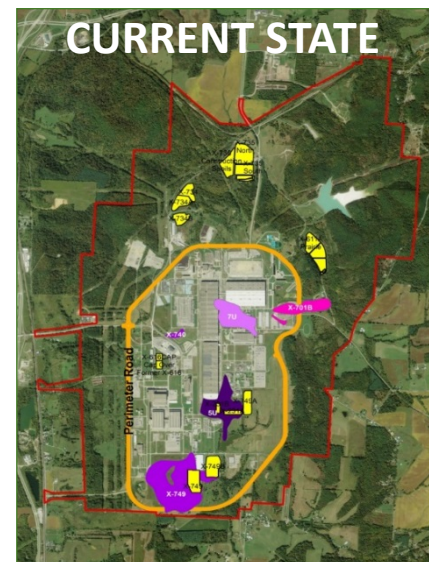
CLEANUP

2001-Current

- Environmental Cleanup
- Decontamination & Decommissioning
- Reuse

PPPO's Cleanup Strategy at Portsmouth

- D&D
 - Deactivation and demolition of 415 buildings and structures, ~1.2M yd³ of debris
 - Removal of infrastructure not needed for future use
- Environmental Remediation
 - Excavation and consolidation of selected landfills and plumes to be used as OSWDF engineered fill, ~3M yd³ soil
 - Monitored natural attenuation post-D&D
- Waste disposition
 - Installation and operation of OSWDF for process building waste, ~5M yd³ capacity
 - Offsite disposal of all waste that does not meet OSWDF WAC
 - Processing of legacy nuclear inventory
 - Disposition of 23,000 DUF6 cylinders
- Property Transfer
- Reduction of federal site footprint from 3,773 acres to ~400 acres



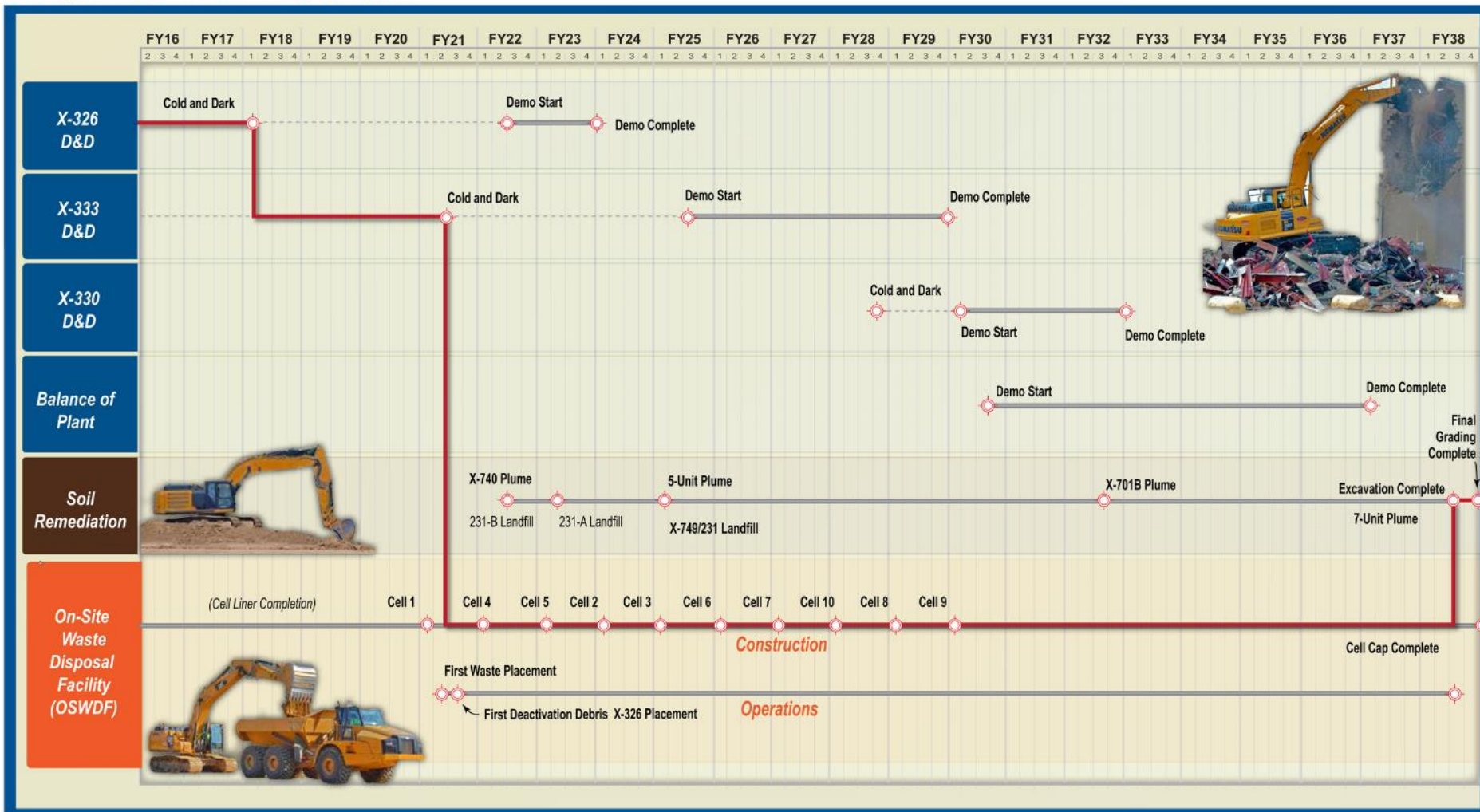
PPPO PORTS Comprehensive Site-Wide Closure Plan

- Lifecycle Baseline ✓
- Regulatory decisions and agreements ✓
- Consensus with public on final land use (stakeholder/regulator alignment) ✓
- Technological approach ✓
- Focused workforce ✓



PPPO PORTS Critical Path to Successful Cleanup

Lifecycle Baseline Summary Schedule



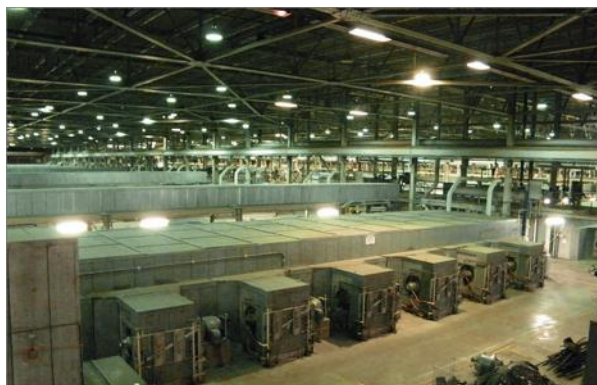
PPPO PORTS D&D Project



- Final paperwork is in process to declare X-326 “cold and dark” and ready for demolition in FY22

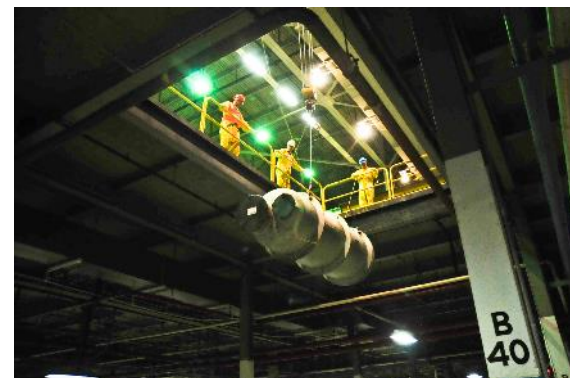
X-326 High Enrichment Uranium Processing Plant

- Hazard Category 2 Nuclear Facility;
- ~1/2 mile long; ~56 acres under roof on two floors;
- 200 cells arranged in 10 enrichment units;
- 7,020 converters, compressors & coolers characterized and removed;
- Over 300,000 feet of interconnecting piping, withdrawal facilities and process exhaust systems
- 600 miles of copper tubing



X-326 Deactivation

- Over one year without a recordable injury
- 94% cell floor, 45% operating floor complete;
- 4 of the 10 enrichment units deactivated by EOM;
- Over 98% of converters, compressors and coolers characterized, removed and shipped offsite for disposal;
- 1.1 of 1.3 M NDA measurements required to confirm equipment can remain in building for demolition complete;
- Achieve Cold & Dark in early 2018



X-326 Deactivation

- Remove and ship offsite converters, compressors and coolers
- Achieve “Criticality Incredible” status (no NCS controls required) for all remaining equipment
- Remove hazardous, universal and other wastes prohibited from disposal in the on-site cell.
- Isolate facility from site utilities to achieve Cold & Dark

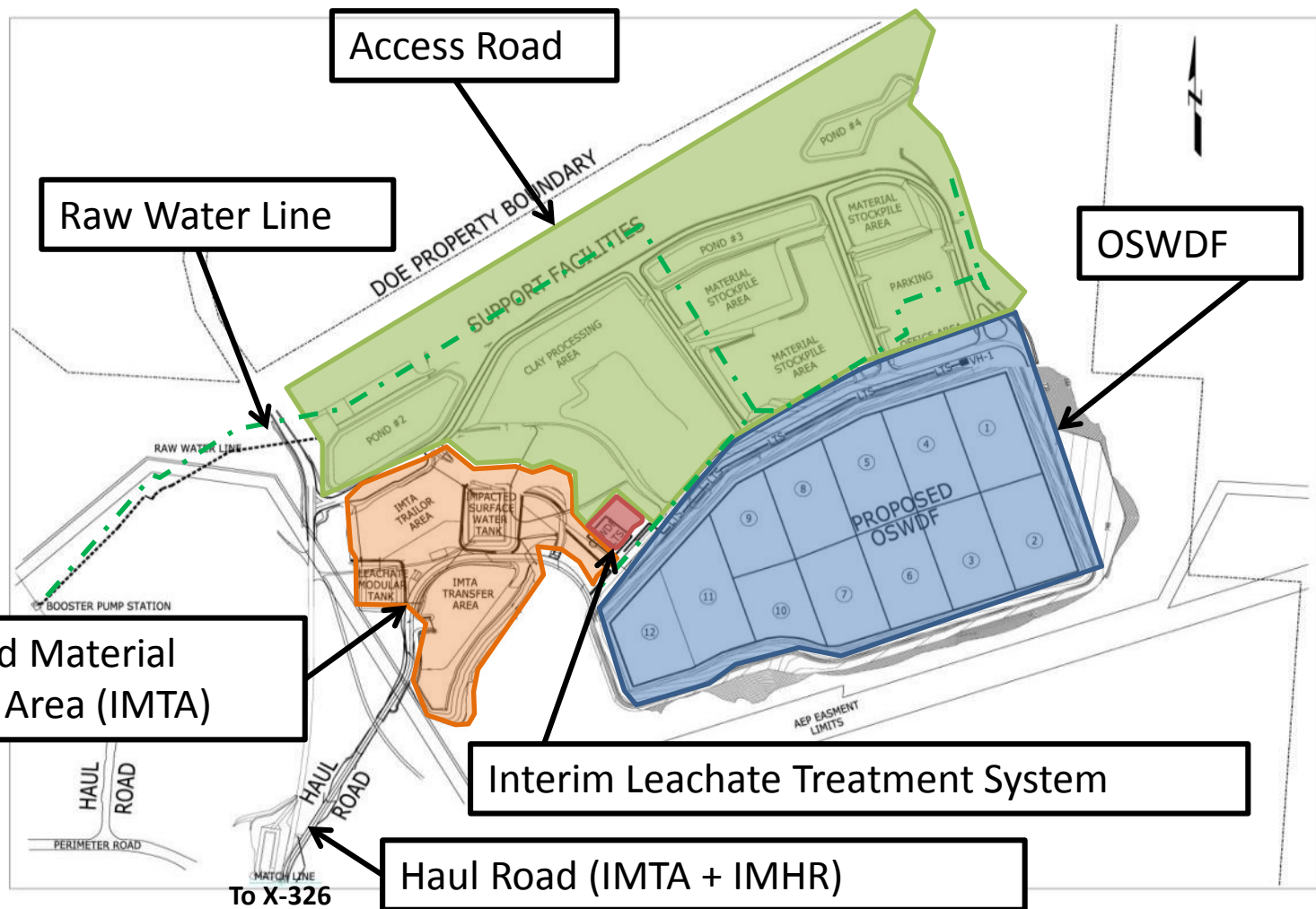


X-326 Deactivation Challenges Overcome

- PORTS First Time Adoption of ISMS & Work Planning; Transitioning Workforce to D&D
- Underestimated magnitude/implications of PPPO Quality System for NDA (QSNDA) – Trained & Qualified 250 Person NDA Organization
- NOx Generation During Plasma Arc Cutting
- Restoring Deteriorated Infrastructure – Cranes, Elevators, Lighting, Fire Protection . . .
- Deploying Qualified NDA Platforms Addressing All Configuration of Equipment, Piping, Valves.



On Site Waste Disposal Facility



On Site Waste Disposal Facility

- Regulatory Decision in Place
- CD3A Approved
- Preliminary DAS in Place
- 100% Design Package Underway
- Field Construction/Site Prep Underway
- Moving 1.4M/cy by Xmas
- Seeking Final DAS in FY18
- Project Objective – FIRST WASTE PLACEMENT BY FY21 (end of CY20)



Reindustrialization at PORTS

First Property is currently being prepared for transfer

- DOE received a proposal from SODI for 80 acres at the site
- State of Ohio concurrence received, final transfer package being completed for submission to DOE-HQ
- Requires Congressional approval to finalize transfer

