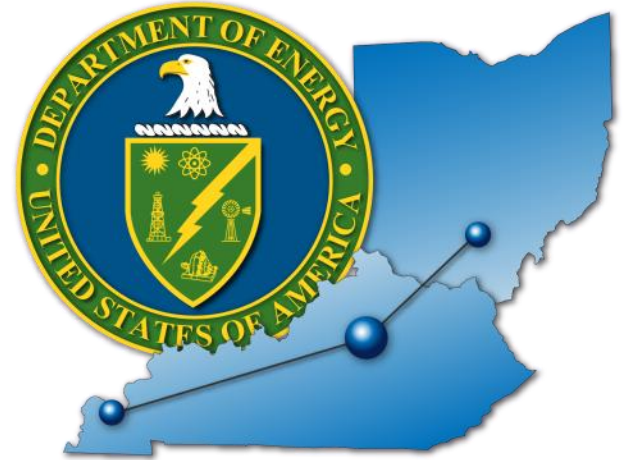


# Portsmouth/Paducah Project Office

*Succeeding Through Changing Conditions*



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**Waste Management Symposia**

*Phoenix, Arizona*

**Thursday, March 19, 2015**



**William E. Murphie**

DOE-PPPO Manager  
Panel Chair



**Dr. Vincent Adams**

DOE-PPPO Portsmouth Site Director  
Panel Vice-Chair



**Joel Bradburne**

DOE-PPPO  
Portsmouth Site Lead



**Jennifer Woodard**

DOE-PPPO  
Paducah Site Lead



**Dennis Carr**

Fluor-B&W Portsmouth, LLC  
Site Project Director



**Mark Duff**

Fluor Federal Services, Inc./  
LATA of Kentucky, LLC



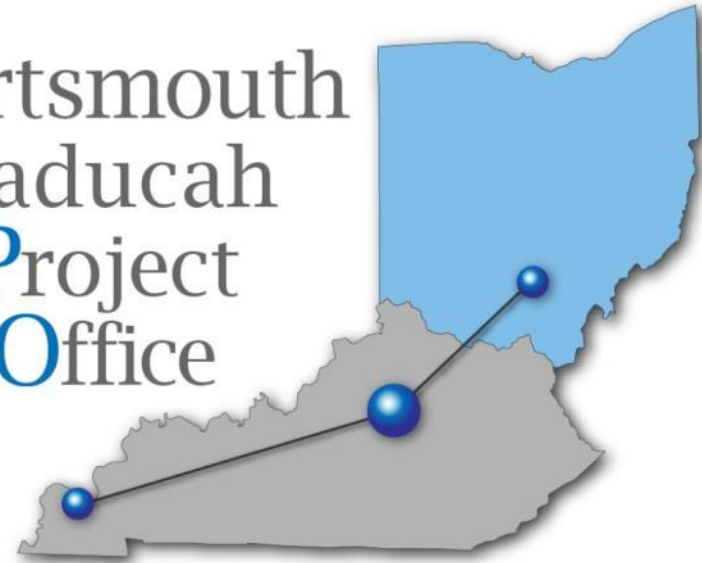
**John D. Woolery**

B&W Conversion Services  
President

## ***PPPO Mission:***

- *Environmental Remediation*
- *Waste Management*
- *Depleted Uranium Hexafluoride (DUF6 ) Conversion*
- *Decontamination & Decommissioning*

## Portsmouth Paducah Project Office

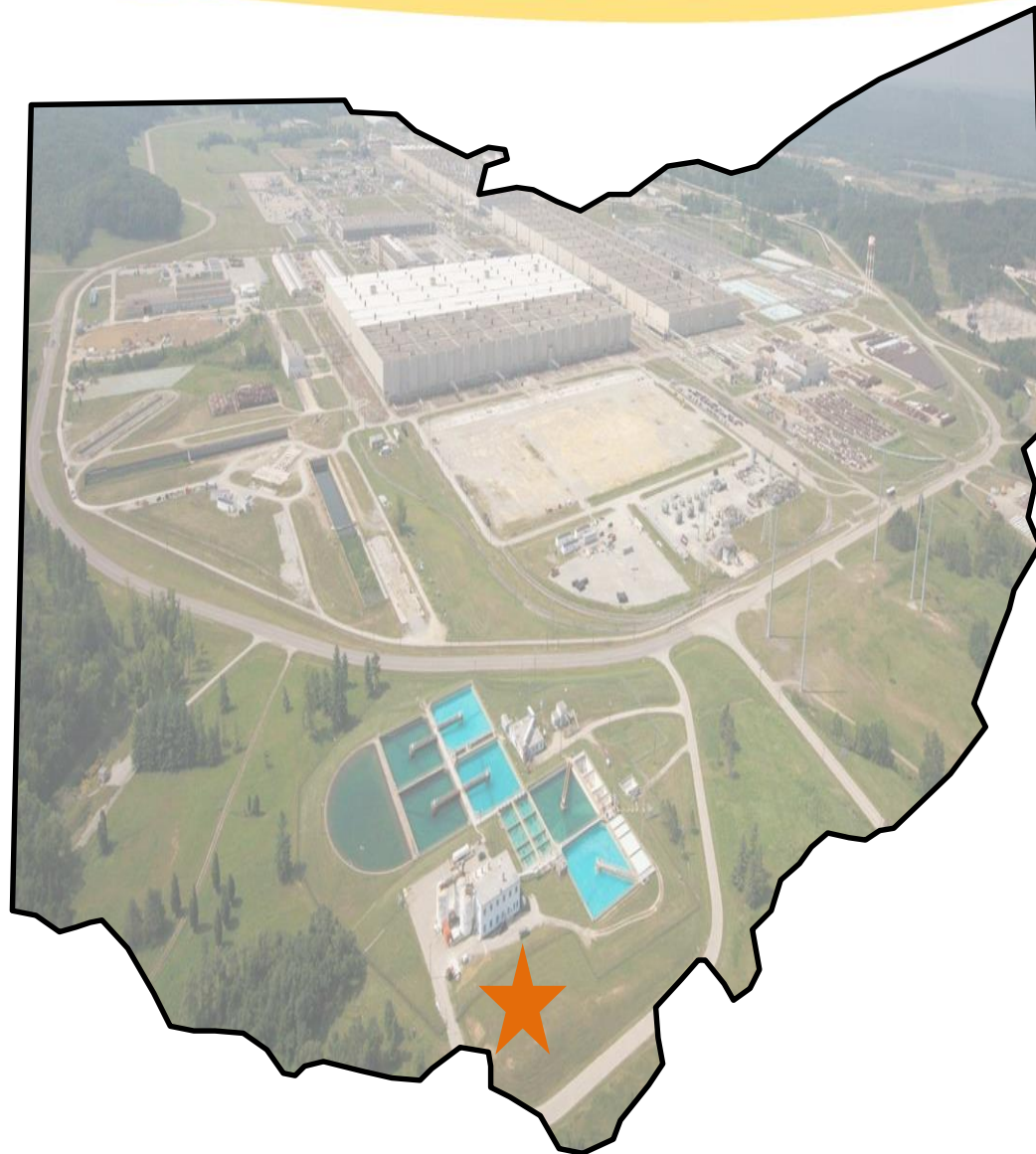


Located in Lexington, Kentucky, PPPO provides consolidated management and technical and business support for the Office of Environmental Management (EM) cleanup efforts at two gaseous diffusion plant sites formerly operated by the Department of Energy in southern Ohio and western Kentucky.

# PPPO Procurements

Office/Site	Contract	Contract #	Contract Type	Exp. Date
PPPO Paducah Site	Deactivation Project	DE-DT0007774	Large Business	July 2017
PPPO Portsmouth Site	D&D Project	DE-AC30-010CC40017	Large Business	March 2016 w/ 5-year option
PPPO Portsmouth Site	Infrastructure	DE-CI-0000004	Small Business	July 2015
PPPO Paducah Site	Remediation	DE-AC30-10CC40020	Small Business	July 2015 – transfers into deactivation contract
PPPO Paducah Site	Infrastructure	DE-AC30-10CC40021	Small Business	September 2015
PPPO Both Sites	DUF <sub>6</sub> Conversion	DE-AC30-11C40015	Large Business	January 2016
PPPO Paducah Site	Technical Services	DE-DT0005139	Small Business	January 2018
PPPO	Advisory Board Support	DE-EM0002158	Small Business-8(a)(SDB)	September 2017
PPPO/Lexington	Technical Services	DE-DT0005643	Small Business	July 2016 w/ 2-year option
PPPO Portsmouth Site	Engineering & Technical	DE-EM0002639	Small Business (Woman-owned)	October 2016

**Joel Bradburne**  
Portsmouth Site Lead  
U.S. Department of Energy



➤ **The Portsmouth Gaseous Diffusion Plant site is located in south central Ohio.**

- Plant occupies approximately 1,200 acres of a 3,714-acre federal site.
- Uranium Enrichment Operations began in 1952 and ceased in 2001.
- DOE cleanup mission began in 1988.
- Full-scale D&D started in 2010.



➤ **Since 1990, DOE-EM has invested \$2.9 billion on Portsmouth cleanup.**

■ **Cleanup efforts**

- More than 50 facilities have been removed at Portsmouth.

■ **D&D**

- Key demolitions since 2011 include steam plant and administration complex.

■ **American Reinvestment and Recovery Act (ARRA)**

- ARRA provided funding that allowed for the removal of 13 facilities. The five key ARRA efforts were:

- X-633 Cooling Tower Complex
- X-701B Trichloroethene (TCE) Groundwater Plume
- X-760 Chemical Engineering Building
- X-533 Electrical Switchyard Complex
- Uranium Management Center (UMC)

■ **Cascade Shutdown**

- After 57 years of operation, the enrichment cascade was powered off on May 30, 2012.

■ **Environmental Remediation**

- About 15,000 pounds of TCE have been removed through groundwater remediation.



## DOE-EM has invested \$2.9 billion on Portsmouth cleanup.

- Treated 191 Million Gallons of groundwater, removing 1,375 pounds of TCE from groundwater
- 105 Solid Waste Management Units have attained No Further Action (NFA) determinations under the RCRA Corrective Action Program
- Demolished 34 support facilities encompassing ~425,000 square feet.
- Completed 917 barter transfers & shipments (~7,050 MTUs)
- Removed 146 cell equivalents of Process Gas Equipment PGE from X-326
- Disposed of ~3,500 Process Gas Equipment components



- Transferred more than 900 thin-walled cylinders to compliant (thick-walled) cylinders for uranium transfer operations



## ➤ Regulatory Process

- Public comment period began for Process Building D&D and Waste Disposition.

## ➤ Deactivation

- About 70 percent of X-326 process equipment removed through Cut & Cap activities.

## ➤ Shipping

- Portsmouth exceeded its 2014 shipping goals by nearly 90 percent and was EM's largest shipper of waste to Nevada National Security Site (NNSS).
- The site shipped 660,000 cubic feet of waste.



Portsmouth Site Director Dr. Vincent Adams (right), Fluor-B&W's Dennis Carr (center) and Fluor-B&W's Marc Jewett address questions during a public meeting on proposed plans on November 17, 2014.



More than 30 percent of the process equipment was removed from the high-assay process building at Portsmouth (X-326) in 2014.

## Regulatory Agreements

- Ohio EPA Director’s Final Findings & Orders (DFF&O)
- Consent Decree

Decision	Final Decision Document	Anticipated Decision Date
D&D of 46 Support Buildings and Structures	Action Memorandum	Completed March 2012
Site-wide Waste Disposition Decision	Record of Decision	Summer 2015
Process Buildings & Complex Facilities D&D Decisions	Record of Decision	Summer 2015
Contaminated Soil Remedy Decision	Soil Remediation Decision Document	2016-2017
Groundwater Remedy Decision	GW Remediation Decision Document	TBD

➤ **Process Building Proposed Plan Public Meeting and Public Comment Period**

- DOE preferred alternative is the D&D of process buildings and support facilities.

➤ **Waste Disposition Proposed Plan Public Meeting and Public Comment Period**

- DOE preferred alternative is combination of on-site/off-site disposal with construction of OSWDF.

➤ **About 500 comments received during Public Comment Period.**

- Majority of input supported DOE selected alternatives.



DOE Public Comment Meeting



Efforts continue to downgrade high assay Process Building (X-326) from HazCat 2 Facility to Radiological Facility.

## Cut & Cap Project:

- Cut & Cap operations began in 2012.\*
- 2,100 components removed in 2014; 70 percent removed in total.
- On pace for September 20, 2015 completion.

\* This work is being done under an Ohio EPA-approved RI/FS Sampling Analysis Plan (SAP).



- 246,000 ft<sup>2</sup> facilities torn down since 2012
- 7 facilities scheduled for demolition in 2015-2016



X-600 Steam Plant Demolition

- Shipped nearly 660,000 cubic feet of Low Level Waste and Mixed Low Level Waste.
- Goal for 2014 was 353,000 cubic feet.
- Portsmouth was EM's largest shipper of waste, accounting for about 46 percent of all waste accepted by NNSS.

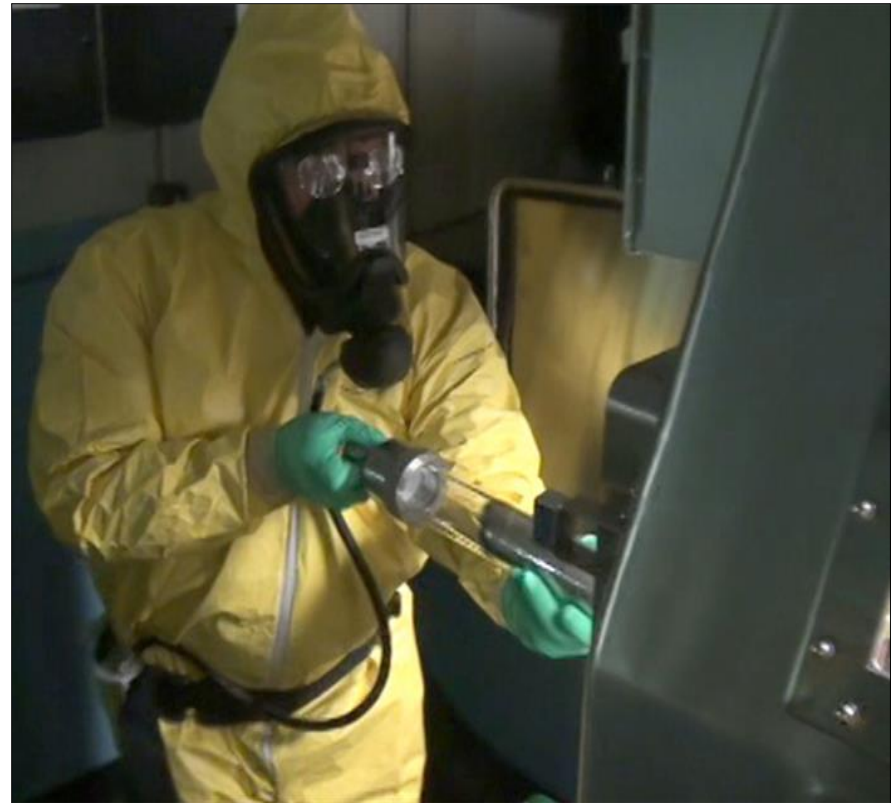


## ➤ Background

- More than 30,000 tons of volumetrically contaminated nickel
- Broader opportunities for reuse exist if technology for contamination removal proves successful.

## ➤ Results

- Bench-Scale Test summary report being evaluated at DOE EM Headquarters.



- Portsmouth Site Specific Advisory Board (PORTS SSAB)
- Southern Ohio Diversification Initiative (SODI)



*In 2014, the PORTS SSAB provided recommendations on cleanup decisions and a letter of support for continued D&D funding.*

*Stakeholders also endorsed a final end state vision for the PORTS site.*



## ➤ Educational Outreach

- Fifth Annual DOE Science Alliance and South Central Ohio Regional Science Bowl
- High school Annual Site Environmental Report (ASER) program through Ohio University
- PORTS contractors awarded more than 40 scholarships and 60 internships to local students since 2011



