

BWCS News
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Depleted Uranium Hexafluoride (DUF₆) Fully Operational at the
Portsmouth and Paducah Gaseous Diffusion Sites

When Babcock & Wilcox Conversion Services took over the DUF₆ Project on March 29 of this year, the company had one thing in mind: Bring all seven conversion lines at both plants to fully operational status by Sept. 30, 2011.

They achieved that goal at 3:43 p.m. Friday afternoon, Sept. 30, when the last of the seven lines from the two plants in Paducah KY and Piketon OH went fully operational.

“Our next goal is to bring all seven lines to steady state commercial production by the end of this [2012] fiscal year,” said George E. Dials, project manager and BWCS president.

By definition, fully operational indicates that all the independent components of a conversion line work in an integrated fashion to produce the desired results, running at nominal design capacity and including three cylinder exchanges.

“I’m pleased with BWCS’s performance in safely achieving the fully operational milestones. A lot has been accomplished but our focus must now shift toward improving internal work processes to ramp up the production to full commercial status,” said Program Manager Jack Zimmerman, DUF₆ at the Portsmouth/Paducah Project Office.

DUF₆ is depleted uranium hexafluoride, a byproduct of uranium enrichment that has taken place at U.S. gaseous diffusion plants since World War II. Decades of uranium enrichment have created a legacy of DUF₆ presently stored in 63,000 cylinders at the Portsmouth and Paducah Gaseous Diffusion sites. The cylinders hold approximately 740,000 metric tons of DUF₆.

The Project has followed a long timeline to get to conversion operations, starting in 1992 when concerns were first officially raised by the Ohio EPA about the DUF₆ stored at the Portsmouth Gaseous Diffusion Plant. Following Congressional legislation in 1998 and 2002, plans were developed and implemented for construction and testing of the plants. Hot Functional Testing was authorized in 2010. The plant operations contract

was awarded to BWCS at the end of 2010; BWCS implemented its Phased Restart program following an 85-day transition.

The Phased Restart program was designed to integrate operations of each line and establish the capacity to move to steady state commercial operations, now targeted for the end of the current fiscal year.

While the Project was celebrating its operating milestone, it was also celebrating a safety milestone . . . two million workhours without a lost time occupational injury or illness.

“We’re enormously proud of the people who came together to reach both these milestones,” Dials said. “Everybody worked hard, long hours with a safety focus that was essential. It was particularly challenging because of all the changes in staff and management occurring early in the year and our need to establish teamwork under those conditions.

“We knew going in that the fully operational status was going to be a stretch goal. Because much of the equipment had not been operated since installation, we expected a lot of gremlins and breakdowns, and in fact, we got them.”

The DUF₆ Project paused briefly Oct. 13 to celebrate both the safety and operational successes.

“Now we’re on to the next main thing: steady state commercial production.”