

By the Numbers Paducah Site Cleanup

The Paducah Gaseous Diffusion Plant is a facility located in McCracken County, near Paducah, Kentucky, that enriched uranium from 1952 to 2013. It was the last government-owned uranium enrichment facility operating in the U.S. The Paducah plant produced low-enriched uranium originally as feedstock for military reactors and weapons refining and later for nuclear power fuel. The gaseous diffusion plant covers about 650 acres of a 3,556-acre site. Four process buildings cover 74 acres of the total site area. Cleanup of the Paducah site began in 1988, including remediation of groundwater, surface water, soil, burial grounds, and removal of inactive facilities. Some key metrics related to the Paducah site include:

>3.3B gallons of trichloroethylene (TCE)-contaminated ground water have been treated using pump and treat technology, significantly reducing offsite ground water contamination. TCE is a degreaser used during production years to clean uranium enrichment process equipment and is the largest source of groundwater contamination at the site.

7,420 gallons of TCE and other volatile organic compounds have been removed from the environment using pump and treat technology and by treating source areas.

>6M cubic feet

of waste, including legacy, cleanup, and material storage area waste, have been characterized and disposed.

This waste, if placed on a football field, would be about 105 feet high.

66 million pounds

of contaminated scrap metal — enough to build a World War I battleship — have been removed from storage yards and shipped off site for disposal. Contaminated scrap metal was a major contributor to surface water contamination.

32 contaminated facilities were previously designated for removal and 31 of those have been removed. Demolition of the last inactive facility in the pre-shutdown cleanup scope will be completed in 2015. A total of more than 315,000 square feet will have been demolished by the end of 2015.

>300 facilities

that are part of the Paducah Gaseous Diffusion
Plant were previously leased for commercial
operation until May 2013. DOE accepted the return
of these facilities in 2014, placing them under DOE
regulatory oversight and initiating utility optimization
and deactivation in preparation for future
decontamination and decommissioning.

>1M cubic feet

of contaminated soils and sediment been removed from on-site plant ditches enough to fill 150 railcars.

>30,000 metric

tons of depleted uranium hexafluoride (DUF₆) have been converted by the DUF₆ conversion plant at Paducah. It is the mission of EM's two DUF₆ plants in Ohio and Kentucky to convert DOE's $\approx 800,000$ -metric-ton inventory of DUF₆ into a more stable chemical form for beneficial use or other disposition.

