



By the Numbers Portsmouth Site Cleanup

In August 1952, the Atomic Energy Commission selected a tract of land in the Ohio Valley along the Scioto River in Pike County, Ohio, for the site of the Portsmouth Gaseous Diffusion Plant. In 1956, the plant was completed, but in the 1960s Portsmouth's mission changed from enriching uranium for nuclear weapons to one focused on producing fuel for commercial nuclear power plants and other national security applications. The Portsmouth plant and its sister facility in Paducah, Kentucky, worked in tandem to enrich uranium. The extensive environmental cleanup program began at the 3,777-acre federal plant site in 1989 as a result of a Consent Decree signed between DOE and the state of Ohio and an Administrative Consent Order with DOE and the U.S. Environmental Protection Agency. Some key metrics related to the Portsmouth site include:

>680M gallons

of groundwater from four onsite plumes have been treated and are currently managed by pump and treat and slurry wall technology. A fifth plume is being treated by phytoremediation using planted hybrid poplar trees.

≈3,440 gallons



of trichloroethylene (TCE), a degreasing solvent used during production years to clean uranium enrichment process equipment, have been removed from groundwater.

≈581M pounds

of total waste has been shipped/disposed of offsite from the Portsmouth site to date.

36 facilities

demolished after first deactivating utilities and removing stored waste, materials, process equipment, and piping.

>700,000 square feet

of buildings demolished, eliminating contamination sources, improving worker safety, and reducing surveillance and maintenance costs.

>37M

cubic feet of waste

is expected to be generated from future decontamination and decommissioning (D&D) at the Portsmouth Site. As part of the D&D effort, more than 80 percent of process gas equipment has been removed from one of three massive process buildings that together cover nearly 100 acres. This waste is being shipped offsite to approved facilities.

≈23 THOUSAND

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

≈8 MILLION

pounds of steel, aluminum, and copper were diverted from landfills as a result of safely recycling metal from the demolition of a de-energized electrical switchyard servicing the gaseous diffusion plant.



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