



Major Projects at PORTS

DUF6 Conversion *(Depleted Uranium Hexafluoride)*

Depleted Uranium Hexafluoride (DUF6)

was a by-product of the gaseous diffusion enrichment process and it cannot be disposed of in its current form.

DUF6 Conversion

will allow DOE to reduce inventory of DUF6 currently stored in cylinders at Portsmouth and Paducah.

DUF6 Conversion Process

involves five parts:

1. Cylinder recycling
2. Vaporization
3. Conversion
4. Oxide powder handling
5. Hydrofluoric acid recovery system

DUF6 Conversion Facilities

were constructed at DOE's Gaseous Diffusion Plants in Portsmouth, Ohio and Paducah, Kentucky.



The process results in two products:

uranium oxide and hydrofluoric acid.

The oxide is stored for eventual disposal or reuse and the hydrofluoride is being recycled for use in industrial applications.

There are currently more than **63,000 cylinders** containing DUF6 stored in cylinder yards at the Portsmouth and Paducah sites.

Typical size for a cylinder is **4 feet high (48" in diameter)**, and can hold

28,000 lbs. of DUF6.



Operations began in 2011. Conversion operations are expected to take about 18 years at Portsmouth and 30 years at Paducah.

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