



*DOE has safely and efficiently removed and shipped nearly 100,000 gallons of transformer oil using existing waste oil from the site to rinse PCB-containing oil from the transformers.*

## Innovative Approach Reduces Costs of Removing Contaminated Oil from DOE's Paducah Site

PADUCAH, Ky. – For more than 60 years, 60 electrical distribution transformers supplied some of the power to enrich uranium at the Department of Energy's (DOE) [Paducah Gaseous Diffusion Plant](#) (PGDP).

Each transformer supplied enough electricity to power four 3,000-horsepower motors, which is equivalent to providing electricity to 6,300 average size homes.

The transformers contained oil with polychlorinated biphenyl (PCB), which helped with electrical insulation properties and cooling of internal parts while also being non-flammable. After the PGDP ceased operations, these transformers were disconnected from the power system, and the PCB oil was safely drained, shipped, and dispositioned.

“The removal of the PCB oil from the large transformers was a priority due to its potential impact on human health and the environment,” said Paducah Site Lead Jennifer Woodard of DOE's [Portsmouth/Paducah Project Office](#).

In compliance with the Toxic Substance Control Act, the Fluor Paducah Deactivation Project initiated removal of PCB oil from the transformers in early summer 2015. To ensure all PCB oil has been removed from the transformers, [Environmental Protection Agency](#) regulations required that the transformers be rinsed. Rather than purchasing a rinsing agent, such as kerosene, DOE and its contractors developed a unique idea to rinse the transformers with lube oil already at PGDP that also was scheduled for disposal. This idea saved nearly a half-million dollars, while enabling an existing product to be reused before its ultimate disposal.

“We were pleased we were able to bring forward a unique idea that recycled an existing product on the site,” Fluor Paducah Deactivation Project Deputy Program Manager Bob Nichols said. “This ultimately saved DOE money that can be pumped back into the project.”

The last shipment of the total of nearly 100,000 gallons of transformer oil and 113,000 gallons of the rinsing agent were shipped off-site on Dec. 31, 2015 for disposal, completing the project ahead of schedule.

“Removing the PCB-containing oil from the transformers advances DOE’s goal of protecting the environment and workers while preparing the plant for future demolition,” Woodard said.

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*PCB-containing oil from the transformers was drained into totes. The oil later was pumped into a tanker truck for off-site disposition.*

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