

Paducah Site



Paducah Site Quick Facts





- The Paducah Gaseous Diffusion Plant site is located in Western Kentucky.
- The plant is located on a 3,556-acre federal site.
- Uranium Enrichment Operations 1952-2013.
- DOE Cleanup began in 1988.
- Placed on the National Priorities List (NPL) in 1994.
- Deactivation activities began in 2014 to prepare for D&D.



Paducah Cleanup Accomplishments



DOE-EM has invested \$1.9 billion on Paducah cleanup.

• Mitigated exposure to residents by providing municipal drinking water.

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- Reduced migration of off-site groundwater contamination using pump and treat systems.
- Treated more than 3 billion gallons of contaminated water; removed more than 7,000 gallons of solvent from groundwater and source areas.
- Removed 33,000 tons of contaminated scrap metal.
- Removed more than 1 million cubic feet of contaminated soils/sediment from on-site plant ditches.
- Repackaged and removed 420,000 ft³ legacy waste stored onsite in drums.



- Removed ~73,000 cubic feet of contaminated soils from historical site operations and investigated more than 180 potential areas totaling more than 200 acres.
- Removed 31 contaminated, inactive facilities totaling nearly a half-million square feet; the last facility is being torn down in 2014-15.

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Notable Accomplishments in 2014





- C-400 TCE Removal project extracted 1,200 gallons of pure TCE from the subsurface soil overlying the regional aquifer
- Awarded 3-year, \$420M contract to Fluor Federal Services for deactivation of gaseous diffusion facilities.
- Transitioned 419 facilities, encompassing approximately 8.8M SF of floor space, to DOE authority after shutdown of USEC uranium enrichment operations.
- DOE contractors completed 4.5 million man-hours without a lost time acccident. LATA KY: 3 million man-hours; Swift & Staley: 1.5 million man-hours

Return of Enrichment Facilities



 USEC ceased uranium enrichment operations in May 2013.

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- USEC completed operational shutdown in July 2013.
- USEC provided formal notifiation of return to DOE in August 2013; 2-year turnover requirement.
- DOE Deactivation contract awarded July 2014.
- Facilities transferred back to DOE October 21, 2014.



Strategic Turnover Approach



Transition Schedule

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Budget

Contracts

Safety Basis

Security

NRC Transfer Authorization

Environmental Regulations

Infrastructure Optimization

Modification of Facilities Plans

Lease Requirements

Lease Turnover Criteria

Stakeholder Interaction

Post-Return Operations

Post-Return Surveillance & Maintenance



Integrated Transition Collaboration



LATA KY

- 16 tasks to support rapid turnover success by deactivation contractor
- Hold-up removal system design, procure, and fabricate
- Heating system design, procure, and install
- Regulatory permitting

Pro2Serve

- Documented safety development and support
- Walkdown completion and lease compliance assessment

Swift & Staley

- IT systems upgrades and deployment
- Records management upgrade and transfer



Successful Plant Turnover





Fluor Federal Services - Paducah

- Mobilized management team.
- Established business infrastructure.
- Walked down facilities and set up new programs and DOE regulatory processes.
- Developed utility optimization program to reduce out-year costs.
- Initiated the Integrated Safety Management System (ISMS) program.

Paducah D&D Accomplishments





Removed more than 30,000 cubic feet of material to complete C-746B Building Doors 1&2 removal project.

Demolition of C-410 building – Completed August 2014.

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Groundwater Remediation Accomplishments



TCE source removal

- Completed preparations for deep-soil mixing (southwest plume).
- C-400 Phase IIa successfully completed pulse operations and shutdown.
- The Phase IIb Steam Injection treatability study at C-400 began in December to address contamination in the Regional Groundwater Aquifer.



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Community Involvement



- Paducah contractors contributed to local charities during 2014.
- Fluor hosted a community reception and 100 community leaders attended.
- Paducah contractors helped organize and financially contributed to the annual Science Bowl in February 2015.
- LATA Kentucky visited area middle schools to inform students on careers in science and cleanup at the plant.
- SST sponsored Chamber of Commerce Power In Partnership Breakfast







