



Paducah Citizens Advisory Board
"working for the future"
Emerging Technology Center, Room 221
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Recommendation 18-01: Support for Demolition of C-400 Cleaning Building

June 21, 2018

Background

The C-400 Cleaning Building at the Paducah Gaseous Diffusion Plant was the primary source of trichloroethene (TCE) contamination in the groundwater underlying and extending northward from the plant site. Groundwater pump and treat systems near the plant boundaries have been in operation for a number of years to control the TCE plume migration offsite. Because of ongoing maintenance operations related to uranium enrichment, access to C-400 was not possible until enrichment operations ceased and facility control was returned to the Department of Energy (DOE) in October, 2014. While the plant was in operation, DOE implemented various techniques external to C-400 to reduce the TCE groundwater concentration as close as possible to the TCE source. A thorough characterization of TCE concentrations under the large C-400 building was not possible while enrichment operations continued.

Removal of the TCE source is the most effective way to reduce the level of groundwater contamination to a level acceptable for protection of public health and the environment. In May, 2018, DOE completed a draft engineering evaluation/cost analysis for demolition of C-400. The demolition of C-400 is necessary to provide site access for assessment of sub-slab soil and groundwater TCE concentrations so plans can be developed for removal or control of the TCE sources at C-400.

Specifically, the draft evaluation (*Engineering Evaluation/Cost Analysis for Demolition of the C-400 Cleaning Building in the C-400 Complex Operable Unit at the Paducah Gaseous Diffusion Plant*, DOE/LX/07-2425&D1) recommends the following:

- Disassembly and demolition of the above ground structure
- Stabilization of the concrete slab to minimize further contaminant migration

The estimated cost is \$36,400,000. The anticipated start date is November 27, 2018, and the work is expected to be completed within one year.

Recommendation

The Paducah Citizen's Advisory Board (CAB) concurs with the current DOE focus on C-400 in its environmental remediation plan. TCE contamination at C-400 likely poses the greatest environmental risk at the site, and remediation of this TCE source requires the most immediacy. Building demolition and waste removal is necessary to provide access to the entire site for a comprehensive remedial investigation to proceed.

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Therefore, the CAB recommends the following:

- **DOE should work cooperatively with Kentucky and Federal regulatory agencies to minimize delays in the start and completion of the C-400 demolition work.**
- **DOE should proceed expeditiously to minimize schedule delays and cost increases once final agreements on the work plan are received from the Kentucky Department of Environmental Protection and U. S. Environmental Protection Agency.**