U.S. Department of Energy PORTSMOUTH PADUCAH PROJECT OFFICE

Paducah Gaseous Diffusion Plant Water Policy Information for Residents & Businesses



The U.S. Department of Energy (DOE) maintains a Water Policy Program at the Paducah Gaseous Diffusion Plant (PGDP) to eliminate off-site exposure to contaminated groundwater originating from an affected area of the PGDP. The affected area - or Water Policy area - is bounded on the north by the Ohio River, on the south by the DOE property boundary, on the east by Metropolis Lake Road, and on the west by Bethel Church Road.

To achieve the goal of eliminating off-site exposure to contaminated groundwater, residential wells within DOE's Water Policy area were capped and locked and municipal water is supplied for domestic uses. DOE implements the Water Policy through license agreements with owners of property in the Water Policy area in accordance with the Water Policy Action Memorandum.¹ Under these license agreements, DOE pays municipal water bills and is allowed to access properties to collect samples, and property owners agree not to use groundwater from the existing, capped-and-locked water supply wells, or drill new water supply wells.



Since the discovery of the contamination in groundwater, DOE has taken several actions under the oversight of U.S. Environmental Protection Agency (EPA), and the Kentucky Department for Environmental Protection (KDEP). These actions are effective in controlling the migration of contaminated groundwater extending into the Water Policy area² and reducing sources of contamination on DOE property. More than 5 billion gallons of water has been treated since cleanup began.

Water Policy Area Need to Know

All residents and businesses agree not to drill a new water supply well or use any existing water wells in the Water Policy area for any purpose, including, but not limited to, drinking, showering, cooking, gardening, or farming activities.

The implementation of the Water Policy is continuously reviewed by DOE. The protectiveness of the Water Policy is formally reviewed every five years by DOE, EPA, and KDEP. DOE developed this fact sheet to provide annual information to all residents and businesses in the Water Policy area about the groundwater contamination and the actions taken under the Water Policy.

The DOE Water Policy Program started in 1988 in response to the detection of trichloroethene/ trichloroethylene (TCE) and technetium-99 (Tc-99) in four private wells north of the PGDP. TCE is an industrial solvent formerly used at the Plant, and Tc-99 is a radionuclide and a by-product of nuclear fuel cycle operations. Residents agreed not to use contaminated groundwater in order to prevent potential adverse effects, which could include the possibility of an increase in cancer and other health risks.³ Information about these health risks are in a Public Health Assessment report produced by the Agency for Toxic Substances and Disease Registry (ATSDR) on May 21, 2002. This report can be viewed online at the DOE Paducah Environmental Information Center: https://eic.pad.pppo.gov/Search. aspx?accession=LB09900-0176.

ATSDR also published a fact sheet about TCE (the primary groundwater contaminant), which can be viewed at: <u>https://wwwn.</u> <u>cdc.gov/TSP/ToxFAQs/ToxFAQsDetails.</u> <u>aspx?faqid=172&toxid=30</u>.

For more information about the Water Policy contact: PPPO Public Affairs at (859) 219-4035 or e-mail at PublicAffairs.pppo@pppo.gov.

¹ Document can be viewed at <u>https://eic.pad.pppo.gov/Search.aspx?accession=I-02102-0111</u>.

² FRNP 2023. Trichloroethene and Technetium-99 Groundwater Contamination in the Regional Gravel Aquifer for Calendar Year 2022 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, FRNP-RPT-0273, August. <u>https://eic.pad.pppo.gov/Search.aspx?accession=INF-RECMGMT-PPPO-02-10024130-23E-TRANS ERRATA AQUIFER-2023-08-29</u>.

³ Volume 3, Appendix B, "Baseline Human Health Risk Assessment," in Feasibility Study for the Groundwater Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/OR/07-1857&D2, August 2001; <u>https://eic.pad.pppo.gov/Search.aspx?accession=I-04611-0129</u>.

