

## EXECUTIVE SUMMARY

The cleanup strategy under the *Federal Facility Agreement for the Paducah Gaseous Diffusion Plant* (FFA) establishes five operable units (OUs): the Groundwater OU (GWOU), the Surface Water OU (SWOU), the Soils OU, Burial Grounds OU (BGOU), and the Decontamination and Decommissioning (D&D OU) (EPA 1998). Each OU is scoped to remediate areas and media associated with the Paducah Gaseous Diffusion Plant (PGDP). A final Comprehensive Site OU evaluation will occur following plant shutdown and completion of D&D of the gaseous diffusion plant (GDP), D&D of the Depleted Uranium Hexafluoride (DUF<sub>6</sub>) Conversion Plant, and completion of post-shutdown cleanup of each of the post-GDP specific OUs. The specific scopes and further discussions for each OU are addressed in the Site Management Plan (DOE 2013a).

The U.S. Environmental Protection Agency (EPA) defines the following types of five-year reviews: (1) statutory review, (2) policy review, (3) discretionary review, and (4) five-year review addendum (for deferred protectiveness). This document is a combination of statutory, policy, and discretionary reviews because PGDP has implemented both removal and remedial actions.

This Five-Year Review encompasses the remedial actions that the U.S. Department of Energy (DOE) has taken under the respective OUs, plus the Water Policy removal action, Surface Water Interim Corrective Measures, and Surface Water On-site Sediment Removal. The FFA for PGDP includes requirements for synchronizing Five-Year Reviews of remedial actions (Section XXX). The triggering action for this review is the five-year anniversary of the third synchronized five-year review conducted at PGDP in 2008 for activities associated with response actions from 2003 through 2007. [*Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky* (DOE 2009a)]. This Five-Year Review encompasses activities associated with response actions from 2008 through 2012. A form summarizing PGDP, issues from the review, recommendations, and protectiveness statements is presented as Table ES.1. This form is the updated 2011 version of the form from Appendix F of EPA guidance document *Comprehensive Five-Year Review* (EPA 2001).