



## Department of Energy

Portsmouth/Paducah Project Office  
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Dear Madams/Messrs:

### **U.S. DEPARTMENT OF ENERGY PORTSMOUTH ANNUAL SITE ENVIRONMENTAL REPORT - 2020**

Enclosed for your information is a copy of the *U.S. Department of Energy Portsmouth Annual Site Environmental Report – 2020*. The report includes the results of on-site and off-site environmental monitoring activities, describes the programs implemented to ensure compliance with environmental regulations, and discusses the overall environmental impacts of the U.S. Department of Energy (DOE) activities on the surrounding area. The report was prepared for distribution to the public, news media, as well as local, state and federal agencies by DOE's contractor, Fluor-BWXT Portsmouth LLC.

The monitoring data and subsequent data analyses have been collected and performed in accordance with controlled operating procedures. The detailed data underlying this summary environmental report have been compiled separately. The *U.S. Department of Energy Portsmouth Annual Site Environmental Report – 2020* and *U.S. Department of Energy Portsmouth Annual Site Environmental Data – 2020* are available online at <https://eic.ports.pppo.gov/> or upon request from the U.S. Department of Energy Environmental Information Center. Requests for this data may be made by email at [portseic@ports.pppo.gov](mailto:portseic@ports.pppo.gov) or by telephone at (740) 648-0267.

If you have any questions or desire additional information, please contact Amy Lawson of my staff at (740) 897-2112.

Sincerely,

Jeffrie A. Bettinger  
Portsmouth Site Lead  
Portsmouth/Paducah Project Office

Enclosures:

Annual Site Environmental Report and Data Report – 2020

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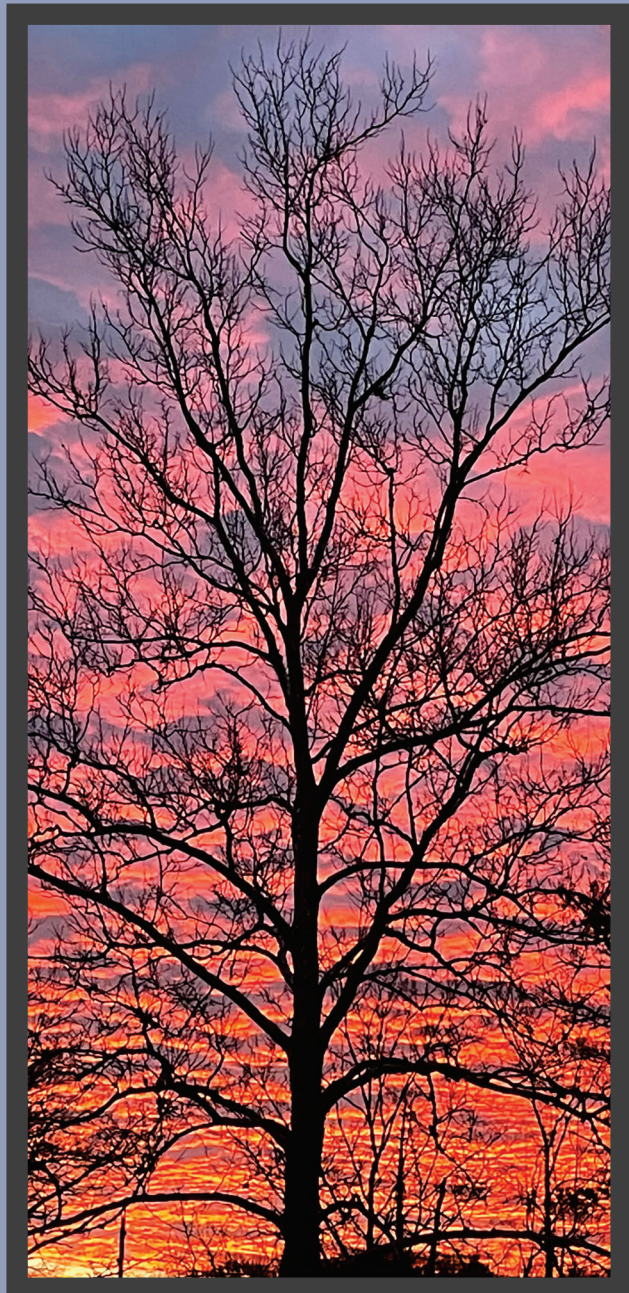
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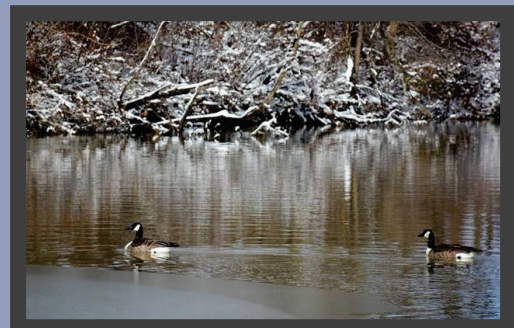
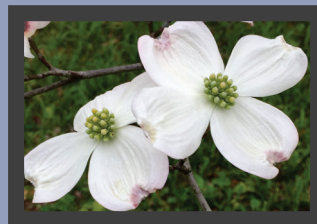


# U.S. Department of Energy

## Portsmouth Gaseous Diffusion Plant



### Annual Site Environmental Report 2020



September 2021



**U.S. Department of Energy  
Portsmouth Gaseous Diffusion Plant  
Annual Site Environmental Report – 2020  
Piketon, Ohio**



**U.S. Department of Energy  
DOE/PPPO/03-1034&D1**

**September 2021**

**By  
Fluor-BWXT Portsmouth LLC, under Contract DE-AC30-10CC40017**

**FBP-ER-RCRA-WD-RPT-0375, Revision 1**

This document has been approved for public release:

Richard Henderson (signature on file)  
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9/8/2021  
Date



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## ACRONYMS AND ABBREVIATIONS

ACO	American Centrifuge Operating, LLC
ACP	American Centrifuge Plant
ALARA	as low as reasonably achievable
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	<i>Code of Federal Regulations</i>
Ci	curie
D&D	decontamination and decommissioning
DAS	Disposal Authorization Statement
D&D DFF&O	<i>The April 13, 2010 Director's Final Findings and Orders for Removal Action and Remedial Investigation and Feasibility Study and Remedial Design and Remedial Action, including the July 16, 2012 Modification thereto (Ohio EPA 2012)</i>
DOE	U.S. Department of Energy
dps	disintegration per second
DUF <sub>6</sub>	depleted uranium hexafluoride
EMS	Environmental Management System
EPEAT	Electronic Product Environmental Assessment Tool
FBP	Fluor-BWXT Portsmouth LLC
IRM	interim remedial measure
kg	kilogram
lbs	pounds
LFRG	Low-level Waste Disposal Facility Review Group
LLW	low-level radioactive waste
µg/g	microgram per gram (equivalent to part per million)
µg/kg	microgram per kilogram (equivalent to part per billion)
µg/L	microgram per liter (equivalent to part per billion)
µg/m <sup>3</sup>	microgram per cubic meter
MAGLC	maximum acceptable ground level concentration
MCS	Mid-America Conversion Services, LLC
mg/L	milligram per liter (equivalent to part per million)
mrem	millirem
NCRP	National Council on Radiation Protection
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NRC	U.S. Nuclear Regulatory Commission
NRD DFF&O	<i>The July 30, 2018 Director's Final Findings and Orders for CERCLA Actions to Restore Natural Resources (Ohio EPA 2018)</i>
ODH	Ohio Department of Health
Ohio EPA	Ohio Environmental Protection Agency
OREIS	Oak Ridge Environmental Information System
OSWDF	on-site waste disposal facility
OVEC	Ohio Valley Electric Corporation
PCB	polychlorinated biphenyl
pCi/g	picocurie per gram
pCi/L	picocurie per liter
pCi/m <sup>3</sup>	picocurie per cubic meter

PEGASIS	PPPO Environmental Geographic Analytical Spatial Information System
PEMS	Project Environmental Measurements System
PFAS	perfluoroalkyl and polyfluoroalkyl substances
PK	Peter Kiewit
PM2.5	particulate matter (2.5 microns or less)
PM10	particulate matter (10 microns or less)
PMA	Portsmouth Mission Alliance, LLC
PORTS	Portsmouth Gaseous Diffusion Plant
ppb	part per billion
ppm	part per million
PPPO	Portsmouth/Paducah Project Office
rad	radiation absorbed dose
RCRA	Resource Conservation and Recovery Act
rem	roentgen equivalent man
SODI	Southern Ohio Diversification Initiative
TCE	trichloroethene
TLD	thermoluminescent dosimeter
TSCA	Toxic Substances Control Act
USEC	United States Enrichment Corporation
U.S. EPA	U.S. Environmental Protection Agency
VOC	volatile organic compound