Community Relations Plan under the Federal Facility Agreement at the U.S. Department of Energy Paducah Gaseous Diffusion Plant



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Community Relations Plan under the Federal Facility Agreement at the U.S. Department of Energy Paducah Gaseous Diffusion Plant

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U.S. DEPARTMENT OF ENERGY Office of Environmental Management

Prepared by FOUR RIVERS NUCLEAR PARTNERSHIP, LLC, managing the Deactivation and Remediation Project at the Paducah Gaseous Diffusion Plant under Contract DE-EM0004895

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Both the Federal Facility Agreement for the Paducah Gaseous Diffusion Plant and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 require the U.S. Department of Energy to prepare and publish a community relations plan. Publication of this Community Relations Plan under the Federal Facility Agreement at the U.S. Department of Energy Paducah Gaseous Diffusion Plant meets those requirements.

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ACRONYMS

CAB	Citizens Advisory Board
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CRP	Community Relations Plan
CSOU	Comprehensive Site Operable Unit
D&R	deactivation and remediation
DOE	U.S. Department of Energy
EE/CA	engineering evaluation/cost analysis
EIC	Environmental Information Center
EJ	environmental justice
EM	environmental management
EPA	U.S. Environmental Protection Agency
FFA	Federal Facility Agreement
FS	feasibility study
GDP	gaseous diffusion plant
KDEP	Kentucky Department for Environmental Protection
KDFWR	Kentucky Department of Fish and Wildlife Resources
KDWM	Kentucky Division of Waste Management
KEEC	Kentucky Energy and Environment Cabinet
NCP	National Contingency Plan
NEPA	National Environmental Policy Act
NPL	National Priorities List
OU	operable unit
PEGASIS	Portsmouth/Paducah Project Office Environmental Geographic Analytical Spatial
	Information System
PGDP	Paducah Gaseous Diffusion Plant
RAO	remedial action objective
RCRA	Resource Conservation and Recovery Act
RI	remedial investigation
ROD	record of decision
SMP	Site Management Plan
SSAB	Site-Specific Advisory Board
SWMU	solid waste management unit
WDA	waste disposal alternative
WKWMA	West Kentucky Wildlife Management Area

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1. OVERVIEW OF THE COMMUNITY RELATIONS PLAN

This Paducah Community Relations Plan (CRP) is a primary document of the Federal Facility Agreement (FFA). The FFA directs the comprehensive remediation of the Paducah Gaseous Diffusion Plant (PGDP) site and governs the corrective action/response action process from site investigation through site remediation as agreed to by the U.S. Department of Energy (DOE), the U.S. Environmental Protection Agency (EPA), and the Kentucky Energy and Environment Cabinet (KEEC) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the Resource Conservation and Recovery Act (RCRA); Kentucky Revised Statute 224; and other laws and regulations identified in the FFA.

The Paducah CRP describes how DOE will provide opportunities for the public to become involved in FFA-related decisions at PGDP and outlines how the parties to the agreement will coordinate public participation prescribed by the FFA.

DOE is committed to fostering meaningful public involvement in environmental remediation decision making at the site. Interactive communications enable the public and other stakeholders to learn about the environmental program so they can provide input to the FFA parties.

At the same time, ongoing communications enhance DOE's ability to consider the public's interests in cleanup decisions. Stakeholders are individuals, groups, communities, and other entities in the public and private sectors that are interested in or affected by environmental activities and decisions.

1.1 COMMUNITY RELATIONS PLAN HIGHLIGHTS

The CRP contains information to place FFA-related public involvement processes in the context of the overall environmental management (EM) program at PGDP. The CRP includes the following:

- A capsule summary of the PGDP and environmental issues;
- An overview of community demographics and past public involvement; and
- A summary of required avenues the FFA parties will use to disseminate information and to solicit and respond to public comments related to FFA activities, as well as discretionary information avenues the FFA parties may use.

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2. CAPSULE SITE SUMMARY

2.1 A BRIEF HISTORY OF THE PGDP

The PGDP, which opened in 1952, was constructed to enrich uranium for military purposes and later began supplying enriched uranium to the commercial nuclear industry. PGDP ceased uranium enrichment operations in May 2013, and DOE property leased to United States Enrichment Corporation was returned to DOE in October 2014. PGDP faces significant environmental cleanup challenges and DOE manages the EM program through various contractors.

In 2017, Four Rivers Nuclear Partnership, LLC, as the Deactivation and Remediation (D&R) Contractor, was awarded a five-year contract with two options totaling five years with DOE to deactivate and remediate PGDP and perform other activities to optimize utilities and infrastructure to support reduced operations and energy needs.

This CRP is a community information and outreach plan detailing environmental cleanup activities conducted by DOE at the PGDP Superfund Site under the CERCLA Section 120 tri-party FFA. The D&R Contractor is responsible for, among other activities, EM and execution approaches for soil, water (e.g., groundwater and surface water), and solid waste projects, including waste management operations, the potential on-site disposal waste facility, and post-PGDP shutdown environmental services.

2.2 ENVIRONMENTAL CHALLENGES

Past plant operations generated hazardous substances, some of which were released into the environment. One of the major contaminants found at the site is the once commonly used degreaser trichloroethene (TCE). Spills, leaks, and other releases allowed large quantities of TCE to reach the regional groundwater aquifer. The aquifer was a source of drinking and agricultural water in the vicinity of the plant.

In response to questions from residents about the quality of their water, the Kentucky Division of Health Services sampled residential wells north of the plant in 1988. Discovery of TCE and technetium-99, a man-made radioactive element, in some wells, prompted DOE to immediately provide a temporary alternate water supply to affected residents and initiate a sitewide investigation into the nature and extent of off-site contamination. Additionally, DOE provided municipal water to the affected residents.

Following further environmental investigations, PGDP was placed on the Superfund National Priorities List (NPL) in 1994. In accordance with CERCLA requirements, DOE, EPA, and Kentucky entered into the FFA. The FFA is an interagency agreement to establish timetables, procedures, and documentation requirements for remediation of PGDP. The agreement provides for coordination of the cleanup programs and public involvement requirements of CERCLA and RCRA into one set of comprehensive requirements for site cleanup.

The PGDP annual Site Management Plan (SMP) outlines the strategic approach for achieving cleanup under the FFA (DOE 2020). The strategy involves setting priorities for reducing risks as early as possible through remedial actions and removal actions and phasing remediation by dividing cleanup response actions into discrete units, called operable units (OUs), which are grouped by related media or activities—groundwater, surface water, soils, burial grounds, and decontamination and decommissioning. Contamination sources are ranked for study and cleanup on the basis of their potential to contribute to human health problems and/or off-site contamination. Successful implementation of the PGDP EM program under the FFA depends on the expertise, communication, and coordination of several agencies and organizations. Major participants are these:

- DOE Headquarters EM—Responsible to the Secretary of Energy for accomplishing the DOE EM program nationally;
- The Portsmouth/Paducah Project Office—Responsible for accomplishing the EM program through management and oversight of DOE's contractors at the site;
- EPA Region 4—The federal regulatory entity that provides oversight related primarily to CERCLA and the FFA; and
- KEEC [through the Kentucky Department for Environmental Protection (KDEP)]—The Commonwealth provides oversight under the FFA and administers the corrective action portions of Hazardous and Solid Waste Amendments through the FFA.

From the inception of environmental activities at the plant, DOE and the other FFA parties have made significant progress toward achieving cleanup goals, including the following:

- Imposing controls (fencing and posting) to restrict public access to contaminated areas in certain outfall ditches and surface water areas;
- Preventing off-site residential use of contaminated groundwater through implementation of an action that provides an alternative water supply to certain residences;
- Reducing TCE levels using a soil remediation technology at an on-site source area formerly used to drop-test uranium hexafluoride cylinders;
- As of March 2022, treating more than 4.7 billion gal of contaminated groundwater using two groundwater systems that have been optimized to increase the capture of groundwater contamination;
- Testing and further implementing direct heating technology for removing contamination adjacent to operating plant buildings;
- Excavating and properly disposing of soil with high concentrations of polychlorinated biphenyls (PCBs) in on-site areas to reduce off-site migration and potential direct-contact risks to plant workers;
- Completing the Drum Mountain (containing contaminated scrap metal) removal action;
- Removing petroleum-contaminated soil from Solid Waste Management Unit (SWMU) 193, the McGraw Construction Facilities (Southside Cylinder Yards) located south of PGDP, to eliminate a potential source of groundwater contamination;
- Removing more than 30,500 tons of scrap metal stored outdoors;
- Completing remediation of the North-South Diversion Ditch within the plant area, which permanently eliminated runoff from the ditch as a potential carrier of contamination outside the plant fence;
- Removing unusable inactive facilities;

- Completing characterization of the contamination at the C-400 Complex, currently in the document development process, to take the necessary actions to address all environmental contamination in order to achieve a final remedial action for the entire C-400 Complex;
- Completing CERCLA five-year reviews to ensure that remedial actions taken remain protective of human health and the environment and continue to function as designed;
- Initiating fieldwork in one area of the Southwest Plume, SWMU 211-A, to continue the groundwater remedial action; and
- Completing RCRA inspections/reviews.

2.3 LONG-TERM OUTLOOK FOR THE PADUCAH GASEOUS DIFFUSION PLANT

In the past, site cleanup activities were divided into (1) pre-gaseous diffusion plant (GDP) shutdown scope, (2) post-GDP shutdown scope, and (3) Comprehensive Site Operable Unit (CSOU) scope. The pre-GDP shutdown scope was associated with media-specific OUs initiated prior to shutdown of the operating GDP (i.e., pre-GDP shutdown activities). These media-specific OUs were established by developing a site conceptual risk model for each source area (i.e., SWMUs/areas of concern). This process included a qualitative evaluation of contaminant types and concentration, release mechanisms, likely exposure pathways, estimated points of exposure, and potential receptors based on current and reasonably foreseeable future land groundwater uses. On August 8, 2017, FFA senior managers signed a memorandum of agreement that documented a new strategy that reprioritized and accelerated the investigation and cleanup of the C-400 Complex for all sources of contamination. The following are the OUs contained in the D2 FY 2022 SMP:

- C-400 Complex OU
- Groundwater OU
- Surface Water OU
- Soils OU
- Soils and Slabs OU
- Burial Grounds OU
- Facility Decontamination and Decommissioning OU
- Lagoons OU
- Depleted Uranium Hexafluoride Footprint Underlying Soils
- CSOU
- CERCLA Waste Disposal Alternatives OU

In addition, DOE currently is implementing deactivation and utility optimization activities outside of the FFA scope to prepare the site for effective implementation of all future mission activities, including cleanup activities. While the current focus of cleanup efforts is on the C-400 Complex OU and Southwest Plume SWMU 211-A, long-term plans and strategies will be documented and updated in the SMP. The final CSOU evaluation will support the final remedial decision for the site following completion of all OUs. Any required environmental monitoring of remedy performance and/or progress toward achieving the remedial action objectives (RAOs) will be conducted in accordance with the selected remedies. After response actions have been implemented and RAOs have been achieved, the site (remaining property not previously deleted and/or transferred) would be eligible for deletion from the NPL.

Because the FFA parties have agreed to focus cleanup efforts on the C-400 Complex OU and Southwest Plume SWMU 211-A, DOE has re-sequenced all other projects including the CERCLA Waste Disposal Alternatives (WDA) project. As a result, interaction with the public regarding the CERCLA WDA project will not occur until after completion of the C-400 Complex OU. Due to significant public interest in the project, frequent interactions with the public have occurred and are expected to continue throughout the WDA project life cycle. Previous public outreach activities for this project are documented in Appendix A.

The aforementioned actions are steps in reducing site risks. While no imminent threats currently exist, several major challenges remain. These challenges include PCBs and radionuclides in creeks and soil, off-site organic compound groundwater plumes, burial grounds, and on-site sources of groundwater contamination. The SMP outlines a strategy for addressing these challenges and for achieving significant reduction of potential risks at the site. Long-term strategy and outlook for key cleanup activities under the FFA are available in the SMP, Appendix 3, at https://pubdocs.pad.pppo.gov/.¹

2.4 CURRENT ACTIVITIES AT PADUCAH GASEOUS DIFFUSION PLANT

CERCLA response actions at PGDP are implemented according to the approved SMP. The protectiveness of final CERCLA remedial actions are evaluated and reported in CERCLA five-year reviews. The purpose of the CERCLA five-year review is to evaluate the implementation and performance of the remedy in order to ensure that final remedial actions taken to date at PGDP remain protective of human health and the environment. DOE serves as the lead agency for five-year reviews. EPA and KDEP provide regulatory oversight of the five-year reviews. EPA Guidance recommends that the Lead Agency notify the public when the Five-Year Review is initiated and completed. In addition, the Lead Agency should inform the public of the location where the public can locate and review the Five-Year Review. All Five-Year Reviews are available to the public at https://eic.pad.pppo.gov/² and at https://pubdocs.pad.pppo.gov/.³

The most recent five-year review was conducted at PGDP in 2018. DOE announced the initiation of the 2018 Five-Year Review, which covered January 2013 through December 2017, through a public notice in the local newspaper (e.g., The Paducah Sun) on December 17, 2017. Upon completion of the 2018 Five-Year Review, DOE determined that two of the 13 remedial actions were "Protective" (i.e., the remedy is functioning as intended and is anticipated to be under control in the future). Ten of the 13 remedial actions were determined to be "Short-term Protective" (i.e., human and ecological exposures currently are under control; however, the selected remedies are not final remedial actions). One of the 13 remedial actions was assigned the protectiveness determination of "Will be Protective" (i.e., remedy is under construction and is anticipated to be protective upon completion). One removal action was determined to be "Short-term Protective." After review of DOE's 2018 Five-Year Review, EPA concurred with DOE's protectiveness determinations for 10 of the remedial actions and determined that three of the remedial actions and one removal action were "Protectiveness Deferred" (i.e., a protectiveness determination of the remedy cannot be made until further information is obtained). KDEP concurred with DOE's protectiveness determinations for all 13 remedial actions and determined the one removal action to be "Protectiveness Deferred." While DOE invoked dispute resolution on the EPA and KDEP determinations and identification of additional work to be performed, the FFA parties have agreed the 2018 Five-Year Review is final, and DOE announced completion of the 2018 Five-Year Review through a public notice in the local newspaper on April 19, 2020. DOE, EPA, and KDEP worked together through the FFA dispute resolution process to reach agreement on the information necessary to support revised protectiveness determinations. A Memorandum of Agreement was signed June 22, 2020. The FFA parties agreed that the protectiveness determinations for

¹ Documents can be accessed through the Paducah EIC at <u>https://eic.pad.pppo.gov/</u> or via phone at (270) 554-3004. The Paducah EIC address is Emerging Technology Center, Room 221, 4810 Alben Barkley Drive, Paducah, Kentucky 42001.

² See footnote 1.

³ See footnote 1.

(1) Northwest Plume Interim Remedial Action, (2) Northeast Plume Interim Remedial Action, (3) Water Policy Removal Action, and (4) Fire Training Area Interim Remedial Action will be reevaluated as part of the CY 2023 Five-Year Review for Remedial Actions process.

On October 1, 2019, EPA and KDEP approved the C-400 Complex OU Remedial Investigation/Feasibility Study (RI/FS) Work Plan. Fieldwork began in November 2019 and was complete in March 2022. Information collected during fieldwork will be used to develop the C-400 RI/FS Report, which then will support remedy selection for a final remedial action at the C-400 Complex.

KDEP and EPA approved the Remedial Action Work Plan for SWMU 211-A to address one source of groundwater contamination associated with the Groundwater OU Project on December 20, 2021, and December 21, 2021, respectively. Fieldwork began in March 2022. The long-term strategy and outlook for the activities at SWMU 211-A are available in the SMP and FFA Semiannual Report at https://pubdocs.pad.pppo.gov/.⁴

⁴ Documents can be accessed through the Paducah EIC at <u>https://eic.pad.pppo.gov/</u> or via phone at (270) 554-3004. The Paducah EIC address is Emerging Technology Center, Room 221, 4810 Alben Barkley Drive, Paducah, KY 42001.

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3. COMMUNITY PROFILE

3.1 SITE AND COMMUNITY OVERVIEW

Since beginning a formal program of environmental cleanup work at PGDP in the late 1980s, DOE has continually turned to stakeholders for input. The community, with a history of involved citizenry, responded with immediate interest and feedback through personal contacts, letters, and public meetings.

The PGDP is situated on a 3,556-acre parcel of DOE-owned property in McCracken County in western Kentucky, approximately 10 miles west of the city of Paducah and 3.5 miles south of the Ohio River. The primary operations are located on approximately 615 acres within the plant area. Of the remaining DOE-owned acreage, 1,986 acres are licensed to the Kentucky Department of Fish and Wildlife Resources (KDFWR) as part of the West Kentucky Wildlife Management Area (WKWMA). WKWMA is a recreational resource for western Kentucky and is used by more than 10,000 people each year. Recreational activities include camping, canoeing, hunting deer and small game, field trials for dogs and horses, retriever and pointing dog field trials, trail riding, fishing, and skeet and target shooting. Skeet shooting, deer hunting, and dog events combine to attract people from at least 20 different states to the WKWMA annually.

The area surrounding the PGDP is predominantly rural. The area is lightly populated, with private residences and farms dotting rural roads around the plant. Some private residences are located adjacent to the DOE property boundary and WKWMA, though no private residences exist on DOE property. The closest communities to the plant are the unincorporated communities of Grahamville (about 1 mile east) and Heath (about 1 mile southeast). Paducah Water supplies municipal water to portions of these communities. The closest towns with municipal water supplies are Kevil, Kentucky (about three miles southwest), and Metropolis, Illinois (about four miles northeast, across the Ohio River). The figures included in this chapter depict the plant site itself and the location of the plant site in relation to the groundwater plumes (Figure 1); local communities, roads, schools, playgrounds, community gathering areas (Figure 2); wetlands, streams, and other surface water features (Figure 3); the WKWMA (Figures 1 and 2); and the locations of some of the SWMUs located on or in proximity to the DOE property (Figure 4).

For additional information, see the Site Geographic Information System Viewer found in the Portsmouth/Paducah Project Office Environmental Geographic Analytical Spatial Information System (PEGASIS). A link to PEGASIS is available here: <u>https://pegasis.pad.pppo.gov</u>.

The plant is a significant regional employer, providing work for approximately 1,400 people from about 20 counties in four states (Kentucky, Illinois, Missouri, and Tennessee). The population of Paducah, based on the 2020 U.S. census, was 27,137. The population of McCracken County (248.74 square miles), according to the April 2020 census, is about 67,875.

The Tennessee Valley Authority's Shawnee Fossil Plant, adjacent to the northern border of the DOE site, is the only other major industrial facility in the immediate area.

When groundwater contamination was discovered in residential water wells near PGDP in 1988, DOE instituted a response action to provide municipal water to certain properties free of charge. The properties to which DOE provides access to municipal water are located in the Water Policy area, depicted in Figure 1. The plant also designated a contact person to handle all telephone inquiries and make personal visits to concerned residents (Appendix C).

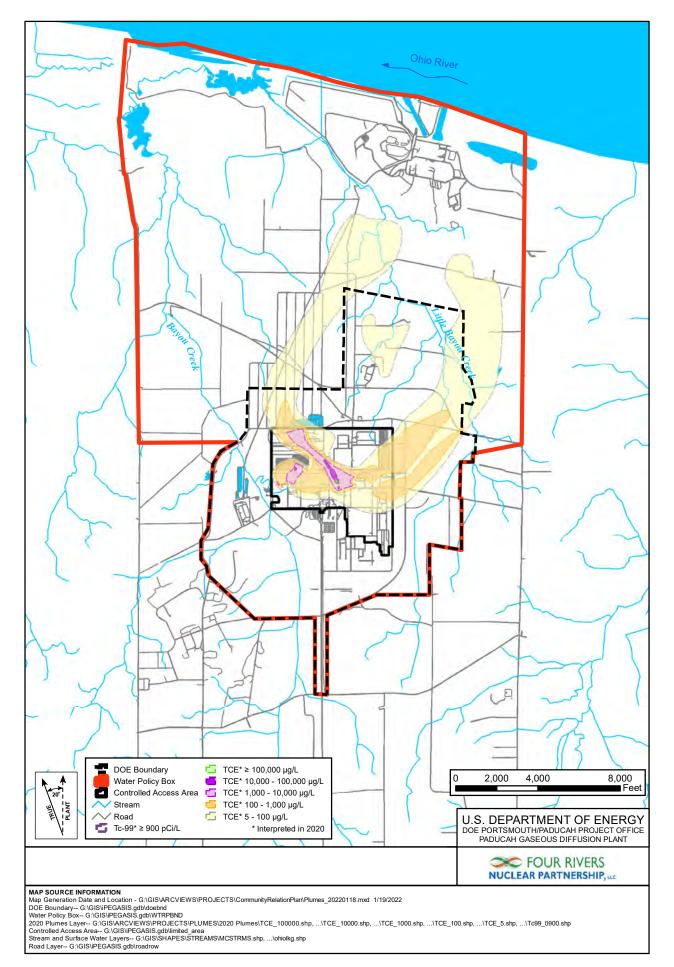


Figure 1. Groundwater Plumes

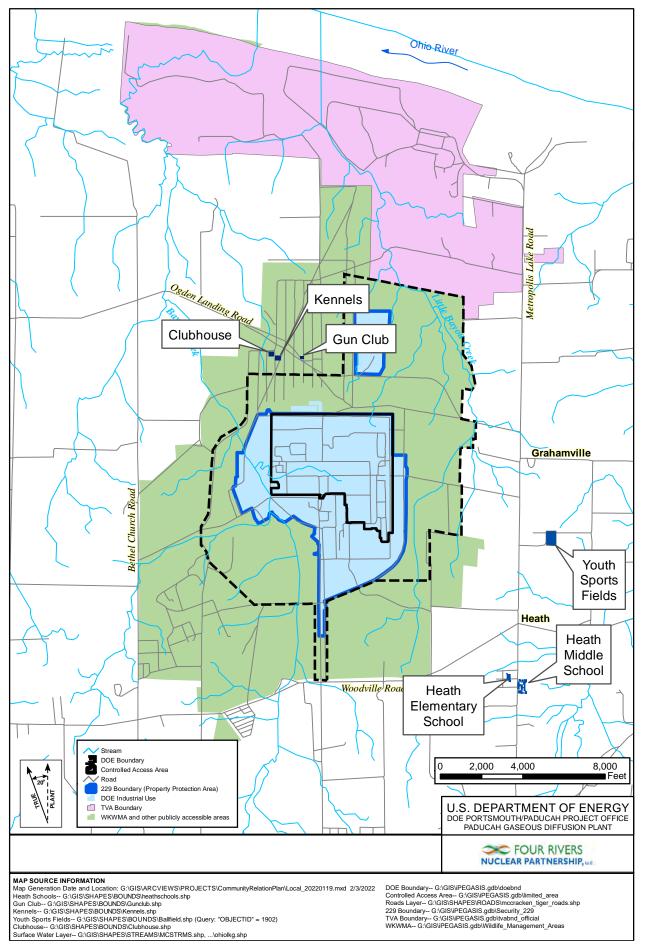


Figure 2. Local Communities and Community Gathering Areas

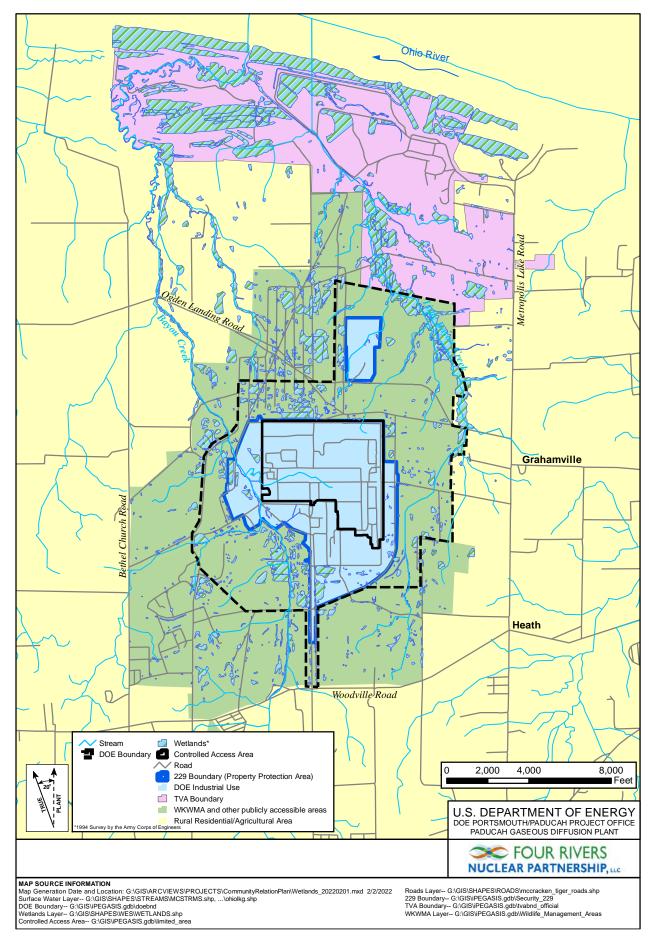


Figure 3. Wetlands and Streams

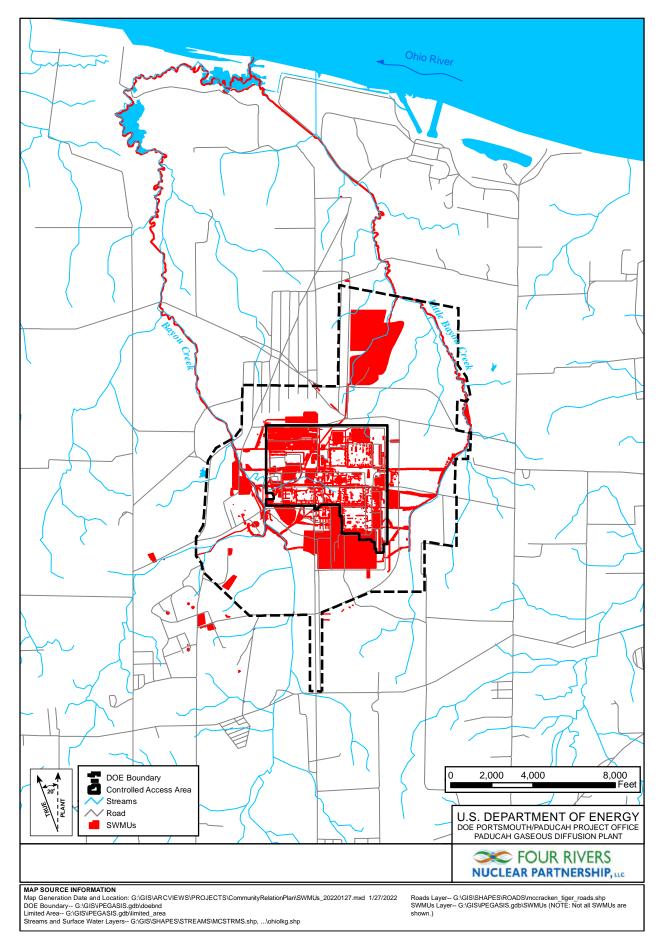


Figure 4. Solid Waste Management Units

Table 1 includes federally listed endangered or threatened species that have been identified as potentially occurring at or near the Paducah Site. None of these species has been reported as sighted on the DOE property, although the potential for a summer habitat for the Indiana Bat, the Northern Long-Eared Bat, and the Gray Bat exists at certain areas of the property.

Group	Common Name	Scientific Name	Endangered Species Act Status
Mammals	Gray Bat	Myotis grisescens	Endangered
	Indiana Bat	Myotis sodalis	Endangered
	Northern Long-eared Bat	Myotis septentrionalis	Threatened
Clams	Clubshell	Pleurobema clava	Endangered
	Fanshell	Cyprogenia stegaria	Endangered
	Fat Pocketbook	Potamilus capax	Endangered
	Northern Riffleshell	Epioblasma torulosa rangiana	Endangered
	Orangefoot Pimpleback	Plethobasus cooperianus	Endangered
	Pink Mucket	Lampsilis abrupta	Endangered
	Purple Cat's Paw	Epioblasma obliquata	Endangered
	Rabbitsfoot	Quadrula cylindrica	Threatened
	Ring Pink	Obovaria retusa	Endangered
	Rough Pigtoe	Pleurobema plenum	Endangered
	Sheepnose Mussel	Plethobasus cyphyus	Endangered
	Spectaclecase	Cumberlandia monodonta	Endangered

Table 1 Federally	v Listed Specie	Potentially	Occurring within	the Paducah	Site Study Area*
Table 1. Feueran	y Listeu Specie	5 I Otentiany	Occurring within	inc i auucan	She Shuuy Area

*All of the listed species are identified as either Endangered or Threatened Species that are known or have the potential to be located near the Paducah Site within McCracken County, Kentucky, by the Ecological Services Program of the U.S. Fish and Wildlife Service (FWS 2022).

3.2 A HISTORY OF PUBLIC INVOLVEMENT

These efforts led to the issuance of the first CRP for PGDP in 1989. The plan was revised substantially in 1998 to meet the requirements of the FFA and was revised in 2005, 2008, 2009, 2011, 2013, 2016, 2018 and again in 2020. Community stakeholders in the Paducah area began working with DOE in 1986 to formalize ways to access information and provide input on environmental activities at PGDP. These activities included an Environmental Advisory Committee (active from 1986 to 1997) and the Neighborhood Council (chartered in 1992 and no longer is active).

3.2.1 Citizens Advisory Board

Many DOE cleanup sites across the country have formed local stakeholder boards to serve as forums for dialogue on planning and decision making among representatives from the community, DOE, and regulatory agencies. In 1994, DOE's Office of EM established the Site-Specific Advisory Board (SSAB) program under the Federal Advisory Committee Act. The Paducah Citizens Advisory Board (CAB) initially was chartered under the SSAB program in 1996. The board is rechartered every two years. The last charter Advisory signed in April 2022. The Board Charter can be viewed here: was https://www.energy.gov/sites/default/files/2022-04/EM%20SSAB%20Charter%202022.pdf.

Funded by DOE, the CAB provides independent advice and recommendations on cleanup activities at the PGDP. CAB members represent a broad spectrum of the community with diverse perspectives and experiences. Nonvoting, ex-officio members include representatives from DOE's Portsmouth/Paducah Project Office, EPA, KEEC (represented by the Kentucky Division of Waste Management (KDWM), KDFWR, and Kentucky Department for Public Health. These members advise the CAB on their agencies' policies and perspectives related to PGDP cleanup.

All CAB meetings are open to the public and present an opportunity for the board members and general public to obtain information, ask questions, and interact with DOE and PGDP personnel. Representatives

from KDEP and EPA also attend these meetings either in person or by phone. Through the CAB, DOE gains valuable input on FFA-related cleanup and other PGDP issues to consider in making decisions. In addition, a CAB subcommittee meeting is posted along with CAB meetings on the website at https://www.energy.gov/pppo/pgdp-cab/ and in the Federal Register. Full board meetings are advertised.

3.2.2 Community Input

3.2.2.1 Early CRPs and formal interviews

Formal interviews to assess the community's level of knowledge, perceptions, and concerns regarding environmental issues and activities at PGDP have been conducted several times since the public involvement program began, including a round of interviews during development of earlier CRPs. The most recent formal interviews were conducted in 2002, when DOE convened three focus groups to help determine community concerns and suggestions regarding the CRP. These groups represented plant neighbors, educators from elementary to college levels, local elected officials, representatives of the regional business community, and the Paducah CAB.

3.2.2.2 Early CRPs and focus groups

In general, the focus groups reflected concerns about the overall pace of environmental cleanup at the site and the long-term resolution of the groundwater contamination. In response to these concerns, the FFA parties have developed and implemented strategies that focus on accelerating cleanup actions to provide risk reduction at the major sources of off-site groundwater contamination. These strategies are reflected in the SMP, which is updated annually, and is available for public review at the Environmental Information Center (EIC) (see Chapter 4 for more information about the EIC). The SMP is the principal blueprint for scheduling and implementing investigation and cleanup activities at the site, including activities to address groundwater contamination.

Focus group participants were generally aware of DOE communications methods and felt the agency was doing a good job of disseminating information, especially through public meetings. The suggestions for improving future communication centered on the use of new technologies, such as interactive kiosks, interactive video programs for students, and traveling tabletop displays. Other suggestions for improved communications included increased use of traditional methods, such as mailing lists, speakers' bureaus, newsletters, and flyers.

3.2.2.3 Recent community input and DOE involvement

DOE has communicated regularly with local citizens groups, individual citizens, and community leaders through recurring briefings and meetings. DOE also reviews and responds to public comments submitted in relation to response actions.

3.2.3 Online Community Survey Conducted September 2017

In September 2017, DOE invited area residents, business owners, and local government officials to participate voluntarily in an on-line community survey (Appendix B). The survey was tailored to PGDP cleanup. It measured the effectiveness of past public information and education efforts, as well as provided guidance for future communication with the public. Initially, the survey was intended to be distributed to individuals who had requested to be provided informational mailers. This consisted of area residents, including those who receive water as part of the DOE Water Policy, and public officials. It was determined that results would be more relevant if the survey was distributed to a wider representation of the neighboring community on the east and south sides; therefore, a broader base of addresses was developed and added to

the distribution list. A total of 1,658 letters were issued to survey recipients. Letters included an invitation for recipients to participate, a website, username, and a password that was required to login to a website where they were asked to answer 15 questions pertaining to cleanup activities at PGDP.

The online survey was available from August 31, 2017, to October 2, 2017. While the majority of responses were received electronically, 12 of the respondents requested that hard copies be mailed. Eleven of those were returned, bringing the total of surveys completed to 101 (6.1%).

3.2.3.1 Community survey results

The results of those surveys revealed that the majority of respondents (72%) were very knowledgeable, fairly knowledgeable, or had some basic knowledge of cleanup activities at PGDP. The public responded positively to communications with DOE, EPA, and KDEP. It was noted that respondents consistently preferred to receive information regarding cleanup activities via television, newspaper, informational mailers, and public notices. The public response was positive to these communications.

3.2.3.2 General summary of the survey

Based on the community survey results, it was deemed that DOE has been effective in its distribution of public information and educational programs related to PGDP CERCLA activities; however, as DOE moves forward, it is seeking to expand its efforts to capture a wider representation of the population as part of its ongoing community information and outreach program. The results of the survey, as well as methodology, survey letters, survey questions, maps, conclusions, and lessons learned, are documented in Appendix B.

3.2.4 Water Policy Educational Mailer

The protectiveness of the Water Policy is reviewed every five years by DOE, EPA, and KDEP. As a result of the review conducted in 2013, DOE recommended that this fact sheet be developed and sent to all residents and businesses within the Water Policy area to ensure they receive information annually about the contamination in underlying groundwater. The current fact sheet is provided in Appendix E and is also available at <u>https://eic.pad.pppo.gov/</u> under Water Policy.

4. ENVIRONMENTAL JUSTICE

In 1994, the president issued Executive Order 12898, "Federal Actions To Address Environmental Justice in Minority and Low-Income Populations." The purpose of the Executive Order is to focus the attention of federal agencies on human health and environmental conditions in minority and low-income communities. Environmental justice analyses identify disproportionate placement of high and adverse environmental or health impacts from proposed federal actions on minority or low-income populations and identify alternatives that could mitigate such impacts. DOE analyzes environmental justice (EJ) concerns in accordance with Executive Order 12898.

EPA's Environmental Justice Screening and Mapping Tool, EJSCREEN. located at https://www.epa.gov/ejscreen, was used to identify minority and/or low-income populations, environmental quality issues, environmental and demographic indicators, and other factors that may be of interest under EJ for PGDP. The extent of direct impacts of contamination to surface water and groundwater reaches about 4.5 miles from the center of the site to the Ohio River. Based on EPA guidance, the affected area (buffer area) for EJSCREEN was set to 3.0 miles from the perimeter of the DOE site boundary. The results of the screening are presented in Table 2 and are shown in Figure 5. The minority population and the low income population for the affected environment are lower than the state average.⁵

Selected Variables	Value	State Average	Percentile in State	EPA Region Average	Percentile in EPA Region	USA Average	Percentile in the USA
Socioeconomic Indicators							
Demographic Index	19%	26%	36	37%	21	36%	28
People of Color	6%	15%	40	39%	11	40%	13
Low Income Population	31%	37%	43	35%	47	31%	56
Unemployment Rate	3%	6%	35	6%	32	5%	34
Linguistically Isolated Population	0%	1%	73	3%	51	5%	45
Population with Less than High School Education	8%	14%	35	13%	40	12%	47
Population under Age 5	3%	6%	19	6%	23	6%	21
Population over Age 64	17%	16%	62	17%	62	16%	65

Table 2. EJ Screening Results

⁵ Supporting this EJ screening is a recent National Environmental Policy Act analysis that evaluated DOE EJ analysis as part of a proposed action to transfer properties. The analysis concluded there were no disproportionately high impacts to minority or low income populations. This analysis is documented in the *Paducah Gaseous Diffusion Plant Environmental Assessment for Potential Land and Facilities Transfers*, DOE/EA-1927 (DOE 2015), <u>http://energy.gov/sites/prod/files/2016/01/f28/EA-1927%20Paducah%20Land%20Transfer%20FEA%202015-12_0_0.pdf</u>.

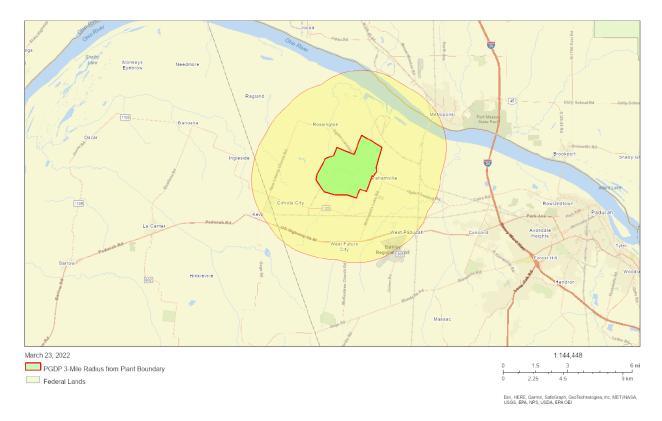


Figure 5. EJ Screening within a 3-mile Radius of PGDP and Demographic Indicators

5. PUBLIC PARTICIPATION ACTIVITIES UNDER THE PADUCAH FFA

The following chapter describes how the FFA parties strive to provide information about PGDP cleanup and involve the public in the decision-making process for Paducah's FFA-related response actions. This chapter addresses the various ways to receive information from and provide comments to DOE, EPA, and Kentucky about site activities and presents information about other public organizations that closely follow site issues and how the FFA parties work with them. This chapter also provides an overview of the decisionmaking process under the FFA and related points for public involvement in that process.

5.1 INFORMATION RESOURCES AND PUBLIC INVOLVEMENT

5.1.1 Information Resources

A number of resources are available to inform the public about actions being conducted under the provisions of the FFA.

5.1.1.1 Contact information

Appendix C of this CRP sets forth contact information (e.g., addresses, telephone numbers, and websites) for key government officials/agencies and stakeholder organizations that have an interest in or are affected by PGDP activities. The information in Appendix C is maintained as a separate fact sheet that is updated periodically. This fact sheet is available to the public at the EIC. The EIC generally is open weekdays from 8 a.m. to 12 p.m. and is located at the Emerging Technology Center in Room 221, 4810 Alben Barkley Drive, Paducah, Kentucky 42001, (270) 554-3004 and at the website, <u>https://eic.pad.pppo.gov/</u>.

5.1.1.2 Key websites

Provided below are key websites associated with information resources and public involvement.

General Sites

- DOE: <u>https://www.energy.gov</u>
- KDEP: <u>https://eec.ky.gov/Environmental-Protection/Pages/default.aspx</u>
- EPA Superfund Community Involvement: http://www.epa.gov/fedfac/community-involvement-federal-facilities

Site-Specific Sites

- DOE Portsmouth/Paducah Project Office: <u>https://www.energy.gov/pppo/portsmouthpaducah-project-office</u>
- DOE Portsmouth/Paducah Project Office/PGDP Deactivation Project: <u>https://www.energy.gov/pppo/paducah-gdp-shutdown-and-deactivation</u>
- KDWM: <u>https://eec.ky.gov/Environmental-Protection/Waste/hazardous-waste/Pages/paducah-gaseous-diffusion-plant.aspx</u>

- EPA PGDP NPL: <u>https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Cleanup&id=0404794#bkgr</u> <u>ound</u>
- Paducah CAB: <u>https://www.energy.gov/pppo/pgdp-cab/</u>
- Paducah EIC Online Document Repository: <u>https://eic.pad.pppo.gov/</u>

5.1.1.3 Mailing lists

DOE maintains a list of people who are interested in receiving information by mail and periodically advertises the availability of this list. Sign-up sheets are provided routinely at public meetings for those who wish to be added to the mailing list. The mailing list contains both street and e-mail addresses (if provided). The list is maintained in an electronic format and is updated regularly. The mailing list is used to distribute informational material as appropriate. Those interested in being added to the distribution list can call the D&R Contractor's Public Affairs Manager at (270) 441-5788.

5.1.1.4 Publications

The FFA parties strive to improve the readability of site publications, including fact sheets, public presentations, and informational displays. Providing accurate, current, and readable material is essential in aiding the public to participate in the site's decision-making process. Publications related to PGDP include the following:

- Meeting Summaries—Written summaries of certain public meetings are available at the EIC.
- Comment Response Summaries generated through Public Comment—During public comment periods, the public has the opportunity to comment on various CERCLA-related decision documents associated with both remedial actions [e.g., proposed plan, Record of Decision (ROD)] and removal actions [e.g., engineering evaluation/cost analysis (EE/CA), action memorandum]. The public is encouraged to provide input to the FFA decision-making process during these formal public comment periods. When required by the National Contingency Plan (NCP)/FFA and/or RCRA for certain documents, DOE (or other FFA party, as appropriate) prepares a written response to significant comments received during public comment periods within 30 days of the end of period. For CERCLA actions, the Responsiveness Summary is included as part of the ROD, which is available at the EIC and at the McCracken County Public Library. Additional information is available in Section 5.1.2.1.
- Fact Sheets—These provide information on site issues, cleanup activities, and projects. Fact sheets are available on a number of projects. Copies of these fact sheets are available through the EIC.

5.1.1.5 Site tours

Members of the public can register for a site tour at <u>https://fourriversnuclearpartnership.com/tours</u>. DOE also provides tours of areas of interest to certain stakeholder groups, such as the CAB, colleges and universities, Chamber of Commerce, Congressional representatives, and local and national media. For more information about site tours, please contact the D&R Contractor's Public Affairs Manager at (270) 441-5788.

5.1.1.6 News media activities

To keep the public informed, the FFA parties conduct a variety of activities to provide the media with timely and accurate information about the PGDP cleanup activities. Information is distributed through news conferences, news releases, public service announcements, editorial board presentations, contact with individual reporters and editors, and providing media with photos and video for their use. The current list of radio, television, print, and web-based outlets that may be used by DOE for local outreach regarding the Paducah cleanup is included in Appendix D.

5.1.1.7 Information repositories

The NCP requires DOE to maintain a repository where public documents are stored and are available to people seeking information. DOE provides two convenient locations where people can go to learn more about the PGDP by reading official documents and other pertinent information about the site and FFA-related activities. One location is the EIC, which is the electronic home of the site's Administrative Record and other public documents related to DOE work at PGDP. This includes reports, work plans, meeting summaries, newsletters, fact sheets, and historical PGDP information. The center is generally open weekdays from 8 a.m. to 12 p.m. and is located at the Emerging Technology Center in Room 221, 4810 Alben Barkley Drive, Paducah, Kentucky 42001, (270) 554-3004 and at the website—https://eic.pad.pppo.gov.

Another location where selected public documents are available is the McCracken Public Library. Copies of documents issued for public comment and the Administrative Record File Index are located there. The McCracken County Public Library is at 555 Washington Street in Paducah. Call (270) 442-2510 or go to http://www.mclib.net for hours of operation.

5.1.1.8 Administrative Records

The Administrative Record is the official body of documents that forms the basis for the selection of a particular response/corrective action. It contains the documents used in making cleanup decisions. As the lead agency at PGDP, DOE maintains the CERCLA Administrative Record for each response action and makes it available for public inspection at the EIC. The Administrative Record index and selected documents are available at the McCracken County Public Library. DOE publishes notices to announce the availability of a new Administrative Record File in a major local newspaper of general circulation (e.g., *The Paducah Sun*). Kentucky maintains an Administrative Record for the Kentucky RCRA hazardous waste permit in accordance with state law and the FFA. Files from the Administrative Record index are available on the EIC website at https://eic.pad.pppo.gov. The Administrative Record index lists for the Administrative Record index and selected and the EIC website at https://eic.pad.pppo.gov. The Administrative Record for the Kentucky RCRA hazardous waste permit in accordance with state law and the FFA. Files from the Administrative Record index are available on the EIC website at https://eic.pad.pppo.gov. The Administrative Record index lists for the Administrative Record, General Reference Compendium, and Post Decision files are available at https://eic.pad.pppo.gov.

5.1.1.9 Public involvement opportunities

A number of opportunities are available for public involvement in cleanup activities being undertaken at PGDP.

5.1.1.10 Public comment periods

PGDP provides information and opportunities to participate in providing comments on environmental cleanup decisions. The community has a voice and plays an important role during all phases of the CERCLA process. During public comment periods, the public has the opportunity to comment on various CERCLA-related decision documents associated with both remedial actions (e.g., proposed plan, ROD)

and removal actions (e.g., EE/CA, action memorandum). The public is encouraged to provide input to the FFA decision-making process during these formal public comment periods. Notification of document availability, a brief document description or summary, and announcement of each public comment period are published in a major local newspaper of general circulation (e.g., *The Paducah Sun*).

Announcements include the dates and duration of the comment period, how and where to submit comments, and contact information. Written comments received during the comment period are considered during the decision-making process. All public comment periods will be determined in accordance with applicable state and federal requirements. The duration of the comment period is prescribed by the NCP/FFA and/or RCRA and is presented in greater detail in Section 5.2 of this plan. To the extent practicable, a comment period required by the NCP/FFA for an action/document and a comment period required by the RCRA Permit for an equivalent action/document will be combined into a single public comment period that meets all applicable requirements.

5.1.1.11 Public meetings

When it is the lead agency, DOE offers public meetings or informational workshops when required by the NCP/FFA and/or RCRA and at additional times that it deems appropriate. These meetings assist the public in obtaining information and making comments to DOE, EPA, and the Commonwealth of Kentucky. When the EPA or the Commonwealth of Kentucky is the lead agency for the comment period, EPA or the Commonwealth will plan, schedule, and prepare for public meetings. Kentucky is the lead agency in actions such as closure plan decisions, permit modifications, and permit renewal.

The Paducah EIC is the most frequently used location for public meetings. Meetings have been held at area high schools, the local community college, or other public buildings. Representatives from DOE, EPA, and Kentucky attend these meetings. When required by the NCP/FFA and/or RCRA, DOE prepares a meeting summary for public meetings for which DOE is the lead agency and makes it available to the public at the EIC. To the extent practicable, a public meeting required by the NCP/FFA for an action/document and a public meeting required by the RCRA Permit for an equivalent action/document will be combined into a single public meeting that meets all applicable requirements.

To improve effectiveness and efficiency of these meetings, the FFA parties strive to provide information to the public about an upcoming public meeting at least one week prior to holding a public meeting.

5.1.1.12 Public notification process

To ensure stakeholders are notified of opportunities for public involvement, DOE uses a variety of methods to disseminate information to the public. If notice of a document, meeting, or other activity is required to be published in a major local newspaper of general circulation, the notice typically is published in *The Paducah Sun*. To the extent practicable, a notice required by the NCP for a document, meeting, or other activity will be combined into a single notice, meeting all applicable requirements.

In addition to the required legal notice, DOE may use other methods to announce public participation opportunities, including news releases, public service announcements, postcards, website postings, *Federal Register* notices, e-mail, or other public contact tools to inform stakeholders of the availability of a public comment period, document, or public meeting.

The FFA parties strive to create public notices that are readable, easy to understand, and provide clear information on when and how the public is invited to participate in the decision-making process. Public comment period announcements include the dates of the comment period, how to submit comments, how

to request a public meeting (if applicable), and who to contact for more information. Public meeting announcements include the date, time, and location of the meeting and who to contact for more information.

5.1.1.13 Technical assistance grants

Grants are available through EPA to provide resources for community groups to hire technical advisors who can assist them in interpreting technical information about the site. EPA provides DOE with current information regarding the Technical Assistance Grant program, which DOE then makes available to the public through the EIC. Information is placed in the EIC within 30 days of receipt from EPA.

5.1.1.14 Community interviews and surveys

The NCP requires that DOE, in certain circumstances, interview local officials, community residents, public interest groups, or other interested or affected parties to obtain comment about their concerns and information needs. DOE conducts these interviews, as required, and uses public meetings, CAB meetings, and public comment periods as mechanisms to query the community about its concerns and information/public participation needs.

An on-line community survey tailored to PGDP cleanup was conducted in September 2017. The intent of the survey was to help measure the effectiveness of past public information and education efforts, as well as to provide guidance for future communication with the public. The survey results are documented in Appendix B.

5.1.1.15 Special events

As appropriate, DOE may conduct special events or meetings on specific issues or topics that may relate to FFA cleanup actions, as well as for other aspects of DOE's EM program. DOE also may offer speakers to provide presentations on requested topics for stakeholder groups such as civic organizations, local businesses, trade associations, and schools. For more information about special events, please contact the D&R Contractor's Public Affairs Manager at (270) 441-5788.

5.1.1.16 Community Relations Plan updates

The CRP is the public's roadmap to citizen involvement in cleanup decisions under the FFA at the PGDP Superfund Site. The document addresses how various environmental laws are coordinated through the FFA and at what point the public has the opportunity to comment. DOE updates the document at the request of any FFA party, but no more often than once every two years. DOE bases updates on information collected through public interviews, which may include informal discussions, formal focus groups, discussions at CAB meetings, other communication, and other relevant factors. Appendix A includes types of public involvement activities used to obtain information for CRP updates.

The CRP, including any updates, will be made available for public review in the EIC.

5.1.1.17 Other community relations activities

At DOE discretion, additional community outreach methods may be used to provide the public with information about projects and activities and to solicit comment. These activities could include additional publications, site tours, news media activities, local government interaction, civic group presentations, etc.

5.1.2 Stakeholder Organizations

5.1.2.1 Citizens Advisory Board

The CAB provides independent advice and recommendations on cleanup activities at PGDP. Participation as a member of the CAB or simply attending CAB meetings offers opportunities for public involvement in PGDP cleanup activities. Meetings of the CAB and its committees and subcommittees are open to members of the public to acquire information and make comments on topics within the CAB's scope. All CAB meetings are open to the public and present an opportunity for the board members and general public to obtain information, ask questions, and interact with DOE and PGDP personnel. Through the CAB, DOE gains valuable input on FFA-related cleanup and other PGDP issues to consider in making decisions. All CAB and CAB subcommittee meetings are posted on the website at https://www.energy.gov/pppo/pgdp-cab/. Full board meetings are advertised. Public comment periods are routinely included on the board's meeting agenda. If you are interested in applying to become a member of the CAB, please contact the CAB office (see Appendix C for contact information).

To provide the CAB with relevant information and to obtain CAB input regarding environmental response actions, DOE does the following:

- Attends, on a regular basis, CAB board meetings and disseminates information through DOE project updates and presentations targeted to specific issues or actions planned at PGDP;
- Attends, as appropriate, CAB committee and subcommittee meetings to provide technical information, either upon request by CAB members or as determined by the response action cycle; and
- Responds to CAB recommendations in writing to inform the CAB whether the recommendation is accepted and to explain the DOE's decision regarding the recommendation.

For more information about the CAB, please see the discussion in Chapter 3.

5.1.2.2 Government agencies

DOE shares the Paducah environmental public involvement stage with state and local boards and agencies and with several citizen groups and organizations. Two government agencies provide oversight of DOE's cleanup activities under the FFA and participate in cleanup decisions for the PGDP Superfund site: KEEC and EPA. The working relationships among DOE, KEEC, and EPA for cleanup actions at the PGDP are addressed in the FFA for PGDP. DOE and EPA sign RODs for selected remedial actions at PGDP, with concurrence from the Commonwealth of Kentucky, to ensure that cleanups are protective of people and environmental resources. If EPA and DOE are unable to agree on a proposed remedy, selection of the cleanup action is made by the EPA Administrator. The Commonwealth of Kentucky may choose to impose on DOE a permit modification consistent with Kentucky hazardous waste statutes and agency regulations in the event that EPA and the Commonwealth of Kentucky are unable to agree on a proposed remedy.

EPA Region 4 is based in Atlanta, Georgia. Aside from its official reviews of DOE decision documents, EPA publishes a considerable amount of information on a broad range of topics. Much of this information is available through the main EPA website, <u>http://www.epa.gov</u>.

Contact information for EPA: U.S. Environmental Protection Agency Sam Nunn Atlanta Federal Center 61 Forsyth Street, SW Atlanta, GA 30303-3415 EPA Hotline: (800) 241-1745 EPA Region 4 Office of External Affairs: (404) 562-8327 Website: https://www.epa.gov/aboutepa/about-epa-region-4-southeast

The KEEC is responsible for a wide range of issues and programs for the Commonwealth of Kentucky. Contact information for the KEEC:

Kentucky Energy and Environment Cabinet Department for Environmental Protection 300 Sower Blvd. Frankfort, KY 40601 Phone: (502) 564-6716 Fax: (502) 564-4245 Website: <u>http://eec.ky.gov</u>

Many people receive information about PGDP from elected or appointed officials, and DOE strives to keep these officials informed through briefings, publications, mailings. The FFA parties strive to respond to questions from officials and other agencies in a timely fashion.

Additional government agencies, officials, and organizations that may have an interest in PGDP cleanup and other PGDP activities are listed in Appendix C, along with related contact information.

5.1.2.3 Other stakeholder organizations

A variety of other stakeholder groups have an interest in PGDP activities, including these:

- American Chesapeake Club
- Associated General Contractors
- Agency for Toxic Substances and Disease Registry
- Ballard County Chamber of Commerce
- Ballard County
- Bluegrass Retriever Club
- Central Kentucky Retriever Club
- City of Kevil
- City of Paducah
- Coalition for Health Concern
- Greater Paducah Economic Development
- Indigenous Environmental Network
- Kentucky Department of Fish and Wildlife Resources
- Kentucky Department for Public Health—Radiation Health Branch
- Labrador Trials
- McCracken County
- Paducah Area Chamber of Commerce
- Paducah Area Community Reuse Organization
- Paducah Water

- Purchase Area Development District
- Purchase District Health Department
- Security Police and Fire Professionals of America, Local 101
- Tennessee Valley Authority
- United Steelworkers of America, Local 550
- University of Kentucky
- West Kentucky Community and Technical College
- West Kentucky Coonhunters Association, Inc.
- West Kentucky Field Trial Club
- West Kentucky Wildlife Management Area

Additional information is included in Appendix D, Public Notice Mailing List.

5.2 DECISION MAKING AND PUBLIC INVOLVEMENT

The FFA established one set of consistent requirements for achieving comprehensive site remediation in accordance with the Resource Conservation and Recovery Act (RCRA) and CERCLA, including stakeholder involvement.

Public involvement and public comment opportunities in decisions made under the FFA vary according to the kind of decision being made. Key actions for which decisions are made under the FFA include major FFA modifications; emergency removal actions; time critical removal actions; non-time critical removal actions; interim remedial actions; and final remedial actions.

This chapter describes the decision-making process for these actions under the FFA. Figures 6–9 highlight the opportunities for public involvement for each of these actions. This chapter also describes the process that is followed to coordinate CERCLA and RCRA requirements.

5.2.1 FFA Modifications

There may be instances when the FFA parties identify the need to modify the FFA. The FFA may be modified with the agreement of all of the FFA parties. Modifying the FFA means changing the text of the FFA and/or its appendices. Modifications may be designated either as minor or major. Any FFA party may designate a proposed modification as a major modification. If any FFA party disagrees with the designation of a modification as "major," it may invoke dispute resolution pursuant to the provisions of FFA Section XXV. Minor modifications can be made informally upon consent of the FFA parties and do not require public review and comment. Major modifications are required to be in writing and are effective upon the date they are signed by EPA, which is the last signatory on such modifications.

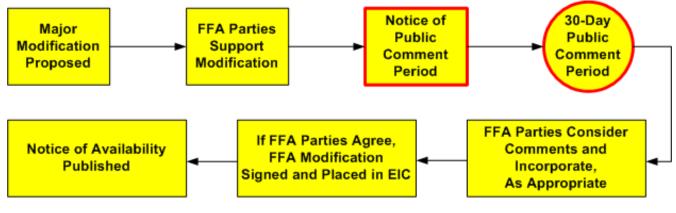
Although the FFA does not require public review and comment for major modifications, the parties to the FFA have agreed that major modifications of the FFA and/or its appendices will be subject to a 30-day public comment period prior to finalization.

The decision process and public participation opportunities for major modifications are described below.

- The proposing party proposes a major modification of the FFA.
- When all FFA parties support the modification, then the following actions are taken:
 - The proposing party submits the modification to the EIC;

- In a major local newspaper of general circulation (e.g., *The Paducah Sun*), the proposing party publishes a notice providing a brief description of the proposed modification and announcing the availability of the proposed modification in the EIC and a 30-day public comment period; and
- The FFA parties consider public comment, as appropriate.
- If the FFA parties agree on the modification after considering public comment, then
 - (1) The parties sign a FFA Modification Form effecting the modification. The updated version of the FFA will be maintained at the EIC;
 - (2) The major modification of the FFA will be placed in the EIC for public review; and
 - (3) DOE notifies the public in a major newspaper of general circulation (e.g., *The Paducah Sun*) that a major modification to the FFA has been made and is available at the EIC.

Figure 6 summarizes the process for major FFA modifications.





5.2.2 Removal Actions

CERCLA and federal regulation (40 *CFR* § 300.5) define a removal action as, "the cleanup or removal of released hazardous substances from the environment; such actions as may be necessary taken in the event of the threat of release of hazardous substances into the environment; such actions as may be necessary to monitor, assess, and evaluate the release or threat of release of hazardous substances; the disposal of removed material; or the taking of such other actions as may be necessary to prevent, minimize, or mitigate damage to the public health or welfare of the United States or to the environment, which may otherwise result from a release or threat of release." The FFA outlines the decision and public involvement process for removal actions. Removal actions can include, but are not limited to, one or more of the following activities.

- Fences, warning signs, or other security or site control precautions—where humans or animals have access to the release.
- Drainage controls, for example, runoff or run-on diversion, where needed, to reduce migration of hazardous substances, pollutants, or contaminants off-site or to prevent precipitation or runoff from other sources (e.g., flooding) from entering the release area.

- Stabilization of berms, dikes, or impoundments or drainage or closing of lagoons, where needed, to maintain the integrity of the structures.
- Caps on contaminated soils or sludges, where needed, to reduce migration of hazardous substances, pollutants, or contaminants into soil, ground or surface water, or air.
- Use of chemicals and other materials to retard the spread of the release or to mitigate its effects—where the use of such chemicals will reduce the spread of the release.
- Excavation, consolidation, or removal of highly contaminated soils from drainage or other areas where such actions will reduce the spread of, or direct contact with, the contamination.
- Removal of drums, barrels, tanks, or other bulk containers that contain or may contain hazardous substances or pollutants or contaminants—where it will reduce the likelihood of spillage; leakage; exposure to humans, animals, or the food chain; or fire or explosion.
- Containment, treatment, disposal, or incineration of hazardous materials, where needed, to reduce the likelihood of human, animal, or food chain exposure.
- Provision of an alternative water supply—where immediately necessary to reduce exposure to contaminated household water and continuing until such time as local authorities can provide a permanent remedy.

Pursuant to Section X.B of the FFA, removal actions are initiated by the submittal of a Removal Notification to EPA and KEEC for their review and approval. The notification includes pertinent information, including a description of the factors considered in determining the appropriateness of the removal action.

There are three types of removal actions:

- (1) Emergency/imminent hazard removal actions,
- (2) Time-critical removal actions, and
- (3) Non-time-critical removal actions.

These categories of removal actions are based on the type of situation, the urgency of the threat of release, and the time-frame in which the action must be initiated. Community involvement requirements for all three categories of removal actions can be found at 40 *CFR* § 300.415(n). (NOTE: The 1998 FFA contains an outdated citation.)

The public can gain more information about a removal action by reviewing the Administrative Record for the removal action, which is available at the EIC, and by contacting the designated DOE spokesperson for the removal action. The designated spokesperson for removal actions will be the DOE Paducah Site Lead. In accordance with the NCP, the spokesperson informs the public and others about removal actions taken and serves as a point of contact for community members. Contact information for the DOE Paducah Site Lead is available in Appendix C. For removal actions that extend beyond 120 days, DOE conducts community interviews (see Section 1 of this chapter for information on community interviews). This CRP satisfies the requirements for the lead agency to prepare a CRP for removal actions that extend beyond 120 days.

5.2.2.1 Emergency/imminent hazard removal actions

Emergency/imminent hazard removal actions are taken in response to imminent and substantial endangerment to human health or the environment. Streamlined public information activities during an emergency/imminent hazard removal action typically are handled under emergency response procedures.

Figure 7 highlights some of the key points in the FFA process for implementing an emergency/imminent hazard removal action.

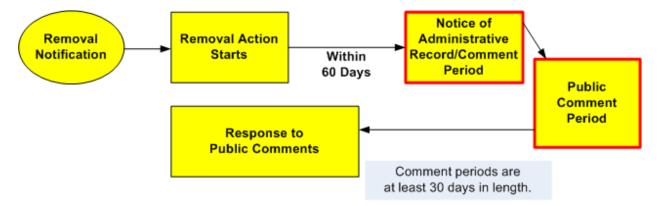


Figure 7. Emergency/Imminent Hazard or Time-Critical Removal Action

When an emergency/imminent hazard removal action is proposed, DOE provides EPA and the KEEC with a removal notification for their review and approval, unless development, review, and approval of the removal notification would be impractical, considering the exigencies of the situation. In cases in which a release at the site could cause imminent and substantial endangerment to public health or welfare of the environment, DOE proceeds as soon as possible with the removal action and notifies EPA and KEEC in accordance with applicable provisions of the FFA, NCP, and PGDP's RCRA hazardous waste permit. A description of the emergency and the technical specifications for the removal action, including any further action needed to complete the removal action, are submitted in writing to EPA and KEEC within 15 days of the release.

Information about emergency/imminent hazard removal actions can be obtained by reviewing the Administrative Record, which will be placed in the EIC, and by contacting the D&R Contractor's Public Affairs Manager at (270) 441-5788.

5.2.2.2 Time-critical removal actions

Pursuant to Section X.D of the FFA, time-critical removal actions are taken in response to releases or potential releases, requiring on-site action when there is less than six months to plan for the actions. Key points in the FFA decision and public involvement processes for time-critical removal actions are summarized in Figure 7.

When such a removal action is proposed, DOE provides EPA and the KEEC with a removal notification for their review and approval. Upon approval, DOE initiates the removal action. DOE publishes a notice of availability of the Administrative Record and comment period for the selected removal action within 60 days of initiating the removal action. Within 30 days of the close of the comment period, DOE responds to comments in a written Responsiveness Summary, which is reviewed and approved by EPA and KEEC and included in the Administrative Record.

Time-critical removal actions have three principal public involvement points.

- (1) Notice and Availability of Administrative Record—Within 60 days of the start of an on-site removal activity, DOE makes the Administrative Record available to the public at the EIC and issues a notice announcing the availability of the Administrative Record and the start of a public comment period. This notice is to be published in a major local newspaper of general circulation.
- (2) Public Comment Period—Usually the public comment period is established for 45 days. Depending on the circumstances, including the urgency of the situation and programmatic needs, a shorter comment period (e.g., 30 days) may be established to the extent consistent with applicable law.
- (3) Response to Significant Comments—DOE prepares a written response to significant comments received during the comment period within 30 days of the end of the comment period. The comment response summary and the removal notification are submitted to EPA and Kentucky for review and approval in accordance with the FFA and are included in the Administrative Record.

Additional information about time-critical removal actions at PGDP can be obtained by contacting the D&R Contractor's Public Affairs Manager at (270) 441-5788.

5.2.2.3 Non-time-critical removal actions

Pursuant to Section X.E of the FFA, non-time-critical removal actions are taken when a removal action is determined to be appropriate, but a planning period of at least six months is available before on-site activities begin. Key points in the FFA decision and public involvement processes for non-time-critical removal actions are summarized in Figure 8. When a non-time critical removal action is proposed, DOE provides EPA and the KEEC with a removal notification for their review and approval. Upon approval of the notification, DOE prepares an EE/CA, which is an analysis of removal alternatives for EPA and KEEC approval. DOE makes the removal notification, the EE/CA, and the Administrative Record available for public comment in accordance with the NCP. Following public comment, DOE prepares an action memorandum (documenting the removal action to be taken), including a summary of responses to significant public comments, and a removal action work plan for EPA and KEEC approval. DOE commences the removal action following EPA and KEEC approval of the removal action work plan.

Non-time-critical removal actions have four principal public involvement points.

- (1) Information Repository/Administrative Record Establishment and Notification—DOE makes the Administrative Record available for public review at the EIC at specific times in relation to the EE/CA and issues a notice of the Administrative Record's availability in a major newspaper of general circulation.
- (2) Notice of Availability/Description of the EE/CA—DOE publishes a notice of availability and a brief description of the EE/CA in a major local newspaper of general circulation.
- (3) Public Comment Period—Upon completion of the EE/CA, DOE usually establishes a public comment period of 45 days. Depending on the circumstances, including the urgency of the situation and programmatic needs, a shorter comment period (e.g., 30 days) may be established to the extent consistent with applicable law. Upon timely request, DOE, as lead agency, will extend the public comment period by a minimum of 15 additional days in accordance with 40 *CFR* § 300.415(n)(4)(iii).

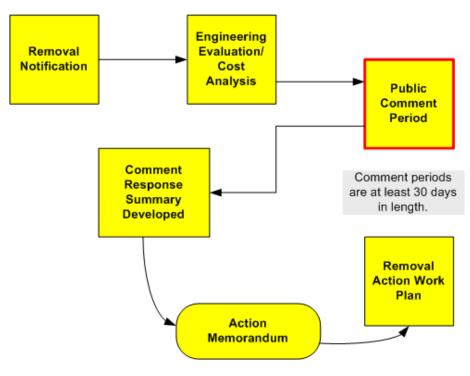


Figure 8. Non-Time-Critical Removal Actions

(4) Responsiveness Summary—DOE prepares a written response to significant comments within 30 days of the close of the comment period and make this responsiveness summary available to the public in the information repository. This summary is included in the action memorandum and is available as part of the Administrative Record.

Additional information about non-time-critical removal actions can be obtained by contacting the D&R Contractor's Public Affairs Manager at (270) 441-5788.

5.2.3 Remedial Actions

Remedial action means those actions taken instead of, or in addition to, removal actions in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release so that they do not migrate to cause substantial danger to present or future public health or welfare of the environment. In contrast to final remedial actions, interim remedial actions are temporary or non-final actions performed in anticipation of a subsequent final remedy decision.

Figure 9 depicts the key steps in the decision and public involvement process for remedial actions under the FFA. The CERCLA remedial process typically includes the following pertinent steps.

- RI—An RI, conducted by DOE and subject to review and approved by EPA and KEEC under the FFA, determines the nature and extent of the release.
- FS—The lead agency conducts an FS to develop and evaluate options for remedial action. The FS is subject to review and approval by EPA and KEEC under the FFA. The RI and FS are collectively referred to as the "RI/FS."

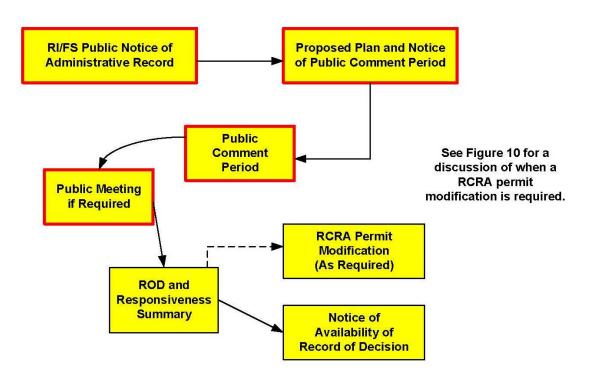


Figure 9. Interim Remedial Actions/Final Remedial Actions

- Proposed Plan—Identifies the preferred alternative from those options developed in the FS. The proposed plan is subject to review and approval by and EPA and KEEC under the FFA. The proposed plan also is subject to public review and comment.
- ROD—After completing the RI/FS and publishing the preferred alternative in the proposed plan for public comment, the appropriate cleanup option usually is selected by DOE and EPA, with concurrence from KEEC. A public document known as the ROD is issued and made available to the public for review.
- If the remedial action is accompanied by a modification of the RCRA hazardous waste permit, a 45-day public comment period is provided. For other remedial actions, the comment period normally is established at 45 days. Depending on the circumstances, including the urgency of the situation and programmatic needs, a shorter comment period (e.g., 30 days) may be established to the extent consistent with applicable law. DOE, as lead agency, in accordance with federal regulations, will extend comment periods upon timely request.
- Remedial Design—The remedial design includes the technical analysis and procedures that follow the selection of a remedy for a site. The remedial design is subject to review and approval of EPA and KEEC under the FFA.
- Remedial Action—The remedial action involves the actual construction or implementation of a cleanup. In certain circumstances, if certain levels of hazardous substances will remain at the site, a review of the remedial action is required five years after remedy implementation. This review evaluates the continued protectiveness of the remedial action.

In remedial actions, there are opportunities for the public to gain information and make comments. Many of these are triggered by the completion of certain steps in the process.

- Upon Commencement of the RI: Administrative Record Notification—DOE publishes a notice of availability of the administrative record in a major local newspaper of general circulation (e.g., *The Paducah Sun*).
- Upon Completion of the FS and Proposed Plan: Proposed Plan Notification and Analysis—DOE publishes a notice of the availability of the proposed plan, including a brief summary in a major local newspaper of general circulation. The notice announces a comment period for the document.
- Public Comment Period on the Proposed Plan—DOE usually establishes a public comment period of 45 days. Depending on the circumstances, including the urgency of the situation and programmatic needs, a shorter comment period (e.g., 30 days) may be established to the extent consistent with applicable law. Upon timely request, DOE, as lead agency, will extend the public comment period by a minimum of 30 additional days in accordance with 40 *CFR* § 300.430(f)(3)(i)(c).
- Public Meeting—DOE provides an opportunity for a public meeting during the comment period. Typically, meeting opportunities are announced with the notice of the comment period. If a transcript of the public meeting is made, a copy of the transcript will be placed in the EIC for public review.
- Significant Differences—After publication of the proposed plan and prior to adoption of the selected remedy in the ROD, if new information is made available that significantly changes the basic features of the remedy with respect to scope, performance, or cost, such that the remedy significantly differs from the original proposal and supporting analysis and information, DOE, with approval from EPA and KDEP, either includes a discussion of the significant changes and the reasons for the changes in the ROD if the changes could be reasonably anticipated by the public or seeks additional public comment on a revised proposed plan if the change could not have been reasonably anticipated, in accordance with 40 *CFR* § 300.430(f)(3)(ii).
- ROD Amendments—After adoption of the ROD, if the remedial action differs significantly from the remedy selected in the ROD with respect to scope, performance, or cost, DOE, with approval from EPA and KDEP may (1) publish an explanation of significant differences when the differences in the remedial or enforcement action, settlement, or consent decree significantly change but do not fundamentally alter the remedy selected in the ROD with respect to scope, performance, or cost; or (2) propose an amendment to the ROD if the differences in the remedial action fundamentally alter the basic features of the selected remedy with respect to scope, performance, or cost. To amend the ROD, DOE (after approval by EPA and KDEP) must publish the proposed ROD amendment and seek public comment, hold a public meeting, and include in the amended ROD a brief explanation of the amendment and the response to each of the significant comments.
- Availability of ROD—DOE announces the availability of the ROD for public review and places the ROD in the EIC. Final remedy selection is incorporated into the ROD. The ROD includes a written summary of significant comments and any significant new data submitted during the comment period, and DOE's response to such comments and data.

Community involvement requirements for the remedy selection phase of remedial actions can be found at 40 *CFR* § 300.430. Additional information about the community relations activities that take place during the remedial design/remedial action stage may be found in 40 *CFR* § 300.435(c).

5.2.4 Remedial Design

Upon completion of the final engineering design, the lead agency must issue a fact sheet and provide a public briefing, as appropriate, prior to beginning a remedial action, as stated in NCP $40 \ CFR \$ 300.435(c)(3).

5.3 COORDINATION OF CERCLA AND RCRA

RCRA was passed in 1976 to address management of the country's huge volume of solid waste. The law requires that EPA or authorized states regulate the management of hazardous waste, which includes certain waste solvents, batteries, and many other waste materials deemed potentially harmful to human health and the environment.

RCRA Subtitle C establishes requirements for generation, transportation, and treatment, storage, and disposal of hazardous wastes; regulates closure for inactive facilities; requires corrective actions for hazardous wastes and/or hazardous constituents originating in SWMUs; and provides for interim corrective measures, if necessary, to respond to immediate threats to public health or the environment.

Kentucky is authorized by EPA to administer the RCRA Subtitle C hazardous waste program, including issuance of permits for storage, treatment, and/or disposal of hazardous waste. The permit addresses treatment and storage facilities that actively manage hazardous wastes, post-closure monitoring of the closed landfill, and corrective actions for releases from SWMUs and areas of concern. RCRA requires a study and decision-making process for SWMU corrective actions that is similar to the CERCLA remedial action process. The Diagram of RCRA/CERCLA Processes in Figure 10 illustrates the similarities in the two processes.

Under the FFA, the FFA parties have designated each of the CERCLA remedial action documents referenced in Figure 10 (except for the ROD) to be the equivalent of their counterpart RCRA corrective action documents. Thus, one document is intended to satisfy both RCRA and CERCLA cleanup requirements, consistent with the intention of the FFA parties that compliance with the terms of the FFA will be deemed in compliance with CERCLA and RCRA requirements. It is the intent of the FFA parties that the public involvement processes for remedial/corrective actions that are incorporated into the RCRA hazardous waste permit will be coordinated with one common public notice of the proposed plan/draft permit modification, one common public comment period of 45 days, and one common public meeting (as necessary). Accordingly, there is no second comment period or public meeting when Kentucky modifies the RCRA hazardous waste permit.

For any final action, Kentucky will modify the RCRA hazardous waste permit at the time of its concurrence on the ROD. Kentucky appends RODs, including interim RODs, to the RCRA hazardous waste permit. A permit modification is not required at the time of Kentucky's concurrence on an interim ROD, and interim ROD summaries may be appended at the time of any future modification of the permit.

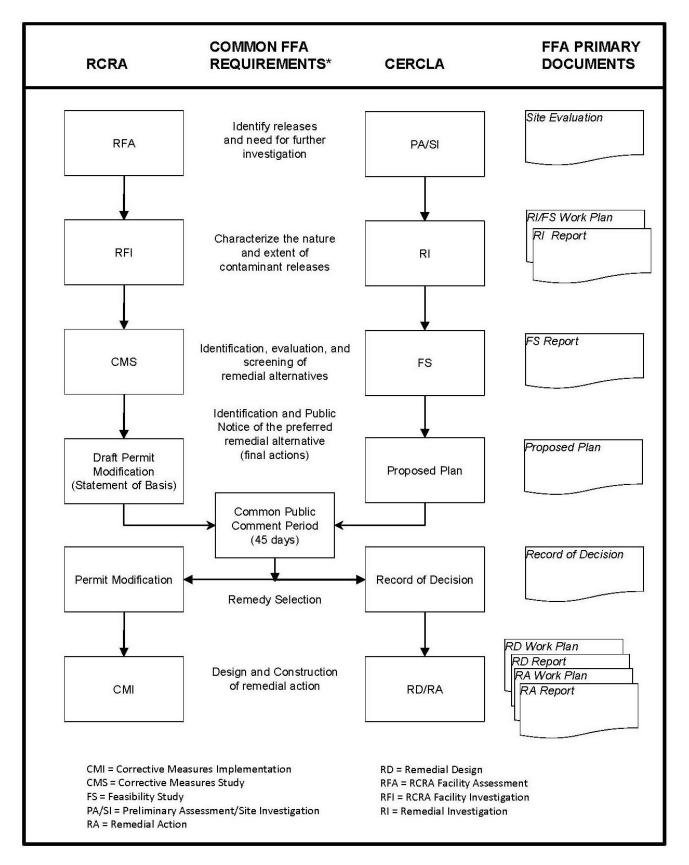


Figure 10. Diagram of Coordination of CERCLA and RCRA Processes in Final Remedial Actions

6. REFERENCES

- DOE (U.S. Department of Energy) 2015. Paducah Gaseous Diffusion Plant Environmental Assessment for Potential Land and Facilities Transfers, McCracken County, Kentucky, DOE/EA-1927, U.S. Department of Energy, Portsmouth/Paducah Project Office, Paducah, KY, December.⁶
- DOE 2021. Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2022, DOE/LX/07-2473&D2, U.S. Department of Energy, Paducah, KY, December.
- FWS (U.S. Fish and Wildlife Service) 2022. "IPaC Resource List," generated from <u>https://ecos.fws.gov/ipac/</u> for DOE property in McCracken County, KY, on March 22, 2022.

 $^{^{6} \}underline{http://energy.gov/sites/prod/files/2016/01/f28/EA-1927\% 20 Paducah\% 20 Land\% 20 Transfer\% 20 FEA\% 20 2015-12_0_0.pdf}$

APPENDIX A

PUBLIC INVOLVEMENT HISTORY

ACRONYMS

ASER	Annual Site Environmental Report
CAB	citizens advisory board
CFR	Code of Federal Regulations
CRP	community relations plan
DOE	U.S. Department of Energy
EE/CA	engineering evaluation/cost analysis
EIC	Environmental Information Center
EIS	environmental impact statement
EM	environmental monitoring
EPA	U.S. Environmental Protection Agency
FFA	Federal Facility Agreement
KRCEE	Kentucky Research Consortium for Energy and the Environment
PACRO	Purchase Area Community Reuse Organization
PGDP	Paducah Gaseous Diffusion Plant
RCRA	Resource Conservation and Recovery Act
SSAB	site-specific advisory board
WDA	waste disposal alternative
WKWMA	West Kentucky Wildlife Management Area

PUBLIC INVOLVEMENT HISTORY

Since beginning a formal program of environmental work at Paducah Gaseous Diffusion Plant (PGDP) in the late 1980s, the U.S. Department of Energy (DOE) has continually turned to stakeholders for input. The community, with a history of involved citizenry, responded with immediate interest and comment through personal contacts, letters, and public meetings.

Since then, DOE has added additional methods to involve citizens in its decision-making process, such as the creation of the Paducah Citizens Advisory Board (CAB) and the opening of the Environmental Information Center (EIC).

DOE environmental management (EM) continues to study its sites and to develop new remediation and waste-handling methods. As a result, the public involvement program must keep pace with the changing needs for different types of environmental decision-making. As the program evolves, the public will have new ways to add their voices to decision making. Advances in communications technology provide new opportunities for public involvement, such as electronic mail, internet research, and video conferencing.

PUBLIC INVOLVEMENT CHRONOLOGY

Since the first version of the Community Relations Plan (CRP) in 1998, the partnership between DOE and its stakeholders has produced many examples of beneficial collaboration on EM decision making. Highlights are provided below.

1998 Public Involvement

- An issue of the site's informational bulletin was published.
- The CAB conducted 11 board meetings and one special meeting.

1999 Public Involvement

- The CAB held 11 board meetings and one special meeting.
- A general information workshop was conducted in July.
- A public meeting was held in August on the topic of transuranic contamination at Paducah.
- The Secretary of Energy spoke at a September public meeting about transuranic contamination.

- The CAB held 11 board meetings and two special meetings.
- Paducah staff participated in several meetings sponsored by DOE and other organizations.
- The Secretary of Energy, the Assistant Secretary for EM, and the Assistant Secretary for Environment, Safety, and Health held January meetings on budget proposals for Paducah cleanup and health studies.
- In February, a community meeting was held to discuss the final results of a DOE Headquarters investigation into environmental safety and health at the plant.
- A meeting soliciting public comment on the Paducah Groundwater Operable Unit Feasibility Study was held in July.

- A meeting to discuss off-site contamination and the Paducah Waste Disposition National Environmental Policy Act (NEPA) environmental assessment was conducted in October.
- In November, DOE participated in a jointly sponsored meeting with the U.S. Environmental Protection Agency (EPA) and the Commonwealth of Kentucky regarding remedial action alternatives for the North-South Diversion Ditch.
- In December, a meeting was held to discuss Resource Conservation and Recovery Act (RCRA) permit modifications.
- The EIC website came on line in December.
- DOE participated in several outreach efforts during 2000, including the meetings of civic groups and community organizations.

- The DOE EIC was moved to a more central location in Paducah. The move allowed the center to expand hours and provide four public-use computer terminals.
- The Paducah CAB established committees and subcommittees to more closely examine DOE cleanup work at the site.
- The CAB held 11 regular meetings and several committee and subcommittee meetings.
- CABFare, the newsletter of the Paducah CAB, was published for the first time.

2002 Public Involvement

- The full CAB met 11 times, with an additional 38 committee and subcommittee meetings.
- Regulatory-required public meetings were held regarding the following projects: scrap metal removal, North-South Diversion Ditch, C-720, C-410 decontamination and decommissioning, waste disposition, and potentially reusable uranium materials.
- Other public meetings were held on the fiscal year 2003 budget for EM, DOE's plans for accelerated cleanup, and the Annual Site Environmental Report (ASER).
- The Assistant Secretary of Energy for EM held two meetings, one in person and the other by videoconference. The CAB and the public were invited.
- Several site tours were conducted for CAB members, government and community leaders, and DOE and its regulators.

- The CAB held 11 regular meetings and 35 committee and subcommittee meetings.
- The addendum to the waste disposition environmental assessment was the subject of a May public meeting.

- The General Accounting Office visited Paducah for a June status meeting on cleanup work at PGDP.
- In September, the Paducah CAB hosted the national EM Site-Specific Advisory Board (SSAB) Chairs Meeting.
- DOE staff also briefed groups in Paducah and other communities in Kentucky and Tennessee on the status of work at Paducah.
- The CAB published its first annual report.

- In 2004, DOE held major public meetings in several cities, including Paducah, to discuss the Environmental Impact Statement for the Depleted Uranium Hexafluoride Conversion Facilities to be built at Paducah, Kentucky, and Portsmouth, Ohio.
- DOE launched a series of public meetings and workshops to discuss a major review of environmental work intended to assure that site cleanup plans are consistent with anticipated end use of DOE facilities. Ranging from major public meetings to small-group presentations in response to specific requests, DOE brought many members of the public in to the process to develop an end-state vision for the PGDP site. In addition, the CAB chair met with several community organizations about the end-state effort, providing additional input to the process.
- The full CAB met 11 times and committees and subcommittees held 53 meetings.
- The CAB published its second annual report.
- DOE briefed community leaders on site activities to assist them in setting community priorities for 2005.

- DOE held ongoing discussions and a public meeting regarding the End State Vision for PGDP.
- The Secretary of Energy visited Paducah and held a news conference.
- DOE invited members of the community to a signing of a groundwater remediation record of decision. DOE, Kentucky, and EPA officials were present to sign the document.
- The Assistant Secretary for EM met with members of the CAB.
- DOE conducted a detailed plant tour for community leaders and CAB members.
- DOE briefed community leaders on site activities to assist them in setting community priorities for 2006.
- The full CAB met 11 times and committees and subcommittees held more than 50 meetings.
- The CAB published its third annual report.

- DOE conducted plant tours and briefings for community leaders, members of congressional staffs and others.
- DOE briefed community leaders on site activities to assist them in setting community priorities for 2007.
- The full CAB met 11 times and committees and subcommittees held more than 30 meetings.
- The CAB published an annual report.

2007 Public Involvement

- DOE conducted plant tours and briefings for community leaders, members of congressional staffs, and others.
- DOE briefed community leaders about site activities to assist them in setting community priorities for 2008.
- At monthly meetings of the CAB and its committee and subcommittee, DOE provided briefings and discussions on various projects, including the site management plan, surface water, soil piles, C-400 interim remedial action, the Southwest Plume, environmental indicators, waste disposal options, the community relations plan, and end use of the site.
- DOE also conducted public involvement activities for projects not conducted under the scope of the Federal Facility Agreement (FFA), such as conducting a site tour and holding discussions with community groups regarding the potential recycling of nickel ingots and hosting a public meeting to discuss a congressionally funded study on the feasibility of buying private land near the site.

- DOE conducted plant tours and briefings for community leaders, members of congressional staffs, and others.
- DOE conducted a public meeting on modifications to its RCRA permit.
- DOE conducted a public information exchange to update the community on the ongoing environmental remediation projects.
- DOE briefed community leaders about site activities to assist them in setting community priorities for 2009.
- At monthly meetings of the CAB and its committees and subcommittees, DOE provided briefings and discussions on various projects, including public involvement activities, groundwater remediation, the Southwest Plume, waste disposal options, end use of the site, radiological surveys, soil and rubble areas, burial grounds, green remediation, the Comprehensive Environmental Response, Compensation, and Liability Act Five-Year Review, and an engineering evaluation/cost analysis (EE/CA) for inactive facility demolition.

• DOE also conducted public involvement activities for projects not conducted under the scope of the FFA, such as hosting a public meeting to discuss an environmental impact statement (EIS) for the Global Nuclear Energy partnership project and issuing for public comment an EIS on the nickel recycling.

2009 Public Involvement

- DOE conducted a public information exchange to update the community on the waste disposal options project and began planning for another exchange in the first quarter of 2010 to provide additional information and seek additional comment.
- DOE briefed community leaders about site activities to assist them in setting community priorities for 2010.
- At monthly meetings of the CAB and its committees and subcommittees, DOE provided briefings and discussions and sought public comment on various projects, including waste disposal options, end use of the site, environmental monitoring programs, the Southwest Plume, landfill operations, surface water remedial actions, groundwater remedial actions, soils removal and remedial action, facility decontamination and decommissioning, DOE Material Storage Areas, and burial grounds.
- The CAB, with DOE assistance, continued its scenario planning efforts to help arrive at recommendations for an end use for the site.
- Two EE/CAs were issued for public comment, one for the removal of "hot spots" in plant creeks and ditches, the other for the removal of two facilities with contaminated soils.

2010 Public Involvement

- DOE briefed community leaders and sought public comment about site activities to assist them in setting community priorities for 2010 and 2011.
- DOE coordinated a public meeting and sought public comment for the National Institute of Occupational Safety and Heath to present health findings of a recent study.
- DOE coordinated two forums for the Kentucky Research Consortium for Energy and the Environment (KRCEE) to discuss future site scenarios.
- The CAB, with DOE assistance, continued its scenario planning efforts to help arrive at recommendations for an end use for the site.
- DOE conducted plant tours and briefings for community leaders, members of congressional staffs, and others and sought public comment.

- DOE conducted a public information exchange and sought public comment to update the community on the waste disposal alternatives (WDA) project.
- DOE briefed community leaders and sought public comment about site activities to assist them in setting community priorities for 2011.

- DOE conducted plant tours and briefings for community leaders, members of congressional staffs, and others and sought public comment.
- DOE received positive media coverage on workforce employees and project accomplishments.
- DOE hosted a regional science bowl competition for middle and high school students.
- DOE, along with CAB, hosted the 2011 Eco-Fair for 600 middle school students in McCracken and Ballard Counties.
- DOE, with support from the remediation contractor, conducted a science outreach program for 25 sixth, seventh, and eighth graders involved in the Gifted and Talented Program at Heath Middle School.
- The CAB Vice Chair made a presentation to approximately 160 Rotary Club members to educate them on the CAB's role at the site, as well as DOE and various contractor missions at the site.
- DOE worked with state and federal regulators to hold a public comment period for a proposed plan regarding Southwest Plume source cleanup.

- The CAB hosted a two-day national DOE SSAB Chairs Meeting at which DOE EM Senior Advisor Dave Huizenga held roundtable discussions concerning the challenges of how to best use cleanup dollars.
- In conjunction with the chairs meeting, DOE held PGDP tours for Mr. Huizenga and SSAB chairs.
- DOE briefed community leaders and sought public comment about site activities to assist them in setting community priorities for 2012–2013.
- DOE issued a record of decision and subsequent press release regarding Southwest Plume source cleanup.
- DOE and the Paducah remediation contractor participated in the Jackson Purchase Foundation Water Conference presenting an overview of the Paducah Remediation Program.
- DOE and the remediation contractor worked with the Kentucky Division of Waste Management to hold a public comment period and public meeting regarding changes to DOE's Hazardous Waste Facility Permit.
- DOE provided a tour of potential WDA sites for CAB members and worked with the CAB WDA subcommittee to develop public workshop briefing materials for the WDA Remedial Investigation/Feasibility Study process.
- At monthly meetings of the CAB and its committees and subcommittees, DOE provided briefings and discussions and sought public comment on various projects, including WDA, end use of the site, inactive facilities removal, and cleanup of groundwater, surface water, soils, and burial grounds.
- The CAB, with DOE assistance, continued its scenario planning efforts to help develop recommendations for an end use for the site.

- DOE held a two-day Industry Day workshop, including a site tour, with private industry and public economic development officials and sought public comment to determine the nature of private industry interest in the PGDP after United States Enrichment Corporation ceases uranium enrichment operations.
- DOE conducted plant tours and briefings and sought public comment for community leaders, Paducah Area Chamber of Commerce representatives, senior DOE headquarters officials, members of congressional staffs, and others.
- DOE received positive media coverage on workforce employees and cleanup accomplishments.
- DOE hosted a regional science bowl competition for middle and high school students.
- DOE held PGDP tour for the Kentucky Energy and Environmental Cabinet Secretary, Dr. Len Peters.
- The CAB and DOE, with help from the remediation contractor, hosted the 3rd Annual Eco Fair for nearly 500 sixth-graders from Lone Oak, Heath, and St. Mary Middle Schools in McCracken County.
- DOE, with support from the remediation contractor, conducted a mentoring program for about 50 Gifted and Talented Program science students at Heath and Lone Oak middle schools.
- DOE hosted Kentucky Labor Cabinet Secretary Mark Brown for Governor's Safety and Health Award presentations to DOE's three Paducah prime contractors for outstanding safety performance.
- The Paducah remediation contractor launched the DOE Portsmouth/Paducah Project Office: Environmental Geographic Analytical Spatial Information System (PEGASIS), an enhanced geographic mapping tool, affording public access via the Internet to environmental sampling data at PGDP.
- DOE and the Paducah remediation contractor hosted 19 Kentucky Governor's Scholars Program students for a presentation and tour of PGDP, focusing on environmental cleanup and waste management.

- Teams of Lone Oak Middle School students conducted research about PGDP and presented ideas about cleanup and methods for reuse of the site and its facilities to DOE management and the remediation contractor.
- DOE, along with several area and national businesses and entities, sponsored the Western Kentucky Regional Science Bowl for area high schools and middle schools.
- DOE held a meeting to inform the public that DOE was starting an environmental assessment to evaluate the environmental impacts of potential property transfers at PGDP. DOE held an information session with follow-up questions and answers to seek public comment.
- Lone Oak and Heath Middle School students visited West Kentucky Wildlife Management Area (WKWMA) to learn about the effects of chemical contamination on human health and the environment. Personnel from the remediation contractor participated in the event with Kentucky Department of Fish and Wildlife Resources officers.

- Three-dimensional models showing groundwater cleanup progress at PGDP were displayed at the West Kentucky Community and Technical College Emerging Technology Center to help the public better understand the difficulty and complexity of the work. DOE, the University of Kentucky, and the remediation contractor were involved in the exhibit.
- In conjunction with KRCEE, DOE began work with area high school students to prepare a summary of the 2012 ASER.
- At monthly meetings of the CAB and its committees and subcommittees, DOE provided briefings and discussions and sought public comment on various projects, including WDA, end use of the site, inactive facilities removal, and cleanup of groundwater, surface water, soils, and burial grounds.
- The CAB released a book to preserve the history and legacy of PGDP and pay tribute to the workers who made it successful. The DOE infrastructure contractor sponsored the book, The Story of the Paducah Gaseous Diffusion Plant, Megawatts to Megatons to Megawatts.
- The CAB, with DOE assistance, continued its scenario planning efforts to help develop recommendations for an end use for the site.
- DOE conducted plant tours and briefings for community leaders, new CAB members, Paducah Area Chamber of Commerce representatives, senior DOE headquarters officials, members of congressional staffs, and others and sought public comment.
- DOE received positive media coverage on workforce employees and cleanup accomplishments.

- More than 300 sixth-graders in McCracken and Ballard counties participated in a fall semester mentoring program conducted by the remediation contractor. The program was designed to give the students a better understanding of groundwater cleanup at PGDP.
- A group of Marshall County High School students and staff toured PGDP to learn about cleanup activities. The group also toured the WKWMA and took part in a local habitat presentation. Having begun work with DOE during the 2013-2014 school year, the students summarized the technical ASER into a document intended for a public audience. They distributed their summary in fall 2015. The program is in conjunction with KRCEE. Remediation contractor representatives participated in Ballard County Elementary School Career Day activities. More than 200 fourth- and fifth-graders learned about DOE cleanup work and the education required to pursue cleanup-related careers.
- Thirteen college students participated in a summer intern program sponsored by the remediation contractor. The students represented the University of Kentucky, the University of Kentucky College of Engineering-Paducah, Murray State University, Western Kentucky University, Ohio State University, and Michigan State University.
- At monthly meetings of the CAB and its committees and subcommittees, DOE provided briefings and discussions and sought public comment on various projects, including WDA, end use of the site, inactive facilities removal, and cleanup of groundwater, surface water, soils, and burial grounds.
- The CAB, with DOE assistance, continued its scenario planning efforts to help develop recommendations for an end use for the site.

• DOE conducted plant tours and briefings and sought public comment for community leaders, new CAB members, Paducah Area Chamber of Commerce and Greater Paducah Economic Development representatives, senior DOE headquarters officials, members of congressional staffs, and others.

2015 Public Involvement

- Personnel representing the site's Emergency Management and Radiological Control organizations presented at the Paducah Chamber for Girls Science, Technology, Engineering, and Mathematics (STEM) program held in November for approximately 200 girls from grades 3–12 from surrounding counties.
- The Paducah remediation contractor delivered a presentation to Murray State University's groundwater remediation class.
- The Paducah remediation contractor executed a Middle School Mentor Program visiting 5 schools teaching students about groundwater.
- DOE integrated site activities under the infrastructure and remediation contractors to facilitate transfer of assets to the Paducah Area Community Reuse Organization (PACRO) including approximately 15,000 tons of coal. PACRO is tasked with minimizing the impact of the closure of PGDP by helping to diversify and grow the regional economy.
- Twelve college students, representing state and local colleges and universities, participated in a summer intern program sponsored by the Paducah remediation contractor.
- At monthly meetings of the CAB and its committees and subcommittees, DOE provided briefings and discussions and sought public comment on various projects, including stabilization and deactivation, inactive facilities removal, and cleanup of groundwater, and burial grounds.
- DOE conducted plant tours and briefings and sought public comment for community leaders, new CAB members, Paducah Area Chamber of Commerce and Greater Paducah Economic Development representatives, senior DOE headquarters officials, members of congressional staffs, and others.
- DOE, University of Kentucky, and the Paducah Area Chamber of Commerce's Business Education Partnership teamed to host the DOE annual West Kentucky Regional Science Bowl for 19 middle school teams and 20 high school teams at the University of Kentucky's College of Engineering extended campus in Paducah, Kentucky.
- A group of Marshall County High School students summarized the technical ASER into a document intended for a public audience.

2016 Public Involvement

• DOE began offering tours to the general public for the first time in the history of the site. Ten tours were offered to the public in 2016 between April and September drawing nearly 400 visitors. Additional tours and briefings were conducted for community leaders, new CAB members, Paducah Area Chamber of Commerce and Greater Paducah Economic Development representatives, senior DOE headquarters officials, and members of congressional staffs.

- At monthly meetings of the CAB and its committees and subcommittees, DOE provided briefings and discussions and sought public comment on various projects, including stabilization and deactivation, inactive facilities removal, and cleanup of groundwater and burial grounds.
- Seventeen college students, representing state and local colleges and universities, participated in a summer intern program sponsored by the Paducah remediation contractor.
- The Paducah remediation contractor conducted a Middle School Mentor Program visiting 5 schools teaching students about groundwater.
- DOE, University of Kentucky, and the Paducah Area Chamber of Commerce's Business Education Partnership teamed to host the DOE annual West Kentucky Regional Science Bowl for 17 middle school teams and 18 high school teams at the University of Kentucky's College of Engineering extended campus in Paducah, Kentucky.
- DOE Site Lead discussed remediation activities with 200 Chamber of Commerce members.
- DOE Site Lead conducted a presentation and discussed remediation activities with approximately 140 Rotary Club members.

- DOE continued offering tours to the general public. Nine tours were offered to the public in 2017 between April and September. Additional tours and briefings were conducted for community leaders, new CAB members, Paducah Area Chamber of Commerce and Greater Paducah Economic Development representatives, senior DOE headquarters officials, and members of congressional staffs.
- DOE supported the CAB in the biannual SSAB Chairs meeting. SSAB chairpersons presented top priorities at each DOE site from the stakeholder perspective to DOE headquarters management. They also held a working session to finalize existing recommendations and to set a path forward for DOE.
- DOE hosted the Atomic Energy Workers Council for a tour of the PGDP and Depleted Uranium Hexafluoride Conversion Plant. The council consists of presidents and vice presidents from all United Steel Workers local unions that have contracts with DOE across the nation.
- At monthly meetings of the CAB and its committees and subcommittees, DOE provided briefings and discussions and sought public comment on various projects, including stabilization and deactivation, inactive facilities removal, and cleanup of groundwater and burial grounds.
- Fifteen college students, representing the state and local colleges and universities, participated in a summer intern program sponsored by the deactivation contractor.
- DOE, University of Kentucky, and the Paducah Area Chamber of Commerce's Business Education Partnership teamed to host the DOE annual West Kentucky Regional Science Bowl for 18 middle school teams and 19 high school teams at the University of Kentucky's College of Engineering extended campus in Paducah, Kentucky.
- DOE conducted an on-line survey during September 2017 and requested voluntary participation from area residents, business owners, and local government officials. Out of 1,658 letters issued to survey recipients, 101 surveys (6.1%) were completed.

- DOE Site Lead conducted a presentation and discussion of remediation activities and potential career opportunities to approximately 30 University of Kentucky engineering students.
- Additionally, the DOE Site Lead and project managers conducted a presentation and discussion of remediation activities and potential career opportunities to approximately 25 Boys and Girls Club members.
- DOE Site Lead conducted a presentation of remediation activities to approximately 45 members of the Kiwanis Club.

- DOE, University of Kentucky, and the Paducah Area Chamber of Commerce's Business Education Partnership teamed to host the DOE 10th Anniversary of the DOE annual West Kentucky Regional Science Bowl for 20 middle school teams and 18 high school teams at the University of Kentucky's College of Engineering extended campus in Paducah, Kentucky.
- DOE worked closely with EPA and KDEP to develop the report for the on-line survey conducted during September 2017. Several conference calls were held and questions were answered informally among the FFA parties in order to finalize the report for presentation in the 2018 FFA CRP.

- DOE continued offering tours to the general public. Ten tours were offered to the public in 2019 between April and September. Approximately 400 people participated this year. Additional tours and briefings were conducted for community leaders, new CAB members, Paducah Area Chamber of Commerce members, senior DOE headquarters officials, and members of congressional staffs.
- At monthly meetings of the CAB and its committees and subcommittees, DOE provided briefings and discussions and sought public comment on various projects, including stabilization and deactivation, land transfer processes, and cleanup of groundwater.
- In 2019, DOE sponsored a 10-week Internship Program for 14 college students to work and to be mentored by engineers, project managers, and leaders in the business, safety, and regulatory departments to get a first-hand, realistic perspective about what they would like to do after graduation.
- Eighty-five students from the Marshall County School district visited the Paducah Site for development of the ASER summary.
- DOE supported several educational activities, including participating in an 8th grade career fair hosted by the Paducah Chamber of Commerce, hosting an on-site tour and hands-on activities for members of the Oscar Cross Boys and Girls Club, and conducting groundwater education lessons at regional middle schools. These programs engaged approximately 1,150 students.
- DOE coordinated the 11th annual West Kentucky Regional Science Bowl for 18 middle school teams and 18 high school teams at the University of Kentucky's College of Engineering extended campus in Paducah, Kentucky. One hundred eighty students registered for this event.

- Due to COVID-19, DOE did not conduct the summer internship program for college students or any public tours after March 2020.
- At monthly meetings of the CAB, DOE provided briefings and discussions and sought public comment on various projects, including stabilization and deactivation, land transfer processes, and cleanup of groundwater. Due to COVID-19, after March 2020, these meetings were conducted virtually in July, September, November, and December 2020.
- In 2020, DOE conducted a site overview virtual presentation with Marshall County High School students, which was provided in lieu of a site tour due to COVID-19. The presentation supported KRCEE's work with students from Marshall County High School to produce an ASER summary.
- DOE coordinated the 12th annual West Kentucky Regional Science Bowl for 18 middle school teams and 18 high school teams at the University of Kentucky's College of Engineering extended campus in Paducah, Kentucky. Events were conducted virtually due to COVID-19. Two hundred five students registered for this event.

2021 Public Involvement

- Due to COVID-19, DOE did not conduct the summer internship program for college students or any public tours in 2021.
- At monthly meetings of the CAB, DOE provided briefings and discussions and sought public comment on various projects, including stabilization and deactivation, land transfer processes, and cleanup of groundwater. Due to COVID-19, these meetings were conducted virtually in January, February, March, May, June, and September 2021. In November 2021, meetings were conducted with some in-person participants and some virtual participants.
- DOE supported several educational activities, including the STEM for Girls event coordinated by the Business Education Partnership of the Paducah Area Chamber of Commerce. Approximately 100 students, ranging in grades 5 through 12, participated.
- DOE coordinated the 13th annual West Kentucky Regional Science Bowl for six middle school teams and six high school teams at the University of Kentucky's College of Engineering extended campus in Paducah, Kentucky. Events were conducted virtually due to COVID-19. Eighty students registered for this event.

PUBLIC INVOLVEMENT IN THIS PLAN

Paducah CAB and Focus Groups. Early revisions of this plan were aided by input from the Paducah CAB and three focus groups. A Business and Education Focus Group brought together representatives of the regional business community, educators from elementary to college levels, and local elected officials. A Plant Neighbors Focus Group provided input from individuals living near PGDP. Members of the Paducah CAB volunteered their services to form the third focus group.

The focus groups provided feedback to DOE on several aspects of communication with stakeholders. The three groups were asked, in particular, for input on the effectiveness of various avenues of stakeholder

communication used by DOE and for their suggestions on other efforts that might be made to improve communication.

KRCEE. The KRCEE performed several outreach activities during 2009 and in 2010 to solicit an understanding of public and stakeholder preferences regarding the End State Vision of the PGDP. The first outreach activity was performed from April to August 2009 to identify critical issues, discover previously identified end state scenarios, and distinguish stakeholders. The second outreach activity was performed from August 2009 to May 2010 to solicit community values and discuss perceptions about the plant's future. The third outreach activity was performed from May to October 2010 to research informational needs and inform public of the study. The fourth outreach activity was performed on October 25–27, 2010.

2017 Community Survey. DOE conducted a broad-reaching online survey during September 2017 and requested voluntary participation from area residents, business owners, and local government officials. This was an effort by the FFA parties to obtain feedback on the public's understanding of cleanup activities at PGDP. Appendix B contains additional information regarding the on-line survey.

APPENDIX B

2017 COMMUNITY SURVEY REPORT, SEPTEMBER

ACRONYMS

- Comprehensive Environmental Response, Compensation, and Liability Act CERCLA
- Community Relations Plan CRP
- DOE
- EPA
- U.S. Department of Energy U.S. Environmental Protection Agency Kentucky Department for Environmental Protection Paducah Gaseous Diffusion Plant KDEP
- PGDP

B.1. INTRODUCTION

The 2017 Community Survey was an online survey performed during September 2017. A printed version of the survey also was made available upon request. Voluntary participation was requested by the U.S. Department of Energy (DOE) of the area residents, business owners, and local government officials. Out of 1,658 letters issued to survey recipients, 101 surveys (6.1%) were completed during September 2017. The estimated time for survey respondents to complete the survey was 10 minutes.

The 2017 Community Survey was conducted by DOE with input from U.S. Environmental Protection Agency (EPA) and Kentucky Department for Environmental Protection (KDEP) to measure the effectiveness of various public information and educational programs regarding the cleanup activities at the Paducah Gaseous Diffusion Plant (PGDP) and to help guide future public interfaces for the remedial activities conducted at PGDP. The community survey was agreed to by DOE, EPA, and KDEP in the revised D2/R1 CRP, which was issued May 16, 2016, and received regulatory concurrence May 18, 2016.

B.2. METHODOLOGY

B.2.1 DEVELOPMENT OF SURVEY QUESTIONS

Survey questions were developed based on EPA guidance, "Community Interviews—174740," and utilized input from DOE, EPA, and KDEP in March 2017. Several additional meetings (via conference calls) and e-mail communications were used to refine the questions further. Survey questions were limited to activities regarding cleanup actions at PGDP and were presented in an online survey. The availability of an online survey was communicated to the public by DOE letter prior to the beginning date of the survey. A reminder letter also was issued at the mid-point of the survey. With the exception of local business owners and government officials, the letters were issued to mailing addresses by address only, not by resident's name. The online survey was anonymous.

B.2.2 IDENTIFICATION OF SURVEY RECIPIENTS

Attachment 2 of EPA guidance, "Community Interviews—174740," was considered/referenced in determining who would participate in the survey. The list of participants originally included persons who had requested to be provided informational mailers and consisted of area residents, water policy holders, and public officials. Once addresses from this mailing list were plotted using ArcGIS, the map was provided to DOE, EPA, and KDEP for review. In order to have a better representation of neighbors/participants on the east side of PGDP, additional residential addresses were obtained using a database of addresses, grouped by area code and corroborated with U.S. Census Bureau Data (2016). Due to the density of the addresses plotted on the map, one out of every third address was plotted from this database, and other additions to the map included local businesses and churches surrounding PGDP that were not on the original list. The final map was reviewed and approved by DOE, EPA, and KDEP. The final number of surveys provided to the public totaled 1,658. A map identifying the addresses where letters were mailed is provided in Attachment B1, Figure B1.1.

B.2.3 ISSUANCE OF THE SURVEY LETTERS REQUESTING PUBLIC PARTICIPATION

In August 2017, DOE issued letters to 1,658 participants. The letter provided an invitation to participate, a website, username, and password that was required to login to a website where they were asked to answer 15 questions regarding cleanup activities at PGDP. The online survey was available from August 31, 2017, until October 2, 2017. Examples of the letters mailed on August 28, 2017, and September 11, 2017, and are provided in Attachment B1, Figures B1.2 and B1.3, respectively. A total of 46 letters was returned by the U.S. Post Office as "Return to Sender—No Such Number—Unable to Forward" due to the property not having a residence (i.e., the address was vacant), the resident at the location was a renter, or there was no such number in existence.

B.2.4 HANDLING OF HARD COPY SURVEYS

Of the survey letters issued, twelve requests were made by local residents by phone for hard copy surveys. The surveys were mailed to the recipients within one day from the date the request was made. Eleven hard copy surveys were returned.

B.2.5 LESSONS LEARNED

The following lessons learned resulting from the performance of the on-line community survey have been documented for future reference.

- The website had an anomaly that allowed a survey respondent to click the submit survey button more than once. This resulted in a duplication of responses by several respondents (i.e., eight surveys were duplicated). The duplicated results were removed from the final results.
- As anticipated, some respondents preferred to respond via paper survey. Future surveys should continue to offer a paper option.

B.3. SURVEY RESULTS

Detailed survey findings and online survey results (CD) are presented in Attachment B2.

B.4. CONCLUSIONS

Overall, 6.1% (101 out of 1,658) of the survey recipients who received letters responded to and completed the online survey. The stated goal from the meetings and conference calls held with DOE, EPA, and KDEP in March and April 2017 was to receive over 100 surveys. The majority (72%) of respondents were very knowledgeable, fairly knowledgeable, or had some basic knowledge and were consistent in how they have received information in the past regarding cleanup activities, how they currently are aware of contamination, and how they prefer to receive information regarding cleanup activities—television, newspaper, informational mailers, and public notices (Figure B.1). The public gave positive responses regarding communications with DOE, EPA, and KDEP.

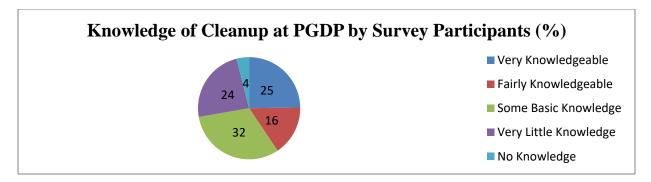


Figure B.1. Knowledge of Cleanup at PGDP by Survey Participants

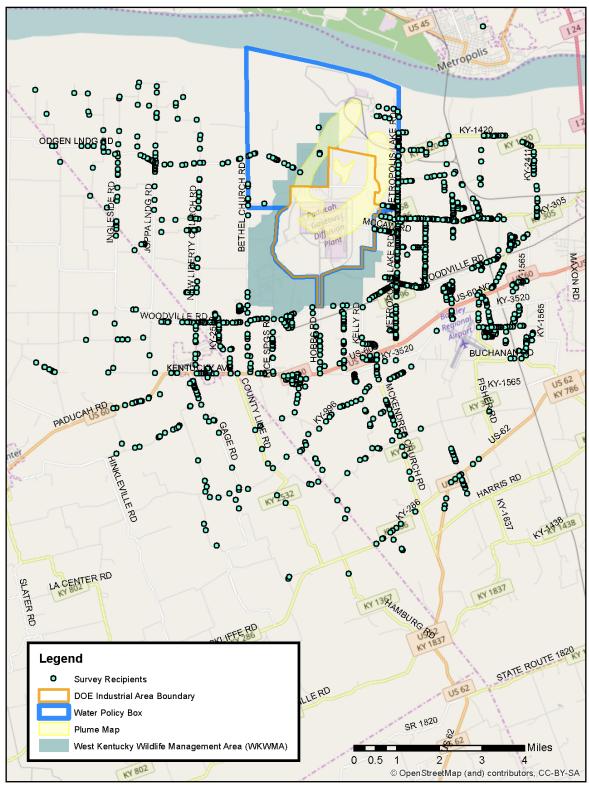
The objective of the survey was to measure the effectiveness of various public information and educational programs and to help guide public involvement in remedial activities conducted at PGDP. Based on the survey responses, the public information and educational programs utilized by DOE related to PGDP CERCLA activities are effective; however, DOE is seeking to expand outreach in order to better capture additional members of the public. In January 2018, DOE proactively launched a Portsmouth/Paducah Project Office Facebook page as another method for communicating outreach activities. Site successes, accomplishments, and cleanup activities will be posted periodically in an effort to better communicate this information (i.e., advances in cleanup activities) to the public.

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ATTACHMENT B1

MAP OF SURVEY RECIPIENTS, SURVEY LETTERS, AND SURVEY QUESTIONS

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Plant Neighbor Survey Recipients

06/09/2017

Figure B1.1. Plant Neighbor Survey Recipients



Department of Energy

Portsmouth/Paducah Project Office 1017 Majestic Drive, Suite 200 Lexington, Kentucky 40513 (859) 219-4000

September 1, 2017

Dear Citizen:

U.S. DEPARTMENT OF ENERGY SURVEY

The U.S. Department of Energy (DOE) is conducting a survey of the community regarding public knowledge and awareness of the DOE Paducah Gaseous Diffusion Plant (PGDP). Participation in the survey is voluntary and responses are anonymous.

The survey will be available online for 30 days from September 1, 2017, to September 30, 2017, at <u>www.pgdpsurvey.com</u>. Please follow the instructions on the website to access the survey. The survey should take approximately 10 minutes to complete.

The user name and password provided below are necessary to access the survey and are case sensitive.

User name: PaducahSiteSurvey Password: PGDPSurvey2017

If you have any problems logging into the survey, please contact Jennifer Blewett, Fluor Federal Services, Inc., at (270) 441-5070.

If you do not have a computer, you can request a paper copy of the survey from Fluor Federal Services, Inc., at (270) 441-5070. The copy will be mailed to you, along with a postage-paid envelope for easy return. You also may use a public computer at the McCracken County Public Library, 555 Washington Street in Paducah, Kentucky.

The U.S. Environmental Protection Agency, the Kentucky Department for Environmental Protection, and DOE are working together toward the common goal of communicating cleanup efforts at the PGDP to the public. Your feedback is important to these agencies and will be used to improve the communication of information regarding cleanup activities at the PGDP.

If you have any questions, require additional information, or are interested in being on the mailing list to receive information updates on cleanup activities at the Paducah Site, please contact Robert Smith at (270) 441-6821. We appreciate your participation!

Sincerely,

nnifer Woodard

Jennifer Woodard Paducah Site Lead Portsmouth/Paducah Project Office

Figure B1.2. DOE Letter Mailed to Survey Recipients on August 28, 2017

A CONTRACT OF A	Department of Energy Portsmouth/Paducah Project Office 1017 Majestic Drive, Suite 200 Lexington, Kentucky 40513 (859) 219-4000
	Dear Citizen:
	U.S. DEPARTMENT OF ENERGY SURVEY REMINDER
	On September 1, 2017, the U.S. Department of Energy (DOE) requested your participation in a survey of the community regarding public knowledge and awareness of the DOE Paducah Gaseous Diffusion Plant (PGDP). Participation in the survey is voluntary. If you have completed this survey, please disregard this letter. If you have not completed this survey, please complete the survey before September 30, 2017, at <u>www.pgdpsurvey.com</u> . Please follow the instructions on the website to access the survey. The survey should take approximately 10 minutes to complete.
5	The user name and password provided below are necessary to access the survey and are case sensitive.
	User name: PaducahSiteSurvey Password: PGDPSurvey2017
	If you have problems logging into the survey, please contact Jennifer Blewett, Fluor Federal Services, Inc., at (270) 441-5070.
	If you do not have a computer, you can request a paper copy of the survey from Fluor Federal Services, Inc., at (270) 441-5070. The copy will be mailed to you, along with a postage-paid envelope for easy return. You also may use a computer at the McCracken County Public Library, 555 Washington Street in Paducah, Kentucky.
	The U.S. Environmental Protection Agency, the Kentucky Department for Environmental Protection, and DOE are working together toward the common goal of communicating cleanup efforts at the PGDP to the public. Your feedback is important to these agencies and will be used to improve the communication of information regarding cleanup activities at the PGDP.
	If you have any questions, require additional information, or are interested in being on the mailing list to receive information updates on cleanup activities at the site, please contact Robert Smith at (270) 441-6821. We appreciate your participation!
	Sincerely,
	Jennifer Woodard Baducah Site Lead
	A addean Site Lead
	Portsmouth/Paducah Project Office

Figure B1.3. DOE Letter Mailed to Survey Recipients on September 11, 2017

	2017 Community Survey Questions
1.	Please rate your knowledge of the cleanup at the U.S. Department of Energy Paducah Gaseous Diffusion Plant. 1-Very Knowledgeable 2-Fairly Knowledgeable 3-Some Basic Knowledge 4-Very Little Knowledge 5-No Knowledge
2.	Have you had any involvement with the site? Please check all that apply.
	 Former Worker Current Worker Relative of a Former or Current Worker Local Business Leader who has done work at the site Local Business Leader who has not done work at the site Concerned Citizen Plant Neighbor Other:
3.	Do you have any concerns about cleanup at the site? Please check all that apply.
	 Soils and Groundwater Contamination Air Quality Radiation Exposure Protection of Workers Protection of Community Noise Funding Availability Not applicable (no concerns) No knowledge Other:
4.	Do you have a primary concern about these cleanup actions at the site? Please check one primary concern.
	 The work is performed safely. The work is addressed in a timely manner. The work allows the property to be returned to the community. The work is performed with appropriate resources and expertise. There is not enough funding to perform the work. Health concerns. I do not keep up with activities at the site. I have no concerns about the site. Other:
	1

Figure B1.4. On-Line Survey Questions and Websites Provided to Survey Respondents on September 2017 5. Are you aware of any issues that are not being addressed at the site? Please check all that apply.

- □ Soil and groundwater contamination
- □ Cleanup of facilities
- □ Future land use
- □ Adjusting utilities and infrastructure to meet cleanup activities
- □ Scheduling or timeline of cleanup
- □ Not applicable (no concerns)
- □ Other/Explanation:
- 6. I consider that the government stakeholders are strongly committed to cleaning up hazardous substances at the site. Please indicate how you feel about this statement.
 - □ 1–Strongly Agree
 - □ 2–Somewhat Agree
 - \square 3–No Opinion
 - □ 4–Somewhat Disagree
 - □ 5–Strongly Disagree
- 7. What contacts have you had with officials associated with the site about cleanup at the site? Please check all that apply.
 - DOE Officials
 - $\hfill\square$ EPA Officials
 - □ Kentucky Environmental Officials
 - Kentucky Recreational Officials
 - $\hfill\square$ Companies working for the government at the site
 - □ Other:
 - □ Not applicable (no interaction) Skip to Question #9.
- 8. Did the officials at the site respond in a way that answered your questions/needs? (Refer to Question 7.)

Government Official	Strongly Agree	Somewhat Agree	No Opinion	Somewhat Disagree	Strongly Disagree
DOE Officials					
EPA Officials					
Kentucky Environmental Officials					
Kentucky Recreational Officials					
Companies working for the government at the site					
Other:					
Not applicable (no interaction) – Skip to Question #9.					

2

Figure B1.4. On-Line Survey Questions and Websites Provided to Survey Respondents on September 2017 (Continued)

9	How are you aware	of contamination	associated with the site?	Please check all that	annly
1.	110W are you aware	or containination	associated with the site:	i fease cheek all that	appiyo

- □ Newspaper
- □ Television
- □ Public Tours
- Public Notices
- □ Through the Paducah Citizens Advisory Board
- □ Through the McCracken County Public Library
- □ Through the Paducah Environmental Information Center
- □ Informational Mailers (delivered to your home)
- □ Community Meetings
- □ Workshops
- □ Web Sites
- Social Media
- □ Fact Sheets
- □ Kentucky Oversight Quarterly Newsletter
- □ Other Suggestions:
- 10. Do you regularly receive information about the cleanup of the site through the following sources? Please check all that apply.
 - □ Newspaper
 - □ Television
 - Public Tours
 - Public Notices
 - □ Through the Paducah Citizens Advisory Board
 - □ Through the McCracken County Public Library
 - □ Through the Paducah Environmental Information Center
 - □ Informational Mailers (delivered to your home)
 - □ Community Meetings
 - □ Workshops
 - □ Web Sites
 - Social Media
 - □ Fact Sheets
 - □ Kentucky Oversight Quarterly Newsletter
 - □ Other Suggestions:
- 11. Would you like to obtain information about cleanup of the site more frequently? At the end of the survey, links to informative Web sites regarding cleanup of the site are provided.
 - □ Yes □ No

Figure B1.4. On-Line Survey Questions and Websites Provided to Survey Respondents on September 2017 (Continued)

	best ways to provide you with information about cleanup activities at the site? Please at apply. Feel free to provide other suggestions.
□ Newspa	
□ Televisi	
D Public T	fours
D Public N	Notices
	h the Paducah Citizens Advisory Board
	h the McCracken County Public Library
	h the Paducah Environmental Information Center
	tional Mailers (delivered to your home) nity Meetings
U Worksh	
□ Web Sit	
□ Social N	
□ Fact She	
	cy Oversight Quarterly Newsletter
□ Other S	uggestions:
13. How often w	ould you like to receive information about the site?
□ Once a w	veek
□ Once a m	
🛛 Once a q	uarter
□ Yearly	
	blic participation is being sought
□ Other: _	
14. Have you vis https://energy	ited the U.S. Department of Energy Portsmouth/Paducah Project Office Web site, y.gov/pppo?
□ Yes	
\square No	
□ No know	/ledge
	thing else you would like to share about the cleanup progress/activities at the U.S. of Energy Paducah Gaseous Diffusion Plant?
Thank you for yo	our participation.
	4

Figure B1.4. On-Line Survey Questions and Websites Provided to Survey Respondents on September 2017 (Continued) Web sites providing additional information on U.S. Department of Energy Paducah Gaseous Diffusion Plant cleanup are provided below.

- 1. U.S. Department of Energy Environmental Management, <u>https://energy.gov/em/office-environmental-management</u>
- 2. U.S. Department of Energy Portsmouth/Paducah Project Office, https://energy.gov/pppo
- 3. U.S. Department of Energy Portsmouth/Paducah Project Office/Paducah Environmental Remediation, <u>https://www.energy.gov/pppo/paducah-site/paducah-environmental-remediation</u>
- 4. Fluor Federal Services, Inc., Paducah Deactivation Project, http://ffspaducah.com/
- 5. Paducah Citizens Advisory Board, http://www.pgdpcab.energy.gov/
- 6. Paducah Environmental Information Center Online Document Repository, <u>www.paducaheic.com</u>
- 7. Kentucky Quarterly Oversight Newsletter, http://waste.ky.gov/HWB/Pages/PaducahGaseousDiffusionPlant.aspx
- 8. Kentucky Department for Environmental Protection, http://dep.ky.gov/
- 9. U.S. Environmental Protection Agency Paducah Gaseous Diffusion Plant National Priorities List, <u>http://www.epa.gov/region4/superfund/sites/fedfacs/pgasdifky.html</u>
- 10. U.S. Environmental Protection Agency Superfund Community Involvement, <u>http://www.epa.gov/fedfac/community-involvement-federal-facilities</u>
- 11. McCracken County Public Library-Special Collections, <u>www.mclib.net</u>
- 12. PPPO Environmental Geographic Analytical Spatial Information System (PEGASIS), http://pegasis.ffspaducah.com/

Figure B1.4. On-Line Survey Questions and Websites Provided to Survey Respondents on September 2017 (Continued)

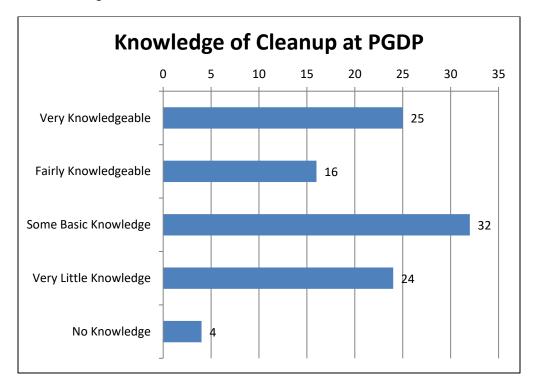
ATTACHMENT B2

SURVEY RESULTS

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2017 COMMUNITY SURVEY RESULTS

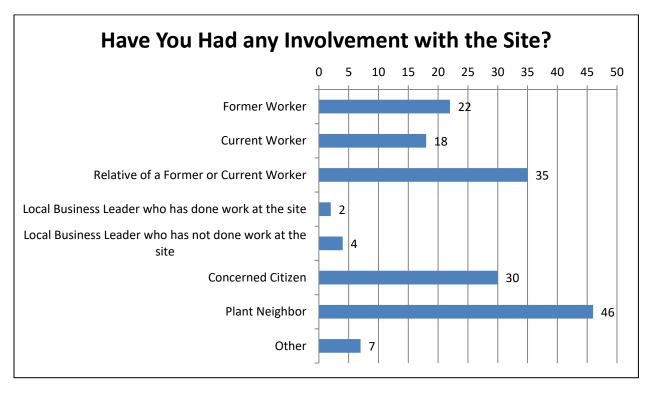
- 1. Please rate your knowledge of the cleanup at the U.S. Department of Energy Paducah Gaseous Diffusion Plant.
 - □ 1–Very Knowledgeable
 - □ 2–Fairly Knowledgeable
 - □ 3–Some Basic Knowledge
 - □ 4–Very Little Knowledge
 - □ 5–No Knowledge



Comments:

The majority of respondents (73 out of 101) stated they are very knowledgeable, fairly knowledgeable, or have at least some basic knowledge of the cleanup activities at PGDP. Only four respondents stated they had no knowledge of the cleanup activities at PGDP.

- 2. Have you had any involvement with the site? Please check all that apply.
 - □ Former Worker
 - □ Current Worker
 - □ Relative of a Former or Current Worker
 - □ Local Business Leader who has done work at the site
 - □ Local Business Leader who has not done work at the site
 - □ Concerned Citizen
 - □ Plant Neighbor
 - □ Other: ___

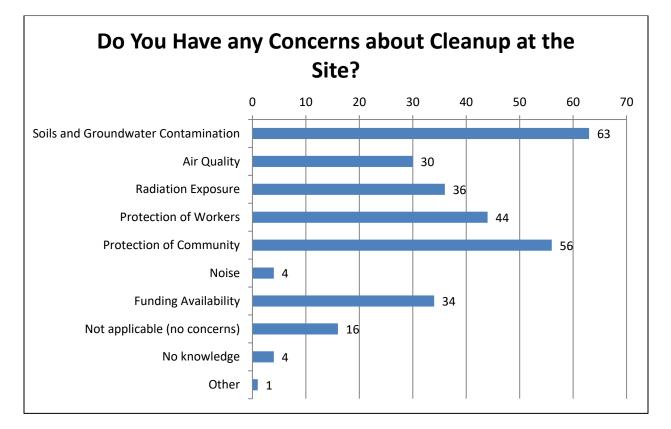


The majority of respondents who completed the survey were plant neighbors, relatives of a former or current worker, and concerned citizens. Multiple boxes could be checked by the respondents, resulting in a total of 164 responses out of 101 respondents.

Other comments supplied by survey respondents:

Have you had any involvement with the site?	Count	Total
None	2	
Just a member of the local community	1	
DOE security	1	
Plant Neighbor, made a few deliveries there for a medical supply	1	
company	1	
Relative of a Former or Current Worker, Concerned Citizen, Plant	1	
Neighbor, Former Worker: McGraw	1	
Former Worker, Concerned Citizen, Plant Neighbor, Worked as escort for 20 years (Lockheed Martin, USEC, etc.)	1	7

- 3. Do you have any concerns about cleanup at the site? Please check all that apply.
 - □ Soils and Groundwater Contamination
 - □ Air Quality
 - □ Radiation Exposure
 - □ Protection of Workers
 - □ Protection of Community
 - □ Noise
 - □ Funding Availability
 - □ Not applicable (no concerns)
 - \Box No knowledge
 - □ Other: __

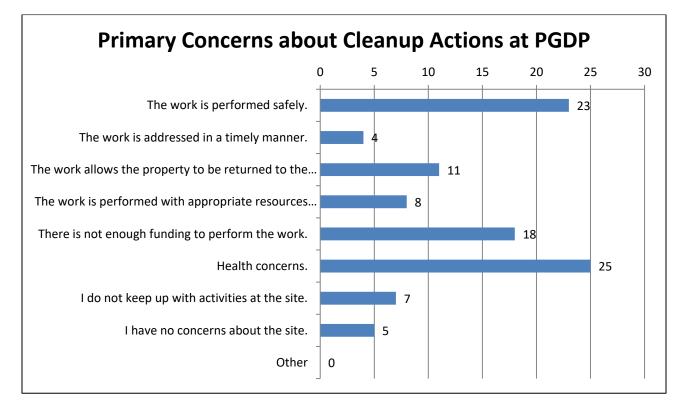


Soils and groundwater contamination, protection of the community, and protection of the workers were identified as the main concerns regarding cleanup at the site. Sixteen percent (16 out of 101) of respondents had no concerns about cleanup at the site. Multiple boxes could be checked by the respondents, resulting in a total of 288 responses out of 101 respondents.

Other comments supplied by survey respondents:

Animal and wildlife contaiments [sic].

- 4. Do you have a primary concern about these cleanup actions at the site? Please check one primary concern.
 - \Box The work is performed safely.
 - □ The work is addressed in a timely manner.
 - \Box The work allows the property to be returned to the community.
 - □ The work is performed with appropriate resources and expertise.
 - \Box There is not enough funding to perform the work.
 - \Box Health concerns.
 - \Box I do not keep up with activities at the site.
 - \Box I have no concerns about the site.
 - □ Other: ____



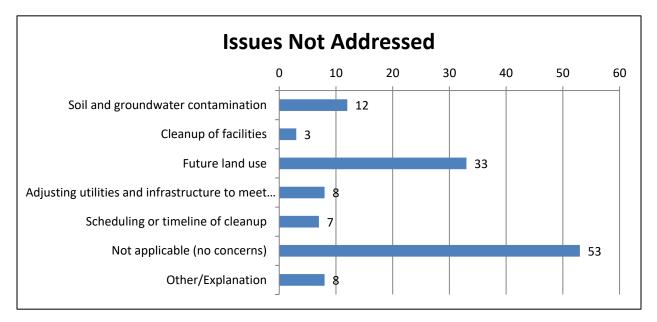
The top three primary concerns about cleanup actions at PGDP were the following:

- 1. Health concerns;
- 2. The work is performed safely; and
- 3. There is not enough funding to perform the work.

Other comments supplied by survey respondents:

None.

- 5. Are you aware of any issues that are not being addressed at the site? Please check all that apply.
 - □ Soil and groundwater contamination
 - \Box Cleanup of facilities
 - Future land use
 - □ Adjusting utilities and infrastructure to meet cleanup activities
 - □ Scheduling or timeline of cleanup
 - □ Not applicable (no concerns)
 - □ Other/Explanation: ____



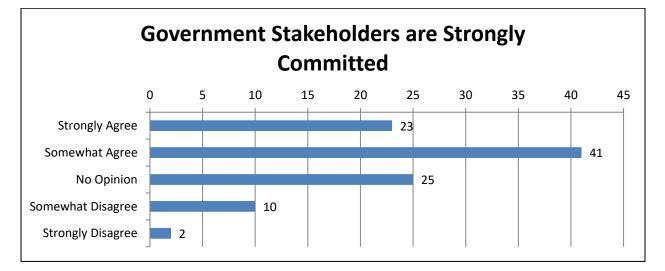
Comments:

Over half of the responses (53 out of 101) indicated issues not being addressed at PGDP were not applicable (i.e., they had no concerns). The future land use of PGDP also was identified as an issue that had not been addressed. Multiple boxes could be checked by the respondents, resulting in a total of 124 responses out of 101 respondents.

Other comments supplied by survey respondents:

Are you aware of any issues that are not being addressed at the site?	Count	Total
Don't know which issues are being addressed.	1	
dont really know what they are doing to clean it up	1	
in the darkwhat are they doing regarding cleanupsoil and water, future land use or how you are dealing with nuclear waste	1	
I've seen on the news that there is going to be a layoff and there are plenty of hazards that need to be addressed with the employees who are trained and skilled to deal with these matters. So why lay them off? Money has been designated from legislature.	1	
The security has seemed to become lax since the clean up started (roads are no longer blocked to get into the back of the site), however there are still barrels on site. It's too easy for just anybody to get onsite. Seems like a homeland security issue.	1	
work scopes are used to draw fee instead of improving cleanup	1	
My taxes are paid please use knowledge at hand	1	
Not aware of any	1	8

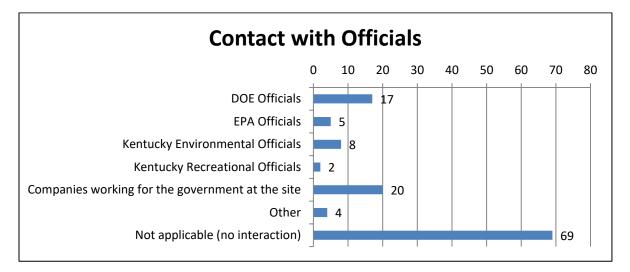
- 6. I consider that the government stakeholders are strongly committed to cleaning up hazardous substances at the site. **Please indicate how you feel about this statement.**
 - □ 1–Strongly Agree
 - □ 2–Somewhat Agree
 - □ 3–No Opinion
 - □ 4–Somewhat Disagree
 - □ 5–Strongly Disagree



Comments:

The majority (63%—64 out of 101) of respondents strongly agree or somewhat agree that government stakeholders are strongly committed to cleaning up hazardous substances at the site. Less than 2% strongly disagree that government stakeholders are strongly committed.

- 7. What contacts have you had with officials associated with the site about cleanup at the site? **Please** check all that apply.
 - \Box DOE Officials
 - □ EPA Officials
 - □ Kentucky Environmental Officials
 - □ Kentucky Recreational Officials
 - \Box Companies working for the government at the site
 - □ Other:
 - □ Not applicable (no interaction) **Skip to Question #9.**



The majority (55%—69 out of 125) of survey respondents have had no interaction with officials associated with the site about cleanup at the site. Respondent's contact with officials was shown to be 42% (52 out of 125). Multiple boxes could be checked by the respondents, resulting in a total of 125 responses out of 101 respondents.

Other comments supplied by survey respondents:

Note: No additional detail was provided on what was intended by "Other."

What contacts have you had with officials associated with the site?	Count	Totals
DOE Officials, Companies working for the government at the site, Other	1	
Other	3	4

8. Did the officials at the site respond in a way that answered your questions/needs? (Refer to Question 7.)

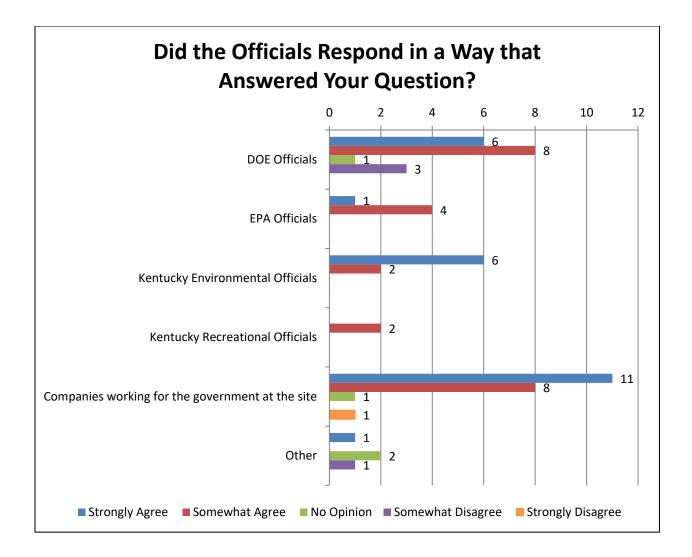
Government Official	Strongly Agree	Somewhat Agree	No Opinion	Somewhat Disagree	Strongly Disagree
DOE Officials					
EPA Officials					
Kentucky Environmental Officials					
Kentucky Recreational Officials					
Companies working for the government at the site					
Other:					
Not applicable (no interaction)— Skip to Question #9.					

The results are provided in the table below and are charted on the next page. No additional detail was provided by survey respondents on what was intended by "Other." Multiple boxes could be checked by the respondents, resulting in a total of 126 responses out of 101 respondents. Blank fields indicate no response was received by a survey respondent.

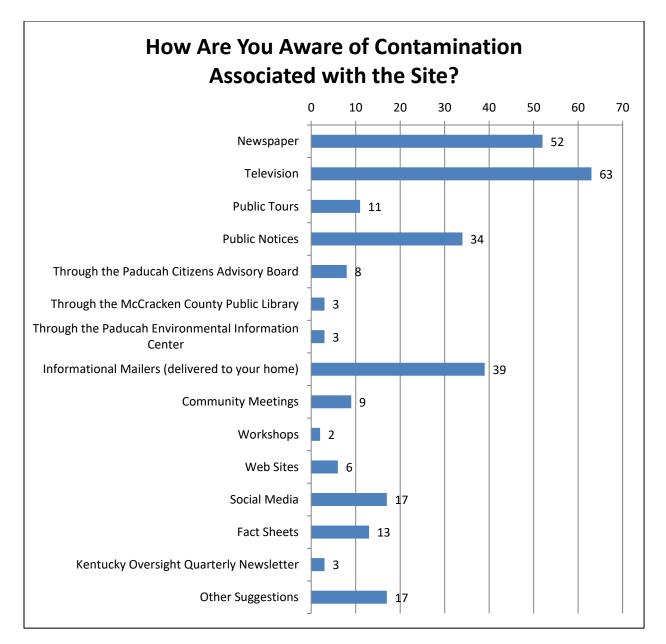
Government Official	Strongly Agree	Somewhat Agree	No Opinion	Somewhat Disagree	Strongly Disagree
DOE Officials	6	8	1	3	
EPA Officials	1	4			
Kentucky Environmental Officials	6	2			
Kentucky Recreational Officials		2			
Companies working for the government at the site	11	8	1		1
Other:	1		2	1	
Not applicable (no interaction)— Skip to Question #9.	68				
Totals	93	24	4	4	1

Comments:

The majority of respondents strongly agree (25) and somewhat agree (24) that officials responded in a way that answered their questions. Very few respondents (5) disagree.



- 9. How are you aware of contamination associated with the site? Please check all that apply.
 - □ Newspaper
 - □ Television
 - □ Public Tours
 - □ Public Notices
 - □ Through the Paducah Citizens Advisory Board
 - Through the McCracken County Public Library
 - □ Through the Paducah Environmental Information Center
 - □ Informational Mailers (delivered to your home)
 - □ Community Meetings
 - □ Workshops
 - □ Web Sites
 - □ Social Media
 - □ Fact Sheets
 - □ Kentucky Oversight Quarterly Newsletter
 - □ Other Suggestions:_

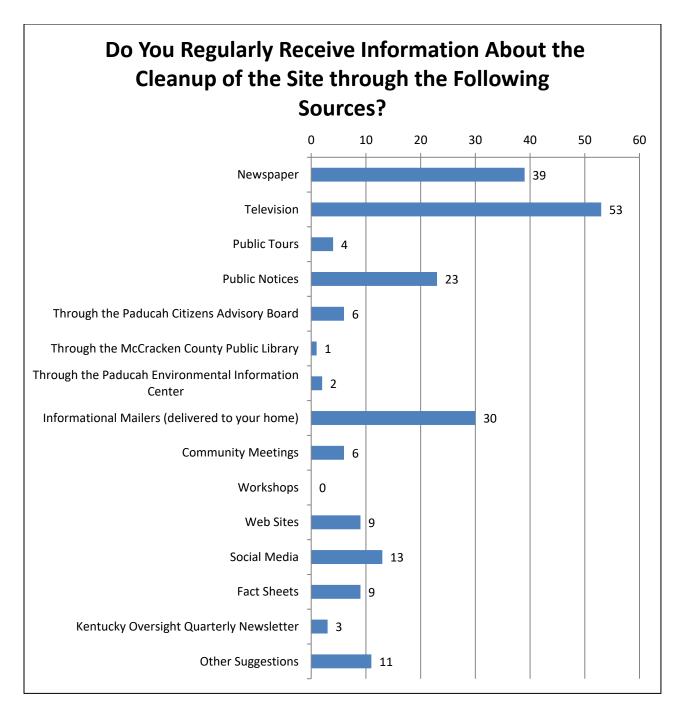


Television, newspaper, informational mailers, and public notices were the top four ways the public was aware of contamination associated with the site. Survey respondents get their information from multiple sources. Multiple boxes could be checked by the respondents, resulting in a total of 280 responses out of 101 respondents.

Other comments supplied by survey respondents:

How are you aware of contamination associated with the site?	Count	Totals
Newspaper, Television, Public Notices, Informational Mailers (delivered to your home), Community Meetings, Social Media, Worked at this site 20 years	1	
Newspaper, Television, Public Notices, plant officials contacted about personal water contamination	1	
Newspaper, Television, Friends who live by the DOE site	1	
Newspaper, Social Media, Personal Knowledge	1	
Newspaper, Present and past workers there	1	
Television, Informational Mailers (delivered to your home), Former employees	1	
Informational Mailers (delivered to your home), i work here	1	
ASER	1	
I have had no information shared with me	1	
I work at the site.	1	
I worked there 29 years. I know the potential hazards and their degree.	1	
I worked there.	1	
lived in area for many years heard lots of things over the years from workers, neighbors, news, people in community	1	
Past worker at PGDP.	1	
work place	1	
Employed 39 yrs	1	
Newspaper, Television, Public Notices, Fact Sheets, Clean up Metropolis Lake you polluted it!	1	17

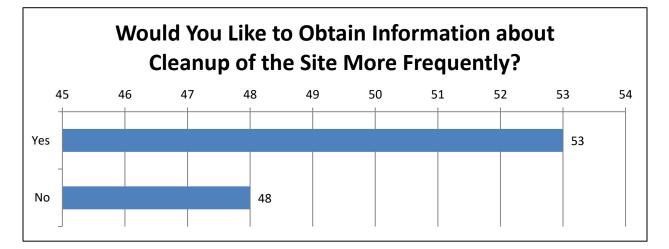
- 10. Do you regularly receive information about the cleanup of the site through the following sources? Please check all that apply.
 - □ Newspaper
 - □ Television
 - □ Public Tours
 - □ Public Notices
 - Through the Paducah Citizens Advisory Board
 - Through the McCracken County Public Library
 - Through the Paducah Environmental Information Center
 - □ Informational Mailers (delivered to your home)
 - □ Community Meetings
 - □ Workshops
 - □ Web Sites
 - □ Social Media
 - □ Fact Sheets
 - □ Kentucky Oversight Quarterly Newsletter
 - □ Other Suggestions: _____



Responses from Question 10 correlate with how respondents are aware of contamination (Question 9) television, newspaper, informational mailers, and public notices were the top four ways the public regularly receives information about the cleanup of the site. Multiple boxes could be checked by the respondents, resulting in a total of 209 responses out of 101 respondents. Other comments supplied by survey respondents:

Do you regularly receive information about the cleanup of the site through the following sources?	Count	Totals
Newspaper, Television, Public Notices, Informational Mailers (delivered to your home), conversations with current workers	1	
Fellow Workers	1	
i do not hear about the cleanup	1	
I work at the site and meet with DOE.	1	
no not regularly	1	
None	1	
Receive nothing I know of about specific cleanup activity	1	
Same as Question # 8	1	
Through word of mouth from employees	1	
work place	1	
Newspaper, Television, Informational Mailers (delivered to your home), Community Meetings, Fact Sheets, Personal knowledge/experience	1	11

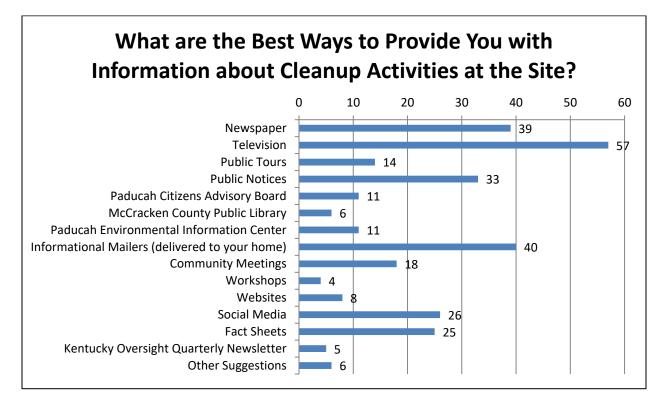
- 11. Would you like to obtain information about cleanup of the site more frequently? At the end of the survey, links to informative Web sites regarding cleanup of the site are provided.
 - □ Yes
 - □ No



Comments:

The majority (52%) of respondents indicated they would like to obtain information about cleanup of the site more frequently, and 48% did not want information.

- 12. What are the best ways to provide you with information about cleanup activities at the site? Please check all that apply. Feel free to provide other suggestions.
 - □ Newspaper
 - □ Television
 - □ Public Tours
 - □ Public Notices
 - □ Through the Paducah Citizens Advisory Board
 - □ Through the McCracken County Public Library
 - □ Through the Paducah Environmental Information Center
 - □ Informational Mailers (delivered to your home)
 - □ Community Meetings
 - □ Workshops
 - □ Web Sites
 - □ Social Media
 - □ Fact Sheets
 - □ Kentucky Oversight Quarterly Newsletter
 - □ Other Suggestions: _



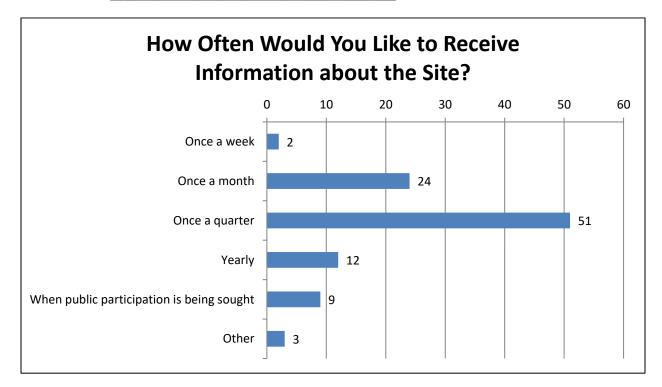
The top responses for the best ways to provide the public with information about cleanup activities at the site for Question 12 were the same as received for Question 9 and Question 10—television, newspaper, informational mailers, and public notices, with the only difference being that newspaper and informational mailers (delivered to your home) were tied for second and third place. Multiple boxes could be checked by the respondents, resulting in a total of 303 responses out of 101 respondents.

Other comments supplied by survey respondents:

What are the best ways to provide you with information about cleanup activities at the site?	Count	Totals
Newspaper, Television, Public Tours, Public Notices, Paducah Citizens Advisory Board, Informational Mailers (delivered to your home), current employees	1	
Informational Mailers (delivered to your home), Social Media, Text messages and email	1	
Fact Sheets, through the mail	1	
email	1	
None	2	6

13. How often would you like to receive information about the site?

- \Box Once a week
- \Box Once a month
- \Box Once a quarter
- □ Yearly
- □ When public participation is being sought
- □ Other:

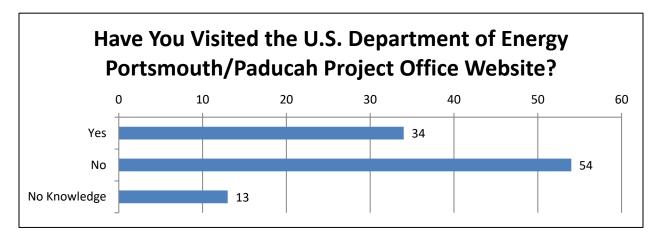


The majority (50%) of respondents would prefer to receive information about the site once a quarter. The second preference (24%) was once a month. The third preference (12%) was yearly.

Other comments supplied by survey respondents:

How Often Would You Like to Receive Information about the Site?	Count	Total
biyearly	1	
just clean it up	1	
None	1	3

- 14. Have you visited the U.S. Department of Energy Portsmouth/Paducah Project Office Web site, <u>https://energy.gov/pppo</u>?
 - □ Yes
 - □ No
 - \Box No knowledge



Comments:

The DOE Portsmouth/Paducah Project Office website has been visited by 33% of the respondents.

15. Is there anything else you would like to share about the cleanup progress/activities at the U.S. Department of Energy Paducah Gaseous Diffusion Plant?

Comments received from respondents are provided below. No changes were made to these comments; they are shown as received unless otherwise specified.

No.	15. Is there anything else you would like to share about the cleanup progress/activities at the U.S. Department of Energy Paducah Gaseous Diffusion Plant?	Count	Total
1.	be careful be safe do not rush	1	
	For what use will this land be restored and become?	1	
3.	Here is my address for the info that I would like mailed: [Personal information removed.]	1	
4.	I am concerned for the use of the land after the clean up. Will it be abandon property, or able to be used.	1	
5.	I have no additional comments. Thanks!	1	
0.	I live within 3 miles of the plant, and is where we are raising our children, so this facility continues to be of importance to us!	2	
7.	I want the site clean-up to be completed satisfactorily and returned to the community and assurance of appropriate funding for this to happen.	1	
8.	I worked at the plant for about 44 years in operations and in clean up. The clean up needs to be more effective.	1	
	I would like to know a time table for completion and what are the future uses of this location going to be.	1	
10.	Local workers if possible	1	
	More information would be better. I only know of issues at the plant due to seemingly irregular informational mailers sent to my home, usually advertising for a meeting. I've not been able to attend a meeting, due to my work schedule, but it would be nice if information was shared whether I attend a meeting or not.	1	
12.	Needs more funding to keep the work at the Paducah Site so the workers can perform the work safely and do the jobs right and keep the community safe.	1	
13.	No	6	
14.	not at this time	1	
15.	the Paducah site needs to follow suit, like other doe sites, and try to reach contracts with firms doing business from the five/six county area surrounding the Paducah site. also utilize local merchants/suppliers first before looking out the area for suppliers, if at all possible. please hire local contractors if possible!!!!! quit out sourcing jobs to companies with ties to outside the u.s.	1	
	Why are they laying people off? When, in reality, the government has designated funds for the cleanup of this site. It seems that every few years the employees at PGDP have to fear their jobs being cut and passed off to other clean up crews or other companies that outbid one another. This is a serious clean up progress which could and should entail those that have the special training and who are already trained in this area. It is a waste of tax payers money to drag this out and rehire, retrain, and reassign former employees. The community wants this site to be cleaned up in a proper way with knowledgable employees who take this seriously.	1	
	work input is not requested or appreciated from the workers. work instruction comes from top down	1	
	Worked at PGDP for 20 years as escort 1996-2016 Lockheed Martin, USEC, AIMSI, Seminole Systems	1	
19.	Would have like to seen more help for the children whos father died due to working at the plant	1	

No.	15. Is there anything else you would like to share about the cleanup progress/activities at the U.S. Department of Energy Paducah Gaseous Diffusion Plant?	Count	Total
	Would like to know more about the water policy. When I originally bought my current home 5 years ago the water bill was payed for by the DOE which from the previous owner I was informed that i would have free water because of contamination and now i am being charged. I was informed from West McCracken Water because I was not the original owner that I was not entitled to that. I have a problem with that seeing is there is a well on the property which i am not allowed to use because of water contamination, yet I am forced to pay for public water. According to the water policy owners were asked to sign a agreement to pay for water bills as to not use any current wells. I didn't not sign an agreement, does that mean I could use the well? Not for human consumption but water lawns or wash cars, etc the water policy is vague on the legality of this if one did not sign the agreement, clarification would be appreciated. [Personal information removed.]	1	
21.	Yes—How many (sp?) more years is it going to take to clean it up	1	
22.	you hear about how much its costing us for cleanup and that there are alot of people working and how much money they are making but you dont see or hear alot about how much has actually been accomplished. You can get alot done in an 8 hour day with that many people. i pray its not another fleecing of america and people are actually doing the job they are getting payed for.	1	
	As we are all aware this plant will never be "Completely Cleaned Up". There have been and was to many years of mismanagement from the contracted operators of this facility. The DOE had little to no over site over them and their goal was to reap the benefits and move on. There are areas in this facility that I feel will leach contaminants for eternity. With the so called dump being a major concern with who know what being buried and covered up.	1	29

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COMMUNITY SURVEY ONLINE SURVEY RESULTS

CONDUCTED SEPTEMBER 2017

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APPENDIX C

KEY CONTACTS FOR THE PADUCAH GASEOUS DIFFUSION PLANT

KEY CONTACTS FOR THE PADUCAH GASEOUS DIFFUSION PLANT

(For a current version of this list, please contact the Public Affairs Manager at (270) 441-5788, (contactus@pad.pppo.gov) or the EIC at (270) 554-3004 (https://eic.pad.pppo.gov/).

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Committee on Appropriations Energy and Water Development Subcommittee U.S. Senator Dianne Feinstein, Chairwoman 455 Dirksen Senate Office Building Washington, DC 20510 (202) 224-4944 Fax: (202) 228-3398 Website: <u>http://feinstein.senate.gov</u> House Armed Services Committee U.S. Representative Adam Smith, Chairman 2216 Rayburn House Office Building Washington, DC 20515 (202) 225-4151 Fax (202) 225-9077 Website: <u>https://armedservices.house.gov/</u>

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Jeremy Buchanan, Executive Director Purchase Area Development District 1002 Medical Drive P.O. Box 588 Mayfield, KY 42066 (270) 247-7171 Fax: (270) 251-6110 Jeremy.buchanan@purchaseadd.org

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Information Resources

DOE Environmental Information Center Emerging Technology Center Room 221 4810 Alben Barkley Drive Paducah, KY 42001 (270) 554-3004 info@pgdpcab.org Hours: Monday—Friday, 8:00 a.m. to 12:00 p.m. https://eic.pad.pppo.gov/

Key Web Sites

Department of Energy: <u>https://www.energy.gov</u>

Department of Energy Portsmouth/Paducah Project Office: https://www.energy.gov/pppo/portsmouthpaducah-project-office

Environmental Protection Agency: https://www.epa.gov

Kentucky Department for Environmental Protection: <u>https://eec.ky.gov/Environmental-Protection/Pages/default.aspx</u>

Kentucky Division of Waste Management for Paducah Gaseous Diffusion Plant: <u>https://eec.ky.gov/Environmental-Protection/Waste/hazardous-waste/Pages/paducah-gaseous-diffusion-plant.aspx</u>

Paducah Citizens Advisory Board: https://www.energy.gov/pppo/pgdp-cab/

Paducah Environmental Information Center Online Document Repository: https://eic.pad.pppo.gov/

APPENDIX D

PUBLIC NOTICE MAILING LIST

PUBLIC NOTICE MAILING LIST

- 1. Ballard County Chamber
- 2. Ballard County Judge Executive
- 3. Ballard County Weekly
- 4. Bristol Broadcasting morning show hosts
- 5. Congressional field representatives
- 6. Greater Paducah Economic Development
- 7. KFVS-12 (Carbondale, Illinois)
- 8. Lone Oak News
- 9. Mayfield Chamber of Commerce
- 10. Mayfield Messenger (Mayfield, Kentucky, newspaper)
- 11. McCracken County Judge/Executive
- 12. Metropolis Planet (Metropolis, Illinois)
- 13. Murray Chamber of Commerce
- 14. Murray Ledger and Times (Murray, Kentucky, newspaper)
- 15. Paducah Chamber of Commerce
- 16. Paducah City Mayor
- 17. Public Information Officer (City of Paducah)
- 18. *The Paducah Sun* (Paducah, Kentucky, newspaper)
- 19. The Southern (Carbondale, Illinois)
- 20. Tribune Courier (Marshall County, Kentucky, newspaper)
- 21. West Kentucky Community and Technical College (Paducah, Kentucky)
- 22. West Kentucky Publishing
- 23. WPSD Local 6 (Paducah, Kentucky)

APPENDIX E

WATER POLICY EDUCATIONAL MAILER



INFORMATIONAL BROCHURE PADUCAH GASEOUS DIFFUSION PLANT DEPARTMENT OF ENERGY WATER POLICY RESIDENTS AND BUSINESSES

Water Policy Area

Upon discovery of residential well contamination in 1988, the U.S. Department of Energy (DOE) committed to eliminate residents' exposure to trichloroethene (TCE) and technetium-99 (Tc-99) contamination by providing alternate drinking water to residents and businesses potentially affected. This action became known as the DOE Water Policy.

To achieve the goal of eliminating residents' exposure to contamination, DOE paid for extending the West McCracken public water supply to the area within the Water Policy boundary (see map). As defined in the Water Policy Action Memorandum, the affected area is bounded by the Ohio River to the north, DOE property boundary to the south, Metropolis Lake Road to the east, and Bethel Church Road to the west. This area is shown on the map within the line designated as the Water Policy boundary. DOE also asked property owners in the area to sign a license agreement, in which DOE agreed to pay water bills. This agreement permitted DOE representatives access to properties to collect samples and prohibited the property owners from drilling new water supply wells or using existing water supply wells. DOE continues to implement the Water Policy by renewing license agreements with property owners within the Water Policy boundary in accordance with the Action Memorandum.¹

The protectiveness of the Water Policy is reviewed every five years by DOE, the U.S. Environmental Protection Agency (EPA), and the Kentucky Department for Environmental Protection (KDEP). DOE developed this fact sheet to be sent to all residents and businesses within the Water Policy area to ensure they receive information about the contamination in underlying groundwater annually. Since the discovery of the residential well contamination in 1988, DOE has taken actions that have reduced the groundwater concentrations of TCE and Tc-99, including implementing groundwater remedial actions in the northeast and northwest contaminant plumes, which underlie portions of the area within the Water Policy boundary, and reducing some of the source areas responsible for creating the plumes.

DOE continues these actions under the oversight of EPA and KDEP. Potential adverse effects from domestic use of contaminated groundwater include the possibility of increase in cancer and other health risks.² The Agency for Toxic Substances and Disease Registry (ATSDR) conducted a public health assessment of the area and published the findings on May 21, 2002. This document can be viewed online at the DOE Paducah Environmental Information Center:

<u>https://eic.pad.pppo.gov/Search.aspx?accession=LB09900-0176</u>. ATSDR also published a fact sheet for TCE, which can be viewed at: <u>http://www.atsdr.cdc.gov/toxfaqs/TF.asp?id=172&tid=30</u>.

¹ Document can be viewed at https://eic.pad.pppo.gov/Search.aspx?accession=I-02102-0111.
² CH2M Hill 1991, Results of the Public Health and Ecological Assessment, Phase II, https://eic.pad.pppo.gov/Search.aspx?accession=I-02400-0287, and 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; https://eic.pad.pppo.gov/Search.aspx?accession=I-02400-0287, and 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; https://eic.pad.pppo.gov/Search.aspx?accession=I-04611-0129.

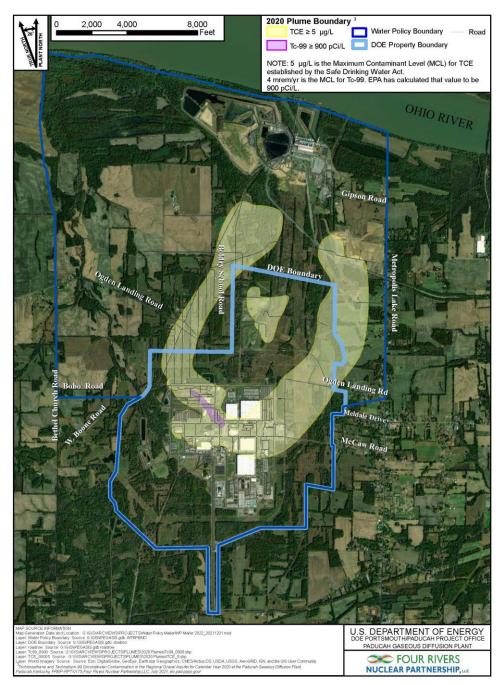
MARCH 2022

Water Policy Area Need to Know

All residents and businesses are asked 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.

For more information about the Water Policy contact:

Buz Smith DOE Community Outreach 270-441-6821 or e-mail at robert.smith@pppo.gov.



Location of Water Policy Boundary Relative to DOE Site and Contaminant Plumes