Department of Energy

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

November 12, 2025

Mr. Brian Begley
Federal Facility Agreement Manager
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street
Atlanta, Georgia 30303

PPPO-02-10035341-26

Ms. April Webb
Interim Federal Facility Agreement Manager
Hazardous Waste Branch Manager
Division of Waste Management
Kentucky Department for Environmental Protection
300 Sower Boulevard, 2nd Floor
Frankfort, Kentucky 40601

Dear Mr. Begley and Ms. Webb:

TRANSMITTAL OF THE D1 SITE MANAGEMENT PLAN PADUCAH GASEOUS DIFFUSION PLANT PADUCAH, KENTUCKY ANNUAL REVISION—FISCAL YEAR 2026, DOE/LX/07-2526&D1

In accordance with Section XVIII of the Paducah Federal Facility Agreement (FFA), the U.S. Department of Energy (DOE) hereby submits the D1 *Site Management Plan Paducah Gaseous Diffusion Plant Paducah, Kentucky Annual Revision—FY 2026*, DOE/LX/07-2526&D1, (SMP) for your review and comment. Approval of this fiscal year (FY) 2026 SMP will supersede the previously approved FY 2025 SMP.

This version of the SMP incorporates input received from the U.S. Environmental Protection Agency (EPA) and the Kentucky Department for Environmental Protection (KDEP) during scoping meetings held July 2025 through September 2025.

DOE appreciates the FFA parties' efforts in scoping the FY 2026 SMP. In accordance with Section XVIII and Appendix F of the FFA, EPA, and KDEP have a 30-day review and comment period, or until December 12, 2025. If the FFA parties have no substantive comments, then DOE requests a letter of concurrence.

If you have any questions or require additional information, please contact me at (270) 217-2029.

Sincerely,

APRIL LADD Digitally signed by APRIL LADD Date: 2025.11.12 13:37:12 -06'00'

April Ladd
Federal Facility Agreement Manager
Portsmouth/Paducah Project Office

Enclosures:
1. Certification Page
2. *Site Management Plan Paducah Gaseous Diffusion Plant Paducah, Kentucky Annual Revision—FY 2026*, DOE/LX/07-2526&D1—Clean
3. *Site Management Plan Paducah Gaseous Diffusion Plant Paducah, Kentucky Annual Revision—FY 2026*, DOE/LX/07-2526&D1—Redline

Administrative Record File—ARF ARR

cc w/enclosures:
abigail.parish@pppo.gov, PPPO
april.ladd@pppo.gov, PPPO
april.webb@ky.gov, KDEP
arcorrespondence@pad.pppo.gov
begley.brian@epa.gov, EPA
bruce.ford@pad.pppo.gov, FRNP
bwhatton@tva.gov, TVA
dcnorman0@tva.gov, TVA
eric@pgdpcab.org, PGDP CAB
frnpcorrespondence@pad.pppo.gov
jennifer.stokes@pppo.gov, PPPO
joel.bradburne@pppo.gov, PPPO
jrsewell@tva.gov, TVA
kelly.layne@pppo.gov, ETAS
kentuckyES@fws.gov, FWS
leo.williamson@ky.gov, KDEP
mac.mcrae@TechLawInc.com, EPA
maphillips0@tva.com, TVA
megan.mulry@pad.pppo.gov, FRNP
mwaplin@tva.gov, TVA
myrna.redfield@pad.pppo.gov, FRNP
nathan.garner@ky.gov, KYRHB
nrepcdep-dwm-hwb-pgdp@ky.gov
pad.rmc@pad.pppo.gov
rebeccaw.goodman@ky.gov, KEEC
reinhard.knerr@pppo.gov, PPPO
sebenton@tva.gov, TVA
sonja.smiley@ky.gov, KDEP
stephaniec.brock@ky.gov, KYRHB
testher@tva.gov, TVA
timothy.kreher@ky.gov, KDFWR

CERTIFICATION

Document Identification: ***Site Management Plan Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2026*** **DOE/LX/07-2526&D1, November 2025**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Four Rivers Nuclear Partnership, LLC

MYRNA REDFIELD (Affiliate)
Digitally signed by MYRNA REDFIELD (Affiliate)
Date: 2025.11.10 09:58:43 -06'00'

Myrna E. Redfield, Program Manager/Date signed
Four Rivers Nuclear Partnership, LLC

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

U.S. Department of Energy

APRIL LADD
Digitally signed by APRIL LADD
Date: 2025.11.12 11:22:41 -06'00'

April Ladd, Paducah Site Lead/Date Signed
Portsmouth/Paducah Project Office
U.S. Department of Energy

DOE/LX/07-2526&D1
Primary Document

Site Management Plan
Paducah Gaseous Diffusion Plant
Paducah, Kentucky

Annual Revision—FY 2026

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DOE/LX/07-2526&D1
Primary Document

Site Management Plan
Paducah Gaseous Diffusion Plant
Paducah, Kentucky

Annual Revision—FY 2026

Date Issued—November 2025

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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CONTENTS

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FIGURES

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ACRONYMS

AOC	area of concern
BGOU	Burial Grounds Operable Unit
BRA	baseline risk assessment
CAMU	corrective action management unit
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CSOU	Comprehensive Site Operable Unit
D&D	deactivation and decommissioning
DMSA	DOE material storage area
DNAPL	dense nonaqueous-phase liquid
DOE	U.S. Department of Energy
DUF_6	depleted uranium hexafluoride
EPA	U.S. Environmental Protection Agency
ESD	explanation of significant difference
EW	extraction well
FFA	Federal Facility Agreement
FS	feasibility study
FY	fiscal year
GA	geographical area
GSA	generator staging area
GWOU	Groundwater Operable Unit
HSWA	Hazardous and Solid Waste Amendment
HVAC	heating, ventilating, and air conditioning
IRA	interim remedial action
KDEP	Kentucky Department for Environmental Protection
KOW	Kentucky Ordnance Works
KPDES	Kentucky Pollutant Discharge Elimination System
KY	Commonwealth of Kentucky
LUC	land use control
LUCAP	land use control assurance plan
LUCIP	land use control implementation plan
MOA	memorandum of agreement
NCP	National Contingency Plan
NFA	no further action
NPL	National Priorities List
NSDD	North-South Diversion Ditch
NTCRA	non-time-critical removal action
OSWDF	on-site waste disposal facility
OU	operable unit
PFAS	per- and polyfluoroalkyl substances
PGDP	Paducah Gaseous Diffusion Plant
RACR	remedial action completion report
RAO	remedial action objective
RAWP	remedial action work plan
RCRA	Resource Conservation and Recovery Act
RCW	recirculating cooling water
RDSI	remedial design support investigation
RFI	RCRA facility investigation
RGA	Regional Gravel Aquifer

RI	remedial investigation
ROD	Record of Decision
SAA	satellite accumulation area
SAR	SWMU assessment report
SE	site evaluation
SMP	Site Management Plan
SWMU	solid waste management unit
SWOU	Surface Water Operable Unit
TS	treatability study
UCRS	Upper Continental Recharge System
UST	underground storage tank
WAG	waste area grouping
WDA	waste disposal alternatives
WKWMA	West Kentucky Wildlife Management Area

1. INTRODUCTION

The Paducah Gaseous Diffusion Plant (PGDP) was placed on the National Priorities List (NPL) on May 31, 1994. In accordance with Section 120 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the U.S. Department of Energy (DOE) entered into a Federal Facility Agreement (FFA) with the U.S. Environmental Protection Agency (EPA) and Kentucky on February 13, 1998. The FFA established one set of consistent requirements for achieving comprehensive site remediation in accordance with the Resource Conservation and Recovery Act and CERCLA, including stakeholder involvement.

Section XVIII of the FFA requires that DOE submit an annual Site Management Plan (SMP), which outlines DOE's strategic approach for achieving cleanup under the FFA, to EPA and the Energy and Environment Cabinet (formerly known as the Kentucky Environmental and Public Protection Cabinet) by November 15th of each year. The FFA states that the purpose of the SMP is to coordinate and document the potential and selected operable units (OUs), including removal actions; to define cleanup priorities; to identify work activities that will serve as the basis for enforceable timetables and deadlines under the agreement; and to establish long-term cleanup goals.

The current strategy includes the following:

- Consolidating the 51 remedy decisions for all projects under four records of decision (RODs) [i.e., waste disposal alternatives (WDAs) OU, deactivation and decommissioning (D&D) OU, Environmental Media Sitewide OU, and Comprehensive Site OU (CSOU)]; and a technical memorandum to the Northwest Plume.

- In the event the D&D OU and Environmental Meda sitewide OU remedial investigation (RI)/feasibility study (FS), proposed plans and RODs are not proceeding as anticipated, the C-400 Complex OU with enforceable milestones and planning dates for all the CERCLA activities under the OU, including the out-year enforceable milestone for the C-400 Final Remedial Action field start have been retained.

This annual update of the SMP [fiscal year (FY) 2026 SMP] sets forth enforceable milestones for FY 2026, FY 2027, and FY 2028, with continued emphasis on the C-400 Complex consistent with the Memorandums of Agreement (MOAs) signed in August 2017 and August 2019 and the FY 2018/FY 2019 SMP, representing a contingent schedule. A new overall cleanup strategy, Decision 2029, for the site was discussed among the FFA parties in late FY 2023 and has been implemented. This strategy proposed to integrate and accelerate Paducah cleanup decisions for Environmental Media Sitewide OU, D&D OU, and WDA OU. This approach is consistent with the approach successfully being used at the Portsmouth plant. Due to the earlier shutdown of the Portsmouth Gaseous Diffusion Plant, the Portsmouth plant is roughly 10–15 years ahead of the Paducah cleanup. With this strategy, DOE has maintained momentum by taking additional actions to address the high-concentration centroid of the dissolved-phase plume emanating from the C-400 Complex, documented in a post-ROD technical memorandum and remedial action work plan to the post-decision administrative record to the Northwest Plume ROD for interim action. To aid in the placement of extraction wells to meet the objectives and fundamental design criteria for the northwest dissolved-phase plume ROD, DOE conducted sampling to isolate the location of the suspected dense nonaqueous-phase liquid (DNAPL) north of the C-400 Complex OU that was documented in an addendum to the C-400 RI report. Three decision documents are proposed for submittal in 2029 (or earlier). These decision documents combine cleanup decisions for multiple environmental media areas (e.g., soils, surface water, C-400 confirmed/probable DNAPL[1], slabs, lagoons) into a single final decision; combine cleanup actions for multiple

[1] Scope does not include groundwater for Northeast Plume (interim ROD transition to final remedy), Northwest Plume (interim ROD transition to final remedy), dissolved-phase plumes (as identified in the SMP) and Water Policy (removal action transition to final remedy).

D&D buildings into a single final decision (incorporating some aspects of deactivation under the FFA/CERCLA process); and make a final WDA decision. A final CSOU would consider appropriate actions for any remaining contamination, after actions determined by the three decision documents are complete and for the groundwater for Northeast Plume (interim ROD transition to final remedy), Northwest Plume (interim ROD transition to final remedy), dissolved-phase plumes (as identified in the SMP) and Water Policy (removal action transition to final remedy). The CSOU evaluation will be conducted, with implementation of additional actions, as needed, to ensure long-term protectiveness of human health and the environment. CERCLA Five-Year Review evaluations are and will continue to be conducted to determine if any modifications to actions are required prior to the CSOU evaluation. The current time frame for the completion of site cleanup is 2065.

Appendix 1 of this SMP contains a summary of the status of all actions taken to date relative to the signed Records of Decision or Action Memoranda (including both interim and final response actions). A footnote has been added to Appendix 1 to reference the Decision 2029 cleanup strategy OU crosswalk, Table 3.1. This appendix also serves to meet the requirements of Section X.A of the FFA to submit an annual removal action report describing a summary of removal actions performed during the previous FY. More detailed information on the status of each OU is available in the FFA Semiannual Progress Report.

2. LAND USE

The planning assumptions for current land use are depicted in Figure 1, and the reasonably foreseeable future use is depicted in Figure 2. Potential future uses include recreational, industrial, and waste management. Several factors were considered in establishing the land-use assumptions under this cleanup strategy, including current and past land use, stakeholder input, and interest expressed by outside entities for the industrial use of areas on and adjacent to PGDP. During 2024 and 2025, an Environmental Baseline Survey Report (DOE/LX/07-2506&D2) was developed for transfer of land deed and a Leasing Data Package (DOE-LX-07-2522&D2) was developed for property lease. These documents support current reindustrialization efforts at the Paducah Site. Concurrence was received from the FFA parties for these document and the FFA parties were provided notice in accordance with Section XLII of the FFA prior to transfer as required.

Section XLII of the FFA states that DOE shall provide notice to the FFA parties at least 90 days prior to any such sale or transfer and include notice of the FFA requirements in any document transferring ownership or operation of any portion of the site to any subsequent owner or operator. Figures 1 and 2 have been updated to reflect the associated Paducah Site land that was impacted.

2.1 LAND USE CONTROLS

The site cleanup strategy recognizes that the long-term protectiveness of some response actions might rely upon or be supplemented by engineering barriers, institutional controls, and/or other land use controls (LUCs). To ensure that these controls remain protective, CERCLA five-year reviews, in conjunction with monitoring of requirements contained in the Land Use Control Assurance Plan (LUCAP), are implemented.

A Land Use Control Implementation Plan (LUCIP) is developed for each remedy that includes LUCs. The LUCIPs include a detailed explanation of the implementation and long-term maintenance of the LUCs. The LUCAP requires annual certification in the SMP that the LUCIPs are being implemented. This certification also will identify any noncompliance with a LUCIP and the steps taken to correct any such noncompliance, any nonmajor changes in land use, and any changes in designated officials. Appendix 2 contains the annual certification of LUCIPs implemented at PGDP.

3. OPERABLE UNITS

Completion of OUs is required to achieve delisting of the site from the NPL and the decommissioning of the gaseous diffusion plant. Prior to final deletion from the NPL, partial delisting may occur if conditions are met to support potential property transfers. Appendix 3 has been updated to consolidate OUs into the Decision 2029 cleanup

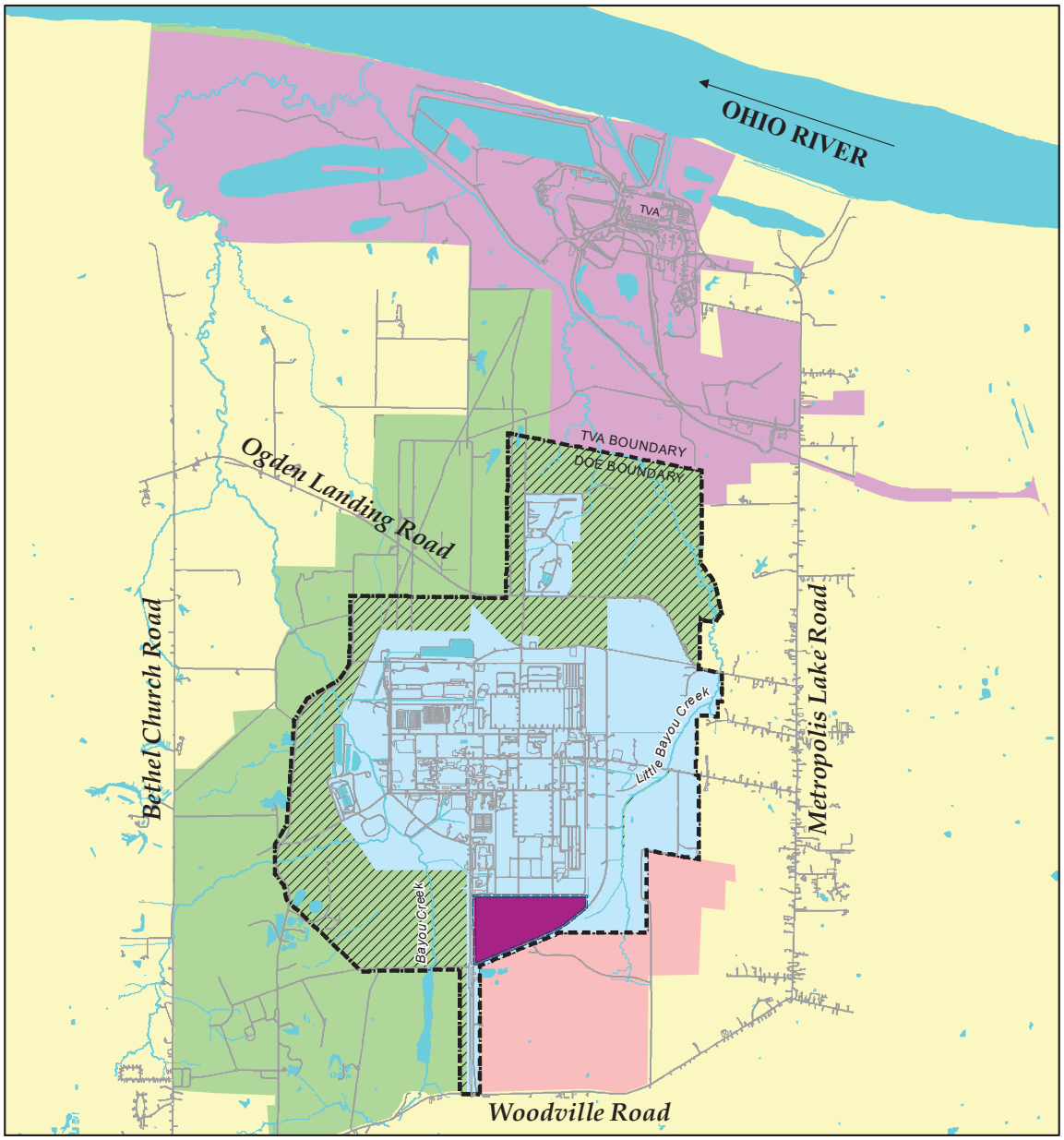
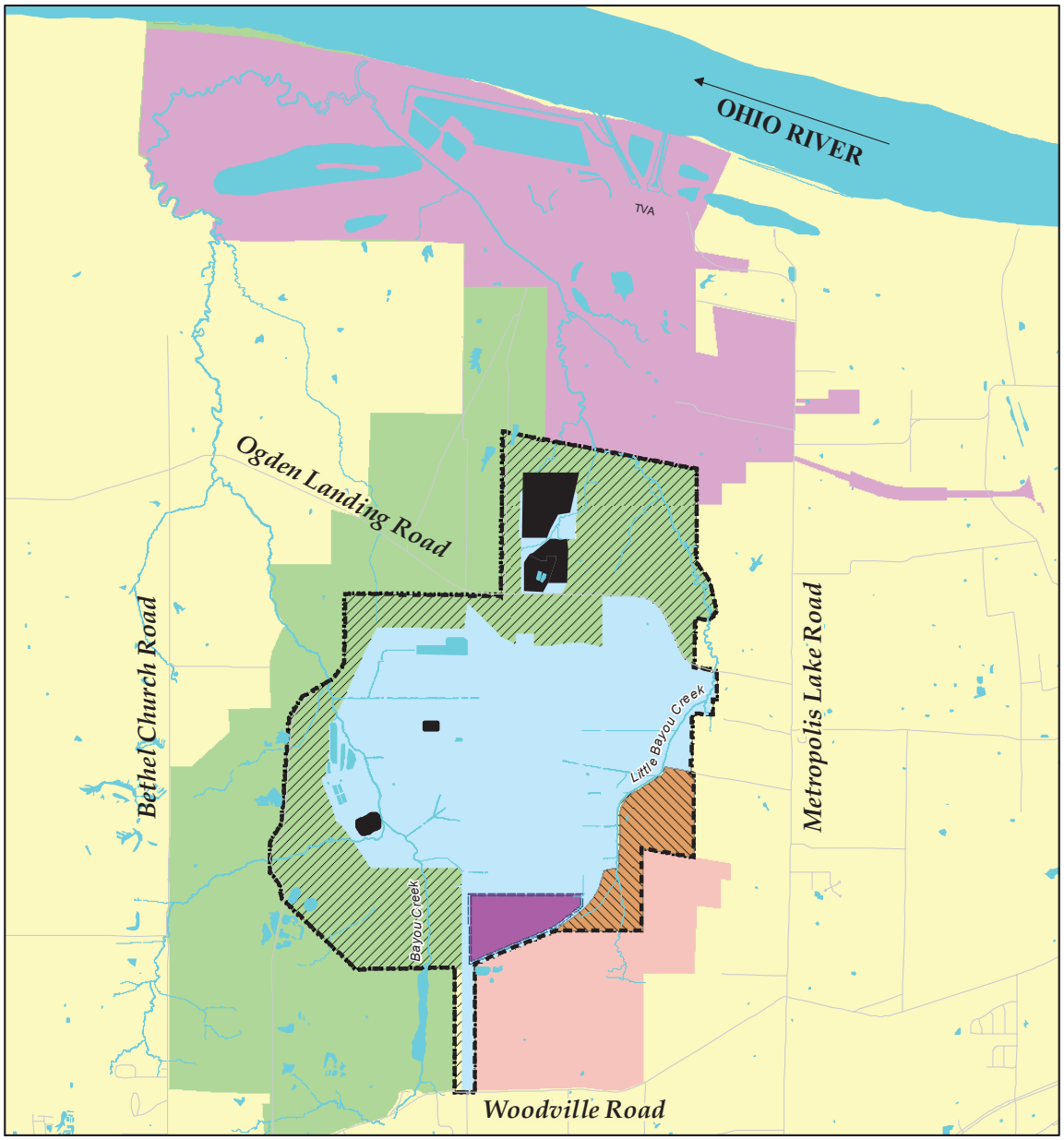


Figure 1. Current Land Use at PGDP



Note: These areas include landfills that are active or certified closed and under long-term custodial care (i.e., C-404, C-746 S&T, C-746-U), or that are under an Interim Remedial Action (i.e., C-746-K). As such, these areas are not amenable to unrestricted future industrial use.
As new CERCLA decision documents or permits are issued with deed restrictions/LUCs for waste management areas this map will be updated to include those units.

MAP SOURCE INFORMATION
Map Generation Date and Location: 9/15/2025 G:\GIS\ARCVIEWS\PROJECTS\LandUse\LandUse_Future_20250707.mxd
Recreational: G:\gis\IPEGASIS.gdb\Wildlife_Management_Areas and G:\gis\IPEGASIS.gdb\doebnd
TVA Boundary: G:\gis\IPEGASIS.gdb\tvabnd_official
Industrial and Waste Management Areas: G:\gis\SHAPES\BOUNDS\Closed_to_Public_Access.shp and G:\gis\IPEGASIS.gdb\facilities (as specified)
Roads: G:\gis\IPEGASIS.gdb\AllRds
Surface Water: G:\gis\IPEGASIS.gdb\streams and G:\gis\IPEGASIS.gdb\fr_2022_21145_areawater
Leasing Parcel A: G:\GIS\ARCVIEWS\PROJECTS\LandLease\LPA.shp
Parcel 1: G:\GIS\SHAPES\Project-Specific\LandTransfer\Parcel1.shp
GLE: G:\GIS\IPEGASIS.gdb\GLE

*License Agreement with Kentucky Department of Fish and Wildlife Resources that defines boundary is in the process of revision at the time of SMP issuance.

Figure 2. Reasonably Anticipated Future Land Use at PGDP

strategy and includes additional information regarding scope for each of the defined legacy OUs.[2] This historical OU scope has been removed in this revision of Appendix 3. An OU crosswalk, Table 3.1, has been added to show the alignment of historical legacy OUs and the Decision 2029 cleanup strategy OUs. In addition, Appendix 4 contains lists of SWMUs and areas of concern (AOCs) sorted by OUs and has been updated to align with Appendix 3. The current OUs are the following:

- Environmental Media Sitewide OU
- D&D OU
- CSOU
- CERCLA WDA OU

The historical C-400 Complex OU has been retained in this revision as a contingency.

DOE is currently implementing retrieval activities to allow for the removal of recyclable materials and utility optimization activities in support of deactivation to prepare the site for effective implementation of all future mission activities, including implementation of the Decision 2029 coordinated cleanup strategy. These activities allow for a more cost- and schedule-efficient execution of the D&D of the main process buildings and other structures once the ROD has been approved. While the FFA parties have agreed to focus cleanup efforts on the C-400 Complex, long-term plans and strategies for cleanup continue to be refined for future decommissioning of the gaseous diffusion plant and cleanup of other OUs. As part of the cleanup strategy, DOE continues to evaluate the emerging contaminants 1,4-dioxane and per- and polyfluoroalkyl substances (PFAS) as potential contaminants at the Paducah Site. These emerging contaminants will be considered in the scopes of the Environmental Media Sitewide OU, the D&D OU, and the WDA OU. The final CSOU evaluation will support the final remedial decision for the site following completion of the three decisions proposed in the Decision 2029 overall cleanup strategy OUs. Any required environmental monitoring of remedy performance and/or progress toward achieving the remedial action objectives (RAOs) will be conducted and reported in accordance with the selected remedies. Once no further response is appropriate and all RAOs have been achieved, the site (remaining property not previously deleted and/or transferred) would be eligible for deletion from the NPL.

4. SITE PRIORITIZATION

DOE uses a combination of factors to prioritize work being implemented under the Environmental Management program at PGDP. These include considerations such as regulator expectations; risk-based decision making; compliance with other programs; funding projections; integration and acceleration of cleanup decisions; mortgage reduction; and demonstrated progress toward completing the environmental management mission. The site prioritization is evaluated each year as part of the annual update to the SMP. Additionally, the FFA parties are committed to working together to identify projects that could be addressed in the event that additional funding becomes available, or cost savings are realized.

The risk prioritization criteria incorporate the general program-management principles of the National Contingency Plan, which emphasize the use of accelerated actions to address imminent threats and reduce migration of off-site contamination.

Enforceable milestones for FY 2026, FY 2027, FY 2028, and out-year enforceable completion dates consistent with these prioritization criteria are included in Appendix 5. Any enforceable completion dates for remedial actions shall be considered satisfied upon issuance of a D1 Remedial Action Completion Report (RACR) (i.e., Final Remedial Action Report, as specified in the FFA) for those areas where RAOs have been

[2] Legacy OU in this FY 2026 Site Management Plan refers to OUs (e.g. Burial Grounds OU, Surface Water OU, Groundwater OU, Facility Decommissioning OU, Soils OU, Soils and Slabs OU, Lagoons OU, DUF_6 Underlying Soils OU), as outlined in the approved FY 2025 Site Management Plan, DOE/LX/07-2508&D2

achieved. In cases where a period of operation and maintenance may be required to achieve RAOs, such as groundwater, a D1 Interim RACR will be issued upon completion of remedial construction and a determination by DOE that the remedy is operating as intended.

Risk Prioritization Criteria

- Mitigate immediate threats, both on- and off-site.
- Reduce further migration of off-site contamination.
- Address sources contributing to on-site and off-site contamination.
- Perform D&D/Address OUs.
- Address soils within the DUF_6 plant footprint once it ceases operations and D&D of the DUF_6 plant is complete as part of the CSOU.
- Evaluate the final CSOU.

Decommissioning of surplus DOE facilities is described in the 1995 DOE and EPA Memorandum: *Policy on Decommissioning DOE Facilities under CERCLA.* The legacy OU[3] Facility Decommissioning OU identifies industrial facilities (previously listed in Appendix 4 of the FY 2025 SMP) that, in some cases, already have been determined to pose a potential threat of release of hazardous substances to the environment that warrants decommissioning to be performed as a CERCLA non-time-critical removal action. The evaluation of facilities at PGDP to determine if there was a release threat to the environment that would warrant a site evaluation to determine if decommissioning should proceed under CERCLA is described in Appendix 6.

In 2024, during FY 2025 SMP scoping discussions, the FFA parties updated the "Decontamination and Decommissioning" OU (FY 2025 SMP) naming to Facility Decommissioning OU. With this, the designation of D&D was updated to "Deactivation and Decontamination" OU to align with the proposed scope of the Decision 2029 cleanup strategy. In addition, the FFA parties agreed that the facilities historically included in the Facility Decommissioning OU would be incorporated into the new D&D OU cleanup strategy at ROD signature as described in Appendix 3. To retain history and as these pre-D&D ROD activities are ongoing, the associated Table 3.2, Facilities to Be Demolished Outside of CERCLA, and Table 3.3, Facilities (previously listed in Table 3.2) Demolished Outside of CERCLA, from the FY 2025 SMP (DOE/LX/07-2508&D2) have been moved to Appendix 6 and are now listed as Table 6.1 and Table 6.2. Industrial facilities previously listed in Table 4.2 of the FY 2025 SMP have been moved to Appendix 6, Table 6.3.

All data collected in support of any removal or remedial action shall be managed in accordance with an approved Data Management Plan. In accordance with Section XXVII.C of the FFA, Appendix 7 contains the final Data Management Plan for the Paducah Site.

[3] See footnote No. 2.

APPENDIX 1

ACTIONS TAKEN TO DATE

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Operable Unit Summary[a]

Waste Area Groupings (WAGs)/Media	Response Type	Record of Decision (ROD)/Action Memorandum	Response Description	Status[b]
GROUNDWATER OPERABLE UNIT				
WAG 26/Groundwater	Emergency removal action	Administrative Order by Consent under Sections 104 and 106 of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) November 4, 1988	Provided temporary water to local residences where private wells are contaminated by trichloroethene (TCE) and technetium-99 (Tc-99).	Complete
WAG 26/Groundwater	Removal action	August 30, 1994 DOE/OR/06-1201&D2	Extended municipal water line to residences affected by off-site groundwater contamination. 2013 Five-Year Review required additional actions for vapor intrusion.	Construction Complete/Operational Additional actions for vapor intrusion complete.
WAG 26/Groundwater (Northwest Plume)	Interim Remedial Action (IRA)	July 23, 1993 DOE/OR/06-1143&D4	Hydraulic containment and treatment of high concentrations of off-site TCE contamination in the Northwest Plume.	Construction Complete/Operational
	Explanation of Significant Difference (ESD)	November 19, 1996 DOE/OR/06-1481&D2 January 27, 2011 DOE/LX/07-0343&D2	Originally proposed to eliminate activated carbon filters (proposal was later withdrawn in response to public comment). Reversed the sequence of two treatment units (ion exchange unit and air stripper) and eliminated the iron filings treatability study (TS). Optimization of the Northwest Plume system through placing existing southern extraction wells (EWs) on standby and installing two new EWs east of original southern extraction field.	Construction Complete/Operational Construction Complete/Operational
	Technical Memorandum to File	September 12, 2024 Northwest Plume (NWP-PT-PD)	*Nonsignificant Change for the Record of Decision for Interim Remedial Action of the Northwest Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*. A Memorandum to File was issued to document the changes made to the Northwest Plume Interim Remedial Action to fulfill the intent to further optimize the hydraulic control of and contaminant mass removal from the northwest TCE and Tc-99 plumes.	This Memorandum to File is part of the integrated and accelerated approach to site cleanup, which resulted in a recommendation to further increase the contaminant mass removal and further enhance plume capture by installing and operating one or more EWs near the TCE source zone while continuing to pump from the currently active EWs.

Operable Unit Summary (Continued)[a]

WAGs/Media	Response Type	ROD/Action Memorandum	Response Description	Status[b]
GROUNDWATER OPERABLE UNIT (Continued)				
WAG 26/Groundwater (Northeast Plume)	IRA	June 15, 1995 DOE/OR/06-1356&D2	Hydraulic containment and treatment of high concentrations of off-site TCE contamination in the Northeast Plume.	Construction Complete/Operational
	ESD	January 13, 2016 DOE/LX/07-1291&D2/R2	An ESD has been submitted for optimization of the Northeast Plume system through placing existing EWs on standby, installing two new EWs in the upgradient high concentration area of the Northeast Plume near the eastern edge of the Paducah Gaseous Diffusion Plant (PGDP) facility, and installing new treatment units for air stripping as an alternative to the cooling towers.	Construction of an alternate treatment unit was completed on May 30, 2013. The unit became operational on September 4, 2013. The ESD and RAWP were in dispute until July 2015 at which time the Memorandum of Agreement (MOA)[c] for resolution was signed. Optimization, including startup and batch testing, has been completed, and the system became fully operational in October 2017. Federal Facility Agreement (FFA) parties established and documented transect well baseline determinations in an addendum to the RAWP. Hydraulic assessment is complete. Beginning in 2018, Tc-99 and TCE concentration trends in the transect wells indicated potential changes in groundwater flow or source impacts. As a result, contaminant mobilization decision rules in the MOA were triggered. The FFA parties agreed in 2018 to adjust EW pumping rates; to continue operating under MOA Condition #3; and to review transect well results on a quarterly basis, considering additional adjustments as necessary, which may include an agreement to move into MOA Condition #4. Detailed Northeast Plume optimization information (noting MOA condition) is included in the FFA Semiannual Progress Report, and an evaluation of remedy protectiveness is addressed as part of the Five-Year Review.
Solid Waste Management Unit (SWMU) 91/Soil	IRA	August 10, 1998 DOE/OR/06-1527&D2	*In situ* treatment of TCE-contaminated soils using the LASAGNA™ technology.	Complete

Operable Unit Summary (Continued)[a]

WAGs/Media	Response Type	ROD/Action Memorandum	Response Description	Status[b]
GROUNDWATER OPERABLE UNIT (Continued)				
SWMU 11 and SWMU 533/ Groundwater (C-400 Source Action)	IRA	August 9, 2005 DOE/OR/07-2150&D2/R2	*In situ* treatment of TCE source areas in the Upper Continental Recharge System (UCRS) and Regional Gravel Aquifer located in the southeast and southwest corners of the C-400 Building using electrical resistance heating technology.	Field operations for Phase I completed fiscal year (FY) 2011. Parties agreed to divide Phase II into Phase IIa and Phase IIb. Phase IIa operations began July 22, 2013, and ceased November 5, 2014. A TS for steam-enhanced extraction conducted and completed June 30, 2015. TS report approved June 2016. As a result of the DOE proposed strategy and reprioritization agreed to by the FFA
SWMU 11 and SWMU 533/ Groundwater (C-400 Source Action) (continued)	IRA			Senior Managers in the August 8, 2017, MOA,[d] the remaining volatile organic compound source in the Phase IIb area will be addressed by the C-400 Complex OU. Phase I and Phase IIa activities are documented in a Remedial Action Completion Report (RACR) for the C-400 IRA (ROD 2005) The 2013 Five-Year Review resulted in a deferred protectiveness status from EPA as stated in a letter from R. Chaffins dated September 30, 2014. DOE conducted a vapor intrusion study for the C-400 Building and results are documented in the 2013 Five-Year Review Addendum dated November 9, 2018. The C-400 Vapor Intrusion Study Addendum to the 2013 Five-Year Review was approved by KY on November 21, 2018; EPA approved on December 4, 2018.
SWMU 1; SWMU 211-A; and SWMU 211-B (Southwest Plume Sources)	Remedial Action	March 20, 2012 DOE/LX/07-0365&D2/R1	SWMU 1—*In situ* source treatment using deep soil mixing with interim land use controls (LUCs). SWMU 211-A—*In situ* source treatment using enhanced *in situ* bioremediation with interim LUCs or long-term monitoring with interim LUCs based upon remedial design support investigation (RDSI) results.	ROD signed; RDSI field activities initiated on July 18, 2012. Completed RDSI field activities on April 26, 2013. Additional sampling was requested by EPA and completed by DOE. The Final Characterization Report Addendum and Letter Notification proposing remedy for 211-A and 211-B have been evaluated by the FFA parties. The FFA parties have

Operable Unit Summary (Continued)[a]

WAGs/Media	Response Type	ROD/Action Memorandum	Response Description	Status [b]
GROUNDWATER OPERABLE UNIT (Continued)				
SWMU 1; SWMU 211-A; and SWMU 211-B (Southwest Plume Sources) (continued)	Remedial Action (continued)		SWMU 211-B—*In situ* source treatment using enhanced *in situ* bioremediation with interim LUCs or long-term monitoring with interim LUCs based upon RDSI results.	agreed to move forward with 211-A and will determine an appropriate remedial action for 211-B based on a revised conceptual site model consistent with the data in the Final Characterization Report. Mobilization activities for SWMU 1 deep soil mixing were initiated on February 9, 2015, and soil mixing completed October 8, 2015. Soil sampling, monitoring wells installation, and RACR for SWMU 1 completed in FY 2016. The RACR approved by EPA and KY February 2017. Long-term monitoring continues at SWMU 1 in accordance with the ROD. The Remedial Design for SWMU 211-A was approved by EPA and KY in December 2019. The final Remedial Action Work Plan for SWMU 211-A was revised in December 2021 and was implemented in March 2022. The remedy was documented in an IRA Completion Report for SWMU 211-A that addressed completion of enhanced *in situ* bioremediation. A decision concerning a remedy for SWMU 211-B will be made by the FFA parties in conjunction with actions to be taken for the C-720 Building and surrounding area.
	ESD	December 2, 2022 DOE/LX/07-2480&D2	The ESD documents additional area treated by the SWMU 211-A remedy and the additional associated cost.	ESD signed.
SURFACE WATER OPERABLE UNIT				
WAG 25/Surface water (NSDD)	IRA	March 28, 1994 DOE/OR/06-1213&D3	Instituted action to treat certain plant effluent and control the migration of contaminated sediment associated with the North-South Diversion Ditch (NSDD).	Construction Complete/Operational

Operable Unit Summary (Continued)[a]

WAGs/Media	Response Type	ROD/Action Memorandum	Response Description	Status [b]
SURFACE WATER OPERABLE UNIT (Continued)				
WAGs 18 & 25/Surface water and sediment (Surface Water/Ditches)	IRA	Not applicable (N/A)	Institutional controls (fencing/posting) for off-site contamination in surface water, outfalls, and lagoons.	Construction Complete/Operational
WAG 24/Scrap (Scrapyards)	IRA	N/A	Installation of sediment controls to mitigate surface water/sediment runoff from scrap yards.	Construction Complete/Operational
WAGs 1 & 7 WAG 1: SWMU 100 (Fire Training Area) and SWMU 136 (C-740 TCE Spill Site) WAG 7: SWMU 8 (C-746-K Landfill), SWMU 130 (C-611 550 gal Gasoline UST), SWMU 131 (C-611 50 gal Gasoline UST), SWMU 132 (C-611 2,000 gal. Oil UST), SWMU 133 (C-611 Grouted UST), and SWMU 134 (C-611 1,000 gal Diesel/Gasoline Tank)	IRA	August 10, 1998 DOE/OR/06-1470&D3	IRA installed riprap along creek bank to prevent direct contact, implemented institutional controls, and long-term monitoring for SWMU 8. All other SWMUs were determined to require "no further action" (NFA) under the IRA. It should be noted that at SWMU 100, institutional controls (i.e., security fencing and patrols to prevent unknowing and unauthorized entry to the plant, and risk management procedures to prevent worker exposure to contaminated media) were selected as part of the remedy. Note: In relation to SWMU 100 (Fire Training Area), per- and polyfluoroalkyl substance (PFAS) is an emergent contaminant that was not considered as part of the scope of the WAGs 1 & 7 remedial investigation/feasibility study or ROD. The presence of PFAS will be evaluated separately; and if cleanup under CERCLA is required, then additional actions will be taken outside of the scope of WAGs 1 & 7.	Construction Complete/Operational
Drum Mountain (Scrap)	Non-time-critical removal action (NTCRA)	March 27, 2000 DOE/OR/07-1863&D2	Removed and disposed of Drum Mountain.	Complete
WAG 24, WAG 14, and SWMU 99/Scrap	NTCRA	September 26, 2001 DOE/OR/07-1965&D2	Removed and disposed of scrap metal with enhanced sediment control measures.	Complete
SWMU 59/Sediment	IRA	September 25, 2002 DOE/OR/07-1948&D2	Remedial action for Sections 1 and 2 of the NSDD.	Complete

Operable Unit Summary (Continued)[a]

WAGs/Media	Response Type	ROD/Action Memorandum	Response Description	Status[b]
SURFACE WATER OPERABLE UNIT (Continued)				
SWMU 58 (Sections 3, 4, and 5 of the NSDD); SWMU 69 (Outfall 001); SWMU 63 (Outfall 008); SWMU 66 (Outfall 010); SWMU 67 (Outfall 011); and SWMU 68 (Outfall 015) and their associated internal ditches and areas (including SWMUs 92 and 97)	NTCRA	April 23, 2009 DOE/LX/07-0119&D2/R1	Removal action for contaminants associated with sediment in Sections 3, 4, and 5 of the NSDD and Kentucky Pollutant Discharge Elimination System (KPDES) Outfalls 001, 008, 010, 011, and 015, and associated internal ditches and areas of PGDP.	Complete
BURIAL GROUNDS OPERABLE UNIT				
WAG 22/Waste and soil (SWMU 2- Burial Ground)	IRA	September 11, 1995 DOE/OR/06-1351&D1	The interim ROD selected an impermeable cap to reduce leachate migration from surface infiltration, groundwater monitoring, and institutional controls. Through agreement of the parties, an impermeable cap was not constructed [*Waste Area Grouping (WAG) 22 Post-Record of Decision (ROD) Change*, October 23, 1996]. This change also will be documented in the Final Remedial Decision for SWMU 2.	Final remedial action for SWMU 2 will be selected as part of the Burial Grounds Operable Unit CERCLA process. Institutional controls and groundwater monitoring are ongoing pending final remedy selection.
SOILS OPERABLE UNIT				
C-750-A, -B, and -C USTs	N/A	N/A	Tank removal.	Complete
WAG 7 SWMU 8 (C-746-K Landfill)	IRA	N/A	Enhanced existing cap to reduce leachate migration from surface infiltration.	Complete
AOC 124 WAG 17/Soil (Concrete Rubble Piles)	Removal action	N/A DOE/OR/07-1477&D2	Excavated soil associated with AOC 124.	Complete
WAG 23/Soil	Removal action	September 11, 1997 DOE/OR/06-1626&D1	Excavated polychlorinated biphenyls (PCBs) and dioxin-contaminated surface soils to reduce risks to plant industrial workers.	Complete

Operable Unit Summary (Continued)[a]

WAGs/Media	Response Type	ROD/Action Memorandum	Response Description	Status[b]
SOILS OPERABLE UNIT (Continued)				
SWMU 193/Soil	Time-critical removal action	February 19, 2002 DOE/OR/07-1999&D2	Removed petroleum-contaminated soils.	Complete
SWMUs 76 and 519/Soil	Time-critical removal action	July 1, 2002 DOE/OR/07-2007&D2	Removed empty sulfuric acid tanks, size reduced for containerization and dispositioned.	Complete
SWMU 19 [C-410-B Hydrogen Fluoride (HF) Neutralization Lagoon], SWMU 40 (C-403) and SWMU 181 (C-218 Firing Range)	NTCRA	May 11, 2009 DOE/LX/07-0121&D2/R1	Removal of lead-contaminated soil at the C-218 Firing Range (SWMU 181). Removal of contamination within the respective SWMU boundaries of C-410-B (SWMU 19). Removal of contamination within the respective SWMU boundaries of C-403 (SWMU 40).	SWMU 19 and SWMU 181 are complete. SWMU 40 removal action was not completed as part of the NTCRA, and SWMU 40 will be addressed as part of the C-400 Complex OU final remedial action.
SWMU 27 (Acid Neutralization Tank)	Time Critical Removal Action	September 9, 2016 DOE/LX/07-2406&D2	Removed liquid and sludge to the extent practicable within the acid neutralization tank. Filled the tank with flowable fill.	Fieldwork for SWMU 27 completed in September 2016. The final Removal Action Report was submitted in June 2017 and was approved by EPA and Kentucky in July 2017. Final cleanup decision for this SWMU will be addressed as part of the Soils and Slabs OU.
FACILITY DECOMMISSIONING OPERABLE UNIT				
SWMU 478 /Infrastructure (C-410)	NTCRA	August 3, 2002 DOE/OR/07-2002&D1/R1	Remove process equipment and piping.	Completed December 2013.
SWMU 478/ Infrastructure (C-410)	NTCRA	November 23, 2009 DOE/LX/07-0273&D2	Addendum to document a change in scope of the removal action to 1) expand the scope of the existing NTCRA to include facility structure demolition to the slabs and disposition of demolition debris and 2) allow the non-process systems to remain in place and to remove these systems at the same time the building is demolished using heavy equipment such as excavators with shears.	Fieldwork for C-410/C-420 completed in December 2015. Removal Action Report approved in June 2016.
SWMU 477/ Infrastructure (C-340 Metals Plant) and SWMU 137 (C-746-A East End Smelter)	NTCRA	May 18, 2010 DOE/LX/07-0290&D2	Decommissioning of the C-340 Metals Plant and C-746-A East End Smelter, which entails the demolition of C-340-A, -B, and -C structures as well as the C-746-A East End Smelter. The slabs and soils underlying these structures will be addressed in future CERCLA response actions.	Fieldwork for C-746-A East End Smelter completed in FY 2010. Removal Action Report approved in November 2011. Fieldwork for C-340 completed in September 2013. Removal Action Report approved in May 2014.

Operable Unit Summary (Continued)[a]

WAGs/Media	Response Type	ROD/Action Memorandum	Response Description	Status[b]
FACILITY DECOMMISSIONING OPERABLE UNIT (Continued)				
SWMU 480 (C-402 Lime House); SWMU 55 (C-405 Incinerator); and SWMU 464 (C-746-A West End Smelter)	NTCRA	December 5, 2005 DOE/OR/07-2237&D2	Removed, characterized, and disposed of building structure and contents.	Complete

[a] The past work that was completed and any remaining work referenced in this table uses the legacy OU designations. Reference Appendix 3, Table 3.1, for a crosswalk of historical legacy OU designation alignment to the new cleanup strategy OU.

[b] Detailed information on the status of each project or operable unit is available in the FFA Semiannual Report.

[c] *Memorandum of Agreement on the C-400 Complex under the Federal Facility Agreement for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, August 8, 2017.

[d] *Memorandum of Agreement for Resolution of Formal Dispute of the Explanation of Significant Differences to the Record of Decision for the Interim Remedial Action of the Northeast Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky (DOE/LX/07-1291&D2), and Remedial Action Work Plan for Optimization of the Northeast Plume Interim Remedial Action at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky (DOE/LX/07-1280&D2)*, August 4, 2015.

AOC = area of concern; UST = underground storage tank

APPENDIX 2

CERTIFICATION OF LUCIPS

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CERTIFICATION OF LUCIPS

In March 2000, the Federal Facility Agreement (FFA) parties signed the *Memorandum of Agreement for Implementation of a Land Use Control Assurance Plan (LUCAP) for the United States Department of Energy Paducah Gaseous Diffusion Plant*, March 30, 2000. The purpose of this memorandum of agreement (MOA), together with the approved *Land Use Control Assurance Plan for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/OR/07-1799&D2, (LUCAP) is to establish and implement procedures to assure the long-term effectiveness of land use controls (LUCs) being relied upon to protect human health and the environment at certain contaminated portions of the Paducah Gaseous Diffusion Plant (PGDP) that are undergoing remediation pursuant to the *Federal Facility Agreement for the Paducah Gaseous Diffusion Plant*. Subsequent to the finalization of the March 2000 MOA, the U.S. Department of Energy (DOE) Paducah Site developed two unit-specific land use control implementation plans (LUCIPs): one for the North-South Diversion Ditch and one for the interim remedial action at the C-400 Cleaning Building. In addition to the unit-specific LUCIPs, the FFA parties entered into a Record of Decision (ROD) for the Southwest Groundwater Plume that contained LUCs. Per FFA party agreement, a unit-specific LUCIP was not developed subsequent to issuance of the Southwest Groundwater Plume ROD. In July 2020, a memorandum was issued that documented an update to Table B-1 of Appendix B of the LUCAP to include the two unit-specific LUCIPs, along with the Southwest Groundwater Plume ROD. As part of scoping for the 2023 Five-Year Review, additional historical LUCs were identified for the C-746-K Sanitary Landfill (SWMU 8) and the Fire Training Area (SWMU 100). In July 2023, a memorandum was issued that documented an update to Table B-1 of Appendix B of the LUCAP to include the ROD for Waste Area Groups 1 and 7. These LUCs identified are certified in this Site Management Plan, through an annual verification of deed restrictions, Excavation and Penetration Permitting Program, and inspections.

In accordance with Section 2.9 of the LUCAP, DOE annually certifies the LUCs and LUCIPs in Appendix B of the LUCAP are being implemented by DOE at PGDP.

Changes in the designated officials identified under the LUCIP/LUCAP are noted in the FFA semiannual reports. Additionally, there have been no major changes of land use as described in Section 2.8 of the LUCAP.

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APPENDIX 3

OPERABLE UNIT SCOPE DESCRIPTIONS

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OPERABLE UNIT SCOPE DESCRIPTIONS

INTRODUCTION

Pursuant to Section XVIII of the Federal Facility Agreement (FFA), the following operable unit (OU) -specific descriptions document the FFA Managers' common understanding of the expected scope of work for each of the OUs. The FFA Managers acknowledge that the scope may change as each project progresses; however, this appendix represents the best understanding, given existing information. The milestone dates associated with executing the scope of work are defined in Appendix 5 (Enforceable Timetables and Deadlines; Planning Dates with Long-Term Targets). Schedules are based on Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) documentation and review/comment time frames established in the FFA.

Scope was established based on the current understanding of site conditions and to achieve compliance with CERCLA, the National Contingency Plan (NCP), and the FFA. The actual scope of any given remedy will be developed with the U.S. Environmental Protection Agency (EPA) and the Commonwealth of Kentucky (KY) in compliance with the CERCLA process and documented in the appropriate decision document, each of which is subject to public participation in accordance with the FFA, CERCLA, and the NCP. Goals have been established for each OU to guide the development of project-specific remedial action objectives (RAOs).

DECISION 2029 STRATEGY

In 2023, the U.S. Department of Energy (DOE) proposed to integrate and accelerate Paducah cleanup decisions for environmental media, deactivation and decommissioning (D&D), and waste disposition.

This strategy includes consolidating the 51 site remedy decisions into five comprehensive decisions, which collectively encompass all site remedy decisions required for full-scale site remediation as shown in Figure 3.1. The holistic approach makes remediation more efficient, reduces the cost of planning, reuses facilities on-site, and capitalizes on lessons learned from the D&D of the Portsmouth, Ohio, and Oak Ridge, Tennessee, gaseous diffusion plants. With this proposal, DOE has maintained momentum by taking additional actions to address the high-concentration centroid of the dissolved-phase plume emanating from the C-400 Complex documented in a post-record of decision (ROD) technical memorandum to the post-decision administrative record for the Northwest Plume ROD for interim action. This Memorandum to File documents the changes made to the Northwest Plume Interim Remedial Action (IRA) to fulfill the intent to further optimize the hydraulic control of and contaminant mass removal from the northwest trichloroethene (TCE) and technetium-99 (Tc-99) plumes. Also, a subsequent remedial action work plan was completed per the milestones established in Appendix 5 of the approved 2024 SMP (DOE/LX/07-2495&D1) to aid in the placement of one or possibly more extraction wells (EWs) to optimize and further meet the objectives and fundamental design criteria for the northwest dissolved-phase plume Interim ROD, DOE also conducted sampling to isolate the location of the suspected dense nonaqueous-phase liquid (DNAPL) north of the C-400 Complex OU, which was documented in an addendum to the C-400 RI report. Both field start and transmittal of an addendum to the D2 C-400 for investigation report to EPA and the Kentucky Department for Environmental Protection (KDEP) were completed, per the milestones established in Appendix 5 of the 2024 SMP (DOE/LX/07-2495&D1).

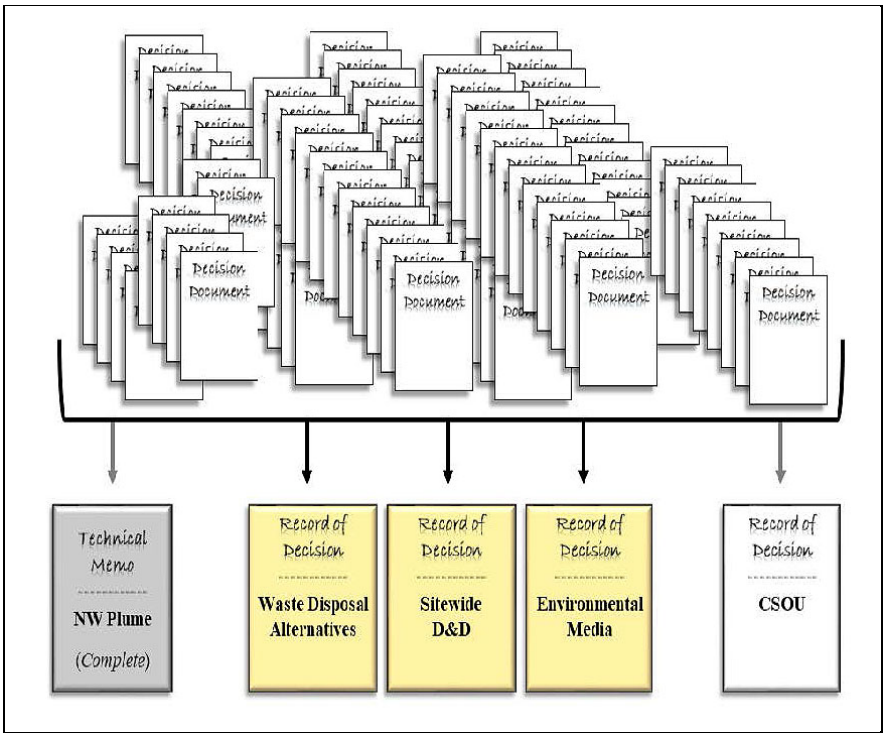


Figure 3. 1. Consolidation of Decisions

Three RI/feasibility studies (FS), proposed plans, and RODs are proposed for submittal in 2029 (or earlier). Under this strategy, the Environmental Media Sitewide OU ROD combines cleanup actions for at- and below grade portions of facilities (e.g., slabs, utilities, basement structures), soils, surface water, C-400 confirmed/probable DNAPL[4], lagoons, and burial grounds into a single final decision, establishing final cleanup levels for the entire Paducah Site based on anticipated future use. The Sitewide D&D OU ROD combines all abovegrade structures into a single final decision (incorporating deactivation under the FFA/CERCLA process, as defined in the ROD). The Waste Disposal Alternatives (WDA) OU ROD will make a final waste disposition decision for waste generated. A final CSOU would consider appropriate actions for remaining residual contamination after actions determined by the three decision documents are complete and for groundwater actions (dissolved-phase plume, Northeast and Northwest Plumes, and Water Policy).

The previous fiscal year (FY) 2025 Site Management Plan (SMP) documented the FFA parties' conceptual alignment on the integrated and accelerated approach to site cleanup. The FFA parties continue to work toward implementing this strategy and the details of the approach are incorporated into this revision of the SMP. Additionally, out-year enforceable milestone dates for BGOU, GWOU, Soils OU, and Surface Water OU (SWOU) are unchanged in Appendix 5 until proposed decision documents (for Environmental Media Sitewide OU ROD, D&D OU ROD, and WDA OU ROD) are signed. Table 3.1 illustrates the OU decision crosswalk for the integrated and accelerated cleanup strategy. DOE continues to work with the FFA parties on executing this approach. The FFA parties have consolidated legacy OUs (e.g., Lagoons OU with SWOU and Soils and Slabs OU with the Facility Decommissioning OU and the Soils OU) into the Environmental Media Sitewide OU, D&D OU, and CSOU. The approved FY 2025 SMP (DOE/LX/07-2508&D2) contains the history of these legacy OU projects and the incorporation into the Environmental Media Sitewide OU,

[4] See footnote No.1.

D&D OU, and CSOU. This FY 2026 revision has been updated to incorporate the legacy OU information into this new cleanup strategy as outlined in Table 3.1.

Table 3.1. Operable Unit Decision Crosswalk

Decision 2029 ROD OUs	Legacy OUs
WDA OU	Waste Disposal Alternatives
D&D OU	Facility Decommissioning OU (abovegrade structures only)
	C-400 Complex, (abovegrade structures only)
	Remaining non-CERCLA Decommissioning OU activities (not currently in an OU)
Environmental Media Sitewide OU*	Soils OU (SWMUs) -Soils Remedial subproject
	Soils and Slabs
	Facility Decommissioning OU (at- and below grade)
	C-400 Complex (at- and below grade) and confirmed/probable DNAPL in groundwater
	Burial Grounds -SWMUs 2, 3, 4, 5, 6, 7, 30 -SWMU 9, 10, 145 Additional burial grounds (SWMU 472, 520)
	Groundwater Sources -Southwest Plume Sources (above the RGA) -Potential Additional Groundwater Sources (above the RGA)
	Surface Water (on-site and off-site)
	Lagoons -Process Lagoons Water Treatment System Lagoon
CSOU	DUF_6 Footprint Underlying Soils OU (and other site components required for DUF_6 operations)
	Groundwater Dissolved-Phase Plume -Northeast Plume (interim ROD transition to final remedy) -Northwest Plume (interim ROD transition to final remedy) -Dissolved-Phase Plumes Water Policy (removal action transition to final remedy) Potential additional Groundwater Sources (RGA)
	Comprehensive risk review of remaining site conditions

*Scope does not include groundwater for Northeast Plume (interim ROD transition to final remedy), Northwest Plume (interim ROD transition to final remedy), dissolved-phase plumes (as identified in the SMP) and Water Policy (removal action transition to final remedy).

Previously, DOE provided assumptions for bounding cost and schedule forecasts based on existing information for the OUs. These assumptions have been removed from the SMP until the details of the new Decision 2029 strategy are finalized.

ENVIRONMENTAL MEDIA SITEWIDE OU

The scope of the Environmental Media Sitewide OU identifies and evaluates final remedial actions for soil and sources above the Regional Gravel Aquifer (RGA), at- and below grade portions of facilities (e.g., basements, footings, utilities), surface water (on-site and off-site), lagoons, burial grounds, and

confirmed/probable DNAPL[5] in groundwater beneath the C-400 Complex OU. The conceptual scope is illustrated in Figure 3.2. below. Additionally, the Environmental Media Sitewide OU will address at- and below grade portions of facilities (e.g., slabs, basements, footings, utilities) identified in Appendix 6.

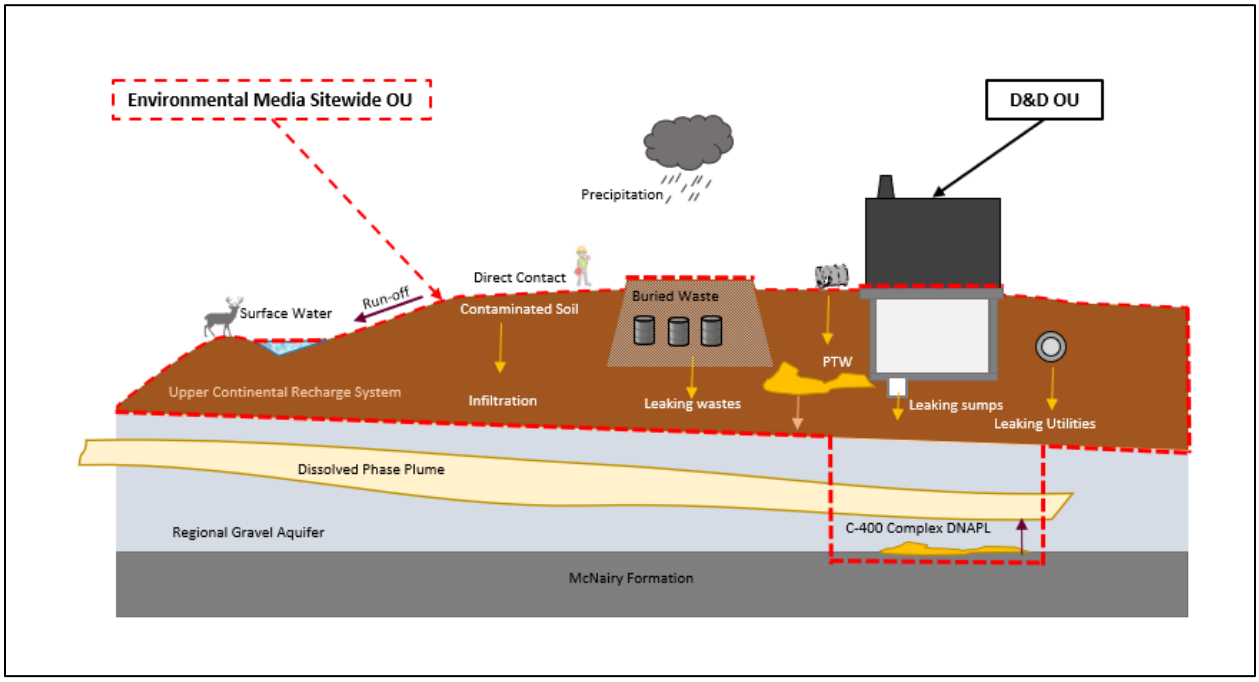


Figure 3.2. Conceptual Scope of Environmental Media Sitewide OU

The Environmental Media Sitewide OU considers existing memoranda of agreement (MOAs) established by the FFA parties and incorporates IRAs and removal actions. Southwest Plume sources and additional groundwater sources identified in the Upper Continental Recharge System (UCRS) will be addressed by the Environmental Media Sitewide OU. Final remedies for Groundwater OU SWMUs 11, 91, 533, and 211-B will also be addressed by the Environmental Media Sitewide OU.

Remediation of dissolved-phase plume groundwater and soils underlying the depleted uranium hexafluoride (DUF_6) facilities will be addressed in the CSOU and are not included in the scope of Environmental Media Sitewide OU.

Dissolved-phase groundwater plume consists of contaminated groundwater primarily in the RGA, but also includes limited areas in the UCRS that typically are associated with source areas. Remedies documented in signed RODs have been selected for the identified C-400 source areas and Southwest Plume source areas to address volatile organic compound contamination. Figure 3.3 illustrates the effectiveness of these remedies to date on the dissolved-phase groundwater trichloroethene (TCE) contamination. Dissolved-phase groundwater actions will be addressed as part of the CSOU.[6]

[5] See footnote No. 1.

[6] A final CSOU would consider appropriate actions for remaining contamination after actions determined by the three decision documents are complete and for groundwater actions (dissolved-phase plume, Northeast and Northwest Plumes, and Water Policy). With the implementation of the environmental media, these actions will be addressed as part of the CSOU.

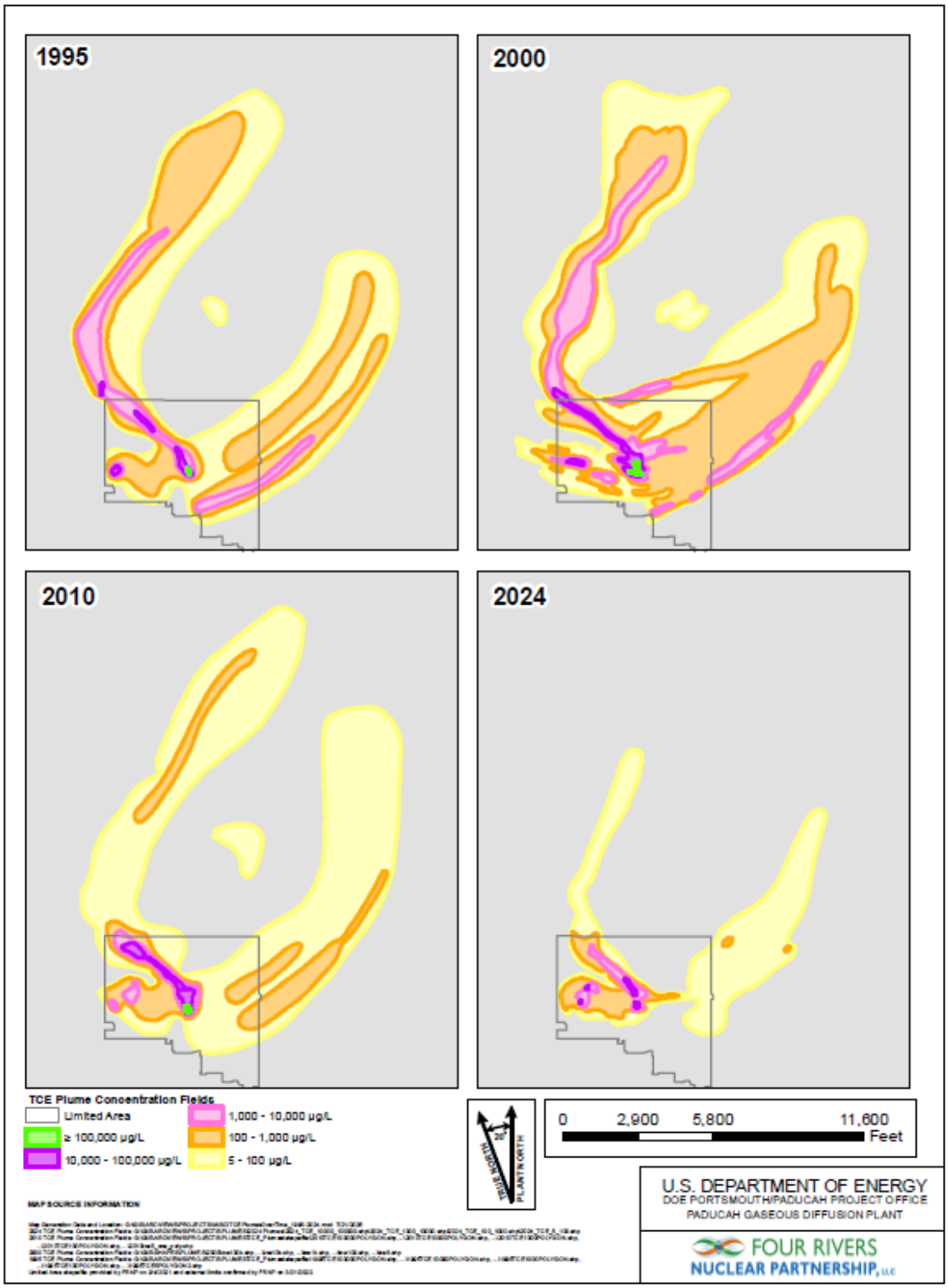


Figure 3.3. TCE Plumes as Interpreted for 1995, 2000, 2010, and 2024

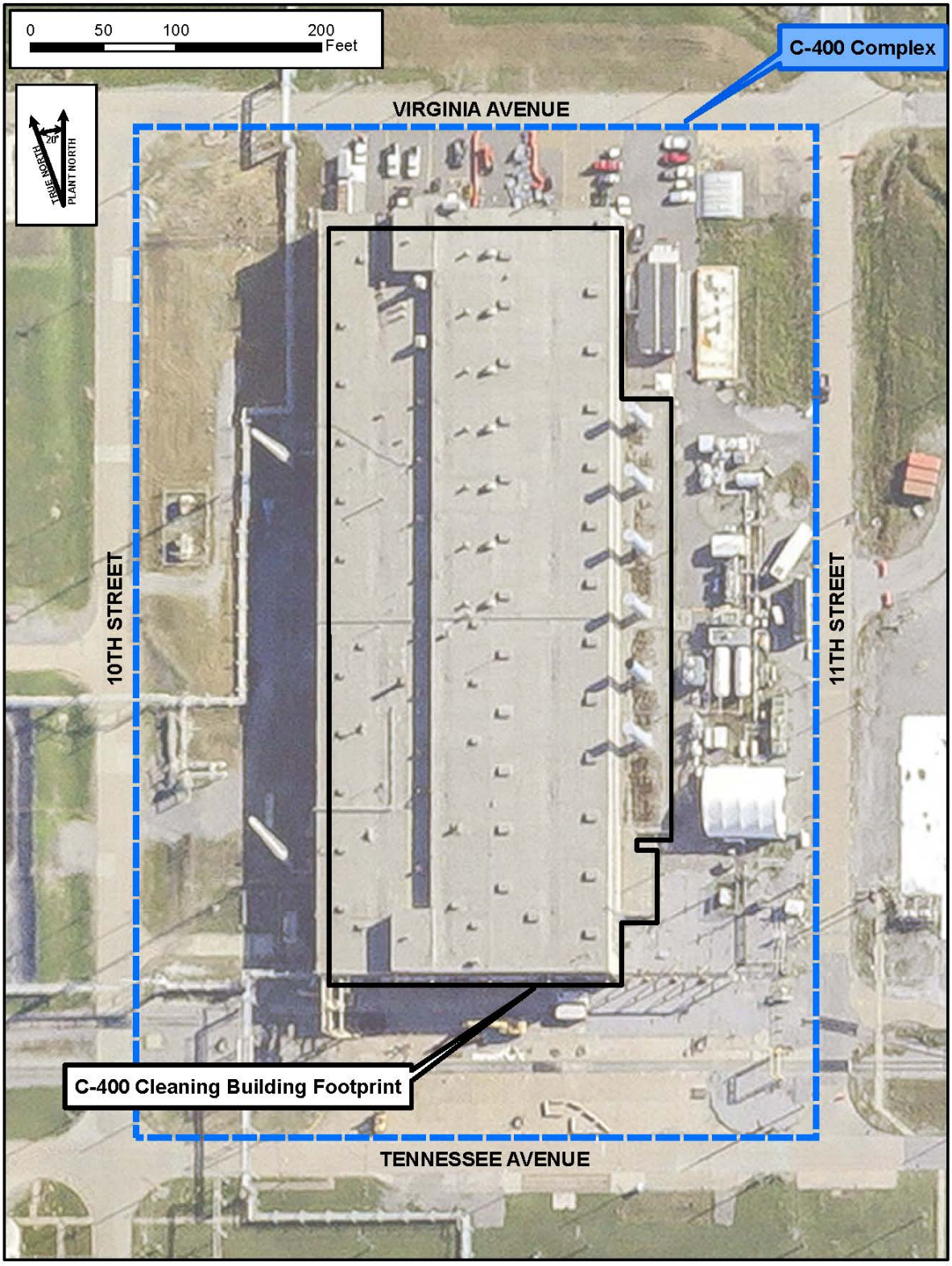
C-400 COMPLEX OPERABLE UNIT

Scope

The C-400 Complex OU scope is being absorbed into the D&D OU, Environmental Media Sitewide OU, and CSOU decisions. The D&D decision will include the abovegrade structures inside the C-400 Complex. The Environmental Media Sitewide OU will include the at- and below grade features and confirmed/probable DNAPL in groundwater beneath/inside the C-400 Complex. The CSOU will include dissolved-phase plume beneath/inside the C-400 Complex. Milestones for the C-400 final remedial action represent a contingent schedule if the D&D OU and Environmental Media Sitewide OU RI/FS, proposed plans, and RODs are not proceeding as anticipated.

The C-400 Complex OU project was intended to evaluate fully and take the necessary actions to address all environmental contamination in order to achieve a final remedial action for the entire C-400 Complex as shown in Figure 3.4. This scope was defined to include a RI/FS for the entire C-400 Complex and final remedial action that includes building demolition, soils, groundwater sources, and slabs. The C-400 Complex action would address all sources of contamination, including, but not limited to, principal threat waste (e.g., TCE DNAPL and high concentration TCE contamination).

On January 5, 2023, the C-400 RI/FS report was submitted per the milestones established in Appendix 5 of the 2023 SMP to EPA and KDEP. By an agreement with the FFA parties, the D1 RI/ FS report was bifurcated and a standalone RI D2 report was submitted on December 15, 2023, and approved by EPA and KDEP on December 18, 2023, and December 19, 2023, respectively. Additionally, the FFA parties agreed to conduct sampling to isolate the location of the suspected DNAPL north of the C-400 Complex OU that is documented in an addendum to the D2 C-400 RI report. In addition, a D1 FS report addendum for the C-400 Complex will be developed if the D&D OU and Environmental Media Sitewide OU decision documents are not proceeding as anticipated to resolve outstanding comments from the D1 RI/FS and to develop, screen, and evaluate alternative remedial actions based on new information collected during the RI addendum fieldwork. If developed, this D1 FS report addendum will be submitted per the milestone established in Appendix 5. These milestones presented in Appendix 5 for C-400 Complex OU/final remedial actions represent a contingent schedule if the D&D OU and Environmental Media Sitewide OU RI/FS, proposed plans, and RODs are not proceeding as anticipated from the 2025 SMP.



Source: *Remedial Investigation/Feasibility Study Work Plan for the C-400 Complex Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2433&D2/R1

Figure 3.4. C-400 Complex—Scope of Final Action

DEACTIVATION AND DECOMMISSIONING OPERABLE UNIT

Scope

The scope of the sitewide D&D ROD will include the D&D of the abovegrade portion of structures at the Paducah Site, which includes the abovegrade structures previously identified in the Facility Decommissioning OU, the C-400 Complex, and any remaining abovegrade PGDP structures (not currently in an OU) that are remaining at the time of ROD signature as conceptually illustrated in Figure 3.5. This figure additionally illustrates scope for, at- and below grade portions of facility components, which will be addressed by the Environmental Media Sitewide OU. In addition to the abovegrade structures listed in the scope above, facilities constructed to support remedy implementation, at a minimum, also are included in the scope. Also, if a reuse potential for a building/structure or infrastructure is identified in the future, and the facility is shown to be free of contamination according to DOE Order (O) 458.1 Chg 4 (LtdChg), *Radiation Protection of the Public and the Environment*, and applicable portions of DOE O 5400.5 Chg 2, *Radiation Protection of the Public and the Environment*, then this scope could be modified to remove the abovegrade structures from the scope of the decision. Any additional facilities included and/or removed from this scope will be discussed with the FFA managers and addressed in future revisions to the SMP.

The sitewide D&D ROD will combine all abovegrade structures into a single final decision (incorporating deactivation following the FFA/CERCLA process, as defined in the ROD) as illustrated in Figure 3.5.

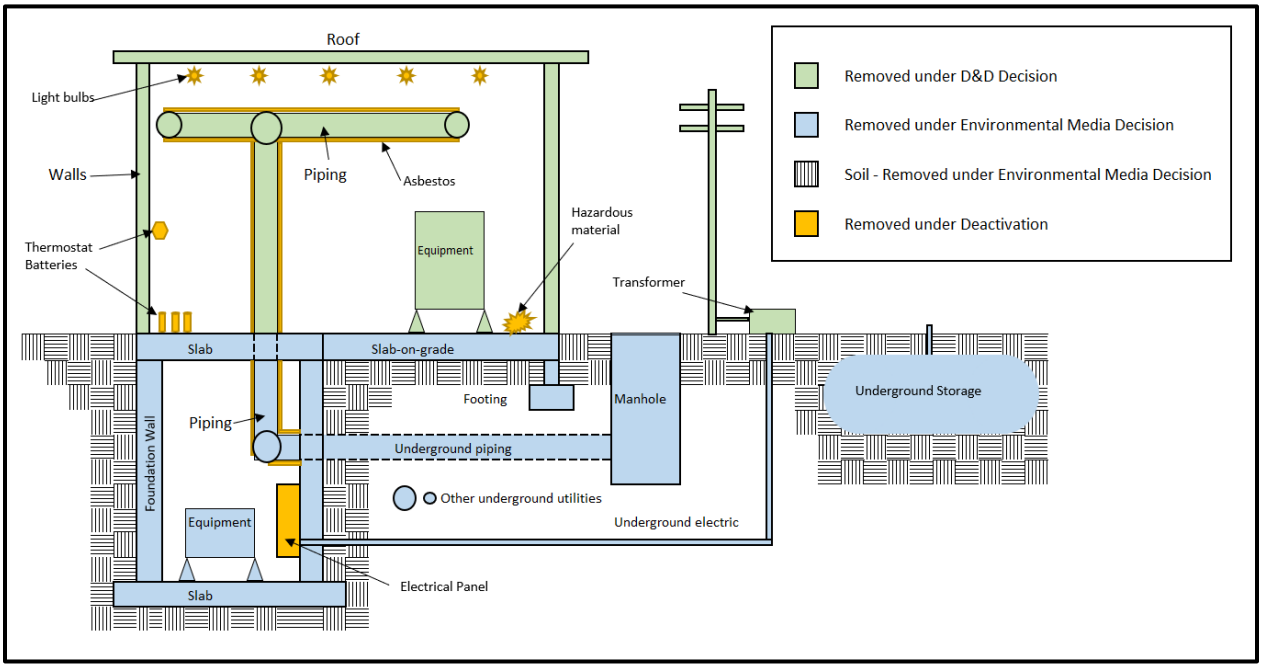


Figure 3.5. Conceptual Scope of D&D OU

Consistent with stated purposes of the FFA to expedite the remediation process to protect human health and the environment (FFA Section III.B.11) and reduce costs of cleanup through the use of consultative approaches and elimination or streamlining of unnecessary procedures (FFA Section III.B.14), the FFA parties have agreed that DOE will continue to deactivate facilities under DOE procedures during development of the RI/FS and until the D&D ROD is signed. Deactivation is the process of placing a facility in a safe and stable condition that is protective of workers, the public, and the environment until decommissioning is completed. Deactivation to date consists of de-energizing, draining fluids (e.g., oils, refrigerants), interior asbestos removal, and removal of radioactive/hazardous materials (e.g., universal

waste). Decommissioning includes activities that take place after a facility has been deactivated and can include decontamination and dismantlement. The FFA parties recognize that continued deactivation efforts are protective and also will accelerate the remediation of the site after the ROD is signed. Characterization of cell deposits [uranium/technetium-99 (Tc-99)] and retrieval activities to allow for removal of convertor bundles and other assets for reuse/recycle will also continue.

DOE is proceeding with deactivation of the remaining facilities not operating to support DOE site activities during development of the RI/FS and until the D&D ROD is issued. The Policy states that DOE is required to conduct a removal site evaluation (SE) in accordance with the NCP and the requirements of any interagency agreements (i.e., FFA). Section IX, Site Evaluations, of the FFA requires that DOE conduct integrated SEs upon discovery of an area with potential or known release. The FFA further requires DOE to provide the removal site evaluation report (SER) as part of the removal notification to EPA and KY for review and approval for non-time-critical removal actions (NTCRAs).

For those industrial facilities in Appendix 6 that require a removal SE, DOE will submit a report within 120 days (or other time frame agreed to by the FFA parties) after completion of deactivation if required prior to D&D RI/FS approval. The SER will document any known release or threat of any release from those buildings and the magnitude of the threat of release (i.e., whether there is a substantial threat of release). The SER shall state whether demolition of the facility should be conducted using a CERCLA NTCRA (in lieu of a remedial action) and will serve to designate any facility or portions thereof that are related to any identified release as a SWMU and/or AOC. If a facility was designated previously in its entirety as a SWMU/AOC requiring CERCLA Action, DOE may use the existing SE, update or conduct a new SE, or include the SE as part of the removal notification for the NTCRA. The requirement for removal SEs for facilities will be satisfied by the D&D RI/FS upon approval. The scope of the D&D OU addresses abovegrade portions of facilities identified in Appendix 6. The Environmental Media Sitewide OU scope will address at- and below grade portions of facilities (e.g., slabs, basements, footings, utilities) as identified in Appendix 6.

Facilities will be sequenced to optimize cost and scheduled to support the site cleanup and will be coordinated with the FFA parties.

FINAL COMPREHENSIVE SITE OPERABLE UNIT[8]

Scope

The final CSOU evaluation will consider appropriate actions for any remaining contamination, after actions determined by the three decision documents for WDA OU, D&D OU, and Environmental Media Sitewide OU have been completed.

With the new cleanup strategy, as shown in Table 3.1, the CSOU will include the following:

- DUF_6 Footprint Underlying Soils OU (and other site components required for DUF_6 operations)[9]

[8] The FFA, as currently written, contemplates multiple CSOUs, consisting of those associated with integrator units (i.e., groundwater, surface water) and a final CSOU completed after issuance of all final RODs for the site. The FFA parties acknowledge that the scope description above is intended to reflect a single final CSOU to address all media, and a future FFA modification will address any inconsistencies between the FFA and SMP strategy.

[9] This legacy OU information is outlined in the approved FY 2025 SMP, DOE/LX/07-2508&D2, and has been incorporated into the CSOU with this FY 2026 SMP revision.

- Groundwater Dissolved-Phase Plume[10]
  - Northeast Plume (interim ROD transition to final remedy)
  - Northwest Plume (interim ROD transition to final remedy)
  - Dissolved-Phase Plumes
- Water Policy (removal action transition to final remedy)
- Potential additional Groundwater Sources (RGA)[11]
- Comprehensive risk review of remaining site conditions.

The CSOU will maximize use of the relevant data from previous cleanup activities and document the residual contamination and risk. Circumstances may dictate additional field activities as a result of evaluating existing information; however, it is the assumption of DOE that any SWMUs or geographical areas entered into the CSOU will not require any additional response action. A work plan will compile and evaluate the existing information to determine if any data gaps exist related to conducting a sitewide evaluation. The RI will include a sitewide baseline human health and ecological risk assessment to evaluate residual risks and ensure all actions taken to date, when considered collectively, are protective of human health and the environment from a sitewide perspective. If the results of the final CSOU baseline risk assessment (BRA) conclude that overall protection of human health and the environment has been achieved, a final proposed plan and NFA ROD will be developed. If the BRA concludes that residual contamination still poses an unacceptable risk that exceeds the criteria established in Section XII of the FFA, a final FS will be developed, followed by a final proposed plan, ROD, and implementation of the final remedy. DOE intends to conduct necessary long-term monitoring to evaluate progress toward achieving RAOs. When no further response is appropriate and all the RAOs for all remedies have been achieved, Paducah Gaseous Diffusion Plant will be eligible for deletion from the National Priorities List (NPL). It should be noted that partial NPL delisting may be pursued for eligible areas prior to the CSOU.

CERCLA Waste Disposal Alternatives Operable Unit

Scope

The scope of this project is to evaluate disposal options for CERCLA waste and wastewater that will be generated as a result of implementing remedial actions for all the OUs as determined by the sitewide D&D OU ROD and Environmental Media Sitewide OU ROD, including relevant interim RODs and action memoranda. The evaluation of disposal options will be conducted using the CERCLA remedial decision-making process. Accordingly, the scope of the RI/FS will be focused and tailored to the nature of this project (i.e., this is not a typical project where potential releases are investigated, evaluated, and remediated). The WDA RI/FS report was completed and approved by the FFA parties in 2018. The 2018 RI/FS report detailed a no action alternative, an off-site alternative, and an on-site alternative, and concluded that the on-site alternative, including construction and operation of an on-site waste disposal facility (OSWDF), was feasible. An RI/FS addendum will be prepared to provide updated and new information relevant to the remedy evaluations provided in the 2018 RI/FS report to support selection of an alternative. Examples of updates that will be provided include additional investigations performed since 2018 (e.g., geotechnical investigation, seismic investigation, updated CERCLA waste volumes, preparation of a refined OSWDF design, a refined draft waste acceptance criteria (WAC)]. The WDA RI/FS addendum will also consider, as may be applicable, the requirements of the *Memorandum of Agreement for Resolution of the Formal Dispute for the Remedial Investigation/Feasibility Study Report for CERCLA Waste Disposal Alternatives Evaluation at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky,*

[10] See footnote No. 9.
[11] See footnote No. 9.

DOE/LX/07-0244&D2, February 8, 2017, and the *Memorandum of Agreement for Resolution of Formal Dispute of the Remedial Investigation/Feasibility Study Report for CERCLA Waste Disposal Alternatives Evaluation at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-0244&D2, February 27, 2018.

As described in the 2018 RI/FS report, the no action alternative and the off-site disposal alternative are essentially equivalent except that the no action alternative utilizes an individual project-by-project waste generation and the off-site disposal alternative uses a coordinated waste generation. The 2018 RI/FS report concluded that these two alternatives are equally protective when evaluated using the CERCLA criteria; therefore, the no action alternative will not be updated in the addendum. The comparative analysis for the off-site disposal alternative and on-site disposal alternative will be updated based on current information.

The potential OSWDF and/or related waste support facilities also will be evaluated in the addendum for designation as a Corrective Action Management Unit (CAMU) in accordance with 40 *CFR* § 264.552. The addendum will expand upon the CAMU evaluation provided in the 2018 RI/FS report based on discussions held by the FFA parties on September 24–25, 2025. The WDA RI/FS addendum will discuss the relationship between the generator and waste disposition project and the sources of CAMU-eligible waste to be generated. The addendum will also explain how principal hazardous constituents have been identified and adjusted treatment standards justified. Similar text will be included in the Environmental Media Sitewide OU RI/FS. Subtitle C landfill applicable or relevant and appropriate requirements (ARARs) included in the 2018 RI/FS report will be retained in the addendum. The CAMU regulations for treatment/storage (e.g., staging piles) will be retained in the WDA RI/FS addendum.

Also at the September 24–25, 2025, meeting, the FFA parties agreed to the approach for treatment and discharge of radiologically contaminated wastewater as follows. It is expected that the effluent limits would be developed and documented in the WDA RI/FS addendum, proposed plan, and ROD.

- Use of best available technology for treatment of radiologically contaminated wastewater. All collected wastewater above the established effluent limits will be treated.

- Use of a technology-based effluent limits approach consistent with relevant EPA National Pollutant Discharge Elimination System and KDEP Kentucky Pollutant Discharge Elimination System (KPDES) requirements.

- Effluent limits established for radiological constituents will need to be deemed protective of human health and the environment by the FFA parties, which includes consideration of KDEP's surface water use designations in 401 *KAR* 10:026, *Designation of uses of surface waters*, to protect water quality. While surface water use designations are being considered, they are not being established as ARARs for Atomic Energy Act materials.

- Documentation of effluent limits will reflect EPA's previous positions on application of Clean Water Act (CWA) and KDEP water quality standards as ARARs; it is expected that these regulations will not be identified as ARARs in this project moving forward. Documentation will also reflect DOE's previous positions on the application of CWA and KDEP water quality standards as ARARs

- 10 *CFR* § 61.41, *Protection of the general population from releases of radioactivity*, will be identified as ARAR along with the equivalent citations in the WDA RI/FS addendum; however, the sentence in the citation related to maintaining releases of radioactivity in effluents to the general environment as low as reasonably achievable (ALARA) will not be included. Language may be included in the WDA RI/FS addendum that reasonable effort will be taken to maintain ALARA for releases of radioactivity in effluents to the general environment as required by DOE orders and manuals.

- DOE will propose a starting concentration for primary radionuclides (e.g., Tc-99, uranium) as the effluent limit(s). A range may be established as a preliminary step towards establishing the limit. There will not be no dose-based limits for discharges.

- A remedial action objective (RAO) will be included in the WDA RI/FS addendum for on-site for wastewater treatment and discharge to surface water.

Additionally, due to significant public interest in the project, frequent interactions with the public are expected throughout the project life cycle. The decision about whether to implement an on-site disposal facility will be documented in a ROD.

OTHER PROJECTS

Emerging Contaminants

Certain per- and polyfluoroalkyl substances (PFAS), which includes perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA), and 1,4-dioxane have been identified by EPA as emerging contaminants.

On December 19, 2019, EPA issued the *Interim Recommendations for Addressing Groundwater Contaminated with Perfluorooctanoic Acid and Perfluorooctanesulfonate* memorandum, as a priority action for federal cleanup programs under EPA's PFAS Action Plan. Aggressively addressing PFAS is an active and ongoing effort for EPA. DOE issued an internal memorandum, "Addressing Per-and Polyfluoroalkyl Substances at the Department of Energy" on September 16, 2021. DOE's memorandum provides guidance to appropriately characterize historic PFAS use and releases at DOE sites. DOE's efforts will focus on assessing aqueous film-forming foam (AFFF) releases to the environment from fire suppression systems, firefighter training operations, and emergencies resulting in AFFF use; identifying other uses and incidents of disposal of PFAS; and conducting ongoing testing and monitoring for PFAS at levels exceeding established health advisory levels or regulatory limits. On October 26, 2021, DOE issued the letter "Response to Request for Status and Path Forward for the Department of Energy's Evaluation of Per- And Polyfluoroalkyl Substances at the Paducah Site," (PPPO-02-10015447-22) in response to EPA Region IV's recommendation that the FFA parties address PFAS as a sitewide emergent contaminant issue to document a sitewide Paducah Site PFAS SE under the FFA.

Effective July 8, 2024, EPA designated PFOA and PFOS, including their salts and structural isomers, as CERCLA hazardous substances under 40 *CFR* Part 302. Any actions required by this rule and as may be applicable to the Paducah Site will be addressed in the Environmental Media Sitewide OU ROD and D&D OU ROD.

The sitewide PFAS Screening Assessment sampling was performed in FY 2023 and consisted of a DOE-initiated preliminary characterization of PFAS and was conducted concurrently with DOE's routine environmental monitoring. The screening assessment included the collection of PFAS data needed to perform an initial sitewide evaluation for the presence of PFAS in certain environmental media and in potable water from the Paducah Site water treatment plant. The DOE sampling plan and quality assurance plan worksheets identify the information to be obtained and the decision criteria to be used for responding to the question of whether certain environmental media and potable water pose a potential threat to human health that may require future evaluation under CERCLA at the Paducah Site. The results of the FY 2023 sitewide PFAS Screening Assessment sampling were documented in a report and provided to EPA and KDEP in December 2024. Additional sampling to support the FY 2023 PFAS Screening Assessment was conducted in FY 2025:

- To supplement FY 2023 PFAS sampling efforts, samples from UCRS soil and groundwater in the C-400 RI addendum area and, UCRS soil in the SWMU 100 Fire Training Area (FTA) were sampled and analyzed for PFAS. As discussed in Appendix 1, in relation to the SWMU 100 FTA, PFAS is an emergent contaminant that was not considered as part of the scope of the Waste Area Groupings (WAGs) 1 & 7 RI/FS or ROD and the presence of PFAS is being evaluated separately from this ROD; if cleanup under CERCLA is required in the UCRS, then additional actions will be taken outside of the scope of WAGs 1 & 7 in the Environmental Media Sitewide OU ROD.

- To provide heightened comparability of results through the collection of each group of samples within a specified timeframe from the Northeast Plume and Northwest Plume treatment systems influents and effluents and the associated discharge outfalls (C001) and outfall sample locations (K001, K002) for treated groundwater as well as C-746-U Landfill leachate and the associated discharge outfall for treated leachate were sampled and analyzed for PFAS.

The results of the supplemental PFAS Screening Assessment sampling will be documented in an addendum to the report, projected for the first quarter of FY 2026.

Sampling and analysis for 1,4-dioxane has been conducted at the Paducah Site on a project-specific basis. The most recent 1,4-dioxane data were collected as part of the C-400 Cleaning Building RI, with 1,4-dioxane detected in several groundwater samples. Additional sampling and analysis for 1,4-dioxane is being considered for FY 2026.

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APPENDIX 4

SOURCE AREA BY OPERABLE UNIT

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Table 4. Solid Waste Management Units/Areas of Concern by Operable Unit

C-400 COMPLEX[a]			
Decision 2029 Record of Decision (ROD) Operable Unit (OU)	**Legacy OU Subproject**	**SWMU No.**	**Description**
Environmental Media Sitewide OU[b]	C-400 Final Remedial Action	11	C-400 TCE Leak Site
		40	C-403 Neutralization Tank slab and underlying soils
		47	C-400 Technetium Storage Tank Area
		98	C-400 Basement Sump
		203	C-400 Discard Waste System slab and underlying soils
		480	C-402 Lime House building slab and underlying soils
		533	TCE Spill Site from TCE Unloading Operations at C-400
		Five SWMUs (349, 350, 351, 352, and 353) within the C-400 Building are DMSAs that were designated as SWMUs under the Kentucky Hazardous Waste Management Permit pursuant to a DOE-KDEP Agreed Order (October 2003) and were not identified for action under the FFA. Ten other SWMUs within the C-400 Building (48, 49, 50, 51, 52, 53, 54, 383, 384, and 537) have been designated as no further action (NFA) and are listed in the NFA section of Appendix 4.	
LEGACY OU GROUNDWATER			
Environmental Media Sitewide OU[b]	C-400 Interim Remedial Action	11	C-400 TCE Leak Site
		533	TCE Spill Site from TCE Unloading Operations at C-400
	Southwest Plume Sources	1	C-747-C Oil Land Farm
		211 A	C-720 TCE Spill Site Northeast
		211 B	C-720 TCE Spill Site Southeast
LEGACY OU SURFACE WATER			
Environmental Media Sitewide OU[b]	Surface Water Operable Unit (SWOU) Remedial Action and Removal Action	58	North-South Diversion Ditch (NSDD) (Outside) (includes KPDES 003)
		60	C-375-E2 Effluent Ditch (KPDES 002)[c]
		61	C-375-E5 Effluent Ditch (KPDES 013)[c]
		62	C-375-S6 SW Ditch (KPDES 009)[c]
		63	C-375-W7 Oil Skimmer Ditch (KPDES 008 and KPDES 004)
		66	C-375-E3 Effluent Ditch (KPDES 010)
		67	C-375-E4 Effluent Ditch (C-340 Ditch) (KPDES 011)
		68	C-375-W8 Effluent Ditch (KPDES 015)
		69	C-375-W9 Effluent Ditch (KPDES 001)
		92	Fill Area for Dirt from the C-420 PCB Spill Site
		97	C-601 Diesel Spill
		102 B	Plant Storm Sewer associated with C-333-A, C-337-A, C-340, C-535, and C-537[c]
		168	KPDES Outfall Ditch 01[c]
		526	Internal Plant Drainage Ditches (includes KPDES 016)[d]

Table 4. Solid Waste Management Units/Areas of Concern by Operable Unit (Continued)

LEGACY OU SURFACE WATER (Continued)			
Decision 2029 ROD OU	**Legacy OU Subproject**	**SWMU No.**	**Description**
Environmental Media Sitewide OU[b]	SWOU Remedial Action	64	Little Bayou Creek
		65	Bayou Creek
		93	Concrete Disposal Area East of Plant Security Area
		105	Concrete Rubble Pile (3)
		106	Concrete Rubble Pile (4)
		107	Concrete Rubble Pile (5)
		108	Concrete Rubble Pile (6)
		109	Concrete Rubble Pile (7)
		113	Concrete Rubble Pile (11)
		129	Concrete Rubble Pile (27)
		175	Concrete Rubble Pile (28)
		185	C-611-4 Horseshoe Lagoon (includes KPDES 014)
		199	Big Bayou Creek Monitoring Station
		205	Eastern Portion of Yellow Water Line
		549	Dirt/Concrete Rubble Pile near Outfall 008
		550	Concrete Culvert Sections Located on the West Bank of the Ditch Leading to Outfall 001
		Others	Outfalls 017, 018, 019/020, and 526 and associated ditches
LEGACY OU LAGOONS			
Environmental Media Sitewide OU[b]	Process Lagoons	17	C-616-E Sludge Lagoon
		18	C-616-F Full-Flow Lagoon
		171	C-617-B Lagoon (formerly identified as C-617-A in the 10/12/1992 SAR)
	Water Treatment System Lagoons	21	C-611-W Sludge Lagoon
		22	C-611-Y Overflow Lagoon (includes KPDES 006)
		23	C-611-V Lagoon (includes KPDES 005)
LEGACY OU BURIAL GROUNDS			
Environmental Media Sitewide OU[b]	BGOU Remedial (10 SWMUs)	2	C-749 Uranium Burial Ground
		3	C-404 Low-Level Radioactive Waste Burial Ground
		4	C-747 Contaminated Burial Ground
		5	C-746-F Classified Burial Ground
		6	C-747-B Burial Area
		7	C-747-A Burial Ground
		9	C-746-S Residential Landfill
		10	C-746-T Inert Landfill
		30	C-747-A Burn Area
		145	Residential/Inert Landfill Borrow Area (P-Landfill)
	Additional Burial Grounds	472	C-746-B Pad
		520	Scrap Material West of C-746-A
LEGACY OU SOILS			
Environmental Media Sitewide OU[b]	Soils Remedial	1	C-747-C Oil Land Farm
		13	C-746-P Clean Scrap Yard[e]
		14	C-746-E Contaminated Scrap Yard
		15	C-746-C Scrap Yard[e]
		19	C-410-B HF Neutralization Lagoon
		26	C-400 to C-404 Underground Transfer Line[e]
		56	C-540-A PCB Waste Staging Area[e,]

Table 4. Solid Waste Management Units/Areas of Concern by Operable Unit (Continued)

LEGACY OU SOILS (Continued)			
Decision 2029 ROD OU	**Legacy OU Subproject**	**SWMU No.**	**Description**
Environmental Media Sitewide OU[b] (continued)	Soils Remedial (continued)	57	C-541-A PCB Waste Staging Area[e]
		76	C-632-B Sulfuric Acid Storage Tank
		77	C-634-B Sulfuric Acid Storage Tank[e,g]
		80	C-540-A PCB Spill Site[e]
		81	C-541-A PCB Spill Site
		99 B	C-745 Kellogg Bldg. Site—Septic Tank/Leach Field
		138	C-100 Southside Berm
		153	C-331 PCB Soil Contamination (West)
		156	C-310 PCB Soil Contamination (West Side)
		158	Chilled-Water System Leak Site
		160	C-745 Cylinder Yard Spoils (PCB Soils)
		163	C-304 Bldg./HVAC Piping System (Soil Backfill)
		165	C-616-L Pipeline & Vault Soil Contamination
		169	C-410-E HF Vent Surge Protection Tank
		170	C-729 Acetylene Bldg. Drain Pits
		180	Outdoor Firing Range (WKWMA)
		181	Outdoor Firing Range (PGDP)
		194	McGraw Construction Facilities (South Side Leach Field Area)
		195	Curlee Road Contaminated Soil Mounds
		196	C-746-A Septic System
		200	Soil Contamination South of TSCA Waste Storage Facility
		204	Dykes Road Historical Staging Area[e]
		211 A	C-720 TCE Spill Site Northeast[e]
		212	C-745-A Radiological Contamination Area
		213	OS-02
		214	OS-03
		215	OS-04
		216	OS-05[h]
		217	OS-06
		219	OS-08
		221	OS-10
		222	OS-11
		224	OS-13[e]
		225 A	OS-14[e]
		225 B	Contaminated Soil Area near C-533-1 DMSA OS-1[e]
		227	OS-16
		228	OS-17
		229	OS-18[e]
		486	Rubble Pile WKWMA (approximately 116 ft off roadside)
		487	Rubble Pile WKWMA (approximately 483 ft off roadside)
		488	PCB Contamination Area by the C-410 Trailer Complex
		489	Septic Tank North of C-710 Laboratory
		492	Contaminated Soil Area Near Outfall 010
		493	Concrete Rubble Piles Near Outfall 001
		517	Rubble and Debris Erosion Control Fill Area
		518	Field South of C-746-P1 Clean Scrap Yard
		520	Scrap Material West of C-746-A
		531	Aluminum Slag Reacting Area (C-746-H4) near the C-746-A Facility
		541	Contaminated Soil Area South of Outfall 011

Table 4. Solid Waste Management Units/Areas of Concern by Operable Unit (Continued)

LEGACY OU SOILS (Continued)			
Decision 2029 ROD OU	**Legacy OU Subproject**	**SWMU No.**	**Description**
Environmental Media Sitewide OU[b] (continued)	Soils Remedial (continued)	561	Soil Pile I
		562	Soil Piles C, D, E, F, G, H, J, K, and P in subunit 1 north of Soil Pile I on the west bank of Little Bayou Creek
		563	Soil Piles 20, CC, and BW in subunit 4 north of outfall 012 west of Little Bayou Creek
		564	Soil Pile AT in subunit 5 that consists of three soil areas on the east side of the NSDD north of the P-, S-, and T-Landfills
		565	Rubble Area KY-19 (along Bayou Creek north of C-611 Water Treatment Plant)[e]
		567	Soil Pile K013 near Outfall 013, West of Little Bayou Creek
LEGACY OU SOILS AND SLABS			
Environmental Media Sitewide OU[b]		16	C-746-D Classified Scrap Yard
		20	C-410-E HF Emergency Holding Pond slab and underlying soils
		27	C-722 Acid Neutralization Tank
		28	C-712 Laboratory Equalization Tank slab and underlying soils
		31	C-720 Compressor Pit Water Storage Tank slab and underlying soils
		32	C-728 Clean Waste Oil Tanks slab and underlying soils
		33	C-728 Motor Cleaning Facility slab and underlying soils
		38	C-615 Sewage Treatment Plant slab and underlying soils
		41	C-410-C Neutralization Tank slab and underlying soils
		42	C-616 Chromate Reduction Facility slab and underlying soils
		55	C-405 Incinerator building slab and underlying soils
		70	C-333-A Vaporizer slab and underlying soils
		71	C-337-A Vaporizer slab and underlying soils
		74	C-340 PCB Transformer Spill Site
		75	C-633 PCB Spill Site
		77	C-634-B-Sulfuric Acid Storage Tank slab and underlying soils
		78	C-420 PCB Spill Site
		79	C-611 PCB Spill Site
		82	C-531 Switchyard slab and underlying soils
		83	C-533 Switchyard slab and underlying soils
		84	C-535 Switchyard slab and underlying soils
		85	C-537 Switchyard slab and underlying soils
		86	C-631 Pumphouse and Cooling Tower Slabs and Associated Soils
		87	C-633 Pumphouse and Cooling Tower Slabs and Associated Soils
		88	C-635 Pumphouse and Cooling Tower Slabs and Associated Soils
		89	C-637 Pumphouse and Cooling Tower slab and underlying soils
		99 A	C-745 Kellogg Bldg. Site–Cylinder Yard
		135	C-333 PCB Soil Contamination (North Side)
		137	C-746-A Inactive PCB Transformer Sump Area[i]
		154	C-331 PCB Soil Contamination (Southeast)
		155	C-333 PCB Soil Contamination (West)
		159	C-746-H3 Storage Pad slab and underlying soils
		161	C-743-T-01 Trailer Site (Soil Backfill)
		162	C-617-A Sanitary Water Line (Soil Backfill)
		166	C-100 Trailer Complex Soil Contamination (East Side)

Table 4. Solid Waste Management Units/Areas of Concern by Operable Unit (Continued)

LEGACY OU SOILS AND SLABS (Continued)			
Decision 2029 ROD OU	**Legacy OU Subproject**	**SWMU No.**	**Description**
Environmental Media Sitewide OU[b] (continued)		167	C-720 White Room Sump slab and underlying soils
		172	C-726 Sandblasting Facility slab and underlying soils
		176	C-331 RCW Leak Northwest Side
		177	C-331 RCW Leak East Side
		178	C-724-A Paint Spray Booth slab and underlying soils
		179	Plant Sanitary Sewer System
		192	C-710 Acid Interceptor Pit slab and underlying soils
		198	C-410-D Area Soil Contamination slab and underlying soils
		209	C-720 Compressor Shop Pit Sump slab and underlying soils
		211 B	C-720 TCE Spill Site Southeast
		218	OS-07 slab and underlying soils
		220	OS-09 slab and underlying soils
		223	OS-12 slab and underlying soils
		226	OS-15
		463	C-746-A East End Smelter slab and underlying soils
		464	C-746-A West End Smelter building slab and underlying soils
		469	C-745-J Yard
		470	C-746-V Yard
		474	West of Vortec Site
		477	C-340 Metals Plant building slab and underlying soils
		478	C-410/420 Feed Plant building slab and underlying soils
		482	C-415 Feed Plant Storage Building slab and underlying soils
		483	Nitrogen Generating Facilities slab and underlying soils
		498	C-410/420 Sump at Column D & E-1&2 slab and underlying soils
		499	C-410/420 Sump at Column H-9&10 slab and underlying soils
		500	C-410/420 Sump at Column U-10&11 slab and underlying soils
		501	C-410/420 UF_6 Scale Pit Sumps A&B slab and underlying soils
		502	C-410/420 Sump at Column U-9 slab and underlying soils
		503	C-410/420 Sump at Column G-1 slab and underlying soils
		504	C-410/420 Sump at Column L-10 slab and underlying soils
		505	C-410/420 Sump at Column A-3N slab and underlying soils
		506	C-410/420 Sump at Column Wa-9 slab and underlying soils
		507	C-410/420 Condensate Tank Pit slab and underlying soils
		508	C-410/420 Settling Basin slab and underlying soils
		509	C-410/420 Drain pit slab and underlying soils
		510	C-410/420 Sump at Column P&Q-2 slab and underlying soils
		511	C-410/420 Sump at Column Q&R-2 slab and underlying soils
		512	C-410/420 Sump at Column R-2 slab and underlying soils
		513	C-411 Cell Maintenance Room Sump slab and underlying soils

Table 4. Solid Waste Management Units/Areas of Concern by Operable Unit (Continued)

LEGACY OU SOILS AND SLABS (Continued)			
Decision 2029 ROD OU	**Legacy OU Subproject**	**SWMU No.**	**Description**
Environmental Media sitewide OU[b] (continued)		522	C-340 Work Pit at Ground Floor Level (B-7—B-9) slab and underlying soils
		523	C-340 Metals Plant Pit at Ground Floor (F-6 to F-11) slab and underlying soils
		524	C-340 Pickling System Sump (B-10 to B-11) slab and underlying soils
		529	C-340 Powder Plant Sump at Ground Floor Level slab and underlying soils
		571	C-602 Coal Storage Yard
		572	C-360 Toll Transfer and Sampling Building Slab and Underlying Soils
		573	C-750 Garage Slab and Underlying Soils and Associated Outside Areas
		574	C-709-A Acid Neutralization Vault
		575	C-721 Gas Manifold Storage Slab and Underlying Soils Area
LEGACY OU FACILITY DECOMMISSIONING			
D&D OU	Remaining Decomm-issioning	The following SWMUs/AOCs or facilities may include multiple smaller facilities. A more detailed listing of facilities is included in the following table entitled "Detailed Facility Decommissioning OU Facilities List." *Denotes facilities that have been identified as requiring a CERCLA NTCRA.	
		33*	C-728 Motor Cleaning Facility
		38*	C-615 Sewage Treatment Plant
		42*	C-616 Chromate Reduction Facility
		70*	C-333-A Vaporizer
		71*	C-337-A Vaporizer
		82*	C-531 Switchyard
		83*	C-533 Switchyard
		84*	C-535 Switchyard
		85*	C-537 Switchyard
		172*	C-726 Sandblasting Facility
		482*	C-415 Feed Plant Storage Building
		572*	C-360 Toll Transfer and Sampling Building
		Other Buildings (non-SWMUs)	See Table "Detailed Facility Decommissioning OU Facilities List." Process Building tie-lines and bridges will be included with the appropriate process building.
LEGACY OU DUF` FOOTPRINT UNDERLYING SOILS			
CSOU[j]	DUF_6 Footprint Underlying Soils OU	164	KPDES Outfall Ditch 017 Flume—Soil Backfill
		183	McGraw UST
		193	McGraw Construction Facilities (South Side Cylinder Yard Area, East of Hobbs Road)
LEGACY OU FINAL CSOU			
Environmental Media Sitewide OU[b]	**SWMU No.**		**Description**
	8		C-746-K Inactive Sanitary Landfill
	59		NSDD (Inside)
	91		UF_6 Cylinder Drop Test Area
	100		Fire Training Area

Table 4. Solid Waste Management Units/Areas of Concern by Operable Unit (Continued)

LEGACY OU FINAL CSOU (Continued)		
Decision 2029 ROD OU	**SWMU No.**	**Description**
CSOU[j]	**SWMU No.**	**Description**
	201	Northwest Groundwater Plume
	202	Northeast Groundwater Plume
	210	Southwest Groundwater Plume
	Potential Additional Groundwater Sources	This project is being reserved for remaining sources to groundwater contamination that may be identified in the future
PERMITTED		
Permitted	**SWMU No.**	**Description**
	3	C-404 Low-Level Radioactive Waste Burial Ground[k]
	9	C-746-S Residential Landfill
	10	C-746-T Inert Landfill
	44	C-733 Hazardous Waste Storage Area
	46 A	C-746-Q Hazardous and Low-Level Mixed Waste Storage Facility[l]
	207	C-752-A ER Waste Storage Bldg.
	208	C-746-U Solid Waste Contained Landfill
NO FURTHER ACTION[m]		
SWMU No.	**Description**	**NFA Approval By**
12	C-747-A UF_4 Drum Yard	FFA Managers Agreement—11/17/2011; FFA Managers Meeting, 4/12/2012 (Based on information presented at these meetings and on verbal agreement, KY agreed with DOE's assessment that SWMU 12 should be granted NFA status in a letter dated 4/24/2012.)
24	C-750-D UST	KDWM (UST Branch) 11/23/1999
25	C-750 1,000-gal Waste Oil Tank (UST)	EPA HSWA Class 1 Permit Mod 3/17/1993—Regulated by RCRA Permit; KDWM (UST Branch) 6/20/1994
29	C-746-B TRU Storage Area	EPA HSWA Class 1 Permit Mod 3/17/1993
34	C-746-M PCB Waste Storage Area	EPA HSWA Class 1 Permit Mod 3/17/1993
35	C-337 PCB Waste Storage Area	EPA HSWA Class 1 Permit Mod 3/17/1993
36	C-337 PCB Waste Staging Area	EPA HSWA Class 1 Permit Mod 3/17/1993
37	C-333 PCB Waste Staging Area	EPA HSWA Class 1 Permit Mod 3/17/1993
39	C-746-B PCB Waste Storage Area	EPA HSWA Class 1 Permit Mod 3/17/1993
43	C-746-B Waste Chemical Storage Area	EPA HSWA Class 1 Permit Mod 3/17/1993; Closed after 1993
45	C-746-R Waste Solvent Storage Area	EPA HSWA Class 1 Permit Mod 3/17/1993; Closed after 1993
46	C-409 Hazardous Waste Pilot Plant[n]	EPA HSWA Class 1 Permit Mod 3/17/1993—Regulated by RCRA Permit; KDWM (Mod #13) 9/26/1997
48	Gold Dissolver Storage Tank (DMSA C400-03)	EPA HSWA Class 1 Permit Mod 3/17/1993; KDWM 7/8/2010
49	C-400-B Waste Solution Storage Tank	EPA HSWA Class 1 Permit Mod 3/17/1993—Regulated by RCRA Permit; KDWM 9/26/1997
50	C-400-C Nickel Stripper Evaporation Tank	EPA HSWA Class 1 Permit Mod 3/17/1993—Regulated by RCRA Permit; KDWM (Mod #13) 9/26/1997
51	C-400-D Lime Precipitation Tank	EPA HSWA Class 1 Permit Mod 3/17/1993—Regulated by RCRA Permit; KDWM (ROC) 8/8/1994

Table 4. Solid Waste Management Units/Areas of Concern by Operable Unit (Continued)

NO FURTHER ACTION (Continued)		
SWMU No.	**Description**	**NFA Approval By**
52	C-400 Waste Decontamination Solution Storage Tanks	EPA HSWA Class 1 Permit Mod 3/17/1993
53	C-400 NaOH Precipitation Unit	EPA HSWA Class 1 Permit Mod 3/17/1993
54	C-400 Degreaser Solvent Recovery Unit	EPA HSWA Class 1 Permit Mod 3/17/1993; KDWM 7/8/2010
72	C-200 Underground Gasoline Tanks	EPA HSWA Class 1 Permit Mod 3/17/1993; KDWM (UST C-200A; UST Branch) 11/23/1999
73	C-710 Underground Gasoline Tanks	EPA HSWA Class 1 Permit Mod 3/17/1993; KDWM (UST C-200A; UST C-710; UST Branch) 2/19/2002
90	C-728 Petroleum Naphtha Pipe (formerly identified as the C-720 Petroleum Naphtha Pipe or C-720 Underground Petroleum Naphtha Pipe in historical documents)	KDWM 1/14/2015
94	KOW Trickling Filter and Leach Field	KDWM Superfund Branch 1/15/2020
96	C-333 Cooling Tower Scrap Wood Pile	EPA HSWA Class 1 Permit Mod 3/17/1993
101	C-340 Hydraulic System	EPA and KDWM 4/2/2015
102 A	Plant Storm Sewer—between the south side of the C-400 Building and Outfall 008	EPA and KY via SW Plume ROD 3/16/2012; KDWM 1/14/2015
103	Concrete Rubble Pile (1)	EPA and KY via WAG 17 ROD 9/29/1997
104	Concrete Rubble Pile (2)	EPA and KY via WAG 17 ROD 9/29/1997
110	Concrete Rubble Pile (8)	EPA and KY via WAG 17 ROD 9/29/1997
111	Concrete Rubble Pile (9)	EPA and KY via WAG 17 ROD 9/29/1997
112	Concrete Rubble Pile (10)	EPA and KY via WAG 17 ROD 9/29/1997
114	Concrete Rubble Pile (12)	EPA and KY via WAG 17 ROD 9/29/1997
115	Concrete Rubble Pile (13)	EPA and KY via WAG 17 ROD 9/29/1997
116	Concrete Rubble Pile (14)	EPA and KY via WAG 17 ROD 9/29/1997
117	Concrete Rubble Pile (15)	EPA and KY via WAG 17 ROD 9/29/1997
118	Concrete Rubble Pile (16)	EPA and KY via WAG 17 ROD 9/29/1997
119	Concrete Rubble Pile (17)	EPA and KY via WAG 17 ROD 9/29/1997
120	Concrete Rubble Pile (18)	EPA and KY via WAG 17 ROD 9/29/1997
121	Concrete Rubble Pile (19)	EPA and KY via WAG 17 ROD 9/29/1997
122	Concrete Rubble Pile (20)	WAG 17 RI Work Plan
123	Concrete Rubble Pile (21)	EPA and KY via WAG 17 ROD 9/29/1997
124	Concrete Rubble Pile (22)	EPA and KY via WAG 17 ROD 9/29/1997
125	Concrete Rubble Pile (23)	EPA and KY via WAG 17 ROD 9/29/1997
126	Concrete Rubble Pile (24)	EPA and KY via WAG 17 ROD 9/29/1997
127	Concrete Rubble Pile (25)	EPA and KY via WAG 17 ROD 9/29/1997
128	Concrete Rubble Pile (26)	EPA and KY via WAG 17 ROD 9/29/1997
130	C-611 550-gal Gasoline UST	KDWM 12/6/1996 EPA and KY via WAG 1&7 ROD
131	C-611 50-gal Gasoline UST	KDWM 12/6/1996 EPA and KY via WAG 1&7 ROD 8/10/1998
132	C-611 2,000-gal Oil UST	KDWM 12/6/1996 EPA and KY via WAG 1&7 ROD 8/10/1998

Table 4. Solid Waste Management Units/Areas of Concern by Operable Unit (Continued)

NO FURTHER ACTION (Continued)		
SWMU No.	**Description**	**NFA Approval By**
133	C-611 (unknown size) Grouted UST	KDWM 12/6/1996 EPA and KY via WAG 1&7 ROD 8/10/1998
134	C-611 1,000-gal Diesel/Gasoline Tank	KDWM 12/6/1996 EPA and KY via WAG 1&7 ROD 8/10/1998
136	C-740 TCE Spill Site	EPA and KY via WAG 1&7 ROD 8/10/1998
139	C-746-A1 UST	KDWM 12/9/2005
140	C-746-A2 UST	KDWM 12/19/1996
141	C-720 Inactive TCE Degreaser	KDWM 8/11/1992; EPA HSWA Class 1 Permit Mod 3/17/1993—Regulated by RCRA Permit
142	C-750-A 10,000-gal Gasoline Tank (UST)	EPA HSWA Class 1 Permit Mod 3/17/1993—Regulated by RCRA Permit; KDWM 3/25/1999
143	C-750-B 10,000-gal Diesel Tank (UST)	EPA HSWA Class 1 Permit Mod 3/17/1993; KDWM 3/25/1999
144	C-746-A Hazardous and Mixed Waste Storage Facility	EPA HSWA Class 1 Permit Mod 3/17/1993—Regulated by RCRA Permit; KDWM 10/10/2011
146	Concrete Rubble Pile (40)	EPA and KY via WAG 17 ROD 9/29/1997
147	Concrete Rubble Pile (41)	EPA and KY via WAG 17 ROD 9/29/1997
148	Concrete Rubble Pile (42)	EPA and KY via WAG 17 ROD 9/29/1997
149	Concrete Rubble Pile (43)	EPA and KY via WAG 17 ROD 9/29/1997
150	Concrete Rubble Pile (44)	EPA and KY via WAG 17 ROD 9/29/1997
151	Concrete Rubble Pile (45)	EPA and KY via WAG 17 ROD 9/29/1997
152	Concrete Rubble Pile (46)	EPA and KY via WAG 17 ROD 9/29/1997
157	KOW Toluene Spill Area	KDWM Superfund Branch 1/15/2020
173	C-746-A Trash-Sorting Facility	EPA HSWA Class 1 Permit Mod 3/17/1993; KDWM 12/18/1992
174	C-745-K Low-Level Storage Area	EPA HSWA Class 1 Permit Mod 3/17/1993; KDWM 2/22/1993
182	Western Portion of Yellow Water Line	KDWM Superfund Branch 1/15/2020
184	Concrete Rubble Pile (29)	EPA and KY via WAG 17 ROD 9/29/1997
186	C-751 Fuel Facility	KDWM 10/20/1993
187	C-611 Septic System	KDWM 10/20/1993
188	C-633 Septic System	KDWM 10/20/1993
189	C-637 Septic System	KDWM 10/20/1993
190	C-337A Sewage Treatment Aeration Tank	KDWM 10/20/1993
191	C-333-A Sewage Treatment Aeration Tank	KDWM 10/20/1993
197	Concrete Rubble Pile (30)	EPA and KY via WAG 17 ROD 9/29/1997
206	C-753-A Toxic Substances Control Act Waste Storage Bldg.	KDWM 3/7/1997
208	C-746-U Solid Waste Contained Landfill	KDWM 3/7/1997
360	C-535	KDWM 1/4/2006
361	C-727–90 day	KDWM 8/28/2007
362	G-310-04	KDWM 8/28/2007
363	G-331-03	KDWM 6/29/2004
364	G-331-05	KDWM 6/29/2004

Table 4. Solid Waste Management Units/Areas of Concern by Operable Unit (Continued)

NO FURTHER ACTION (Continued)		
SWMU No.	**Description**	**NFA Approval By**
365	G-333-02	KDWM 5/12/2003
366	G-333-03	KDWM 5/12/2003
367	G-333-04	KDWM 5/12/2003
368	G-333-08	KDWM 6/29/2004
369	G-333-10	KDWM 5/12/2003
370	G-333-20	KDWM 5/12/2003
371	G-335-01	KDWM 1/4/2006
372	G-337-02	KDWM 9/11/2003
373	G-337-03	KDWM 9/11/2003
374	G-337-13	KDWM 9/11/2003
375	G-337-14	KDWM 9/11/2003
376	G-337-15	KDWM 9/11/2003
377	G-337-22	KDWM 1/4/2006
378	G-340-01	EPA and KDWM 4/02/2015
379	G-340-03	EPA and KDWM 4/02/2015
380	G-340-04	EPA and KDWM 4/02/2015
381	G-340-05	EPA and KDWM 4/02/2015
382	G-340-06	KDWM 8/28/2007
383	G-400-01	KDWM 5/12/2003
384	G-400-02	KDWM 5/12/2003
385	G-409-25	KDWM 5/12/2003
386	G-410-01	KDWM 8/28/2007
387	C-416-01	KDWM 8/28/2007
388	C-416 Decontamination Pad	KDWM 4/12/2004
389	G-533-01	KDWM 6/29/2004
390	G-535-02	KDWM 6/29/2004
391	G-537-01	KDWM 1/4/2006
392	G-540-A-01	KDWM 2/14/2006
393	G-540-A-1-02	KDWM 2/14/2006
394	G-541-A-01	KDWM 4/12/2004
395	G-600-01	KDWM 3/8/2007
396	G-611-U-01	KDWM 3/8/2007
397	G-612-01	KDWM 3/8/2007
398	G-612-02	KDWM 3/8/2007
399	G-612-A-01	KDWM 3/8/2007
400	G-635-01	KDWM 3/8/2007
401	G-710	KDWM 1/4/2006
402	G-710-04	KDWM 9/11/2003
403	G-710-20	KDWM 1/4/2006
404	G-710-24	KDWM 9/11/2003
405	G-720-22	KDWM 2/14/2006
406	G-743-T-17-01	KDWM 6/29/2004
407	G-743-T-17-02	KDWM 3/8/2007
408	G-745-B-01	KDWM 3/8/2007
409	G-745-T-01	KDWM 2/14/2006
410	G-746-G-01	KDWM 6/29/2004
411	G-746-G-1-01	KDWM 3/8/2007
412	G-746-G-2-01	KDWM 11/1/2004
413	G-746-G-3-01	KDWM 11/1/2004
414	G-746-F-01	KDWM 1/4/2006
415	G-746-S-01	KDWM 8/28/2007
416	G-746-X-01 (PCBs)	KDWM 3/8/2007
417	G-746-X-01 (Asbestos)	KDWM 3/8/2007
418	G-748-B-01	KDWM 6/29/2004

Table 4. Solid Waste Management Units/Areas of Concern by Operable Unit (Continued)

NO FURTHER ACTION (Continued)		
SWMU No.	**Description**	**NFA Approval By**
419	C-752-C Decontamination Facility	KDWM 8/28/2007; KDWM 4/22/2022
420	G-752-C-02	KDWM 3/8/2007
421	G-754-01	KDWM 1/4/2006
422	G-755-A-01, G-755-A-02, and G-755-A-03	KDWM 1/28/2004
423	G-755-C-01	KDWM 1/28/2004
424	G-755-T-07-01	KDWM 1/28/2004
425	G-755-T-08	KDWM 1/28/2004
426	G-755-T-2-3-01	KDWM 1/28/2004
427	G-755-T-3-1-01	KDWM 1/28/2004
428	G-755-T-3-2-01	KDWM 1/28/2004
429	S-310-04	KDWM 8/28/2007
430	S-331-02	KDWM 1/4/2006
431	S-333-12	KDWM 5/12/2003
432	S-335-09	KDWM 1/4/2006
433	S-337-11	KDWM 9/11/2003
434	S-340-01	EPA and KY 4/2/2015
435	S-409-100	KDWM 5/12/2003
436	S-409-20	KDWM 5/12/2003
437	S-409-40	KDWM 5/12/2003
438	S-409-60	KDWM 5/12/2003
439	S-409-80	KDWM 5/12/2003
440	S-410-05	KDWM 8/28/2007
441	S-540-A-2-01	KDWM 6/29/2004
442	S-612-01	KDWM 2/14/2006
443	S-709-01	KDWM 6/29/2004
444	S-709-02	KDWM 6/29/2004
445	S-710-05	KDWM 2/14/2006
446	S-710-06	KDWM 9/11/2003
447	S-710-09	KDWM 1/4/2006
448	S-710-16	KDWM 9/11/2003
449	S-710-18	KDWM 9/11/2003
450	S-710-32	KDWM 1/4/2006
451	S-710-41	KDWM 9/11/2003
452	S-710-44	KDWM 1/4/2006
453	S-710-46	KDWM 9/11/2003
454	S-743-T-17-01	KDWM 2/14/2006
455	S-755-T-16-01	KDWM 1/28/2004
456	S-755-T-16-02	KDWM 1/28/2004
457	S-755-T-16-03	KDWM 1/28/2004
458	S-755-T-2-3-01	KDWM 1/28/2004
459	S-755-T-3-1-01	KDWM 1/28/2004
460	S-755-T-3-2-01	KDWM 1/28/2004
461	S-755-T-3-2-02	KDWM 1/28/2004
462	S-755-T-3-2-03	KDWM 1/28/2004
465	Yard Rubble Pile and Crushate Storage Area (G-Yard)	KDWM 10/13/2009
466	South of Dyke Road, Pond Area	KDWM 8/17/2009
467	Concrete Cylinder Holders Storage Area on Western Kentucky Wildlife Management Area	KDWM 8/17/2009
468	Area Northwest of Outfall 015	KDWM 2/14/2006
471	Outside C-746-B South Storage Area	KDWM 8/17/2009
473	C-746-B Pad, West	KDWM 8/28/2007
475	C-745-G5-01 (Paint Enclosure)	KDWM 2/14/2006
476	Concrete Crusher	KDWM 2/14/2006

Table 4. Solid Waste Management Units/Areas of Concern by Operable Unit (Continued)

NO FURTHER ACTION (Continued)		
SWMU No.	**Description**	**NFA Approval By**
479	C-204 Disintegrator Building	KDWM 6/3/2002
481	C-410-A Hydrogen Holder	KDWM 4/2/2002
484	C-611-M Storage Tank	KDWM 8/30/2002
485	C-611-N Sanitary Water Storage	KDWM 2/18/2002
490	McGraw Fuel Facility Waste Oil Storage Tank	KDWM 12/21/2001
491	Mercury Spill at the C-611 Water Treatment Plant Vault	KDWM 3/22/2004
494	Ash Receiver Area in C-410/420	KDWM 6/3/2016; EPA 6/9/2016
495	C-410-I Ash Receiver Shed	KDWM 6/3/2016; EPA 6/9/2016
496	C-410 Fluorine/Hydrogen Filters (Northeast Mezzanine)	KDWM 6/3/2016; EPA 6/9/2016
497	C-410/420 F_2 Cell Neutralization Room Vats	KDWM 6/3/2016; EPA 6/9/2016
514	C-340 Magnesium Fluoride Reject Silo	EPA and KY 4/2/2015
515	C-340 “Dirty” Dust Collection System	EPA and KY 4/2/2015
516	C-340 Derby Preparation Area Sludge Collection System	EPA and KY 4/2/2015
519	C-410 Sulfuric Acid Tank (C-634-B)	KDWM 1/10/2003
521	C-340 Saw System Degreaser	EPA and KY 4/2/2015
525	Concrete Water Tower Supports (KOW)	KDWM 8/28/2007
527	C-410 GSA/SAA at Column J-6	KDWM 8/28/2007
528	GSA/SAA at the Northwest corner of C-745-G3 Paint Enclosure	KDWM 2/14/2006
530	Soil and Debris Storage Area by C-745-T Yard	KDWM 3/8/2007
532	Photographic Solution Treatment Area in the C-102 Building	KDWM 5/21/2003
534	UST #18, within SWMU 193	KDWM (UST Branch) 12/4/2002
535	S-755-T08-01 (Satellite Accumulation Area at C-755, Trailer 8)	KDWM 2/14/2006
536	Concrete Truck Washout Area	KDWM 6/27/2002
537	S-400-001 (SAA Located Outside at the Southeast Corner of the C-400 Building)	KDWM 2/14/2006
538	S-MST-01-01 & S-MST-01-02 (Mobile Trailer 01)	KDWM 2/14/2006
539	S-MST-02-01 & S-MST-02-02 (Mobile Trailer 02)	KDWM 2/14/2006
540	S-MST-03-01 & S-MST-03-02 (Mobile Trailer 03)	KDWM 2/14/2006
542 A	G-746-B-01; S-746-B-01; S-746-B-02 (GSA/SAAs located outside C-746-A)	KDWM 1/28/2004
542 B	G-746-A-01; S-746-A-01; S-746-A-02 (GSA/SAAs located outside C-746-A)	KDWM 1/28/2004
543	T-746-S-01 (90-Day Storage Area)	KDWM 1/28/2004
544	T-752-C-01 (90-Day Storage Area)	KDWM 1/28/2004
545	C-755-T-22-01 and G-755-T-22	KDWM 1/28/2004
546	PGDP Post 67 Diesel Fuel Spill Area	KDWM 2/14/2006
547	PGDP Post 38 Diesel Spill Area	KDWM 2/14/2006
548	Staging Area for Concrete Piers, Wood and Rubble North Side of C-745-B Cylinder Yard	KDWM 8/28/2007
551	C-755-GSA-23 Located at C-755 near the East Fence Line	KDWM 8/28/2007
552	C-760 90-Day Accumulation Area	KDWM 3/8/2007
566	H-340-01	KDWM 12/02/2010
568	C-340 ST-90 Boxes	KDWM 12/02/2010
569	C-743-T-17 Sample Return Refrigerator	KDWM 5/24/2012
570	Sample Return Sealand	KDWM 5/24/2012
542 B	G-746-A-01; S-746-A-01; S-746-A-02 (GSA/SAAs located outside C-746-A)	KDWM 1/28/2004

Table 4. Solid Waste Management Units/Areas of Concern by Operable Unit (Continued)

PENDING NO FURTHER ACTION DECISION	
SWMU No.	**Description**
	Reserved
SWMUs THAT WILL BE INVESTIGATED AND REMEDIATED BY THE U.S. ARMY CORPS OF ENGINEERS[o]	
95	KOW Burn Area
SWMUs THAT HAVE BEEN REMOVED FROM THE HAZARDOUS WASTE PERMIT	
SWMU No.	**Description**
	Reserved

[a] C-400 Complex OU with enforceable milestones have been retained in this FY 2026 SMP revision as contingency if the D&D OU and Environmental Media Sitewide OU RI/FS, proposed plans and RODs are not proceeding as anticipated.

[b] Scope includes confirmed/probable dense nonaqueous-phase liquid (DNAPL) inside the C-400 Complex and does not include groundwater for Northeast Plume (interim ROD transition to final remedy), Northwest Plume (interim ROD transition to final remedy), dissolved-phase plumes (as identified in the SMP) and Water Policy (removal action transition to final remedy).

[c] The results of the Legacy SWOU (On-Site) Site Investigation determined that there were no unacceptable levels of risk to current and anticipated future receptors that warranted inclusion of Solid Waste Management Unit (SWMU) 60 (Outfall 002), SWMU 168 (Outfall 012), or SWMU 102 (Paducah Gaseous Diffusion Plant storm sewer systems associated with C-333-A, C-337-A, C-340, C-535, and C-537). As a result, no action will be taken for these SWMUs as originally planned under the SWOU removal action. These SWMUs will be evaluated further as part of the SWOU remedial action. It also should be noted that during development of the Sampling and Analysis plan for SWOU (On-Site) Removal Action, Kentucky Pollutant Discharge Elimination System (KPDES) Outfall 009 and KPDES Outfall 013 were evaluated. This assessment of the outfalls, which included a review of historical data, indicated that KPDES Outfall 009 and Outfall 013 did not require an early action, and further assessment of Outfall 009 and Outfall 013 would be addressed during the Comprehensive Site Operable Unit (CSOU). Based upon current site strategy, Outfall 009 and Outfall 013 also will be addressed as part of the SWOU remedial action. The Legacy OU will be addressed by the Environmental Media Sitewide OU.

[d] KPDES Outfall 016, in its entirety, will be addressed as part of the SWOU Remedial Investigation. The Legacy OU will be addressed by the Environmental Media Sitewide OU.

[e] These SWMUs/areas of concern (AOCs) were evaluated under Soils OU RI 2 and will be addressed by a subsequent Soils OU feasibility study. This Legacy OU will be addressed by the Environmental Media Sitewide OU.

[f] SWMUs 56 and 57 are located within, and will be addressed as part of, SWMUs 80 and 81, respectively.

[g] This SWMU was evaluated as part of the Soils OU. The soils and underlying slabs associated with this SWMU will be addressed under the Soils and Slabs OU as part of post-gaseous diffusion plant shutdown activities. The Legacy OUs will be addressed by the Environmental Media Sitewide OU.

[h] The boundaries for SWMU 216 were revised after the Soils OU RI was completed; as a result, the conclusions in the Soils OU RI Report for SWMU 216 are incomplete and will need to be addressed in a subsequent action. This Legacy OU will be addressed by the Environmental Media Sitewide OU.

[i] SWMU 137 was evaluated as part of the American Recovery and Reinvestment Act and the Soils OU. SWMU 137 will be addressed as part of Soils and Slabs OU. This Legacy OU will be addressed by the Environmental Media Sitewide OU.

[j] The FFA, as currently written, contemplates multiple CSOUs, consisting of those associated with integrator units (i.e., groundwater, surface water), and a final CSOU completed after issuance of all final RODs for the site. The Federal Facility Agreement (FFA) parties acknowledge that the scope description is intended to reflect a single CSOU to address all media, and a future FFA modification will be conducted to resolve any inconsistencies between the FFA and Site Management Plan strategy. Historically, once an action has been completed for a particular SWMU whereby no additional active response actions are expected, such SWMUs have been placed in the CSOU for further evaluation; however, the FFA parties recognized the need to reach consensus on the criteria for assigning units to the CSOU. A final CSOU would consider appropriate actions for the remaining contamination after actions determined by the three decision documents are complete and for groundwater actions (dissolved-phase plume, Northeast and Northwest Plumes, and Water Policy).With the implementation of the Environmental Media Sitewide OU these actions will be addressed as part of the CSOU.

[k] SWMU 3 was issued only a post-closure permit, was not permitted for construction and operation, and was not an engineered hazardous waste landfill.

[l] The C-746-Q Facility also includes C-746-Q1.

[m] The FFA parties agree that KDWM will serve as the sole agency for the review and comment on all SWMU assessment reports. The FFA parties agree that, as a standard practice for waste management units (e.g., TSDs, SWMUs, AOCs), KDWM's determination for NFA under both the RCRA permit (i.e., Kentucky Hazardous Waste Facility Permit, EPA HSWA Permit) and the FFA are accepted by all parties.

[n] Radiological contamination associated with the sump in this unit will be addressed under the Decommissioning program for the C-409 Stabilization Building.

[o] The U.S. Army Corps of Engineers accepted responsibility for the investigation/remediation of this SWMU in a letter dated March 13, 1996. EPA and Kentucky review/approval of the CERCLA documentation (not yet available) associated with this SWMU has not occurred.

Table 4. Solid Waste Management Units/Areas of Concern by Operable Unit (Continued)

CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act
D&D = deactivation and decommissioning
DMSA = DOE material storage area
EPA = U.S. Environmental Protection Agency
ER = environmental remediation
GSA= generator staging area
HSWA = Hazardous and Solid Waste Amendments
HVAC = heating, ventilating, and air-conditioning
KDWM = Kentucky Division of Waste Management
KY = Commonwealth of Kentucky
KOW = Kentucky Ordnance Works
NFA = no further action
NTCRA = non-time-critical removal action
PCB = polychlorinated biphenyl
PGDP = Paducah Gaseous Diffusion Plant
RCW = recirculating cooling water
RI = remedial investigation
SAA = satellite accumulation area
SAR = SWMU assessment report
TBD = to be determined
TCE = trichloroethene
TSCA = Toxic Substances Control Act
UST = underground storage tank
WAG = waste area group
WKWMA = West Kentucky Wildlife Management Area

APPENDIX 5

ENFORCEABLE TIMETABLES AND DEADLINES; PLANNING DATES WITH LONG-TERM TARGETS

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Enforceable Timetables and Deadlines; Planning Dates with Long-Term Targets

Project/ Subproject	Deliverable	Enforceable Timetable and Deadlines[a]		Planning Dates with Long-Term Targets for Decision Documents[b]	Comments
		FY 2026–FY 2028	Out-Year		
C-400 Complex OU/ C-400 Final Remedial Action	D1 Feasibility Study (FS) Addendum	5/14/2027			Milestones for C-400 Final Remedial Action represent a contingent schedule if the D&D Operable Unit (OU) and Environmental Media Sitewide OU remedial investigation (RI)/FS, Proposed Plans and RODs are not proceeding as anticipated.
	D1 Proposed Plan		1st Quarter 2029		
	D1 Record of Decision (ROD)		3rd Quarter 2029		
	D1 Remedial Design Work Plan		4th Quarter 2029		
	D1 Remedial Design Report (90% Design)		4th Quarter 2030		
	D1 Remedial Action Work Plan (RAWP)		4th Quarter 2030		
	Remedial Action Field Start			1st Quarter 2031	
	D1 Remedial Action Completion Report (RACR)			4th Quarter 2037	

Enforceable Timetables and Deadlines; Planning Dates with Long-Term Targets (Continued)

Project/ Subproject	Deliverable	Enforceable Timetable and Deadlines[a]		Planning Dates with Long-Term Targets for Decision Documents[b]	Comments
		FY 2026–FY 2028	Out-Year		
Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Waste Disposal Alternatives	D2/R2 Remedial Investigation (RI)/FS Addendum	2/13/2027			Addendum to be submitted per Federal Facility Agreement (FFA) Section XX.J for review and comment.
	D1 Proposed Plan	3/13/2028			D1 Proposed Plan is submitted 45 days after the U.S. Environmental Protection Agency (EPA) and the Commonwealth of Kentucky (KY) approval of the FS.[c] The Proposed Plan is submitted for public comment within two weeks of approval.
	D1 ROD		2nd Quarter 2029		D1 ROD is submitted 30 days after close of public comment period on the Proposed Plan (FFA Section XIV.D).
	D1 Remedial Design Work Plan			3rd Quarter 2029	
	D1 Remedial Design Report			1st Quarter 2030	Contingent upon on-site waste disposal selection as part of the ROD. The remedial design report addresses site preparation and infrastructure construction.
	D1 RAWP			1st Quarter 2030	Contingent upon on-site waste disposal selection as part of the ROD. The RAWP addresses site preparation and infrastructure construction.
	Remedial Action Field Start			1st Quarter 2031	Site preparation (i.e., start of substantial, continuous, on-site remedial action), per approved RAWP and remedial design report for Site Preparation and Infrastructure Construction.
	D1 Interim RACR			3rd Quarter 2032	The D1 Interim RACR is a postconstruction report to be issued prior to the start of operations (i.e., Cell 1 Liner Construction Certification Report). A D1 Final RACR will be issued when operations cease and closure has been completed.

Enforceable Timetables and Deadlines; Planning Dates with Long-Term Targets (Continued)

Project/ Subproject	Deliverable	Enforceable Timetable and Deadlines[a]		Planning Dates with Long-Term Targets for Decision Documents[b]	Comments
		FY 2026–FY 2028	Out-Year		
Environmental Media Sitewide OU [Soils OU, Burial Grounds Operable Unit (BGOU), Surface Water Operable Unit (SWOU), Lagoons OU, Soils and Slabs OU, etc.]	D1 RI/FS Report	5/14/2027			
	D1 Proposed Plan	3/19/2028			D1 Proposed Plan is submitted 45 days after EPA and KY approval of the FS.[c] The Proposed Plan is submitted for public comment within two weeks of approval.
	D1 ROD		3rd Quarter 2029		D1 ROD is submitted 30 days after close of public comment period on the Proposed Plan (FFA Section XIV.D).
	D1 Remedial Design Work Plan			1st Quarter 2030	Establishes approach for submittal of remedial designs.
	D1 Remedial Design Report for First Area.			4th Quarter 2030	Additional remedial design reports for additional areas.
	D1 RAWP for First Area			4th Quarter 2030	Additional RAWPs will be prepared for additional areas.
	Remedial Action Field Start for First Area			2nd Quarter 2031	15 months after ROD signature (FFA Section XV)

Enforceable Timetables and Deadlines; Planning Dates with Long-Term Targets (Continued)

Project/ Subproject	Deliverable	Enforceable Timetable and Deadlines[a]		Planning Dates with Long-Term Targets for Decision Documents[b]	Comments
		FY 2026–FY 2028	Out-Year		
D&D OU	D1 RI/FS Report	7/6/2026			
	D1 Proposed Plan	9/25/2027			D1 Proposed Plan is submitted 45 days after the EPA and KY approval of the FS.[c] The Proposed Plan is submitted for public comment within two weeks of approval.
	D1 ROD		2nd Quarter 2029		D1 ROD is submitted 30 days after close of public comment period on the Proposed Plan (FFA Section XIV.D).
	D1 Remedial Design Work Plan			1st Quarter 2030	Provides approach for submittal of remedial designs for groups of facilities within a given remediation area to undergo demolition (if selected as the remedy).
D&D OU/ C-400 Area Demolition	Remedial Action Field Start C-400 Area Demolition			1st Quarter 2032	Site preparation (i.e., start of substantial, continuous, on-site remedial action), per approved RAWP and remedial design report.
D&D OU/ C-337 Process Building Demolition	Remedial Action Field Start for C-337 Process Building Demolition			1st Quarter 2033	Site preparation (i.e., start of substantial, continuous, on-site remedial action), per approved RAWP and remedial design report. First process building area demolition work includes the removal of 67 PCB transformers currently in place in C-337. The ROD for this facility will include applicable or relevant and appropriate requirements, which are necessary to identify the requirements to be followed by disposition of the 67 transformers during demolition activities.[d]
D&D OU/ C-333 Process Building Demolition	Remedial Action Field Start for C-333 Process Building Demolition			4th Quarter 2036	Site preparation (i.e., start of substantial, continuous, on-site remedial action), per approved RAWP and remedial design report.

Enforceable Timetables and Deadlines; Planning Dates with Long-Term Targets (Continued)

Project/ Subproject	Deliverable	Enforceable Timetable and Deadlines[a]		Planning Dates with Long-Term Targets for Decision Documents[b]	Comments
		FY 2026–FY 2028	Out-Year		
BGOU	BGOU RACR		12/31/2046		Out-year enforceable date is a legacy date and is kept in SMP until current strategy ROD signature.
GWOU	D1 Interim RACR		9/30/2048		Out-year enforceable date is a legacy date and is kept in SMP until current strategy ROD signature.
Soils OU	D1 RACR		12/31/2044		Out-year enforceable date is a legacy date and is kept in SMP until current strategy ROD signature.
SWOU	D1 RACR		9/30/2058		Out-year enforceable date is a legacy date and is kept in SMP until current strategy ROD signature.

Enforceable Timetables and Deadlines; Planning Dates with Long-Term Targets (Continued)

Other FFA Planning Dates					
		Enforceable Timetable and Deadlines[a]		Planning Dates with Long-Term Targets for Decision Documents[b]	
Subproject	Deliverable	FY 2026–FY 2028	Out-Year		Comments
N/A	D1 Five-Year Review (2028) (Sixth Synchronized Review)			7/16/2028	Because the 2023 Five-Year Review was completed more than three months early, the Sixth Synchronized Five-Year Review for the Paducah Site has a statutory completion due date of April 2, 2029, five years from the date of EPA's protectiveness determinations concurrence letter. (KDEP concurrence received on March 5, 2024)

[a] Enforceable Timetables and Deadlines are based on the planning scope contained in Appendix 3 and DOE assumptions regarding funding levels. Approval of the Site Management Plan (SMP) planning scope does not constitute decision making for the response actions described in this table.

[b] Not enforceable dates. These planning dates are internal US. Department of Energy (DOE) dates used for planning purposes only. The parties further agree that DOE can adjust the planning dates as part of the annual SMP update without having to submit an official request or justify "good cause" in accordance with Section XXIX of the FFA. Note that quarters listed are for FY.

[c] Assumes that final approval is received on the D2 document.

[d] The Paducah Site has 67 large PCB transformers (1,400 to 1,700 gal capacity) located in the C-337 Process Building. The transformers were drained and rinsed in accordance with 40 *CFR* § 761.60(b)(1)(i)(B) and reside within secondary containment, properly marked, protected from the elements, and inspected monthly.

D&D = deactivation and decommissioning
FY = fiscal year
KDEP = Kentucky Department for Environmental Protection
N/A = not applicable
SWMU = solid waste management unit

APPENDIX 6

FACILITIES UNDERGOING CERCLA DETERMINATION

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FACILITIES UNDERGOING CERCLA DETERMINATION

Appendix 6 was provided in FY 2025 SMP (DOE/LX/07-2508&D2) for historical purposes. This appendix formerly was used to list facilities undergoing Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) determination. Appendix 6 has been updated in this FY 2026 SMP revision.

Decommissioning of surplus U.S. Department of Energy (DOE) facilities is described in the 1995 DOE and EPA Memorandum, *Policy on Decommissioning DOE Facilities under CERCLA*. A total of 681 properties/structures were reviewed and evaluated to identify facilities that should be evaluated under the CERCLA process for decommissioning [Appendix 8 of the fiscal year (FY) 2018/FY 2019 Site Management Plan (SMP) (DOE/LX/07-2418&D2/R2)].

During this evaluation, for planning purposes, the property under control of DOE has been divided into 17 geographical areas (GAs) to assist in the focus of long-term planning efforts for DOE property (See Figure 6.1). GAs are boundaries established for the purpose of planning and evaluating areas for future use, D&D, and remediation integration. No facilities or SWMUs/AOCs are located completely within GA 7. GA 6 does not contain any facilities that are expected to have any requirements for CERCLA evaluation; and GA 8 includes a minimal number of facilities associated with permitted landfill operations. For planning purposes, the Legacy Soils and Slabs OU used these geographical divisions to plan and group the actions that will address the remaining balance of plant soils and slabs. The Legacy Soils and Slabs OU as well as tunnels at PGDP that link buildings together, slabs, and subgrade structures (i.e., utilities, Underground Radiological Material Areas) will be addressed by the Environmental Media Sitewide OU ROD.

For those facilities [as previously identified in Appendix 3 of the FY 2025 SMP (DOE/LX/07-2508&D2)] where the FFA parties previously agreed, through consultation, to remove the aboveground structure outside of CERCLA, the concrete pad/soils associated with those facilities will be evaluated as part of the Environmental Media RI/FS. Facilities that could be demolished outside of CERCLA, according to the provisions agreed to in the consultation packages, are now listed in Table 6.1, below until the D&D ROD is signed. Additionally, facilities identified in the Facility Decommissioning OU with site evaluation reports (SERs) that recommend the facility be demolished outside of CERCLA and concurred on or pending concurrence by EPA and KY, have been moved to Appendix 6 in this SMP revision. Associated tables are included below as Table 6.1 (formerly Table 3.2 in the FY 2025 SMP) and Table 6.2 (formerly Table 3.3 in the FY 2025 SMP). Table 6.1 contains the list of facilities that could to be demolished outside of CERCLA and Table 6.2 lists facilities (previously listed in Table 6.1) that were agreed through consultation or SERs that have been demolished outside of CERCLA.

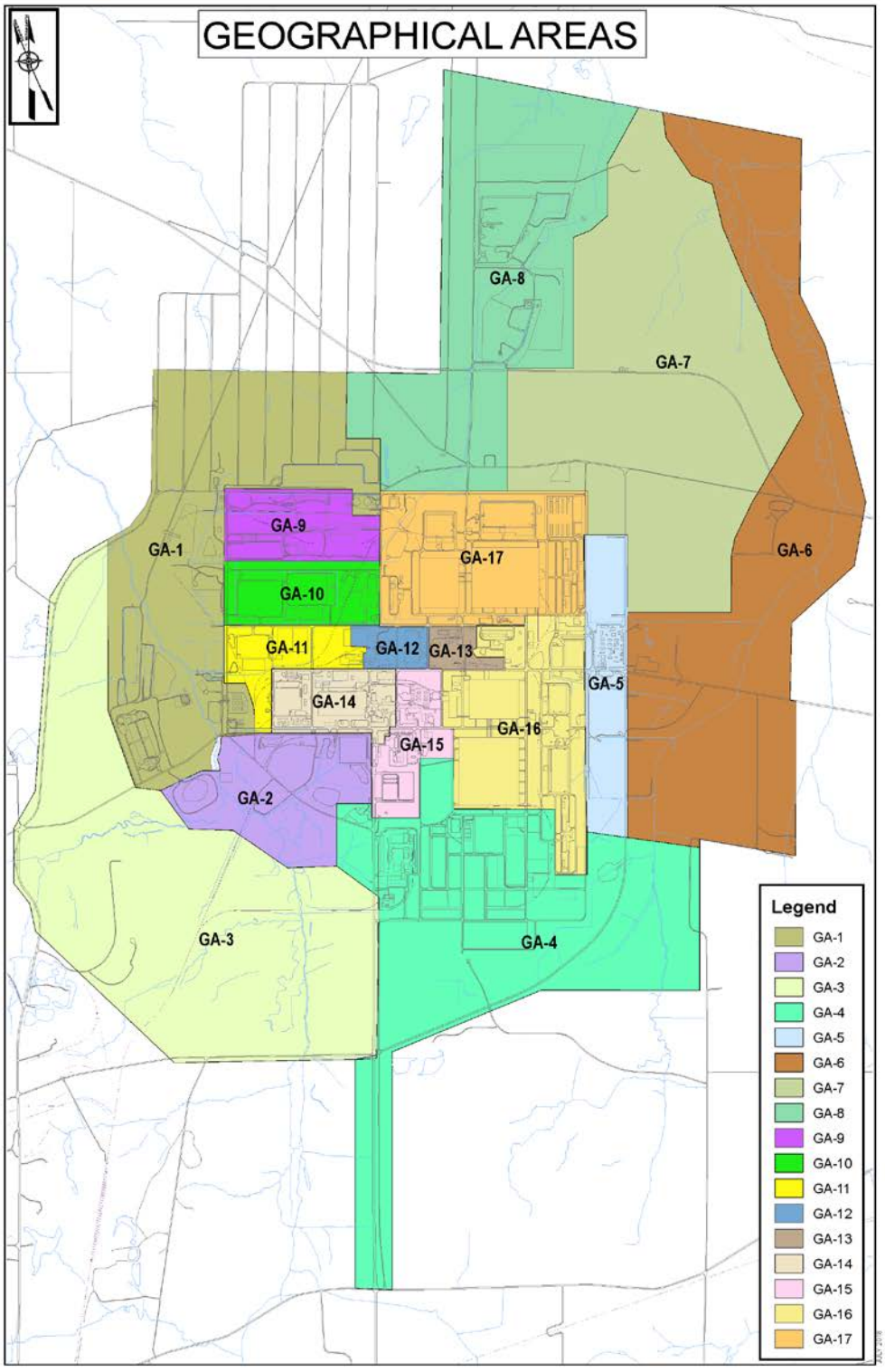

Figure 6.1. DOE Property Geographical Areas

Table 6.1. Facilities to Be Demolished Outside of CERCLA[a]

Facility	Description	Date of Consultation Concurrence	Date of SER	Conclusion for Slab and Underlying Soils[b]
C-100	Administrative Building	11/9/2021	N/A	Site Evaluation (SE) for the underlying slab and soils[c]
C-101	Former Cafeteria	11/9/2021	N/A	SE for the underlying slab and soils[c]
C-102	Hospital	11/9/2021	N/A	SE for the underlying slab and soils[c]
C-200	Guard and Fire Headquarters	3/24/2021 3/20/2025 (Updated)	N/A	Evaluation in GA 14
C-203	Emergency Vehicle Shelter	3/4/2021	N/A	Evaluation in GA 14
C-204	Disintegrator Building	N/A	6/15/2001 SWMU Assessment Report (SAR)	C-204 is SWMU 479 and was granted NFA by KY 6/3/2002. Planned for demolition in FY 2026.
C-205	Respirator Issue Facility	11/9/2021	N/A	Evaluation in GA 14
C-207	Fire Training Facility	10/19/2021	N/A	SE for the underlying slab and soils, including surrounding soils associated with the burn pan areas[c]
C-300	Central Control Building	11/9/2021	N/A	Evaluation in GA 15
C-303	Supervisory Control and Data Acquisition System	3/4/2021	N/A	Evaluation in GA 15
C-320	Communication Building	3/4/2021	N/A	Evaluation in GA 15
C-410-L	Quonset Hut	3/4/2021	N/A	Evaluation in GA 13
C-531-2	Switchyard	9/1/2023	N/A	Facilities were discussed at an August 7, 2023, SMP scoping meeting; EPA and KY concurred with DOE's recommendation to remove the facilities outside of CERCLA via email on 9/1/2023. This concurrence was based on a 3/13/2019 email agreement between DOE and KY, and a 7/19/2023 email from DOE that stated during 2019, KY had worked with EPA to ensure that there were no regulatory issues. Evaluation will be conducted under the Soils and Slabs OU.
C-533-2	Switchyard	9/1/2023	N/A	
C-535-2	Switchyard	9/1/2023	N/A	
C-537-2	Switchyard	9/1/2023	N/A	
C-601	Nitrogen Generator Building Addition	3/24/2021	N/A	Evaluation in GA 12
C-601-C	Steam Plant Fuel Oil Pump House	7/16/2021	N/A	Evaluation in GA 12
C-604	Utilities Maintenance Building	7/16/2021	N/A	Evaluation in GA 12
C-605	Substation Building	7/16/2021	N/A	Evaluation in GA 12
C-607	Emergency Air Compressor Generator Build	3/24/2021	N/A	Evaluation in GA 12
C-611-A1	Activated Carbon Storage Facility	N/A	12/1/2021	NFA (concurrence by EPA and KY 12/21/2021)

Table 6.1. Facilities to Be Demolished Outside of CERCLA (Continued)[a]

Facility	Description	Date of Consultation Concurrence	Date of SER	Conclusion for Slab and Underlying Soils[b]
C-611-B	Head House	N/A	12/1/2021	SER requires RCRA facility investigation (CERCLA RI) for slab and underlying soils. (concurrence by EPA and KY 12/21/2021)
C-611-B1	Polymer Feed System Enclosure	N/A	12/1/2021	SER requires RCRA facility investigation (CERCLA RI) for slab and underlying soils. (concurrence by EPA and KY 12/21/2021)
C-611-C	Flocculator Basin	N/A	12/1/2021	SER requires RCRA facility investigation (CERCLA RI) for slab and underlying soils. (concurrence by EPA and KY 12/21/2021)
C-611-F1	Secondary Coagulation Basin	N/A	12/1/2021	SER requires RCRA facility investigation (CERCLA RI) for slab and underlying soils.
C-611-F2	Secondary Coagulation Basin	N/A	12/1/2021	SER requires RCRA facility investigation (CERCLA RI) for slab and underlying soils. (concurrence by EPA and KY 12/21/2021)
C-611-F3	Feed Facility	N/A	12/1/2021	SER requires RCRA facility investigation (CERCLA RI) for slab and underlying soils. (concurrence by EPA and KY 12/21/2021)
C-611-H	Filter Building and Pump Station	N/A	12/1/2021	SER requires RCRA facility investigation (CERCLA RI) for slab and underlying soils. (concurrence by EPA and KY 12/21/2021)
C-611-J	Pump House (Settled Water)	N/A	12/1/2021	SER requires RCRA facility investigation (CERCLA RI) for slab and underlying soils. (concurrence by EPA and KY 12/21/2021)
C-611-P	Building—Pump House	N/A	8/27/2024	NFA (concurrence by EPA 9/21/2021; KY 9/21/2021) Revision to 8/26/2021 SER (concurrence by EPA 8/27/2024 and KY 9/3/2024)
C-611-S	Storage and Chlorine Facility	N/A	12/1/2021	SER requires RCRA facility investigation (CERCLA RI) for slab and underlying soils. (concurrence by EPA and KY 12/21/2021)
C-611-T	Booster Pump Station Plant Water	N/A	8/27/2024	NFA (concurrence by EPA 9/21/2021; KY 9/21/2021) Revision to 8/26/2021 SER (concurrence by EPA 8/27/2024 and KY 9/3/2024)
C-611-U	Softening Facility (West)	N/A	12/1/2021	SER requires RCRA facility investigation (CERCLA RI) for slab and underlying soils. (concurrence by EPA and KY 12/21/2021)

Table 6.1 Facilities to Be Demolished Outside of CERCLA (Continued)[a]

Facility	Description	Date of Consultation Concurrence	Date of SER	Conclusion for Slab and Underlying Soils[b]
C-611-X	Softening Facility (East)	N/A	12/1/2021	SER requires RCRA facility investigation (CERCLA RI) for slab and underlying soils. (concurrence by EPA and KY 12/21/2021)
C-611-Z	Flocculator Basin	N/A	12/1/2021	SER requires RCRA facility investigation (CERCLA RI) for slab and underlying soils. (concurrence by EPA and KY 12/21/2021)
C-612	Northwest Plume Groundwater Treatment Facility	11/9/2021	N/A	Evaluation in GA 1, following agreement that the facility is no longer required to treat contaminated groundwater
C-615-H	Sewage Lift Station	10/19/2021	N/A	Evaluation in GA 17
C-631-1	Pump House	1/24/2023	N/A	Evaluation in Soils and Slabs OU
C-631-2	Cooling Tower	1/24/2023	N/A	Evaluation in Soils and Slabs OU
C-631-3	Fire Water Pump House	1/24/2023	N/A	Evaluation in Soils and Slabs OU
C-631-4	Blending Pump House	1/24/2023	N/A	Evaluation in Soils and Slabs OU
C-631-5	Blending Cooling Tower (West)	1/24/2023	N/A	Evaluation in Soils and Slabs OU
C-631-6	Blending Cooling Tower (East)	1/24/2023	N/A	Evaluation in Soils and Slabs OU
C-633-1	Pump House	4/4/2023	N/A	Evaluation in Soils and Slabs OU
C-633-2A	Cooling Tower (South)	4/4/2023	N/A	Evaluation in Soils and Slabs OU
C-633-2B	Cooling Tower (North)	4/4/2023	N/A	Evaluation in Soils and Slabs OU
C-633-3	Blending Pump House	4/4/2023	N/A	Evaluation in Soils and Slabs OU
C-633-4	Blending Cooling Tower (North)	4/4/2023	N/A	Evaluation in Soils and Slabs OU
C-633-5	Blending Cooling Tower (South)	4/4/2023	N/A	Evaluation in Soils and Slabs OU
C-633-6	Sand Filter Building	4/4/2023	N/A	Evaluation in Soils and Slabs OU
C-635-1	Pump House	8/31/2022	N/A	Evaluation in Soils and Slabs OU
C-635-2	Cooling Tower	8/31/2022	N/A	Evaluation in Soils and Slabs OU
C-635-3	Blending Pump House	8/31/2022	N/A	Evaluation in Soils and Slabs OU
C-635-4	Blending Cooling Tower (North)	8/31/2022	N/A	Evaluation in Soils and Slabs OU
C-635-5	Blending Cooling Tower (South)	8/31/2022	N/A	Evaluation in Soils and Slabs OU
C-637-1	Pump House	6/22/2023	N/A	Evaluation in Soils and Slabs OU
C-637-2A	Cooling Tower (South)	6/22/2023	N/A	Evaluation in Soils and Slabs OU
C-637-2B	Cooling Tower (North)	6/22/2023	N/A	Evaluation in Soils and Slabs OU
C-637-3	Blending Pump House	6/22/2023	N/A	Evaluation in Soils and Slabs OU
C-637-4	Blending Cooling Tower (North)	6/22/2023	N/A	Evaluation in Soils and Slabs OU
C-637-5	Blending Cooling Tower (South)	6/22/2023	N/A	Evaluation in Soils and Slabs OU
C-637-6	Sand Filter Building	6/22/2023	N/A	Evaluation in Soils and Slabs OU
C-635-6	Recirculating Heat Utilization Pump House	7/16/2021	N/A	Evaluation in GA 17
C-720-D	Transformer Building	7/13/2021	N/A	Evaluation in GA 14
C-720-G	Warehouse	7/13/2021	N/A	Evaluation in GA 14
C-720-H	Warehouse	7/13/2021	N/A	Evaluation in GA 14
C-720-J	Air Lock	7/13/2021	N/A	Evaluation in GA 14

Table 6.1 Facilities to Be Demolished Outside of CERCLA (Continued)[a]

Facility	Description	Date of Consultation Concurrence	Date of SER	Conclusion for Slab and Underlying Soils[b]
C-724-B	Carpenter Shop	N/A	3/18/2021	NFA (concurrence by EPA 3/25/2021; KY 4/12/2021)
C-724-C	Paint Shop	N/A	3/18/2021	RCRA facility investigation (RFI)/RI is necessary for the AOC 178 portion of the facility (concurrence by EPA 3/25/2021; KY 4/12/2021)
C-724-D	Lumber Storage Building	3/4/2021	N/A	Evaluation in GA 14
C-725	Paint Shop	N/A	6/23/2021	SER requires RCRA facility investigation (CERCLA RI) for slab and underlying soils. (concurrence by EPA 7/29/2021; KY 8/20/2021)
C-730	Maintenance Service Building	7/16/2021	N/A	SE for the underlying slab and soils[c]
C-731	Railroad Repair Equipment Storage Building	3/4/2021	N/A	Evaluation in GA 14
C-740-B	Oil Drum Storage Shelter	7/13/2021	N/A	SE for the underlying slab and soils[c]
C-744	Material Handling Building	N/A	2/18/2021	NFA (concurrence by EPA 3/10/2021; KY 3/18/2021)
C-745-R1	Cylinder Changeout Building	7/16/2021	N/A	Evaluation in GA 4
C-746-G	Building—Electrical Equipment Storage	3/4/2021	N/A	SE for the underlying slab and soils[c]
C-750	Garage	N/A	8/4/2021	RFI is necessary for the AOC 573 portion of the facility (concurrence by EPA 8/20/2021; KY 9/2/2021)
C-752-C	Off-site[d] Decontamination Facility	10/19/2021	N/A	Evaluation in GA 2; SAR 419 revision.
C-753-A	Toxic Substances Control Act Waste Storage Building	N/A	4/18/2006 (Updated SAR)	C-753-A is SWMU 206. It is a regulated facility under the Toxic Substances Control Act and was granted an NFA by KY on 3/7/1997.
C-754-B	Low Level Waste Storage	11/9/2021	N/A	Evaluation in GA 16
C-755-A	Decontamination Building	10/19/2021	N/A	SE for the underlying slab and soils[c]
C-755-B	Changehouse Building	10/19/2021	N/A	Evaluation in GA 5
C-755-C	Sample Shipment/Storage Facility	10/19/2021	N/A	Evaluation in GA 5
C-757	Solid and Low-Level Waste Processing Facility	11/9/2021	N/A	SE for the underlying slab and soils[c]

[a] As documented in the facilities SERs and consultation packages, all facilities included in Table 6.1 require additional predemolition characterization and further evaluation, including consideration of emerging contaminants, prior to demolition. These evaluations are ongoing as part of predemolition planning.

[b] Evaluation will be accomplished as part of the Environmental Media Sitewide OU scope.

[c] SE for the underlying slab and soils to be performed in concert with deactivation of the facility if conducted outside of CERCLA. Consultation package reflected that the slab would be added to Appendix 4 of the SMP; however, documentation has been included in this table.

[d] "Off-site" relates to the name of the facility and is not intended to imply a CERCLA off-site determination.

Table 6.2. Facilities (previously listed in Table 6.1) Demolished Outside of CERCLA

Facility	Description	Date of Consultation Concurrence	Date of SER	Conclusion for Slab and Underlying Soils[a]
C-301	Former Fire Training Building	11/9/2021	N/A	CERCLA evaluation (as part of SWMU 223) conducted under the Soils and Slabs OU. The aboveground portion of the building was demolished 2/15/2024.
C-400-A	Shed	5/11/2020	N/A	Evaluation as part of the C-400 Remedial Field Investigation. The aboveground portion of the building was demolished in August 2019.
C-370-E	Former Historical Water Quality Monitoring Sampling Station—L10	12/16/2021	N/A	Facility was discussed at the December 2021 FFA Managers Meeting; EPA and KY concurred with DOE's recommendation to remove the facility outside of CERCLA. Evaluation will be conducted as part of the SWOU Remedial Action. The aboveground portion of the building was demolished 6/28/2023.
C-611-A	Building and Shop Storage	N/A	12/1/2021	SE Report requires RCRA facility investigation (CERCLA RI) for slab and underlying soils. (concurrence by EPA and KY 12/21/2021) The above ground portion of building was demolished in December 2024.
C-611-Q	36″ Raw Water Line Booster Station	3/24/2021	N/A	Evaluation in GA 8 (Consultation package updated 1/18/2024). The aboveground portion of the building was demolished 3/14/2024.
C-615-O	Oil Control Building	3/24/2021	N/A	Evaluation in GA 11. The aboveground portion of the building was demolished 5/24/2023.
C-710-A	Gas Cylinder Storage Building	3/4/2021	N/A	Evaluation in GA 15. The aboveground portion of the building was demolished 2/7/2024.
C-711	Storage/Former Gas Manifold	3/4/2021	N/A	Evaluation in GA 15. The aboveground portion of the building was demolished 2/7/2024.
C-721	Gas Manifold Storage	3/4/2021	N/A	SE for the underlying slab and soils[b] The aboveground portion of the building was demolished 5/21/2024.
C-727	90-Day Mixed Waste Accumulation Facility	5/25/2021	N/A	Evaluation in GA 16. The aboveground portion of the building was demolished 4/15/2024.
C-729	Acetylene Building	N/A	2/18/2021	NFA (concurrence by EPA 3/10/2021; KY 3/18/2021).The aboveground portion of building was demolished in January 2025.
C-742	Cylinder Storage Building	7/13/2021	N/A	Evaluation in GA 14. The aboveground portion of the building was demolished 5/23/2024.

Table 6.2. Facilities (previously listed in Table 6.1) Demolished Outside of CERCLA (Continued)

Facility	Description	Date of Consultation Concurrence	Date of SER	Conclusion for Slab and Underlying Soils[a]
C-742-B	Dry Agent Cylinder Storage Building	5/11/2020	N/A	Evaluation in GA 10. The aboveground portion of the building was demolished in April 2019.
C-745-B1	Cylinder Storage Yard Office	2/7/2020	N/A	Evaluation in GA 10. The aboveground portion of the building was demolished in April 2019.
C-746-A	North Warehouse	5/25/2021	N/A	Evaluation in GA 9. The aboveground portion of the building was demolished 5/16/2024.

[a] Evaluation will be accomplished via the Environmental Media RI/FS process.
[b] SE for the underlying slab and soils to be performed in concert with deactivation of the facility if conducted outside of CERCLA. Consultation package reflected that the slab would be added to Appendix 4 of the SMP; however, documentation has been included in this table.

Facilities C-350, C-410-D, and C-410-K were previously identified to be demolished outside of CERCLA in Table 3.2 of the FY 2025 SMP. Following additional predemolition characterization in FY 2025, it was determined waste generated during demolition would not meet the WAC for C-746-U. These facilities were discussed with the FFA parties at the March 20, 2025, FFA managers meeting and a decision was reached to be remove C-350, C-410-D, and C-410-K from this table, Table 3.2 of the FY 2025 SMP, and demolish these facilities under CERCLA. As documented in the facilities SERs and consultation packages, all facilities included in Table 6.1 require additional predemolition characterization and further evaluation, including consideration of emerging contaminants, prior to demolition if conducted outside of CERCLA. These evaluations are ongoing as part of predemolition planning.

The legacy OU Facility Decommissioning OU identified industrial facilities [listed in Appendix 4 of the FY 2025 SMP (DOE/LX/07-2508&D2)] that, in some cases, already have been determined to pose a potential threat of release of hazardous substances to the environment and warrants decommissioning be performed as a CERCLA non-time-critical removal action (NTCRA). For some facilities, a removal site evaluation (SE) has determined an NTCRA is not required (Table 6.1). For the remaining facilities that were included in Appendix 4 of the FY 2025 SMP (DOE/LX/07-2508&D2), a removal SE would be pending to determine if an NTCRA is necessary. Additional facilities at the Paducah Gaseous Diffusion Plant (previously listed in Appendix 6, FY 2018/2019 SMP) have undergone evaluation to determine if there was a release threat to the environment that would warrant an SE to determine if decommissioning should proceed under CERCLA.

If it was determined during a facility review that there was a potential release threat, the facility (or portion thereof) was included in the Facility Decommissioning OU in Appendix 4 and is now listed in this appendix as Table 6.3. In 2024, during FY 2025 SMP scoping discussions, the FFA parties agreed that these facilities would be incorporated into the new D&D OU cleanup strategy at ROD signature as described in Appendix 3.

Table 6.3. Detailed Facility Decommissioning OU Facilities List

Facility Number	Description	SWMU/Area of Concern (AOC) Number	Facility Status	Integrated SE Complete	CERCLA NTCRA Required
Gaseous Diffusion Process Facilities and Process Building Tie Lines and Bridges					
C-310	Purge and Product Building	--	Undergoing Stabilization/ Deactivation	No	Pending SE
C-310-A	Product Withdrawal Building	--	Undergoing Stabilization/ Deactivation	No	Pending SE
C-315	Surge and Waste Building	--	Shutdown	No	Pending SE
C-331	Process Building	--	Shutdown	No	Pending SE
C-333	Process Building	--	Undergoing Stabilization/ Deactivation	No	Pending SE
C-333-A	Feed Vaporization Facility	70	Undergoing Stabilization/ Deactivation	8/24/1987	Yes
C-335	Process Building	--	Undergoing Stabilization/ Deactivation	No	Pending SE
C-337	Process Building	--	Undergoing Stabilization/ Deactivation	No	Pending SE
C-337-A	Feed Vaporization Facility	71	Shutdown	8/24/1987	Yes
C-310-335[a]	Tie-Line	--	Undergoing Stabilization/ Deactivation	No	Pending SE
C-310-331-A	Bridge (Enclosed)	--	Undergoing Stabilization/ Deactivation	No	Pending SE
C-310-331-B	Tie-Line	--	Undergoing Stabilization/ Deactivation	No	Pending SE
C-315-331	Tie-Line	--	Undergoing Stabilization/ Deactivation	No	Pending SE
C-331-333-A	Bridge (Enclosed—300 ft)	--	Undergoing Stabilization/ Deactivation	No	Pending SE
C-331-333-B	Tie-Line (East)	--	Undergoing Stabilization/ Deactivation	No	Pending SE
C-331-333-C	Tie-Line (West)	--	Undergoing Stabilization/ Deactivation	No	Pending SE
C-331-335	Tie-Line	--	Undergoing Stabilization/ Deactivation	No	Pending SE

Table 6.3. Detailed Facility Decommissioning OU Facilities List (Continued)

Facility Number	Description	SWMU/AOC Number	Facility Status	Integrated SE Complete	CERCLA NTCRA Required
Gaseous Diffusion Process Facilities and Process Building Tie Lines and Bridges (Continued)					
C-335-337-A	Bridge (Enclosed)	--	Undergoing Stabilization/ Deactivation	No	Pending SE
C-335-337-B	Tie-Line (North)	--	Undergoing Stabilization/ Deactivation	No	Pending SE
C-335-337-C	Tie-Line (South)	--	Undergoing Stabilization/ Deactivation	No	Pending SE
Process Support Facilities					
C-409	Stabilization Building	--	Operating	No	Pending SE
C-415	Feed Plant Storage	482	Operating	7/18/2001	Yes
C-600	Steam Plant	--	Standby	No	Pending SE
Switchyards					
C-531-1	Switch House	82	Shutdown	8/24/1987	Yes
C-531-3A	Fire Valve House No. 1	82	Shutdown	8/24/1987	Yes
C-531-3B	Fire Valve House No. 2	82	Shutdown	8/24/1987	Yes
C-532	Relay House[b]	82	Standby	8/24/1987	Yes
C-533-1	Switch House[b]	83	Standby	8/24/1987	Yes
C-533-3A	Fire Valve House No. 1	83	Shutdown	8/24/1987	Yes
C-533-3B	Fire Valve House No. 2	83	Shutdown	8/24/1987	Yes
C-533-3C	Fire Valve House No. 3	83	Shutdown	8/24/1987	Yes
C-533-D	Fire Valve House No. 4	83	Shutdown	8/24/1987	Yes
C-535-1	Switch House	84	Undergoing Stabilization/ Deactivation	8/24/1987	Yes
C-535-3A	Fire Valve House No. 1	84	Shutdown	8/24/1987	Yes
C-535-3B	Fire Valve House No. 2	84	Shutdown	8/24/1987	Yes
C-535-4	Test Shop (Maintenance Office)	84	Shutdown	8/24/1987	Yes
C-536	Relay House	84	Shutdown	8/24/1987	Yes
C-537-1	Switch House	85	Undergoing Stabilization/ Deactivation	8/24/1987	Yes
C-537-3A	Fire Valve House No. 1	85	Shutdown	8/24/1987	Yes
C-537-3B	Fire Valve House No. 2	85	Shutdown	8/24/1987	Yes
C-537-3C	Fire Valve House No. 3	85	Shutdown	8/24/1987	Yes
C-537-3D	Fire Valve House No. 4	85	Shutdown	8/24/1987	Yes
C-537-4	Test Shop	85	Shutdown	8/24/1987	Yes
C-540-A	Oil Pump House	83	Shutdown	8/24/1987	Yes
C-541-A	Oil Pump House	84	Shutdown	8/24/1987	Yes
Cooling Towers[c]					
Phosphate (Former Chromate) Reduction System Facilities					
C-616-A	Chemical Feed Building	42	Standby	12/18/1991	Yes
C-616-B	Clarifier-East	42	Standby	12/18/1991	Yes
C-616-C	Lift Station	42	Operating	12/18/1991	Yes
C-616-D	Sludge Vault and Valve Pit	42	Operating	12/18/1991	Yes
C-616-H1	Ferrous Sulfate Storage Tank (East)	42	Standby	12/18/1991	Yes

Table 6.3. Detailed Facility Decommissioning OU Facilities List (Continued)

Facility Number	Description	SWMU/AOC Number	Facility Status	Integrated SE Complete	CERCLA NTCRA Required
Cooling Towers[c]					
Phosphate (Former Chromate) Reduction System Facilities (Continued					
C-616-H2	Ferrous Sulfate Storage Tank (West)	42	Standby	12/18/1991	Yes
C-616-J	Reduction Tank (East)	42	Standby	12/18/1991	Yes
C-616-K	Service Building	42	Standby	12/18/1991	Yes
C-616-L	Effluent Control Vault	42	Operating	12/18/1991	Yes
C-616-M	Clarifier (West)	42	Standby	12/18/1991	Yes
C-616-N	Reduction Tank (West)	42	Standby	12/18/1991	Yes
C-616-P	Sludge Vault and Valve Pit	42	Operating	12/18/1991	Yes
Sewage System and Water Treatment Ancillary Facilities					
C-611-A1	Activated Carbon Storage Facility		Operating	12/1/2021	No
C-611-B	Head House	--	Operating	12/1/2021	No[d]
C-611-B1	Polymer Feed System Enclosure	--	Standby	12/1/2021	No[d]
C-611-C	Flocculator Basin	--	Operating	12/1/2021	No[d]
C-611-F1	Secondary Coagulation Basin	--	Operating	12/1/2021	No[d]
C-611-F2	Chemical Feed Building for C-611-F1		Operating	12/1/2021	No[d]
C-611-F3	Feed Facility		Operating	12/1/2021	No[d]
C-611-H	Filter Building and Pump Station	--	Operating	12/1/2021	No[d]
C-611-J	Pump House (Settled Water)	--	Operating	12/1/2021	No[d]
C-611-P	Building–Pump House	--	Standby	8/26/2021	No
C-611-S	Storage and Chlorine Facility		Operating	12/1/2021	No[d]
C-611-T	Booster Pump Station Plant Water[e]	--	Shutdown	8/26/2021	No
C-611-U	Softening Facility (West)	--	Operating	12/1/2021	No[d]
C-611-X	Softening Facility (East)	--	Operating	12/1/2021	No[d]
C-611-Z	Flocculator Basin	--	Operating	12/1/2021	No[d]
C-615-A	Primary Settling Tank/Catch Basin	38	Operating	8/24/1987	Yes
C-615-B	Final Settling Tank/Catch Basin	38	Operating	8/24/1987	Yes
C-615-C	Sewage Plant Monitoring Building	38	Operating	8/24/1987	Yes
C-615-D	Digester	38	Operating	8/24/1987	Yes
C-615-E	Trickling Filter	38	Operating	8/24/1987	Yes
Process Laboratory and Maintenance Facilities					
C-709	Plant Laboratory Annex	--	Operating	No	Pending SE
C-710	Technical Services Building/Lab	--	Operating	No	Pending SE
C-720	Maintenance and Storage Building	--	Operating	No	Pending SE
C-720-A	Compressor Shop Addition	--	Standby	No	Pending SE
C-720-B	Machine Shop Addition	--	Standby	No	Pending SE
C-720-C	Converter Shop Addition	--	Operating	No	Pending SE
C-720-C1	Paint Shop	--	Operating	No	Pending SE
C-720-E	Change House Addition	--	Operating	No	Pending SE
C-720-K	Instrument Shop Addition	--	Operating	No	Pending SE
C-724-A	Carpenter Shop Annex	--	Operating	No	Pending SE
C-724-B	Carpenter Shop	--	Operating	3/18/2021	No
C-724-C	Paint Shop	178	Operating	1/25/1993; 3/18/2021	No

Table 6.3. Detailed Facility Decommissioning OU Facilities List (Continued)

Facility Number	Description	SWMU/AOC Number	Facility Status	Integrated SE Complete	CERCLA NTCRA Required
Process Laboratory and Maintenance Facilities (Continued)					
C-725	Paint Shop	--	Operating	7/13/2021	No[d]
C-726	Sandblast Building	172	Shutdown	10/29/1992	Yes
C-728	Motor Cleaning Facility	33	Standby	6/2/2015	Yes
Gaseous Diffusion Plant Support Facilities					
C-350	Drying Agent Storage Building	--	Undergoing Stabilization/ Deactivation	2/18/2021	No
C-360	Toll Transfer and Sampling Building	572	Shutdown	6/2/2021	Yes
C-360-A	Toll Transfer and Sampling Building Annex	--	Operating	No	Pending SE
C-606	Coal Crusher Building	--	Shutdown	3/18/2021	Yes
C-620	Air Compressor Room	--	Standby	No	Pending SE
C-744	Material Handling Building	--	Operating	2/18/2021	No
C-750	Garage	573	Operating	8/4/2021	No

[a] The C-310-335 Tie-Line intersects with the C-331-335 Tie-Line and, as a result, the C-310-335 Tie-Line is not listed separately in the facilities information management system.

[b] These facilities have "Standby" status designation until the DOE Excess Screening process is complete. Once approval is received, these facilities will receive a status of "Undergoing Stabilization/Deactivation" or "Shutdown" because the facility no longer will be maintained for future use.

[c] Facilities associated with the cooling towers have undergone consultation. Consultation for the C-631, C-633, C-635, and C-637 pumphouses and cooling towers was completed 1/9/2023, 4/3/2023, 8/29/2022, and 6/22/2023, respectively, and concurrence received 1/24/2023, 4/4/2023, 8/31/2022, 6/22/2023, respectively. The aboveground structures of the facilities associated with the C-631, C-633, C-635, and C-637 pumphouses and cooling towers were agreed to be demolished outside of CERCLA; the concrete pad and/or soils associated with those facilities (SWMUs 86, 87, 88, and 89) will be evaluated as part of the Soils and Slabs OU. The C-631, C-633, C-635, and C-637 facilities were removed from the Facilities D&D OU List in FY 2023 SMP and were listed in Table 3.1 in the FY 2023 SMP. These facilities will be addressed by D&D OU and Environmental Media Sitewide OU.

[d] SE requires investigation of slab and underlying soils, prior to AOC/SWMU determination.. Evaluation will be accomplished via the Environmental Media RI/FS process.

[e] This facility will no longer be used for pumping water; however, it may be used by Fire Services in an emergency situation to fill the C-631 Basin.

Notes:
Operating—Facility is currently in use supporting U.S. Department of Energy mission activities.
Standby—Facility is currently not in use but may be utilized to support future U.S. Department of Energy mission activities.
Shutdown—Facility is not being maintained for future use and is awaiting disposition (excess property determination is pending).
Undergoing Stabilization/Deactivation—Interim process where stabilization and deactivation activities have been initiated and are ongoing.

The Deactivation & Decommissioning OU Scope will include abovegrade portions of facilities previously listed as part of the Facility Decommissioning OU in Appendix 4 (Table 4.2, FY 2025 SMP) (Table 6.3) and the balance of plant facilities which have previously undergone CERCLA determinations regarding a release or potential threat of release (Table 6.1). The list of abovegrade structures in the D&D scope is identified below in Table 6.4.

Table 6.4 Abovegrade Structures included in D&D OU Scope*

NUMBER	DESCRIPTION
C-100	Administration Building
C-101	Cafeteria
C-102	Hospital
C-102-T02	Office Trailer
C-102-T05	Office Trailer
C-103	DOE Site Office and Annex

Table 6.4 Abovegrade Structures included in D&D OU Scope* (Continued)

NUMBER	DESCRIPTION
C-104	Access Control Facility
C-105	New Emergency Operations Center
C-106	Disintegrator Facility
C-200	Guard and Fire Headquarters
C-200-A	Office Trailer
C-200-C-T01	Storage Shed
C-200-C-T02	Storage Shed
C-200-C-T03	Vehicular Parking (Carport)
C-200-C-T04	Vehicular Parking (Carport)
C-201	Emergency Equipment Storage Building
C-202	Guard Training Building
C-203	Emergency Vehicle Shelter
C-204	Former Disintegrator Building
C-205	Respirator Issue Facility
C-206	Former Pumper Drafter Pit
C-207	Former Fire Training Facility
C-208	Firing Range
C-209	Protective Force Building
C-210	Security Management Office Building
C-211	Training Building
C-215-M	Security IMAC Portal (CA09040)
C-216-M	Security IMAC Portal (CA09042)
C-224	Main Guard Post 15 Building
C-225	Post 48 Building
C-233	Office Trailer/Guard House
C-300	Central Control Building
C-302	Operations Division Data Center
C-303	Supervisory Control and Data Acquisition System
C-304	Office Building
C-304 Annex	Office Building Annex
C-310	Purge and Product Building
C-310-331-A	Bridge (Enclosed)
C-310-331-B	Tie Line
C-310-A	Product Withdrawal Building
C-315	Surge and Waste Building
C-315-331	Tie Line
C-320	Communication Building
C-331	Process Building
C-331-333-A	Bridge (Enclosed)
C-331-333-B	Tie Line (East)
C-331-333-C	Tie Line (West)
C-331-335	Tie Line

Table 6.4 Abovegrade Structures included in D&D OU Scope* (Continued)

NUMBER	DESCRIPTION
C-331-410	Tie Line (Abandoned Remnant)
C-331-B1	Equipment Storage (Carport)
C-333	Process Building
C-333-A	Feed Vaporization Facility
C-333-T10	Breakroom Trailer
C-333-T11	Meeting/Office Trailer
C-333-T12	Meeting/Office Trailer
C-333-T13	Shower and Change Trailer
C-333-T14	Meeting/Office Trailer
C-333-T15	Meeting/Office Trailer
C-333-T16	Meeting/Office Trailer
C-333-T17	Meeting/Office Trailer
C-333-TB	Vending
C-335	Process Building
C-335-337-A	Bridge (Enclosed)
C-335-337-B	Tie Line (North)
C-335-337-C	Tie Line (South)
C-337	Process Building
C-337-A	Feed Vaporization Facility
C-350	Drying Agent Storage Building
C-350-A	Emergency Shower
C-360	Toll Transfer and Sampling Building
C-360-A	Toll Transfer and Sampling Building Annex
C-400	Cleaning Building
C-400-T01	Office Trailer
C-409	Stabilization Building
C-409-A	Large Item Neutron Assay System (LINAS) (Annex)
C-410-D	Fluorine Storage Building
C-410-K	Fluorine Facility Building
C-410-L	Quonset Hut
C-411-T01	Equipment Storage (Carport)
C-412-A	Above Ground Storm Shelter
C-412-B	Above Ground Storm Shelter
C-412-C	Above Ground Storm Shelter
C-412-D	Above Ground Storm Shelter
C-412-R	Sealand Storage Container
C-412-S	Sealand Storage Container
C-412-T01	Office Trailer
C-412-T02	Office Trailer
C-412-T03	Office Trailer
C-412-T04	Office Trailer
C-412-T05	Office Trailer

Table 6.4 Abovegrade Structures included in D&D OU Scope* (Continued)

NUMBER	DESCRIPTION
C-412-T07	Shower and Change Trailer
C-412-T08	Office Trailer
C-412-T09	Office Trailer
C-412-T10	Office Trailer
C-412-T11	Shower Trailer
C-412-T11A	Shower Trailer
C-412-T12	Shower and Change Trailer
C-412-T13	Office Trailer
C-412-T14	Office Trailer
C-412-T15	Office Trailer
C-412-T16	Breakroom Trailer
C-412-T17	Breakroom Trailer
C-412-T19	Storage Shed
C-412-T20	Shower Trailer
C-415	Feed Plant Storage Building
C-415-T01	Sealand Storage Container
C-416-T01	Sealand Storage Container
C-531-1	Switch House
C-531-2	Switchyard
C-531-3A	Fire Valve House No. 1
C-531-3B	Fire Valve House No. 2
C-532	Relay House
C-533-1	Switch House
C-533-2	Switchyard
C-533-3A	Fire Valve House No. 1
C-533-3B	Fire Valve House No. 2
C-533-3C	Fire Valve House No. 3
C-533-3D	Fire Valve House No. 4
C-535-1	Switch House
C-535-2	Switchyard
C-535-3A	Fire Valve House No. 1
C-535-3B	Fire Valve House No. 2
C-535-4	Test Shop (Maintenance Office)
C-536	Relay House
C-537-1	Switch House
C-537-2	Switchyard
C-537-3A	Fire Valve House No. 1
C-537-3B	Fire Valve House No. 2
C-537-3C	Fire Valve House No. 3
C-537-3D	Fire Valve House No. 4
C-537-4	Test Shop
C-540-A	Oil Pump House

Table 6.4 Abovegrade Structures included in D&D OU Scope* (Continued)

NUMBER	DESCRIPTION
C-540-B	Oil Storage Tank (Northwest)
C-540-C	Oil Storage Tank (Southwest)
C-540-D	Oil Storage Tank (Northeast)
C-540-E	Oil Storage Tank (Southeast)
C-541-A	Oil Pump House
C-541-B	Oil Storage Tank (Northwest)
C-541-C	Oil Storage Tank (Southwest)
C-541-D	Oil Storage Tank (Northeast)
C-541-E	Oil Storage Tank (Southeast)
C-600	Utility Plant
C-600-A	C-600 Steam Pkg Boilers—PB-01 and PB-05
C-600-T01	Equipment Storage (Carport)
C-600-1	Cooling Tower
C-601	Nitrogen Generator Building Addition
C-601-A	Steam Plant Fuel Storage Tank (Center)
C-601-B	Steam Plant Fuel Storage Tank (South)
C-601-C	Steam Plant Fuel Oil Pump House
C-604	Utilities Maintenance Building
C-605	Substation Building
C-606	Coal Crusher Building
C-607	Emergency Air Compressor Generator Building
C-611-A1	Activated Carbon Storage Building
C-611-B	Head House
C-611-B1	Polymer Feed System Enclosure
C-611-F2	Chemical Feed Building for C-611-F1
C-611-F3	Activated Carbon Feed Facility
C-611-H	Filter Building and Pump Station
C-611-J	Pump House (Settled Water)
C-611-O	Sanitary Water Storage Tank
C-611-P	Pump House
C-611-S	Storage and Chlorine Facility
C-611-U-CaO	Lime storage bin
C-611-U-CO2	CO2 tank
C-611-U-FF	Solid ferric sulfate storage bin
C-611-U-SA	Soda ash storage bin
C-611-T02	Equipment Storage (Carport)
C-611-U	Softening Facility (West)
C-611-X	Softening Facility (East)
C-612-B1	Above Ground Storm Shelter
C-612-T04	Wooden Storage Building
C-612-T05-T08	Sealand Storage Containers
C-612-T09-T12	Sealand Storage Containers

Table 6.4 Abovegrade Structures included in D&D OU Scope* (Continued)

NUMBER	DESCRIPTION
C-613-01	Basin Pump Station
C-613-02	Basin Pump Station
C-615	Sewage Treatment Plant
C-615-C	Sewage Plant Monitoring Building
C-615-C1	Sodium Hypochlorite Conversion Chemical Storage Building
C-615-D	Digester
C-615-E	Trickling Filter
C-615-F	Dry Bed for Trickling Filter
C-615-G	Sewage Lift Station
C-615-H	Sewage Lift Station
C-615-H1	Sewage Lift Station
C-615-H2	Sewage Lift Station
C-615-H3	Sewage Lift Station
C-615-H5	Sewage Lift Station
C-615-H8	Sewage Lift Station
C-615-L	Oil Control Monitoring Station
C-615-M	Oil Control Structure
C-616-A	Chemical Feed Building
C-616-B	Clarifier (East)
C-616-C	Lift Station
C-616-H1	Ferrous Sulfate Storage Tank (East)
C-616-H2	Ferrous Sulfate Storage Tank (West)
C-616-J	Reduction Tank (East)
C-616-K	Service Building
C-616-M	Clarifier (West)
C-616-N	Reduction Tank (West)
C-617-A	Effluent Control Station
C-620	Air Compressor Room
C-631-1	Pump House
C-631-2	Cooling Tower
C-631-3	Pump House (Firewater)
C-631-4	Blending Pump House
C-631-5	Blending Cooling Tower (West)
C-631-6	Blending Cooling Tower (East)
C-633-1	Pump House
C-633-2A	Cooling Tower (South)
C-633-2B	Cooling Tower (North)
C-633-3	Blending Pump House
C-633-4	Blending Cooling Tower (North)
C-633-5	Blending Cooling Tower (South)
C-633-6	Sand Filter Building
C-635-1	Pump House

Table 6.4 Abovegrade Structures included in D&D OU Scope* (Continued)

NUMBER	DESCRIPTION
C-635-2	Cooling Tower
C-635-3	Blending Pump House
C-635-4	Blending Cooling Tower (North)
C-635-5	Blending Cooling Tower (South)
C-635-6	Recirculating Heat Utilization Pump House
C-637-1	Pump House
C-637-2A	Cooling Tower (South)
C-637-2B	Cooling Tower (North)
C-637-3	Blending Pump House
C-637-4	Blending Cooling Tower (North)
C-637-5	Blending Cooling Tower (South)
C-637-6	Sand Filter Building
C-709	Plant Laboratory Annex
C-710	Technical Services Building
C-720	Maintenance and Storage Building
C-720-A	Compressor Shop
C-720-B	Machine Shop Addition
C-720-C	Converter Shop Addition
C-720-C1	Paint Shop
C-720-D	Transformer Building
C-720-E	Change House Addition
C-720-G	Warehouse
C-720-G1	TOX Room
C-720-G2	TOX Room
C-720-H	Warehouse
C-720-J	Air Lock
C-720-K	Instrument Shop Addition
C-720-T09	Equipment Storage (Carport)
C-724-A	Carpenter Shop Annex
C-724-B	Carpenter Shop
C-724-C	Paint Shop
C-724-D	Lumber Storage Building
C-725	Janitorial Storage
C-726	Sandblast Building
C-728	Motor Cleaning Facility
C-730-A1	Above Ground Storm Shelter
C-730-T05	Office Trailer
C-730-T06	Office Trailer
C-731	Railroad Repair Equipment Storage Building
C-733	Waste Oil and Chemical Storage Facility
C-734	Salt Storage Structure
C-740-B	Oil Drum Storage Shelter

Table 6.4 Abovegrade Structures included in D&D OU Scope* (Continued)

NUMBER	DESCRIPTION
C-741	Mobile Equipment Shed
C-743-B1	Above Ground Storm Shelter
C-743-C1	Above Ground Storm Shelter
C-743-T01	Office Trailer
C-743-T02	Office Trailer
C-743-T13	Office Trailer
C-743-T14	Instrument Shop Trailer
C-743-T15	Office Trailer
C-743-T16	Office Trailer
C-744	Material Handling Building
C-745-J	Radioactive Material Storage Yard
C-746-A	North Warehouse
C-746-G	Electrical Equipment Storage
C-746-Q	Hazardous and LLW Storage Facility
C-746-Q1	High Assay Waste Storage Building
C-746-U1	Landfill Office Building
C-746-U2	Landfill Equipment Building
C-746-U3	Landfill Leachate Facility
C-746-U4 to U9 (6 total)	Sealand Storage Containers
C-746-U10	Storage Building
C-746-U11	Storage Building
C-746-U12	Storage Building
C-746-U13A	Above Ground Storm Shelter
C-746-U-T14	Shower Trailer
C-746-U15	Leachate Treatment Facility
C-746-U16	Leachate Storage Facility
C-746-U-S	Truck Scale At Landfill
C-746-X	Electrical Equipment Storage Building
C-747-A-T04	Scale House Shed
C-750	Garage Building
C-752-A	Waste Storage Facility
C-752-A-ENC	Waste Containment Enclosure
C-752-A-T10	Office/Breakroom Trailer
C-752-B-T01	Refueling Station Trailer
C-752-C -T01-A	Lab/Breakroom Trailer
C-752-EV	Electric Vehicle Charging Station
C-753-A	TSCA Waste Storage Facility
C-754	Low Level Waste Storage
C-754-A	Waste Management Staging Area
C-754-B	Guard Training Facility
C-755-A	Maintenance Shop

Table 6.4 Abovegrade Structures included in D&D OU Scope* (Continued)

NUMBER	DESCRIPTION
C-755-A1	Storage Shed
C-755-B	Change House Building
C-755-C	Storage Facility
C-755-D	Electrical Storage
C-755-E1	Above Ground Storm Shelter
C-755-F1	Above Ground Storm Shelter
C-755-G1	Above Ground Storm Shelter
C-755-H1	Above Ground Storm Shelter
C-755-J	Sealand Storage Containers (3)
C-755-K	Sealand Storage Container
C-755-M	Wooden Storage Shed
C-755-M1	Wooden Storage Shed
C-755-M2	Wooden Storage Shed
C-755-M3	Wooden Storage Shed
C-755-M4	Wooden Storage Shed
C-755-P1	Wooden Storage Shed
C-755-P2	Wooden Storage Shed
C-755-Q	Sealand Storage Container
C-755-S	Office Trailer
C-755-T	Wooden Storage Shed
C-755-T01	Office Trailer
C-755-T02	Office Trailer
C-755-T03	Office Trailer
C-755-T04	Office Trailer
C-755-T05	Office Trailer
C-755-T07	Breakroom Trailer
C-755-T08B	Shower and Changeroom Trailer
C-755-T09	Office Trailer
C-755-T10	Storage Trailer
C-755-T13	Sealand Storage Container
C-755-T14	Sealand Storage Container
C-755-T16	Shower and Changeroom Trailer
C-755-T17A	Shower Trailer
C-755-T19	Office/Breakroom Trailer
C-755-T20	Office/Breakroom Trailer
C-755-T22A	Office/Breakroom Trailer
C-755-T23	Office Trailer
C-755-T24	Storage Shed
C-755-T26	Office/Breakroom Trailer
C-755-T27	Office Trailer
C-755-T28	Office Trailer
C-755-T29	Storage Shed

Table 6.4 Abovegrade Structures included in D&D OU Scope* (Continued)

NUMBER	DESCRIPTION
C-755-T30	Storage Shed
C-755-U	Metal Carports/Equipment Sheds (6)
C-755-V	Former Salt Storage
C-755-W	Small Maintenance Shop
C-755-X	Storage Shed
C-755-Y	Sealand Storage Container
C-757	Solid and Low-Level Waste Process Facility
C-759-A	Carport—Formerly ISOCS
C-761	Staging Area—Gravel Pad
C-762-A	Equipment Storage (Carport)
C-762-T02	Storage Shed
C-764-D1	Above Ground Storm Shelter
C-764-D2	Above Ground Storm Shelter
C-764-T01	Office Trailer
C-764-T02	Conference/Office Trailer
C-764-T03	Office Trailer
C-764-T04	Office Trailer
C-764-T05	Office Trailer
C-764-T06	Office Trailer
C-764-T07	Office Trailer
C-764-T08	Office Trailer
C-764-T09	Office Trailer
C-764-T10	Office Trailer
C900057 (Bridge 1)	South Acid Road Bridge

* In addition to the abovegrade structures listed in Table 6.4, facilities constructed to support remedy implementation, at a minimum, also are included in the scope. Any additional facilities included in this scope, or removed from this scope, will be discussed with the FFA managers and addressed in future revisions of the SMP. The Environmental Media Sitewide OU will address at- or below grade portions of facilities.

If a reuse potential for a building/structure or infrastructure is identified in the future, and the facility is shown to be free of contamination according to DOE Order (O) 458.1 Chg 4 (LtdChg), *Radiation Protection of the Public and the Environment*, and applicable portions of DOE O 5400.5 Chg 2, *Radiation Protection of the Public and the Environment*, Table 6.4 could be modified to remove the building/structure or infrastructure from the scope of the decision.

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APPENDIX 7

DATA MANAGEMENT PLAN

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DOE/LX/07-2498&D1
Primary Document

Paducah Gaseous Diffusion Plant
Data Management Plan

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Primary Document

Paducah Gaseous Diffusion Plant
Data Management Plan

Date Issued—February 2024

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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PREFACE

This plan is generated to define the roles, responsibilities, and activities affecting data management, document management, and quality for data collection between the U.S. Department of Energy (DOE) and the regulatory agencies that govern the Paducah Gaseous Diffusion Plant Federal Facility Agreement (FFA) (EPA 1998). Pursuant to Section XXVII, *Quality Assurance/Sampling Availability/Data Management*, of the FFA, all quality-assured data or summaries of all quality-assured data from all samples collected, analyzed, and reported shall be available no later than 30 days after the analyses have been received and validated. Additionally, in accordance with this section, DOE shall maintain one consolidated database for the Paducah Site which includes all data/studies generated pursuant to this agreement. To fulfill this requirement, Paducah DOE has an integrated data system made up of multiple databases managed by one organization. Electronic formats of all data/studies and related documents are available upon request.

In addition to the requirements in the FFA, other agreements require the following consolidated data management process.

(1) Kentucky Energy and Environment Cabinet (EEC) Department for Environmental Protection Division of Waste Management Hazardous Waste Management Facility Permit (KDWM 2020) states:

Condition III.E.9-Monitoring and Recordkeeping "...All environmental monitoring data collected pursuant to Part II and IV of this permit shall be submitted to the Manager in either written or electronic format. Sampling data shall be submitted in accordance with the schedules described in this permit."

(2) Agreement in Principle states the following, with respect to EEC and the Kentucky Cabinet for Health and Family Services (CHFS) (EEC 2020).

"…DOE will promptly furnish to EEC or CHFS environmental monitoring data in electronic format, if available, or paper copies. DOE data reports will be released to EEC or CHFS within ninety (90) days after receipt from the QA/QC validation..."

CONTENTS

ACRONYMS

AIP	Agreement in Principle
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CHFS	Cabinet for Health and Family Services
COC	chain-of-custody
DMIP	data management implementation plan
DOE	U.S. Department of Energy
DQO	data quality objective
EDD	electronic data deliverable
EEC	Kentucky Energy and Environment Cabinet
EPA	U.S. Environmental Protection Agency
FFA	Federal Facility Agreement
FSP	field sampling plan
GIS	geographic information system
KDEP	Kentucky Department for Environmental Protection
OREIS	Oak Ridge Environmental Information System
PEGASIS	PPPO Environmental Geographic Analytical Spatial Information System
PEMS	Project Environmental Measurements System
PPPO	Portsmouth/Paducah Project Office
P-QAPP	programmatic quality assurance project plan
QA	quality assurance
QAPP	quality assurance project plan
QC	quality control
SMO	sample management office
SOW	statement of work
SWMU	solid waste management unit

1. INTRODUCTION

1.1 PURPOSE

This plan will be used for the U.S. Department of Energy (DOE) Paducah Site projects that are involved in the collection of data under the Federal Facility Agreement (FFA) (EPA 1998). Each section of the plan meets the data quality requirements set forth by the DOE Portsmouth/Paducah Project Office (PPPO) Program and provides a description of the programmatic elements that should occur for each project. This document is to be used in conjunction with the most current version of the Paducah Site Programmatic Quality Assurance Project Plan (P-QAPP) (DOE 2023 or most recent revision). Like the Paducah Site P-QAPP, which is a template for the development of future project-specific quality assurance project plans (QAPPs), this document is not a substitute for the development of project-specific data management implementation plans (DMIPs), or field sampling plans (FSPs), and should not be used to support the performance of individual projects. Project-specific DMIPs and FSPs should include the systematic planning decisions for a given project.

1.2 APPLICABILITY

The requirements of this plan apply to the collection and generation of data by the DOE Paducah Site under the FFA. This plan applies to analytical data; historical data; and location-specific descriptive data, which includes the geographic information system (GIS), lithology, geophysical data, etc. Implementation for projects is based on data collection needs and final use of the data. The requirements of this plan do not apply to data collected by the health and safety program, waste management, personnel data, or financial data. The project-specific waste management plans determine the need for characterization, sampling, and analysis.

2. PROGRAM ORGANIZATION, RESPONSIBILITY, AND TRAINING

This information describes the basic organization, responsibility, and training requirements for projects. Specific project plans should be developed and documented in a project-specific DMIP to define individuals and matrix responsibilities. The project will further define training needs based on activities performed in the field.

2.1 ORGANIZATION

The DOE Project Manager and DOE Contractor establish project scope and work priorities to ensure the DOE PPPO Program strategic plans are accomplished. Furthermore, the DOE Project Manager and DOE Contractor serve as the primary interface to ensure project, regulatory agency, stakeholder, and other involved organization objectives are met. They will ensure that requirements in this plan are incorporated into various protocols and other statements of work (SOWs). They will also ensure adequate technical support is in place for the project and that quality assurance (QA) and safety are the top priorities throughout the project's life cycle.

2.2 ROLES AND RESPONSIBILITIES

The functional responsibilities of project staff members and how they relate to the data collection and output process is detailed below. This section identifies project activities and the staff members who will be performing the work. The descriptions of functional responsibilities that project staff perform are listed by title rather than individual staff positions.

2.2.1 Stakeholders

2.2.1.1 DOE Project Manager

The DOE Project Manager has direct communication with the DOE Contractor Project Manager and is responsible for project oversight, overall compliance for the project, and for submitting various reports to, and interfacing with, the U.S. Environmental Protection Agency (EPA) and the Commonwealth of Kentucky.

2.2.1.2 Kentucky Energy and Environment Cabinet

Through the Kentucky Department for Environmental Protection (KDEP), the Commonwealth of Kentucky provides oversight under the FFA and administers the corrective action portions of the Hazardous and Solid Waste Amendments through the FFA. Activities including response actions, enrichment facilities, and waste management of the DOE PPPO Program are reviewed, commented upon, and approved by the Commonwealth of Kentucky.

2.2.1.3 EPA, Region 4

EPA is the federal regulatory stakeholder for the site. Activities, including response actions, enrichment facilities, and waste management of the DOE PPPO Program are reviewed, commented upon, and approved by EPA.

2.2.1.4 Kentucky Agreement in Principle

The Kentucky Agreement in Principle (AIP) reflects the understanding and commitments between DOE and the Commonwealth of Kentucky regarding DOE's provision to provide technical and financial support for the Commonwealth's activities in environmental oversight, surveillance, remediation, and emergency-response activities (EEC 2020). The AIP is intended to support nonregulatory activities and to maintain an independent, impartial, and qualified assessment of the potential environmental impacts of present and future DOE activities at the Paducah Site.

2.2.1.5 FFA

The FFA reflects the understanding and commitments among DOE, EPA, and the Kentucky Division of Waste Management regarding the comprehensive remediation of the Paducah Site. The purpose of the FFA is to provide a set of comprehensive requirements for remediation that coordinates the cleanup provisions of both Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource, Conservation, and Recovery Act.

2.2.2 DOE Contractor

The DOE Contractor is responsible for ensuring the following functions are performed either by staff or by a subcontractor.

2.2.2.1 Data User/Data Reviewer

Data users/data reviewers are members of the project team who require access to project information to perform reviews, analyses, or ad hoc queries of the data. Data users/data reviewers determine project data usability by comparing the data to predefined acceptance criteria and assessing whether the data are sufficient for its intended use.

2.2.2.2 Project Manager

The project manager has direct responsibility for the overall project oversight, including budget, schedule, and milestones. The project manager is responsible for the day-to-day operation of the project and for ensuring the requirements of policies and procedures are met. The project manager, or designee, assesses data in accordance with project-specific DMIPs and the Paducah Site P-QAPP. The project manager is responsible to flowdown data management requirements to subcontractors, as required.

2.2.2.3 Project Team

The project team consists of the technical staff and support staff [including the sample management office (SMO)], which conducts the various tasks required to successfully complete the project.

2.2.2.4 QA Reviewer

The QA reviewer is part of the project team and is responsible for reviewing project documentation to determine if the project team followed applicable procedures.

2.2.2.5 Project Records Custodian

The project records custodian is responsible for the long-term storage of project records. The project team interfaces with the project records custodian and transfers documents and records in accordance with DOE requirements.

2.2.2.6 SMO Manager

The SMO manager is responsible for the long-term storage of project data and for transmitting data to external agencies, according to this plan. The SMO manager ensures compliance with procedures that relate to data management, with respect to the project, and that the requirements of appropriate procedures are followed.

2.2.2.7 SMO

The SMO enters the data into the Paducah Project Environmental Measurements System (PEMS), including chain-of-custody (COC) information, data assessment qualifiers, data validation qualifiers, and any pertinent sampling information. After receiving a notification that a fixed-base laboratory electronic data deliverable (EDD) is available to download, the SMO loads the EDD to Paducah PEMS, performs electronic verification of the data, and then compiles the data assessment package. The SMO also prepares data for transfer from Paducah PEMS to the Paducah Oak Ridge Environmental Information System (OREIS).

The SMO is responsible for contracting any fixed-base laboratory that is utilized during the sampling activities. The SMO also provides coordination for sample shipment to the laboratory, ensures contractual screening of data assessment packages, and coordinates data validation support.

2.2.3 Project-Specific QAPP Approval

P-QAPP worksheets #1 and #2 identify the principle points of contact that have decision authority in the projects, and document their commitment to implement QAPPs. Signatories include the delegated organization's project manager, SMO manager, and the QA/quality check (QC) program manager. Signatures indicate that officials have reviewed the QAPP and concur with its implementation as written. DOE, EPA, and KDEP approve project-specific QAPP worksheets through coordinated review and work plan approvals in accordance with the FFA, and subsequent email approval correspondence, when appropriate. This practice is consistent with EPA policy, which specifies that a QAPP should be reviewed and approved prior to initiation of fieldwork. The type of regulatory review and approval required is project-specific. Requirements for such review and approval are specified in the FFA. Approval from DOE, the lead agency, is documented by the Paducah Site FFA Manager's signature on letters transmitting plans and documents to the regulatory agencies. The original DOE, EPA, and KDEP concurrence correspondences are maintained with the final, approved, project-specific QAPP in the project file. It is the responsibility of the lead agency to make sure signatures are in place before work begins.

2.2.4 Training

Personnel assigned to the project, including field personnel and subcontractors, will be trained to perform the tasks to which they are assigned. Training requirements are defined in the project-specific plans.

3. QA OBJECTIVES FOR MEASUREMENT DATA

QA objectives for measurement data are discussed in the Paducah Site P-QAPP. The Paducah Site P-QAPP also discusses data quality objectives (DQOs); internal QC checks (i.e., field QC samples, analytical laboratory QC samples); audits and surveillances; preventative maintenance; precision, accuracy, representativeness, completeness, comparability, and sensitivity; nonconformances and corrective actions; QA reports to management; and field changes. The template for this information in the Paducah Site P-QAPP will be followed, as appropriate, when project-specific QAPPs are developed.

4. APPLICABLE PROTOCOLS AND DOCUMENTS

Company protocols, sampling methods, administrative procedures, etc., utilize hierarchy documents that relate to data quality. Hierarchy documents are listed in the Paducah Site P-QAPP and will be presented, as appropriate, in project-specific QAPPs.

5. SAMPLE CUSTODY

COC is a process used to document the transfer of custody of samples from sample collection until final disposition. COC records are handled in accordance with applicable protocols. Sample residuals are disposed of only after notification is received from the SMO manager, or designee, that the samples are no longer needed for archiving or that holding times have been exceeded. Sample custody protocols are identified in project-specific FSPs and/or QAPPs.

6. CALIBRATION PROTOCOLS AND FREQUENCY

Templates for the presentation of field and laboratory equipment calibration protocols and frequencies are discussed in the Paducah Site P-QAPP. These templates will be used, as appropriate, to prepare the project-specific QAPPs.

7. ANALYTICAL PROTOCOLS

When available and appropriate for the sample matrix, SW-846 Methods will be used. When SW-846 Methods are not available, or required lower detection limits cannot be achieved by SW-846 Methods, other nationally-recognized methods such as those of ASTM, DOE, and EPA will be used. Templates for the presentation of analytical methods, detection limits, sample preservation, holding times, and container requirements for field measurements and analytical parameters are presented in the Paducah Site P-QAPP. These templates will be used, as appropriate, to prepare the project-specific QAPPs.

8. DETAILS OF DATA AND DOCUMENT FLOW

The components of data management include planning, collection, review, archival, and transmittal. Project activities follow identical paths to meet data management requirements. Narratives (i.e., Sections 8 and 9) are provided for each component of data and document flow. The DOE PPPO Program Integrated Data System is discussed first. The data system is the core of each data management component.

8.1 INTEGRATED DATA SYSTEM

The DOE PPPO Program Integrated Data System provides a centralized system for the management and storage of environmental information while allowing easy, yet controlled, access. The basis for the DOE PPPO Program Integrated Data System is to establish and maintain a program to provide the most efficient system of data collection, analysis, storage, and retrieval. DOE, as specified in the FFA, is to maintain one consolidated database for the Paducah Site. All data collected under this agreement (i.e., FFA) are to be routinely submitted electronically in a consistent format to the stakeholders (see Section 9.2). The DOE PPPO Program Integrated Data System meets the regulatory requirements and provides the Paducah Site with a platform to manage its environmental data.

The DOE PPPO Program Integrated Data System is composed of integrated hardware and software to support the collection, management, analysis, and presentation of data associated with environmental response actions, compliance, and monitoring activities at the Paducah Site. All environmental measurements, analyses, and location-specific descriptive information, as applicable per this plan, are included. In addition, an extensive collection of descriptive and reference information about environmental projects and permits are stored.

8.1.1 Paducah PEMS

As part of the DOE PPPO Program Integrated Data System, Paducah PEMS is utilized for cradle-to-grave tracking of sampling and analysis activities, which includes sample scheduling, collection, tracking, and

associated data from the point of collection through final data reporting. Paducah PEMS tracking includes information from field forms, COCs, data packages, and EDDs. Project data is entered as the project progresses. The SMO uses Paducah PEMS to support the following functions:

- Initiating the project;
- Developing a plan for sampling;
- Generating laboratory SOWs;
- Recording sample collection and field measurements;
- Recording the dates of sample shipments to the laboratory;
- Receiving and processing analytical results;
- Verifying data;
- Accessing and analyzing data;
- Assessing data and entering data validation qualifiers; and
- Transferring project data (in ready-to-load format) to Paducah OREIS.

Upon completion of the project, or on a routine basis, data from Paducah PEMS is reviewed (as described in Section 8.4) and transferred to Paducah OREIS for permanent retention. All final data reporting is reported from Paducah OREIS. Additionally, Paducah PEMS data is archived on a specified frequency to ensure data traceability.

The DOE PPPO Program Integrated Data System is accessed by a computer network. The information technology group performs system backups daily. The security precautions and procedures implemented by the SMO are designed to minimize the vulnerability of the data to unauthorized access or corruption. Only members of the SMO have access to Paducah PEMS and data files.

8.1.2 Paducah OREIS

Paducah OREIS is the centralized, standardized, quality assured, and configuration-controlled data management system that is the long-term repository of environmental data (e.g., measurements, geographic data) for Paducah environmental projects. Paducah OREIS is comprised of hardware, commercial software, customized integration software, an environmental measurements database, a geographic database, and associated documentation. Each project uses Paducah OREIS for the following functions:

- Access to existing data;
- Spatial analysis;
- Report generation; and
- Long-term storage of project data (as applicable).

8.1.3 PEGASIS

Using a web browser, the PPPO Environmental Geographic Analytical Spatial Information System (PEGASIS) application provides a systematic approach to retrieve, display, and download analytical, geotechnical, and hydrological data, maps, and geophysical information for PPPO sites, regulators, and the public. The information includes analytical sample results from various environmental studies, restoration reports and supporting documents, maps, facility drawings, and photography.

PEGASIS is a website that allows data users to have access to sampling data for hundreds of investigative wells and sampling events, solid waste management units (SWMUs), and site-specific GIS features from environmental studies at the Paducah Site (e.g., from FFA projects and environmental management program activities) completed since 1989. Analytical data available on PEGASIS are copied from

Paducah OREIS on a quarterly basis, with more frequent updates to facilitate project reports as needed. GIS layers, such as plumes and SWMUs, are updated in PEGASIS as the layers are updated in the GIS system, with more frequent updates to facilitate project reports as needed.

PEGASIS fulfills the requirement in Section XXVII of the FFA for the provision of quality-assured data.

8.2 DATA PLANNING

8.2.1 Initiation of Data Collection

The need for data collection is determined by the project manager to satisfy applicable regulatory requirements and/or DOE Orders. The project manager and project team identify the need for collection of data to support the project and are responsible for the development of applicable documents that outline the specific objectives of the data collection activity.

8.2.2 Historical Data Gathering

A substantial effort should be made by the project team to acquire and analyze all historical data and documents that are relevant to the project (in numeric, spatial, attribute, and textual form) prior to the DQO process and/or data generation. For example, these documents and data might include prior work done for preliminary assessments, site characterization tasks, response actions, annual monitoring reports, or data summaries provided by previous analysts. In addition, information specialists who would know of relevant documents, GIS information, and data sets should be consulted to acquire a comprehensive project background. In many cases, descriptive and qualitative information about the data (e.g., metadata) may be required. This is often the case with electronic files that may be received without the basic information provided through proper documentation. Some research may be required to prepare these metadata statements, which are essential to the determination of data quality and usability.

8.2.3 Data Quality Criteria

Historical data, along with elements from the DQO process, such as contaminants of concern, QA/QC requirements, data review options, and the sampling design are used to generate applicable plans.

FSPs, project-specific QAPPs, and analytical SOWs are developed in support of field preparation. An FSP describes the field activities to be undertaken and subsequent work to be performed. A project-specific QAPP outlines the data quality criteria and DQOs. An analytical SOW includes analytical parameters, methods, and detection limits. A validation SOW is prepared when validation services are required to ensure the analytical laboratory's performance is acceptable.

Information from each of the SOWs and FSPs is used to initiate sampling field forms, labels, and other required field documentation. Documentation generated by the data collection activity shall be forwarded electronically to the project records custodian.

8.3 DATA COLLECTION

Data collection information is recorded and maintained for all data collection activities. This information includes station information, lithologic information, sample information, field measurements, analytical data, monitoring structure information, and GIS information and is explained below.

8.3.1 Station Information

Station information is data describing the location from where a sample is taken. Station information includes plant coordinates (surveyed or estimated, as appropriate), station description, and station type. This information is input directly into Paducah OREIS. Methods for determining coordinates and relevant information necessary to determine and document accuracy should be recorded.

8.3.2 Lithologic Information

Lithologic information is data used to describe the size, texture, composition, and any other physical characteristics of materials derived from the earth. In most cases of investigation at the site, this will include material derived from boreholes. This information is stored electronically with the project information.

8.3.3 Sample Information

Sample information is environmental data describing the collection of materials for testing. Such data consists of the following: station, date collected, time collected, and any other notable information (e.g., weather). This information is recorded in field forms and may be included on the COC or sample labels. This information is input directly into Paducah PEMS.

8.3.4 Field Measurements

Field measurements are measurements that are collected real-time in the field. Field measurements may include water level measurements, pH, conductivity, flow rates, temperature, dissolved oxygen, and analytical results from the use of X-ray fluorescence or field portable gas chromatography equipment. Field measurements are taken and recorded on appropriate field forms or in logbooks and are input into Paducah PEMS.

8.3.5 Analytical Data

The SMO tracks progress of analytical samples as fieldwork continues. COCs are reviewed and the lab receipt of samples is verified. Once samples have entered the laboratory, the laboratory is responsible for sample analysis and data reporting. The analytical data will be checked for completeness and reasonableness. A system is set up within the Paducah DOE Program Integrated Data System to log shipment of samples and receipt of data packages.

All data packages received from the fixed-base and screening/field laboratories are tracked, reviewed, and maintained in a secure environment. The SMO is primarily responsible for these tasks. The following information is tracked: sample delivery group number, date received, number of samples, sample analyses, receipt of EDD (if applicable), and comments. The SMO compares the contents of the data package with the COC form and identifies discrepancies. Discrepancies are immediately reported to the laboratory and the data validators. All data packages are stored as records.

8.3.6 Monitoring Structure Information

Monitoring structure information is data describing the monitoring wells and boreholes installed during the project. Information includes well screen depth; borehole and well diameter; screened aquifer; and datum information. This information is stored electronically.

8.3.7 GIS Information

GIS information is metadata that is visually descriptive of the area around the location of a project. Information may include maps of roads, streams, underground utilities, etc. Projects creating new GIS information or causing required updates to existing GIS information supply the information to the Paducah DOE Program Integrated Data System.

8.4 DATA REVIEW

8.4.1 Laboratory Contractual Screening

Laboratory contractual screening is the process of evaluating a set of data against the requirements specified in the analytical SOW to ensure that all requested information is received. The contractual screening includes, but is not limited to, the COC, number of samples, analytes requested, total number of analyses, methods used, QC samples analyzed, EDDs, units, holding times, and reporting limits achieved. The SMO conducts the screening upon receipt of data from the analytical laboratory.

8.4.2 Data Verification

Data verification is the process for comparing a data set against a set standard or contractual requirement. The Paducah Site P-QAPP presents general guidance on the requirements for data verification. Verification is performed by the SMO electronically, manually, or a combination of both methods. Data verification includes contractual screening and can include other data quality checks established by the project team. Applicable project-specific plans define the specific verification to be performed. Data is flagged as necessary. Verification qualifiers may be applied to the data based on holding time exceedance, criteria exceedance, historical exceedance, or background exceedance. Verification qualifiers are stored in Paducah PEMS, transferred with the data to Paducah OREIS, and copied to PEGASIS.

8.4.3 Data Validation

Data validation is the process for evaluating the laboratory adherence to analytical-method requirements. The Paducah Site P-QAPP presents general guidance on the requirements for data validation, including what fraction of data is to be subjected to independent third-party validation. This is performed by a qualified individual for a data set and is independent from sampling, laboratory, project management, or other decision-making personnel for the project. Data validation is managed and is coordinated with the SMO. The data validator performs data validation according to data validation plans. The percentage and type of data validation is determined by the project and is specified in the project-specific QAPP. Data validation is documented in a formal deliverable from the data validator. Validation qualifiers are input and stored in Paducah PEMS, transferred to Paducah OREIS, and copied to PEGASIS.

8.4.4 Data Assessment

Data assessment is the process for assuring that the type, quality, and quantity of data are appropriate for their intended use. The Paducah Site P-QAPP presents general guidance on the requirements for data assessment. Data assessment allows for the determination that a decision (or estimate) can be made with the desired level of confidence, given the quality of the data set. Data assessment follows data verification and data validation (if applicable) and is performed for all data sets to ensure data is usable.

The data assessment is conducted by the project according to appropriate procedures. Assessment qualifiers are stored in Paducah PEMS, transferred with the data to Paducah OREIS, and copied to PEGASIS. Any problems found during the review process are resolved and documented in the data assessment package.

8.5 DATA ARCHIVAL

Data archival refers to the long-term storage of electronic data generated by a project in the Paducah DOE Program Integrated Data System. Long-term storage in a central repository assures maximum accessibility by the environmental community. To ensure its future usability, sufficient documentation, including the associated metadata, must accompany archived data to describe the source, contents, and structure of the data. Paducah OREIS is the database that stores archived data for future use. Paducah PEMS and the back-ups for Paducah OREIS are archived by the Paducah Site's Infrastructure Contractor personnel.

9. DATA RELEASE AND TRANSFER

Once data has undergone verification, validation (if validation is required), and data assessment, it may be released to external agencies. Data rejected during validation or data assessment will not be used, but will remain with the dataset for completeness. Environmental data are copied from Paducah OREIS to PEGASIS (as described in Section 8.1.4), allowing regulators and the public to access the data using a web browser. Data copied to PEGASIS includes information collected from response actions, permitted sampling, and routine sampling. In addition, environmental data can be requested from the SMO or by contacting PegasisAdmins@pad.pppo.gov.

Field QC data are not copied with the data to PEGASIS; however, this information is available from the SMO upon request and is included with the appropriate CERCLA documents (e.g., remedial action investigation report).

10. REFERENCES

DOE (U.S. Department of Energy) 2023. *Paducah Gaseous Diffusion Plant Programmatic Quality Assurance Project Plan*, DOE/LX/07-2490&D1, U.S. Department of Energy, Paducah, KY, April.

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