



## Department of Energy

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November 16, 2023

Ms. Myrna Redfield, Program Manager  
Four Rivers Nuclear Partnership, LLC  
5511 Hobbs Road  
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PPPO-02-10025837-24B

Dear Ms. Redfield:

### **DE-EM0004895: RESPONSE TO DELIVERABLE NO. 62, SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN, CP2-RA-0016/FR1**

Reference: Email from K. Hall to R. Callihan, "RE: FRNP-24-7816 Deliverable No. 62—  
DRAFT Spill Prevention, Control, and Countermeasure Plan," dated  
November 13, 2023 11:03 AM

The U.S. Department of Energy (DOE) is providing the final signed copy of the Spill Prevention, Control, and Countermeasure (SPCC) Plan for records purposes. DOE recommends sending the Paducah Gaseous Diffusion Plant Facility Response Plan to the Environmental Protection Agency under Four Rivers Nuclear Partnership, LLC letterhead as was done in previous years.

If you have any questions or require additional information, please contact Ryan Callihan at (740) 897-2835.

Sincerely,

**APRIL LADD**  
Digitally signed by APRIL  
LADD  
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April Ladd  
Contracting Officer's Representative  
Portsmouth/Paducah Project Office

Enclosure:

Signed SPCC Plan, CP2-RA-0016/FR1

cc w/enclosure:

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**CP2-RA-0016/FR1**

**Spill Prevention, Control, and Countermeasure Plan  
for the U.S. Department of Energy  
Paducah Gaseous Diffusion Plant,  
McCracken County, Kentucky**

**CLEARED FOR PUBLIC RELEASE**



**Spill Prevention, Control, and Countermeasure Plan  
for the U.S. Department of Energy  
Paducah Gaseous Diffusion Plant,  
McCracken County, Kentucky**

Date Issued—November 2023

Prepared for the  
U.S. DEPARTMENT OF ENERGY  
Office of Environmental Management

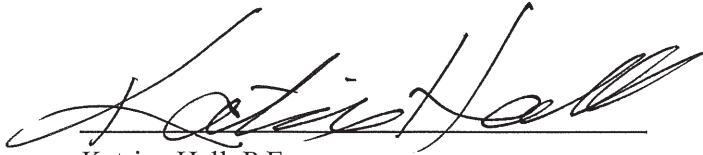
Prepared by  
FOUR RIVERS NUCLEAR PARTNERSHIP, LLC,  
managing the  
Deactivation and Remediation Project at the  
Paducah Gaseous Diffusion Plant  
under Contract DE-EM0004895

**CLEARED FOR PUBLIC RELEASE**

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**PROFESSIONAL ENGINEER'S CERTIFICATION [40 CFR § 112.3(d)]**

By means of this certification, I attest that I am familiar with the requirements of this part; that I or my agent has visited and examined the facility; that this Spill Prevention, Control, and Countermeasure Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards and with the requirements of 40 CFR Part 112; that procedures for required inspections and testing have been established; and the plan is adequate for the facility.

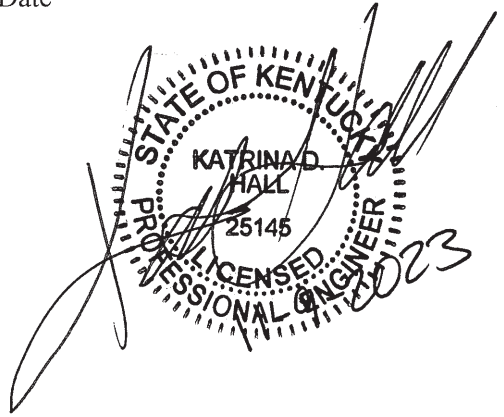


Katrina Hall, P.E.  
KY Professional Engineer #25145

11/9/2023

Date

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## MANAGEMENT APPROVAL (40 CFR § 112.7)

This Spill Prevention, Control, and Countermeasure (SPCC) Plan was prepared in accordance with good engineering practices and has the full approval of the U.S. Department of Energy (DOE); Four Rivers Nuclear Partnership, LLC, (FRNP) (Deactivation and Remediation Contractor); and Swift & Staley Team (Infrastructure Support Service Contractor). Implementation of this plan minimizes the potential for discharges of oil and oil-related products at the DOE Paducah Gaseous Diffusion Plant, located in McCracken County, Kentucky. Management will make available personnel, equipment, and materials necessary to implement this SPCC Plan and control and mitigate any discharges that should occur. The priorities of response team members are based upon protection of human life, prevention of environmental harm, and protection of property, respectively.

This SPCC Plan will be reviewed and evaluated at least once every five years or as required by the Regional Administrator under 40 CFR § 112.4. This review will be documented in the SPCC Plan Management Review Record located on the following page of this SPCC Plan and will include a statement as to whether the SPCC Plan will be amended. Any technical amendments to the SPCC Plan will be certified by a professional engineer.

Paducah Gaseous Diffusion Plant management is fully committed to the proper implementation of this SPCC Plan.

**BRUCE FORD (Affiliate)** Digitally signed by BRUCE FORD (Affiliate)  
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Bruce Ford/FRNP  
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April Ladd/DOE Portsmouth/Paducah Project Office,  
Paducah Site Lead

Date Signed

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**SPCC PLAN MANAGEMENT REVIEW RECORD**  
**[40 CFR § 112.5(b)]**

I have completed review and evaluation of the SPCC Plan for the Paducah Gaseous Diffusion Plant and \_\_\_ will \_\_\_ will not amend the SPCC Plan within six months of the date of my review.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date Signed

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title

I have completed review and evaluation of the SPCC Plan for the Paducah Gaseous Diffusion Plant and \_\_\_ will \_\_\_ will not amend the SPCC Plan within six months of the date of my review.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date Signed

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title

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**REVISION LOG**

<b>REVISION NUMBER</b>	<b>DATE</b>	<b>DESCRIPTION OF CHANGES</b>	<b>PAGES AFFECTED</b>
FR0	05/23/2022	Initial issue as CP2 plan. Previous document number was PAD-REG-1005. General revision includes updates for current conditions and organizational names.	All
FR1	11/9/23	General update for current Paducah Site conditions including an update to current oil inventory and the removal of the facility response plan as it is no longer applicable to the Paducah Site.	All

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## ACRONYMS

API	American Petroleum Institute
AST	aboveground storage tank
BMP	best management practice
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
<i>CFR</i>	<i>Code of Federal Regulations</i>
CWA	Clean Water Act
CY	calendar year
DOE	U.S. Department of Energy
EMS	Environmental Management System
EPA	U.S. Environmental Protection Agency
ERO	emergency response organization
FRNP	Four Rivers Nuclear Partnership, LLC
FRP	facility response plan
IC	incident commander
ISMS	Integrated Safety Management System
<i>KAR</i>	<i>Kentucky Administrative Regulations</i>
KDEP	Kentucky Department for Environmental Protection
KPDES	Kentucky Pollutant Discharge Elimination System
<i>KRS</i>	<i>Kentucky Revised Statutes</i>
OSHA	Occupational Safety and Health Administration
PA	public address
PGDP	Paducah Gaseous Diffusion Plant
PPE	personal protective equipment
PSS	Plant Shift Superintendent
QI	qualified individual
RCRA	Resource Conservation and Recovery Act
RQ	reportable quantity
SPCC	spill prevention, control, and countermeasure
STI	Steel Tank Institute
TSCA	Toxic Substances Control Act
UL <sup>®</sup>	Underwriters Laboratories Inc. <sup>®</sup>
WKWMA	West Kentucky Wildlife Management Area

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## 1. INTRODUCTION

The U.S. Department of Energy (DOE) manages work at the Paducah Site to comply with and adhere to applicable laws, regulations, and site-specific regulatory permits. References in this document to the Paducah Site generally mean the property, programs, and facilities at or near the Paducah Gaseous Diffusion Plant (PGDP) for which DOE has ultimate responsibility. PGDP is a government-owned plant that was constructed in the early 1950s and was operated by or for DOE and its authorized agencies for manufacturing enriched uranium. PGDP enriched uranium from the early 1950s until 2013, when PGDP ceased production operations. DOE is currently in the process of removing hazardous materials, including various oil products, from PGDP; preparing buildings for demolition; and remediating the soils, groundwater, and surface waters to allow the site to be used for other purposes.

The Paducah Site is located in a generally rural area of McCracken County, Kentucky, 10 miles west of Paducah, Kentucky, and 3.5 miles south of the Ohio River. The Paducah Site consists of the inactive uranium enrichment facilities and extensive support facilities. The Paducah Site is situated on approximately 3,556 acres, divided as follows:

- Approximately 1,450 acres utilized for site operations;
- Approximately 133 acres in acquired easements; and
- 1,973 acres licensed to the Commonwealth of Kentucky as part of the West Kentucky Wildlife Management Area (WKWMA).

Tennessee Valley Authority has constructed a substation on Paducah Site property (facility designation C-538). The facility is operated under this Spill Prevention, Control, and Countermeasure (SPCC) Plan. The PGDP inventory reflects the containers, contents, and volumes associated with this facility.

Federal and state regulations prohibit the unauthorized discharge of oil and oil products (e.g., gasoline, diesel fuel, fuel oil, synthetic oil, hydraulic oil, waste oil). The policy of DOE and its contractors/subcontractors is to handle all oil and oil products in a manner that prevents discharges and protects persons and the environment from harm. The purpose of this SPCC Plan is to form a comprehensive spill prevention program that minimizes the potential for discharges. This SPCC Plan is prepared in accordance with 40 *CFR* Part 112, *Oil Pollution Prevention*. This SPCC Plan guides DOE and PGDP contractor/subcontractor personnel on avoiding and responding to discharges of oil and oil products into the environment from site mission-related projects and activities. This SPCC Plan is available electronically; copies will be provided to other groups, as appropriate. This SPCC Plan has been prepared for remediation, deactivation, and infrastructure-related projects and activities at the PGDP. The Infrastructure Support Service Contractor has voluntarily agreed to comply with this SPCC Plan.

A summary crosswalk of SPCC requirements for this plan is included in Appendix A.

### 1.1 ENTITIES NOT COVERED UNDER THIS PLAN

The DUF<sub>6</sub> Conversion Project is operated separately from PGDP with distinctly different operations and processes and therefore is a separate facility from PGDP as defined in 40 *CFR* § 112.2. As a separate facility, the DUF<sub>6</sub> Conversion Project is not required to have an SPCC plan because it does not meet the threshold requirements for oil storage capacity as defined in 40 *CFR* § 112.1(d)(2).

## 1.2 GENERAL SPCC APPLICABILITY—40 *CFR* § 112.1

Requirements to prevent the discharge of oil and oil products into navigable waters of the United States are established in 40 *CFR* Part 112. These regulations are applicable to facilities that have oil and oil products and that reasonably could be expected to discharge oil into navigable waters of the United States; that have an aggregate aboveground capacity of more than 1,320 gal (counting only containers of 55 gal or greater); or have an aggregate underground capacity of more than 42,000 gal [excluding tanks subject to underground storage tank regulations (40 *CFR* Parts 280–281) and permanently closed tanks].

40 *CFR* Part 112 does not apply to any container with a storage capacity of less than 55 gal of oil or oil products. Although the regulations do not specifically define “container,” they do define “bulk storage container” as “any container used to store oil” except for “oil-filled electrical, operating, or manufacturing equipment.” This means that oil-filled electrical, operating, or manufacturing equipment containing 55 gal or greater of oil or oil products is subject to the general regulations in 40 *CFR* § 112.7, but not to the specific requirements for bulk storage containers in 40 *CFR* § 112.8.

As a non-transportation-related on-shore facility, PGDP engages in activities that reasonably could be expected to discharge oil and other hazardous materials into navigable waters of the United States and therefore is subject to the spill prevention requirements of 40 *CFR* Part 112.

## 1.3 AMENDMENT OF THE SPCC PLAN—40 *CFR* § 112.4 AND 40 *CFR* § 112.5

This SPCC Plan will be amended when a change in the facility design, construction, operation, or maintenance materially affects its potential for a discharge as described in 40 *CFR* § 112.1(b). Examples of changes that may require amendment of the SPCC Plan include, but are not limited to the following:

- Commissioning or decommissioning containers;
- Replacement, reconstruction, or movement of containers;
- Reconstruction, replacement, or installation of piping systems;
- Construction or demolition that might alter secondary containment structures;
- Changes of product or service; or
- Revision of standard operation or maintenance procedures at a facility.

Additionally, the SPCC Plan must be reviewed and evaluated at least once every five years per 40 *CFR* § 112.5(b), or when necessary, as described above. When conditions change (e.g., addition of new fuel storage tanks) the changes may be included in a revised SPCC Plan, or a separate SPCC Plan may be developed to address the new facility.

As a result of the review and evaluation, the SPCC will be amended within six months of the review to include more effective prevention and control technology if the technology has been field-proven at the time of the review and will reduce the likelihood of a discharge. Amendments must be implemented as soon as possible, but not later than six months following preparation of the amendment. Amendments will be documented using the SPCC Plan Management Review Record included at the beginning of the SPCC Plan. A Professional Engineer must certify any technical amendment to the SPCC Plan in accordance with 40 *CFR* § 112.3(d). The certification is located at the beginning of this plan.

The Regional Administrator also may require amendment of the SPCC Plan under 40 *CFR* § 112.4 if the plan is found not to meet the requirements of 40 *CFR* Part 112 or that amendment is necessary to prevent and contain discharges from the facility.

The SPCC Plan was last revised and issued in May 2022, which was consistent with the review requirements per 40 *CFR* § 112.5(b). This revision reflects the ongoing operational changes at PGDP that have resulted from deactivation and remediation, including updates for the DOE Prime Contractors and their respective scope, operating plans and procedures, and oil inventory and figures. The total oil and oil product capacity has decreased to less than 1,000,000 gal; therefore, PGDP facility response plan (FRP) is no longer required. This SPCC Plan revision includes the required discharge response information that was previously located in the FRP.

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## **2. GENERAL SPCC REQUIREMENTS—40 CFR § 112.7**

### **2.1 MANAGEMENT OVERSIGHT AND APPROVAL—40 CFR § 112.7**

PGDP management supports the prevention of discharges of oil and oil products. This SPCC Plan has the approval of management at a level and authority to commit the necessary resources toward spill prevention. All PGDP personnel are informed that pollution prevention is an integral part of job performance and of their responsibility for reporting and, where appropriate, correcting conditions that could lead to a discharge. All PGDP personnel are expected to follow applicable procedures and perform their jobs in a manner to prevent oil and oil product discharges.

Each of the contractors at PGDP is required to implement an Integrated Safety Management System/Environmental Management System (ISMS/EMS). The basic tenets of the ISMS/EMS are to systematically integrate safety and environmental management into work practices at all levels to achieve protection of the public, workers, and the environment and to conserve resources. This objective of ISMS is summed up simply by the statement, “Do Work Safely.”

Additionally, management is committed to ensuring that workers are involved meaningfully in the processes that comprise ISMS, including work control and feedback processes so that all hazards and requirements specific to the work activity, job site, and/or facility are identified and appropriate controls implemented. All management personnel are held accountable for safety performance and compliance.

Implementing ISMS/EMS requires that environmental field compliance personnel review procedures and work instructions to ensure that any steps involving storage/transfers of oils or oil products include measures to protect the environment and minimize potential releases.

The Director of Environmental Services is responsible for development of the SPCC Plan and its implementation as a PGDP plan. Within the Environmental Services organization, Environmental Field Compliance Regulatory Specialists, knowledgeable about requirements related to discharge/spill prevention and response, are available to provide technical assistance to operating groups responsible for PGDP projects and activities. They also assist in developing training programs for employees related to discharge/spill prevention and response. Field walkdowns and assessments are conducted as an oversight measure to ensure compliance with the SPCC Plan. Discharge prevention also is a key element of the work control planning for facilities that store or use oil and oil products.

### **2.2 PLAN CONFORMANCE—40 CFR § 112.7(a)(1)**

This SPCC Plan is written to comply with federal and state regulations requiring a written plan to prevent and respond to oil spills and releases. Spill and release prevention strategies are introduced in the SPCC Plan. The SPCC Plan also serves as a guide for PGDP personnel when responding to releases of oils or oil products. This SPCC Plan is maintained on-site, electronically, and at the C-300 Central Control Facility and is readily accessible for use in emergencies and agency inspections.

Review and evaluation of the SPCC Plan are required every five years per 40 CFR § 112.5(b). Reviews will be documented on the SPCC Plan Management Review Record, located near the front of this SPCC Plan. The SPCC Plan will be amended within six months of a change in the facility’s design, construction, operation, or maintenance that materially affects its potential for a discharge; the list of Incident Commander (IC) changes; the list of emergency equipment changes; or the SPCC Plan fails in an

emergency. Technical amendments to the SPCC will be reviewed and approved by a licensed professional engineer.

PGDP has containers, oil-filled electrical equipment, and other items containing oil or oil products with capacities of 55 gal or greater that are regulated under Resource Conservation and Recovery Act (RCRA) or Toxic Substances Control Act (TSCA). SPCCs addressing temporary waste storage/accumulation areas [e.g., generator storage areas, 90-day accumulation areas, and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) storage areas] for oil containing RCRA/TSCA-regulated waste items are described in procedures CP2-ER-1125, *Contingency Plan for Temporary Staging Areas at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*; CP3-WM-0016, *Waste Handling and Storage in DOE Waste Storage Facilities*; CP3-WM-0023, *Inspection of DOE Waste Storage Facilities and Tanks*; CP3-EP-1028, *Incident Command System*; CP3-WM-0034, *Polychlorinated Biphenyl Spill Management*; CP3-WM-1037, *Generation and Temporary Storage of Waste Materials*; and ISSC-ESH-IN-006, *Environmental Compliance Instructions*.

### **2.3 PLAN DEVIATIONS—40 CFR § 112.7(a)(2)**

This SPCC Plan does not deviate from the requirements of the rule. This plan follows and is aligned with the requirements of 40 CFR Part 112.

### **2.4 FACILITY LAYOUT—40 CFR § 112.7(a)(3)**

Appendix B includes figures and a table showing the locations of the oil and oil products at PGDP and provides information on the individual containers, their location with respect to site facilities, their capacity, the anticipated direction(s) of flow, and the outfall that oil most likely would migrate to during a spill. As part of the revision to the SPCC Plan, an oil inventory review was conducted in September 2023. The current oil and oil product capacity at PGDP is less than 1,000,000 gal. This inventory/capacity is described in the following subsections.

#### **2.4.1 Description of Oil Storage—40 CFR § 112.7(a)(3)(i)**

PGDP uses bulk oil and fuel storage tanks, large oil-filled electrical transformers, and other oil-filled equipment. All storage tanks are labeled according to criteria set forth in Occupational Safety and Health Administration (OSHA) 29 CFR § 1910.1200. All major storage tanks either are diked or of double-wall construction for spill control. In accordance with applicable regulatory requirements, hazardous waste accumulation areas also use containment dikes and other material control provisions.

As part of the ongoing activities at PGDP to remove hazardous materials, including various oil products, a number of tanks and other containers have been emptied and are not anticipated to be used again. Tanks and containers that have been closed permanently<sup>1</sup> are not included in the inventory of oil storage containers. Those tanks and containers that are empty, but not yet closed permanently, are included in the inventory. Although there may be residual material in these tanks or containers, the volume associated with these tanks or containers is unlikely to migrate to navigable waters. Tanks that are closed permanently in the future will be removed from the inventory in subsequent revisions to this plan.

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<sup>1</sup> Per 40 CFR § 112.2, permanently closed means any container or facility for which: (1) all liquid and sludge has been removed from each container and connecting line; and (2) all connecting lines and piping have been disconnected from the container and blanked off, all valves (except for ventilation valves) have been closed and locked, and conspicuous signs have been posted on each container stating that it is a permanently closed container and noting the date of closure.

The total oil and oil product capacity is 614,202 gal. An inventory of oil storage containers, including volumes and quantities, is provided in Appendix B, Table B.1. Locations are shown in Figure B.1.

Two 420,000-gal tanks (C-601-A and C-601-B) are located at the non-operational C-600 Steam Plant Area. The C-601-A tank was permanently closed on September 21, 2023, and has been removed from the oil inventory and figures shown in Appendix B. The C-601-B tank was built to American Petroleum Institute (API) Standard 650. The C-601-B tank was used to charge a 500-gal day tank, which is connected to the C-600-A Number 1 package boiler that can operate on fuel oil. The 500-gal day tank is double-walled with no dike. Both tanks are located within a 675,000-gal capacity containment structure consisting of an earthen dike lined with a synthetic material impervious to oil. The C-601-B tank contains approximately 42,000 gal of fuel oil with no future plans for use. Removal of the fuel oil is currently ongoing and anticipated to be completed by the end of calendar year (CY) 2023. The C-601-B tank inventory represents the largest single accumulation of oil at the site and the highest risk for an impact from a potential release.

Two aboveground storage tanks (ASTs) are located at the C-752-B Refueling Station, which serves as a satellite refueling station for mobile plant equipment (Appendix B, Table B.1, and Figure B.1). The two 4,000-gal Underwriters Laboratories Inc.<sup>®</sup> (UL<sup>®</sup>)-listed, double-wall tanks are located on the concrete-bermed C-752-B Refueling Station pad. Each tank contains an interstitial leak detection device, which is a continuous monitor with visible and audible alarms. Both tanks have a capacity of 4,000 gal; however, each tank is split internally into a 3,000 gal and a 1,000-gal tank to allow the tank to hold two different types of fuel at the same time. One tank contains E85 and unleaded gasoline; the other tank contains on-road and off-road diesel. The second wall of the tanks is sufficiently impervious to contain oil per 40 *CFR* § 112.7(c)(1)(i) requirement for secondary containment. Absorbent materials are available as a backup/defense in depth. Two 1,000-gal gasoline ASTs are located at C-333 and C-337 (Appendix B, Table B.1, and Figure B.1). The tanks are designed with double-wall construction and leak-detection monitors for the interstitial space; each AST is also equipped with an overfill prevention valve or a mechanical vent whistle overfill alarm. Fuel facility personnel monitor the filling operations to identify potential for and prevent overfills. Site procedures control loading activities, which include safety precautions such as the use of drip pans; site personnel continuously monitoring loading operations; leak inspection of valves, connections, and the ground surface during and after loading occurs; and fuel facility personnel monitoring filling operations to ensure there are no overfills.

Fuel facility personnel monitor the filling operations for the diesel ASTs (Table B.1 and Figure B.1 in Appendix B include the specific capacity and status of each of these tanks) to identify potential for and prevent overfills. The tanks are designed either with double-wall construction with leak detection monitors for the interstitial space or have diked secondary containment. The tanks are filled via tanker truck; the location where fuel is transferred from the tanker truck is not diked. Personnel are instructed to use drip pans or buckets under connections to capture any released material during transfer. Additionally, site personnel provide continuous monitoring of the transfer operation, adhering to controlling procedures.

Two fuel tanks are located at C-746-U. The 1,000-gal and 500-gal tanks are located outside at C-746-U. Each system consists of a primary steel tank, secondary containment, steel tank, and insulation material. The C-746-U fuel tanks are empty, and equipment is currently being refueled by a mobile refueler. The C-746-U area, including the location of the diesel and gasoline tanks, drains to a man-made sedimentation basin with a maximum design capacity of 3,750,000 gal. Runoff of precipitation is accumulated in the sediment basin and manually discharged directly to Outfall 019 when the basin nears capacity. The accumulated water is examined before discharge to Outfall 019 to ensure that no oil is discharged. The basin is discharged and monitored for compliance against Kentucky Pollutant Discharge Elimination System (KPDES) permit conditions.

The C-531, C-533, C-535, and C-537 switchyards are no longer operational. Transformers and oil circuit breakers located at C-531, C-533, C-535, and C-537 have been drained. Storage tanks and piping for the transformers and oil circuit breaker oils at C-540 and C-541 have been drained.

While not considered bulk storage tanks, electrical transformers, circuit breakers, and other electrical devices located at PGDP are listed in Appendix B (Table B.1 and Figure B.1), with the specific capacity of each of these equipment types since they are considered oil-filled operational equipment. The equipment is located outdoors. Some electrical equipment does not have secondary containment due to electrical hazards associated with accumulated water. If required, oil is delivered to these tanks by tanker truck. Transformer areas, including tanker truck loading/unloading areas, do not have secondary containment dikes. The equipment is qualified, oil-filled operational equipment, as defined in 40 *CFR* § 112.2; additional discussion is included in Section 2.16.

The Tennessee Valley Authority has constructed a substation on PGDP (facility designation C-538). PGDP inventory reflects the containers, contents, and volumes associated with this facility, which includes two 5,054-gal capacity transformers and six 121-gal capacity metering transformer units. This equipment is qualified, oil-filled operational equipment, as defined in 40 *CFR* § 112.2; additional discussion is included in Section 2.16. The C-538 transformers have oil containment pits that drain to a 19,530-gal capacity oil containment pit. The C-538 substation drains to KPDES Outfall 010, which is equipped with an inverted pipe dam designed to permit the passage of water, but contain floating materials such as mineral oil. The dam is designed to overflow only during severe rainstorms and will provide effective oil containment during moderately heavy rains. The equipment within the C-538 facility is owned by DOE but is maintained and inspected by TVA.

Hazardous Waste Management Facility Permit KY8-890-008-982 applies storage capacity restrictions to the three permitted waste storage facilities at C-733, C-746-Q, and C-752-A. All three facilities have secondary containment and are permitted to store waste oils. The C-733 facility is a partially enclosed facility that has a maximum container storage capacity of 38,500 gal, a secondary containment capacity of 27,900 gal, and can store all hazardous waste as listed in the permit. The C-746-Q facility maximum waste storage capacity is 306,240 gal, with a secondary containment capacity of 58,396 gal; C-746-Q can store all wastes listed in the permit, except for Hazardous Waste Code D001. No ignitable wastes can be stored at C-746-Q. The C-752-A facility has a maximum container storage capacity of 496,000 gal, with a secondary containment capacity of 408,800 gal. All waste streams can be stored at C-752-A, except for flammable wastes with a flash point < 100°F. Ignitable wastes may be stored at C-752-A with a flashpoint between 100°F and 140°F. The permitted storage facilities capacities are not counted as capacity because oil-filled containers stored in the permitted storage facilities are included separately in the inventory (Appendix B, Table B.1, and Figure B.1).

The process building lube oil systems for C-331, C-333, C-335, and C-337 process buildings have been drained and were permanently closed on September 7, 2023. These systems have been removed from the Appendix B oil inventory and figures. Each process building lube oil system has one location where oil was added into the system. The fill-line piping for each system was capped, the valves were locked, and signs were placed on the process buildings stating that the lube oil systems are permanently closed and listing the closure date. Furthermore, the motor couplings for all process lube and hydraulic system pumps have been removed. Suction piping has been removed to the hydraulic pumps and sight glasses. Holes were drilled at system low points and the drain tank flanges were removed to facilitate system drainage and to ensure that no accumulation of oil could occur. Funnels located on the cell floor and that were previously used to return accumulated oil from maintenance or housekeeping activities to the lube oil systems are locked. The lube oil systems in C-315 Surge and Waste Building and C-310 Purge and Product Building have not been permanently closed.

Heavy equipment may be staged between projects at C-759 in the center of PGDP. This storage yard drains to Outfalls 001 and 015. Equipment staged for long periods will be drained of oil/oil products to the extent practical prior to placing in storage.

Heavy equipment may be stored in the C-740 and C-741 yards that drain to Outfall 008. Heavy equipment also may be staged at C-360-A, C-750 and C-755. The C-360-A storage area is located on the east side of the plant and drains to Outfall 002. The C-755 storage area is located on the east side of the plant and drains to Outfalls 002 and 010. The C-750 storage area is located in the center of the plant and drains to Outfall 008. These outfalls are equipped with inverted pipe dams. Spilled materials from these areas will be contained and collected upstream from the inverted pipe dams.

Other tanks and equipment on-site that typically contain 55 gal (or greater) of oil products include mobile equipment/vehicles, temporary inventory for short-term projects (e.g., emulsified vegetable oil for *in situ* bioremediation), and temporarily located equipment (e.g., generators). In addition, fuel tanker trucks periodically come on-site to refill on-site tanks and equipment. These mobile and temporary items range over a wide on-site area or are not at one location for a substantial period of time. When practical, temporary storage of equipment is done on temporary secondary containment. Transfer of fuel and fueling of mobile vehicles/equipment is performed over drip pads/pans to the extent practical. Table B.2, included in Appendix B, will be updated and appended to the SPCC (as appropriate) to provide listings of temporary items subject to this SPCC Plan.

#### **2.4.2 Discharge Prevention Measures—40 CFR § 112.7(a)(3)(ii)**

The handling of oil and oil products is addressed in policies, programs, procedures, and work control documents. Discharge prevention measures begin with management commitment to prevent discharges that may harm workers, the public, or the environment. Workers are trained to perform oil/oil product loading, unloading, and transfers in accordance with management-approved procedures and to recognize and appropriately respond to leaks, spills, and releases.

The C-601-B tank and other site ASTs have compliant secondary containment, either through dikes/curbing or double-wall construction. Additionally, some tanks are equipped with overfill prevention valves.

Larger site storage tanks generally are filled via tanker truck from a local vendor. Fuel oil is delivered to small fuel tanks dispersed throughout the site to provide fuel for emergency generators. The areas where the tanker or transfer trucks sit during offloading are not diked; therefore, personnel are instructed to use drip pans or buckets under connections to capture any released material during transfer. Additionally, site personnel provide continuous monitoring of the transfer operation, adhering to controlling procedures.

The gasoline ASTs located at C-333 and C-337 are equipped with a mechanical vent whistle overfill alarm. Fuel facility personnel monitor the filling operations to ensure there are no overfills. The area where the tanker truck sits during transfer of fuel is not diked.

The C-752-B Refueling Station tanks are contained by a 7,400-gal capacity, bermed concrete pad. The C-752-B Refueling Station has spill detection alarms and automatic shut-off devices. There is a floating valve inside each of the internal tanks that engages a gate valve to physically close and automatically stop fuel transfer at 95% of tank capacity. In the event of a valve malfunction, multiple alarms sound in C-752-B-T01 Refueling Station Trailer that fuel has entered the 5-10% free space, and automatic email notices are sent to a specified list of individuals. The area where the tanker truck sits during transfer of fuel is not diked; however, the delivery truck is designed with secondary containment around the hose connections, and there is secondary containment where the hoses are connected to the tanks.

### 2.4.3 Discharge or Drainage Controls—40 CFR § 112.7(a)(3)(iii)

Secondary containment areas located outside will hold at least 110% of the largest tank in the containment area. This will allow enough containment capacity for both expected rainfall and the entire contents of the tank. Secondary containment areas located inside the buildings will hold 100% of the largest tank in the containment area.

The operational electrical transformers and circuit breakers located at PGDP are listed in Appendix B; these are qualified, oil-filled operational equipment, as defined in 40 CFR § 112.2. This equipment is located outdoors. Some electrical equipment does not have secondary containment due to electrical hazards associated with accumulated water. Additional discussion is included in Section 2.16.

Procedures establish the administrative controls and provide requirements and processes that govern installation, inspections, and generation of secondary containment systems. Each facility manager/operating group has the responsibility to control its environment and operations in such a manner as to prevent spills and discharges. To assist personnel in preventing spills or minimizing the effects of spills, procedures and work control documents are prepared for operation of equipment, handling of materials and wastes, and cleanup and containment of spills. Inspection techniques and frequencies for bulk storage containers, equipment, and containment dikes also are specified in procedures, work control documents, or other guidance. Records of these inspections are maintained in accordance with CP2-RD-0001, *Records Management Plan for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, for a minimum of at least three years.

Procedures control the filling and transfer of oil products, as discussed in Section 2.4.2. Inverted pipe dams designed to permit the passage of water but contain floating materials, such as oil, have been constructed in the drainage ditches flowing to Outfalls 001, 002, 008, 009, 010, and 015. The dams are designed to provide effective oil containment and prevent oil from reaching Bayou or Little Bayou Creeks. Furthermore, should a discharge reach a drainage ditch, inflatable pipe stoppers are available to fit any of the culverts in these ditches. Discharges can be contained within PGDP, if acted upon quickly. Booms and absorbent pads used to cleanup spills on-site also can be used to prevent off-site release when used in the creeks in the unlikely event a spill reaches the creeks. If it is determined that there is no longer a potential for release of floating materials upstream from the outfalls, then these inverted pipe dams can be removed.

Outfalls, except Outfall 019 and Outfall 020,<sup>2</sup> are checked per CP4-UT-0405, *Utilities Routine Duties, Checks, and Inspections*, with requirements to check for oil sheen. Outfall 019 is checked per CP4-WM-0620, *Management of the C-746-U Sedimentation Pond*, prior to discharge. The procedure CP4-UT-0405 also provides for the inspection and draining of storage tank containment dikes. Checking for evidence of a spill, such as sheen, leak, or discoloration, is required, and the integrity of the dike, including drain piping, valve, and cap/plug, is visually inspected. The results of the inspections are noted on the area Narrative Log. If the diked area shows evidence of a spill, the dike is not to be drained, and the Plant Shift Superintendent (PSS) is called to determine the path forward with appropriate input from Environmental Field Compliance.

### 2.4.4 Countermeasures, Response, and Cleanup—40 CFR § 112.7(a)(3)(iv)

Plant procedures contain the reporting process to be followed should a spill occur. All spills are to be reported immediately to the PSS. The PSS activates the field emergency response organization (ERO). An IC directs the emergency containment of any spill that may egress the building or immediate area or have

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<sup>2</sup> Outfall 020 receives only treated leachate from the C-764-U Landfill operations.

the possibility of entering the environment and also direct cleanup operations. The PSS determines reportability of any spill with assistance from the Environmental Field Compliance Manager as needed.

PGDP operates 24 hours a day, 7 days a week, with ERO personnel on duty during this time. The Fire Services and Protective Force personnel are on duty, and each organization will perform its appropriate duties during an emergency situation. While members of the Emergency Operations Center are not on duty 24 hours a day, 7 days a week, they are on call during off-shift hours and carry cell phones for emergencies. Oil response equipment at PGDP includes an oil skimmer, containment booms, and other miscellaneous equipment to help support an oil spill emergency.

Response to oil spills is controlled by CP3-ES-0003, *Environmental Incident Reporting*, CP3-EP-1028, *Incident Command System*, and this SPCC Plan. Upon the reporting of a spill/discharge, the PSS serves as or appoints the on-scene IC. The IC will direct the emergency containment of any spill/discharge that may egress a building or immediate area or have the possibility of entering a plant drainage ditch. The PSS has the authority to call for assistance from Mutual Aid Agencies as required. Emergency response personnel, spill cleanup equipment, communication systems, and external agency coordination are maintained and available on-site to respond to spills/releases.

Upon discovery of any spill that may egress the building or immediate area or have the possibility of entering the environment, the following immediate actions shall take place.

- Person discovering spill will notify the PSS.
- PSS will notify the ERO to report to the spill area.
- All unnecessary personnel will be evacuated from the area.
- Efforts to shut off the source of the spill or to contain the spill within the area where the spill initiated will be attempted.
- PSS will dispatch ERO personnel to the outfall that will be affected by the spill, if appropriate.
- Oil booms will be placed across the outfall to contain the spill, if appropriate.
- Outfalls may be plugged with devices, if necessary, to prevent any flow of spilled material through the inverted pipe dams.
- Depending on the size of the spill, sources of surface and process water to the particular outfall will either be slowed or stopped.
- Notifications to regulatory and company authorities, as necessary, will be made by the PSS or designee as part of the immediate response actions.

Following containment, the cleanup of spill/discharge materials may be accomplished by using portable pumps, containers, and other equipment and materials. All cleanup wastes generated will be managed properly and disposed of in accordance with applicable regulations and PGDP procedures. The IC will follow this SPCC Plan and supporting procedures. The PSS tracks spills because the reportable quantity (RQ) is based on a 24-hour period. Spill emergency response includes collection and containment of spilled material, whereas emergency response under OSHA is limited to the containment of spilled material. Because the PGDP emergency management organization is based on OSHA requirements, containment of a spill to the environment would be conducted by designated ERO personnel. Collection of the spilled

material and residues may be conducted by other plant organizations, as required. Spills within indoor containment areas will be contained by the project. The PSS directs containment, treatment, and cleanup activities, with the assistance of other plant groups, until properly relieved of his duty. PGDP has a number of agreements with local and regional entities to provide and/or share support during emergency situations. The IC requests outside assistance in accordance with CP3-EP-1012, *Off-site Emergency Response Assistance*.

An emergency response vehicle maintained by Fire Services contains absorbent pads, pillows, booms, sewer plugs, and sewer grating covers that may be used to contain and cleanup spilled chemicals or oil from the ground, drainage ditches, or surface waters. Additionally, a dedicated, enclosed, emergency response trailer containing extra spill containment and cleanup equipment is maintained at the Paducah Site. Floating plastic booms may be used to divert or contain the flow of oil or oil products on surface waters to facilitate cleanup. Self-contained breathing apparatus cylinders in the emergency response vehicle supply the inflating gas. Various operating groups at the Paducah Site also stock spill cleanup supplies for smaller, localized response to spill containment. Cleanup materials are kept at locations throughout PGDP near tanks and equipment listed in Appendix B. PGDP maintains poly tanks for spill control operations and other containers that could be used in an emergency.

#### **2.4.5 Disposal of Recovered Materials—40 CFR § 112.7(a)(3)(v)**

Management of waste materials associated with an oil spill is conducted per CP3-WM-1037, *Generation and Temporary Storage of Waste Materials*, and ISSC-ESH-PR-005, *Storage and Disposition of Spent Materials*. Materials generated from a spill response may include wastes such as unusable product; personal protective equipment (PPE); wastewater from decontamination; and RCRA-hazardous, PCB, radioactive, or mixed wastes. Wastes transferred or moved within the facility boundary to respond to the release will not require permits but must be transported in accordance with procedure CP3-WM-2110, *Waste Container Handling, Overpacking, and Transportation*. Wastes being shipped for off-site treatment and disposal will be transported in accordance with applicable state and federal U.S. Department of Transportation and environmental regulations.

Decontamination of equipment will be conducted near the spill site. A temporary decontamination facility will be constructed by placing an impermeable membrane on the ground (e.g., Hypalon), diking the perimeter of the membrane, and, if necessary, constructing curtains to contain water spray. Depending on the product, several techniques for decontaminating equipment will be employed. These techniques may include hand washing with water and detergents or power washing with water and detergents.

After spill containment, product will be salvaged, if possible, and returned to bulk storage for reuse. If salvage is not possible or if the product has been mixed with other liquids such as fire suppressants or water, liquids will be pumped into containers and characterized to determine disposal alternatives. Waste liquids will be characterized pursuant to RCRA requirements and, if necessary, be analyzed for RCRA constituents, PCBs, and radionuclides. Material classified as hazardous waste will be disposed of pursuant to RCRA requirements. Because of the potential for radionuclide contamination, additional characterization would be needed for off-site disposal.

Liquid wastes that are not hazardous (e.g., water used for decontamination) will be containerized. Disposal options may include, but will not be limited to, treatment at PGDP's wastewater treatment plant, or treatment off-site.

All PPE and adsorbents will be containerized and characterized pursuant to RCRA requirements. If necessary, these materials will be analyzed for RCRA constituents, PCBs, and radionuclides. Disposal



options may include, but will not be limited to, on-site treatment for discharge, disposal as solid waste in the on-site C-746-U Contained Landfill, on-site hazardous waste treatments, or off-site treatment/disposal.

Contaminated soils generated from the response activities will be characterized pursuant to RCRA. If necessary, soil will be analyzed for RCRA constituents, PCBs, and radionuclides. Disposal options for soil may include, but will not be limited to, bioremediation, thermal treatment, incineration, or disposal as solid waste in a contained landfill.

#### **2.4.6 Contacts—40 CFR § 112.7(a)(3)(vi)**

Upon discovering a spill or release of petroleum or petroleum products, PGDP personnel are required by plant policy to contact the PSS via one of the following methods.

- **Plant Telephone System**—Plant telephones are located throughout PGDP. An emergency situation can be reported to the PSS at the C-300 Central Control Facility by dialing the PSS emergency phone number at (270) 441-6333 or by dialing 333 on the plant’s telephone system and stating: “This is an emergency.”
- **Radios**—Two-way radios are used by the PSS, Fire Services, Protective Force, and other response personnel to aid in emergency communication. Any radio at PGDP can be used to summon emergency assistance by using the dedicated emergency channel (Channel 16). The C-300 Central Control Facility monitors the dedicated radio channel used to report emergencies.
- **Public Address (PA) System**—The PA system is used to communicate emergency instructions to personnel who are located inside facilities with a PA system. The PSS is in charge of all announcements made on the PA system.
- **Cellular Telephones**—Managers, technical staff, and supervisors who carry cellular phones are trained to call emergency numbers as needed.
- **Messenger**—A messenger may be sent to the C-300 Central Control Facility to notify the PSS of an emergency, if this presents a faster means of notification.

The ERO is a structured organization with overall responsibility for emergency response and mitigation. The ERO consists of experienced and trained personnel with overall responsibility for emergency response and mitigation. These personnel are specially trained to respond to different types of emergencies including oil and hazardous substances discharges. The ERO establishes effective control at the scene of an event/incident and integrates ERO activities with those of local agencies and organizations that provide on-site response services. An adequate number of experienced and trained personnel, including designated alternates, are available on demand for timely and effective performance of ERO functions. The ERO members are required to participate in formal training (initial and refresher), drills, and exercises. Site-level ERO elements and resources participate in a minimum of one exercise annually.

During an actual emergency involving the discharge of oil that migrates from the facility and violates the requirements of Section 311 of the Clean Water Act (CWA), the PSS or designee will make the required notifications and complete the Oil Spill Response Notification Form as required by CP3-ES-0003, *Environmental Incident Reporting*, or ISSC-ESH-PR-008, *Accident Incident Reporting*, and ISSC-ESH-IN-006, *Environmental Compliance Instructions*. Required notifications will include the organizations identified in Table 1.

**Table 1. Emergency Notification Phone List—Required Notifications**

<b>Facility Name:</b>	<b>PGDP</b>
<b>Owner Name:</b>	<b>U.S. Department of Energy</b>
<b>Facility Identification Number:</b>	<b>110060257671</b>
<b>Organization</b>	<b>Phone Number</b>
U.S. Department of Energy, PGDP	(270) 441-6800
After Hours Phone	On File with PSS
National Response Center (NRC)	(800) 424-8802
Kentucky Environmental Response Team	(502) 564-2380
Alternate	(800) 928-2380
Kentucky Emergency Response Commission	(800) 255-2587
Kentucky Department for Environmental Protection (KDEP), Paducah Regional Field Office	(270) 898-8468
Local Emergency Planning Committee:	
McCracken County Office of Emergency Management	(270) 448-1530
Ballard County Office of Emergency Management	(270) 665-9928
After Hours	911
<b>Date of Last Update: September 2023</b>	

Organizations that might be notified in the event of an oil or hazardous substance release are identified in Table 2.

**Table 2. Emergency Notification Phone List—Potential Notifications**

<b>Facility Name:</b>	<b>PGDP</b>
<b>Owner Name:</b>	<b>U.S. Department of Energy</b>
<b>Facility Identification Number:</b>	<b>110060257671</b>
<b>Organization</b>	<b>Phone Number</b>
U.S. Department of Energy (DOE), Headquarters Emergency Operations Center	(202) 586-8100
U.S. Environmental Protection Agency (EPA) Region 4, Air and Remediation Division Leave voice mail, if necessary	(404) 562-9077
Kentucky State Fire Marshall	(502) 573-0382
McCracken County Sheriff's Department	(270) 444-4719
National Weather Service (NOAA Weather Radio) Alternate	(270) 744-6440 (800) 533-7189
Massac County Illinois Emergency Management Agency (Day) After Hours (Massac County Illinois Sheriff's Department)	(618) 524-2002 (618) 524-2912
Illinois Emergency Management Agency Response	(800) 782-7860
U.S. Coast Guard (Paducah Branch)	(270) 442-1621
Illinois-American Waterworks (Cairo, Illinois)	(800) 422-2782
Olmsted Locks and Dam	(618) 748-6403
Electric Energy Incorporated (Joppa, Illinois)	(618) 543-7531
<b>Date of Last Update: September 2023</b>	

## 2.5 DISCHARGE REPORTING—40 *CFR* § 112.4 and 40 *CFR* § 112.7(a)(4)

The PSS or designee will make the required notifications and complete the oil spill response notification form for any size discharge that involves a discharge of oil that migrates from the facility and violates the requirements of Section 311 of the CWA, as required by CP3-ES-0003, *Environmental Incident Reporting*, or ISSC-ESH-PR-008, *Accident Incident Reporting*, and ISSC-ESH-IN-006, *Environmental Compliance Instructions*. CP3-ES-0003 includes an oil spill response notification form, CP3-ES-0003-F02, which requires the PSS to report the following information:

- Name, location, organization, and telephone number;
- Name and address of the party responsible for the incident;
- Date and time of the incident;
- Location of the incident;
- Source and cause of the release or discharge;
- Types of material(s) released or discharged;
- Quantity of materials released or discharged;
- Media affected or threatened by the discharge (e.g., water, land, air); and
- Any other information that may help emergency personnel respond to the incident.

In addition to the reporting requirements listed in form CP3-ES-0003-F02, 40 *CFR* § 112.4 requires that information be submitted to the EPA Regional Administrator and KDEP whenever PGDP discharges more than 1,000 gal of oil in a single discharge, as described in 40 *CFR* § 112.1(b), or a discharge of more than 42 gal of oil in each of two discharges, as described in 40 *CFR* § 112.1(b) that occur within any 12 month period, the following information shall be submitted to the Regional Administrator within 60 days.

1. Name of the facility
2. Name(s) of the owner or operator of the facility
3. Location of the facility
4. Date and year of initial facility operation
5. Maximum storage or handling capacity of the facility and normal daily throughput
6. A complete copy of the SPCC Plan with any amendments
7. Corrective action and countermeasures taken, including a description of equipment repairs and/or replacements
8. An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary
9. The cause of such discharge as described in 40 *CFR* § 112.1(b), including a failure analysis of the system or subsystem in which the failure occurred
10. Additional preventive measures taken or contemplated to minimize the possibility of recurrence
11. Other information the Regional Administrator may reasonably require pertinent to the plan or discharge

## 2.6 DISCHARGE RESPONSE—40 CFR § 112.7(a)(5)

Discharge response was previously described in the PGDP FRP. With the reduction of oil inventory capacity below 1,000,000 gal, an FRP is no longer required for PGDP. Discharge response actions are now located in this section of the SPCC. Oil spill response actions are also addressed in Section 2.4.4 of this plan. The spill scenarios discussed within this section include the C-601-B tank since this tank is not permanently closed; however, a spill from the C-601-B tank is highly unlikely given that the tank contains approximately 42,000 gal of fuel oil with no future plans for use. Removal of the fuel oil is currently ongoing and anticipated to be completed by the end of CY 2023

PGDP maintains an adequate amount of emergency equipment to provide response to a small (< 2,100 gal), medium (> 2,100 gal and < 36,000), or worst-case discharge ( $\geq$  420,000 gal) that is contained in the constructed oil control structures prior to discharge from the facility. Because the response resources necessary for responding to a small, medium, or worst-case oil discharge are stored and maintained at PGDP, response and emergency mitigation activities can take place immediately.

Emergency response personnel, which includes Fire Services and Protective Force personnel, are on duty 24 hours a day, 7 days a week, and each organization will perform its appropriate duties during an emergency situation. While members of the emergency operations center are not on duty 24 hours a day, 7 days a week, they are on call during off-shift hours and carry cell phones for emergencies. Oil response equipment at PGDP includes an oil skimmer, containment booms, and other miscellaneous equipment used to help support an oil spill emergency.

The emergency equipment is maintained in operable and ready conditions at all times for any emergency response activity at PGDP. Maintenance of emergency facilities and equipment is described in CP3-EP-1004, *Maintenance of Emergency Facilities and Equipment*. Scheduled inspections will be performed routinely and at the appropriate frequency, as indicated in Section 2.10.1.

An oil spill has the potential to be released into any of the outfalls around the Paducah Site that discharge surface and process waters. None of these outfalls that discharge water, the tributaries into which they flow, or Bayou and Little Bayou Creeks are deep enough or wide enough to handle boats during a spill response. All spill response activities to these areas will be completed by vehicle and cleanup activities will be conducted from the shore.

Oil spill response actions are controlled by CP3-ES-0003, *Environmental Incident Reporting*, CP3-EP-1028, *Incident Command System*, and this SPCC Plan. Upon discovery of a release of oil, the following immediate actions shall take place.

- Person discovering the spill shall notify the qualified individual (QI); the PSS serves as the QI.
- QI will notify the ERO to report to the spill area.
- All unnecessary personnel will be evacuated from the area.
- Efforts to shut off the source of the spill or to contain the spill within the area where the spill initiated will be attempted.
- QI will dispatch appropriate ERO personnel to the outfall that will be affected by the spill, if appropriate.
- Oil booms will be placed across the outfall to contain the spill, if appropriate.

- Outfalls may be plugged with devices, if necessary, to prevent any flow of spilled material through the inverted pipe dams.
- Depending on the size of the spill, sources of surface and process water to the particular outfall will either be slowed or stopped.
- Notifications to regulatory and company authorities, as necessary, will be made by the QI or designee as part of the immediate response actions.

### 2.6.1 Small Discharge

A small discharge (< 2,100 gal) can initiate from several areas in the plant including the C-601-B fuel oil tank, the C-752-B Refueling Station, and the C-538 Substation switchyard. This type of small spill could flow to a particular outfall, depending on the location of the spill. Several of the PGDP outfalls have inverted pipe dams installed to prevent the flow of oil to the flume and to contain the oil on-site prior to reaching Bayou or Little Bayou Creeks. Oil booms would be placed across the outfall to prevent oil from entering Bayou or Little Bayou Creeks. An oil skimmer could be used with other oil absorbents to remove floating oil from the surface of the water. The oil can be collected in 55-gal drums, 1,200-gal polyethylene tanks, or other containers as necessary.

### 2.6.2 Medium Discharge

A medium discharge for the purposes of this plan has been determined to be < 36,000 gal. This type of discharge would be from the C-601-B fuel oil tank area, C-752-B Refueling Station, or the C-538 switchyard. Any spill from these areas could drain to an outfall that is equipped with an inverted pipe dam. As with the small discharge, all activities will take place on the shore of the outfall. Oil booms would be placed across the outfall in such a manner as to prevent oil from flowing into Bayou or Little Bayou Creek. An oil skimmer could be used with other oil absorbents to remove floating oil from the surface of the water. The oil can be collected in 55-gal drums, 1,200-gal polyethylene tanks, or other containers as necessary.

### 2.6.3 Worst-Case Discharge

The worst-case discharge of 420,000 gal would be a full release of the C-601-B fuel oil tank and a complete failure of its secondary containment system. This discharge would migrate to Outfall 008. All available spill response resources to prevent the oil from flowing into Bayou Creek would be used at the direction of the QI. All water sources that drain to Outfall 008 will be slowed or stopped. Booms will be placed across Outfall 008 to prevent migration of the spill. Outfall 008 can be plugged at the inverted pipe dam to prevent the flow from entering Bayou Creek. In the unlikely scenario that an oil discharge is not contained on-site by the pre-existing oil control structure constructed to retain oil on plant property, the QI will direct containment and recovery of the oil migrating to Bayou or Little Bayou Creeks or the Ohio River. The QI has the authority to call for assistance from mutual aid agencies.

## 2.7 POTENTIAL EQUIPMENT FAILURE—40 CFR § 112.7(b)

Table B.1, included in Appendix B, contains listings of major equipment where there is a potential for failure that would result in a release of oil or hazardous materials. The table includes equipment description, location, capacity, secondary containment capacity for equipment (if applicable), anticipated flow rates, and plant outfalls most likely to be impacted. Figure B.1, included in Appendix B, depicts the anticipated direction of flow of a spill and the direction of flow for the plant drainage systems and outfalls.

The largest oil inventories at PGDP are associated with the C-601-B fuel oil tank, the C-752-B Refueling Station, and the C-538 switchyard. The C-601-B tank is located within secondary containment with a capacity of 675,000 gal. The switchyard tanks are qualified, oil-filled operational equipment as defined in 40 *CFR* § 112.2. The C-538 switchyard transformers have oil containment pits that drain to a 19,530-gal capacity oil containment pit.

Oil check inverted pipe dams have been installed in ditches leading to outfalls 001, 002, 008, 009, 010, and 015 to reduce the potential for discharges of the oil or oil products discussed above to enter Bayou Creek or Little Bayou Creek via outfall drainage ditches. Outfall 019 includes sufficient holdup capacities to allow removal of visible oil sheens prior to discharge. Table B.1, included in Appendix B, indicates the most likely outfall that such discharges would enter. Flow rates of a discharge would vary according to the size and location of the discharge and the weather conditions at the time, with flow estimates included in Table B.1. Outfalls, except Outfall 019 and Outfall 020,<sup>3</sup> are inspected for evidence of oil and maintained in accordance with CP4-UT-0405, *Utilities Routine Duties, Checks, and Inspections*. Outfall 019 is checked per CP4-WM-0620, *Management of the C-746-U Sedimentation Pond*, prior to discharge.

## 2.8 SECONDARY CONTAINMENT—40 *CFR* § 112.7(c)

Oil storage tanks at PGDP are provided with secondary containment dikes that are constructed to be impervious to the materials stored or have double-wall construction to provide secondary containment. Typically, the dikes are concrete and painted or otherwise sealed. Descriptions of the secondary containment for the tanks are provided in Section 2.4.1 and in Appendix B, Table B.1. Secondary containment areas located outside are designed to hold at least 110% of the largest tank in the containment area. This will allow enough containment capacity for both expected rainfall and the entire contents of the tank. Secondary containment areas located inside buildings are designed to hold 100% of the largest tank in the containment area.

For equipment or other containers without engineered secondary containment, such as areas where tanks are filled by vendor tanker trucks, best practices are used to limit the potential for release. Spill prevention techniques will be employed during all filling activities to include continuous visual attention to fill efforts, use of drip pad or pans under valves and connections, and final checks for leaks prior to the tanker exiting the site. Similarly, drip pad or pans, buckets, or other sorbent materials are staged at accessible locations to support oil transfers and other activities with potential to release oil.

The two 1,000-gal tanks at C-333 and C-337 are of double-wall construction with leak detection monitors for the interstitial space.

The 1,000-gal and 500-gal tanks located outside at C-746-U are manufactured by ConVault<sup>®</sup> and are UL<sup>®</sup> listed. Each system consists of a primary steel tank and secondary containment that consists of a 30-mil (0.78-millimeters)-thick polyethylene membrane that encloses the steel tank and insulation material. The primary steel tank and the secondary containment are encased in 6 inches of reinforced concrete, but no steel or insulating material comes in contact with the concrete. The tanks located at the C-746-U Landfill are provided with a UL<sup>®</sup>-listed spill containment system, which includes a normally closed valve used to release any spilled product from refilling into the primary steel tank. The C-746-U area, including where the diesel and gasoline tanks are located, drains to a man-made containment lagoon. Runoff of precipitation is accumulated in the sediment basin and manually discharged directly to Outfall 019 when it gets near full

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<sup>3</sup> Outfall 020 receives only treated leachate from the C-764-U Landfill operations.

and KPDES permit conditions can be met. The accumulated water will be examined before discharge to Outfall 019 to ensure that no oil will be discharged.

The two 4,000-gal steel tanks at C-752-B Refueling Station are UL<sup>®</sup>-listed, double wall, and staged on a bermed concrete pad. These two tanks are split internally into 1,000 and 3,000 gal sections. The second wall of the tanks is sufficiently impervious to contain oil per 40 *CFR* § 112.7(c)(1)(i) requirement for secondary containment. Additional containment is provided by the bermed concrete pad [40 *CFR* § 112.7(c)(1)(iii)] and absorbent materials [40 *CFR* § 112.7(c)(1)(viii)] are available as a backup/defense in depth. Appropriate and nonexpended absorbent devices will be used as needed to ensure that only clean water is discharged. A spill collection pad along with spill collection devices (pans, pads, etc.) also may be used at the dispensing pumps to help ensure that oily products do not impact the environment if a spill occurs. Operational electrical transformers, circuit breakers, and other electrical devices located at PGDP are listed in Appendix B and are qualified, oil-filled operational equipment as defined in 40 *CFR* § 112.2. This equipment is located outdoors. Some electrical equipment does not have secondary containment due to electrical hazards associated with accumulated water. Additional discussion is included in Section 2.16.

Areas such as tanker truck loading/unloading areas and piping also do not have secondary containment dikes. These tanker truck loading/unloading areas do, however, flow into facility drainage systems that are equipped with engineered, oil diversion/retention structures.

Inverted pipe dams designed to permit the passage of water but contain floating materials, such as oil, have been constructed in several PGDP drainage ditches. The dams are designed to provide effective oil containment and were installed on ditches to Outfalls 001, 002, 008, 009, 010, and 015 to contain the oil on facility property and prevent it from reaching Bayou or Little Bayou Creeks. If it is determined that there is no longer a potential release of floating materials upstream from the outfalls, then these inverted pipe dams can be removed.

Hazardous Waste Management Facility Permit KY8-890-008-982 applies storage capacity restrictions to the three permitted waste storage facilities at C-733, C-746-Q, and C-752-A. All three facilities have secondary containment and are permitted to store waste oils (Appendix B, Table B.1, and Figure B.1). The C-733 facility is a partially enclosed facility that has a maximum container storage capacity of 38,500 gal, a secondary containment capacity of 27,900 gal and can store all hazardous waste as listed in the permit. The C-746-Q facility maximum waste storage capacity is 306,240 gal, with a secondary containment capacity of 58,396 gal; C-746-Q can store all wastes listed in the permit, except for Hazardous Waste Code D001. No ignitable wastes can be stored at C-746-Q. The C-752-A facility has a maximum container storage capacity of 496,000 gal and a secondary containment capacity of 408,800 gal. All waste streams can be stored at C-752-A, except for flammable wastes with a flash point < 100°F. Ignitable wastes may be stored at C-752-A with a flashpoint between 100°F and 140°F. The permitted storage facilities' capacities are not counted as capacity because oil-filled containers stored in the permitted storage facilities are included separately in the inventory.

Heavy equipment may be staged between projects at C-759 in the center of PGDP. This storage yard drains to Outfalls 001 and 015. Equipment staged for long periods will be drained of oil/oil products to the extent practical prior to placing in storage.

Heavy equipment may be stored in the C-740 and C-741 yards that drain to Outfall 008. Heavy equipment also may be staged at C-360-A, C-750, and C-755. The C-360-A storage area is located on the east side of the plant and drains to Outfall 002. The C-755 storage area is located on the east side of the plant and drains to Outfalls 002 and 010. The C-750 storage area is located in the center of the plant and drains to Outfall 008. Outfalls 002, 008, and 010 are equipped with inverted pipe dams. Spilled materials from these areas will be contained and collected upstream from the inverted pipe dams.

Other tanks and equipment on-site that typically contain 55 gal (or greater) of oil products include mobile equipment/vehicles, temporary inventory for short-term projects (e.g., emulsified vegetable oil for *in situ* bioremediation), and temporarily located equipment (e.g., generators). In addition, fuel tanker trucks periodically come on-site to refill tanks and equipment. These mobile and temporary items range over a wide on-site area or are not at one location for a substantial period of time. When practical, temporary secondary containment is put into place to support temporary storage of equipment. Transfer of fuel and fueling of mobile vehicles/equipment is performed over drip pads/pans to the extent practical. Table B.2, included in Appendix B, will be updated and appended to the SPCC (as appropriate) to provide listings of temporary items subject to this SPCC Plan.

## **2.9 IMPRACTICABILITY OF SECONDARY CONTAINMENT—40 CFR § 112.7(d)**

Electrical transformers, circuit breakers, and other electrical devices located at PGDP are listed in Appendix B, Table B.1, and Figure B.1 with the specific capacity of each of these equipment types. This equipment is located outdoors. Some equipment does not have engineered secondary containment due to electrical hazards associated with accumulated water. Sorbent materials are available at the tank locations to address spills. Inspections in accordance with CP4-UT-0105, *Routine Station Checks and Maintenance C-531, C-533, C-535, C-537*, are conducted routinely. Leaks, drips, or other releases are noted, reported, and appropriately addressed. Repairs are conducted as required. The equipment is qualified, oil-filled operational equipment, as defined in 40 CFR § 112.2; additional discussion is included in Section 2.16.

Secondary containment for mobile and temporary equipment, such as trackhoes and generators, usually is not practical or considered necessary. These items are designed and maintained to minimize discharges and inspected regularly. Where appropriate and practical, portable containment pans will be placed below the filling point each time the equipment is filled or emptied. For example, large trucks are refueled in accordance with applicable procedures that require the use of portable containment pans.

## **2.10 INSPECTIONS, TESTS, AND RECORDS—40 CFR § 112.7(e)**

All equipment, containers, tanks, piping, and secondary containment with a capacity of 55 gal or more of oil or oil products are inspected/tested on a regular basis in accordance with this SPCC Plan and applicable procedures. The methods and frequency of inspections/testing are appropriate for the item as discussed below. Each inspection report will be signed by the qualified employee performing the inspection. Each PGDP contractor maintains procedures and work controls that provide for content, type, and recording of inspection/testing activities. Inspection reports, maintenance records, and other pertinent records are maintained in accordance with the Deactivation and Remediation Contractor Records Management Program for a minimum of at least three years.

### **2.10.1 Stationary Tanks and Containers**

ASTs and portable containers are inspected and tested in accordance with applicable API 653 and/or Steel Tank Institute (STI) SP001 Standards as indicated in Table 3. Those tanks and containers that have been drained and removed from service are considered to be at a significantly reduced risk of discharge. This includes some of the diesel fuel tanks. Refer to Appendix B for a detailed list of those items that have been drained.



**Table 3. Inspection of Stationary Tanks and Containers**

<b>Tanks</b>	<b>Capacity (gal)</b>	<b>Inspections and Frequencies per API 653 and STI SP001</b>
AST with Secondary Containment C-601-B Fuel Oil and Emergency Storage	420,000	Monthly and Annual Visual; 5-year external visual inspection; 20-year internal visual inspection
AST with Secondary Containment C-540/C-541 Transformer and Oil Circuit Breaker Oil	7,500 to 15,000	Monthly and Annual Visual; 20-year visual/external ultrasonic inspection
C-337-A/C-360 Hydraulic Oil	125 to 200	Monthly and Annual Visual
Double-wall/Located within Secondary Containment Gasoline/Diesel/Kerosene	150 to 3,000	Monthly and Annual Visual
Drums/Totes	≥ 55	Monthly Visual

The following requirements apply to the inspection of nonmobile tanks, as applicable.

- Visual inspection of tank and tank site, signage, fire extinguisher and bollards; rusted areas will be cleaned and painted.
- Visual inspection of secondary containment, tank pad, and foundation for erosion, corrosion, cracking, and settling.
- Visual inspection of grout exterior (top, sides) for abrasion, cracking, holes, and excess wear.
- Visual inspection of venting systems, vent caps, level indicators, gauges, pumping systems, including hose and nozzle, and fill spouts.
- Insert dipstick into leak detection tube and record presence of liquids and hydrocarbon odor.
- Record inspections on an inspection form and file in the office of the tank owner or designee.
- Any findings related to safety and as-designed operations will be repaired promptly using the designated work release program, as necessary.
- Repair records will be filed as part of work control documents or project file.

### **2.10.2 Portable Tanks and 55-Gal Drums**

Portable tanks, such as transfer or refueling tanks secured in the beds of trucks, are inspected each time they are used. Vehicles containing tanks used for storage and transfers of fuel are inspected and labeled in accordance with CP3-OP-1117, *Facility Inspections*, ISSC-ESH-PR-002, *Hazard Communication*, and CP3-HS-2003, *Hazard Communication*. Heavy equipment associated with the C-746-U Landfill is inspected in accordance with CP3-WM-0017, *Standard Operation for the C-746-S, -T, and -U Landfills*.

Mobile or portable bulk storage containers (e.g., 55-gal drums and totes) are inspected per STI SP001.

### **2.10.3 Mobile or Temporary Equipment**

Mobile or temporary equipment, such as trackhoes or generators, is inspected prior to use and each time they are refueled for leaks/drips in accordance with site procedures (e.g., CP3-SM-0054, *Mobile*

*Construction Equipment*). Heavy-duty equipment, such as loaders and cranes, is inspected for leaks during use. Equipment staged for long periods will be drained of oil/oil products to the extent practical prior to placing in storage. Equipment will be maintained properly in accordance with applicable site procedures or manufacturing specifications to limit potential for release of oil or oil products.

#### 2.10.4 Qualified Oil-Filled Operational Equipment

Inspections related to qualified, oil-filled operational equipment are discussed in Section 2.16.

### 2.11 PERSONNEL, TRAINING, AND DISCHARGE PREVENTION—40 CFR § 112.7(f)(1)-(3)

All PGDP personnel receive annual Consolidated Annual Training, which includes an overview of the SPCC, including spill prevention and reporting. PGDP personnel handling oil and oil products or who assist in the transfer of such products to or from bulk storage containers will be trained appropriately. In addition, a responsible employee will be designated for each tank, container, and equipment item containing oil or oil products and having capacities of 55 gal or greater. These persons have additional training consistent with their role. At a minimum, training consists of proper operation and maintenance of equipment to prevent discharges, discharge procedure protocols, applicable regulations and procedures, descriptions of recent known discharges, and the contents of this SPCC Plan. Oil handling personnel receive refresher briefings at least once per CY by completing an annual on-line Oil Discharge Prevention Briefing.

Personnel assigned to the ERO are required to complete an initial training program satisfactorily prior to assignment. The initial ERO training program is composed of a collection of functional modules that emergency personnel receive based on their emergency assignment. This training program includes classroom-type training (lectures, seminars), practical applications (tabletop drills, functional drills, and exercises), and self-study programs, has been developed for the ERO and support personnel. The training program ensures the continued emergency management response competency of all persons who may respond/participate during an emergency (CP3-EP-1016, *Emergency Management Training*). Annual refresher training is performed typically in conjunction with an annual drill or exercise. Additionally, any emergency response personnel will be trained according to PGDP procedures. This training will incorporate proper spill prevention and reporting training to ensure that personnel have adequate knowledge of this SPCC Plan.

The PGDP ERO receives training commensurate with assigned positions. These training requirements ensure the continued emergency management training of all persons who may respond/participate during a plant emergency. Specialized emergency management training is provided and includes, but is not limited to, the following categories of topics.

- **On-Scene Response Activities.** Topics covered include incident command, firefighting, HAZMAT response, including monitoring and emergency medical technician training.
- **Emergency Management Orientation.** Topics covered include concept of operations, emergency organizations, responsibilities and authorities, requirements, facilities and equipment overview, and off-site interface summary including public information.
- **Incident Classification and Notification.** Topics covered include classification systems, notification requirements, procedures, and emergency actions levels.
- **Hazard/Consequence Assessments and Protective Actions.** Topics covered include the spectrum of hazards and possible emergencies (man-made, natural, and security), reference material, site profile

information, and site dispersion models. On- and off-site protective actions, protective action decision-making philosophy, and recovery decision making will be covered.

- **Ongoing Incident Assessment.** Topics covered include on-site incident monitoring, off-site field monitoring, personnel protection, and reporting.

Specific emergency training requirements are described within the *Paducah Site Emergency Management Plan for Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, CP2-EP-1000, and Emergency Plan Implementing Procedures.

Emergency responders to oil or hazardous material spills performing mitigation tasks will be trained to the Hazardous Materials Technician level in accordance with the requirements of 29 *CFR* § 1910.120(q). Refresher training is provided annually to maintain qualifications.

The Environmental Field Compliance Manager has the primary responsibility to prevent discharges of oil and oil products. The Environmental Field Compliance group reviews work control documents and procedures to identify the potential for discharge and appropriate control measures.

The potential for spills/discharges is identified and analyzed during work planning with spill prevention hazard controls identified to prevent discharges to the environment. The resulting work planning documents are used by project managers and frontline supervisors to cover hazards and control measures each morning for the work to be accomplished that day.

Training and exercise records are maintained in accordance with CP2-RD-0001, *Records Management Plan for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, for a minimum of at least three years.

## 2.12 FACILITY SECURITY—40 *CFR* § 112.7(g)

The mission of PGDP necessitates stringent safeguards and security requirements. The fact that the facility is a secured area assures that responsible personnel are always physically present at the site in the event of any incident. Protective Force personnel make regular rounds and would observe unusual incidents such as releases of oil or chemicals and would be aware of any explosions or fires that might have on- or off-site environmental impacts. Regular rounds also are made inside and outside buildings by operators.

Because the plant is a security area, the site is fenced and the public is excluded. This exclusion reduces the possibility of accidental or malicious incidents due to public interactions with the environmentally significant materials present on the plant site. Tanks, containers, and equipment containing oil and oil products and having capacities of 55 gal or greater will be located within the Paducah Site security fence or in fully fenced or locked areas with controlled access. Vehicles/equipment may be locked to secure unauthorized access. In addition, adequate lighting will be provided for stationary equipment to allow for the discovery of discharges during hours of darkness and for the prevention of discharges occurring through acts of vandalism. Delivery/vendor personnel, if involved, will be escorted by facility personnel during loading/unloading operations. Administrative controls and procedures/protocols dictate equipment operation to minimize the potential for inadvertent releases.

PGDP is a controlled access facility with fencing, gates, and numerous other features that contribute to the safety and security of the facility. Security at PGDP is maintained 24 hours a day by a staff of trained Protective Force personnel. All Protective Force personnel are equipped with two-way radios and have direct communications with PGDP protection personnel. Protective Force personnel control the entry of

vehicles and equipment into the Paducah Site. Visitors and contractors entering PGDP must process through the security offices before being allowed entry into the site.

The majority of the plant site is surrounded by a fence; all access gates to the Paducah Site are locked or manned by Protective Force personnel. All gates and locks are checked routinely around the clock by Protective Force personnel. These and other measures minimize the likelihood of entry of unauthorized personnel.

### **2.13 LOADING/UNLOADING RACKS—40 CFR § 112.7(h)**

PGDP does not have any loading/unloading rack areas which would be subject to 40 CFR § 112.7(h). Therefore, 40 CFR § 112.7(h) does not apply to loading/unloading operations at the facility. However, refueling of tanks and equipment does take place at the site. Major bulk storage tanks on-site generally are filled via a 6,000-gal tanker truck from a local vendor, including the C-601-B 420,000-gal fuel tank, C-752-B Refueling Station and the gasoline ASTs at C-333 and C-337. The loading areas for these tanks are not diked. Site procedures control loading activities, including safety precautions such as the following:

- Use of drip pans or buckets;
- Use of chocks on the tanker truck during loading;
- Continuous site personnel monitoring of the loading operations;
- Valve guides;
- Traffic control during loading operations; and
- Leak inspections of valves, connections, and ground surface during and after loading.

Operational tasks associated with unloading fuel oil from tanker trucks and supplying oil to the C-600 boiler are documented in CP4-UT-0501, *No. 2 Fuel Oil Handling and Storage*.

### **2.14 BRITTLE FRACTURE EVALUATION—40 CFR § 112.7(i)**

The C-601-B fuel oil storage tank is the only field-constructed AST on-site. Removal of the fuel oil is currently ongoing and anticipated to be completed by the end of CY 2023. Should the fuel oil storage tank undergo a change in service that might affect the risk of discharge or failure, a brittle fracture evaluation will be performed according to appropriate standards.

### **2.15 CONFORMANCE WITH OTHER REQUIREMENTS—40 CFR § 112.7(j)**

Section 311 of the Federal Water Pollution Control Act of 1973, as amended by the CWA, expressly prohibits the discharge (i.e., spill or release) of oils or hazardous substances that may affect the natural resources of the United States. It then charges the EPA to promulgate regulations that (1) determine the quantity of oils or of any hazardous substance that, if discharged, may be harmful to the public health and welfare; and (2) determine the conditions or circumstances under which oils or hazardous substances may be discharged. EPA, in response to this section, issued 40 CFR, Parts 110, 112, 116, and 117. Kentucky's requirements are contained in 401 KAR 05 and KRS 224.1-400.

40 CFR Part 110 prohibits the discharge of oil in harmful quantities, which are those that violate applicable water quality standards; cause a film or sheen on the surface of the water; or cause a sludge or emulsion to be deposited beneath the water surface or on the shoreline. Any releases of oil under 40 CFR Part 110 are reported to the Natural Response Center and KDEP. 40 CFR Part 112 requires that an SPCC Plan be

generated for any facility that has discharged or could reasonably be expected to discharge oil in harmful quantities. This SPCC Plan meets the requirements of 40 *CFR* Part 112 and analogous Kentucky requirements.

Facilities that, because of their location and petroleum storage capacity, could cause “substantial harm” to the environment by discharging oil into or on the navigable water or adjoining shorelines must submit an FRP. Since the May 2022 SPCC revision, the total oil inventory capacity has decreased to less than 1,000,000 gal, and PGDP no longer requires an FRP, which has been deleted. This SPCC Plan revision includes discharge response information that was previously referenced as being located in the FRP. The Certification of the Applicability of the Substantial Harm Criteria is located in Appendix C.

Notification requirements are implemented through procedures and KPDES permit requirements. 40 *CFR* Part 125 and 401 *KAR* 05 require that persons who hold National Pollutant Discharge Elimination System/KPDES permits incorporate Best Management Practices (BMPs) into their operations. BMPs, including spill control, are outlined in CP2-ES-0500, *Best Management Practices Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky*. BMPs are used to protect against the discharge of toxic and hazardous pollutants.

CERCLA Section 101(14) calls for a list of those materials already designated as hazardous or extremely hazardous under any one of five statutes. These hazardous or extremely hazardous substances and their RQ are designated in 40 *CFR* § 302.4, Table 302.4; 40 *CFR* Parts 117; 302; and 355. Additional substances can be added to the list by the EPA administrator under Section 102 of CERCLA. Releases of these substances in quantities exceeding their RQ must be reported to the National Response Center and KDEP if the RQ is exceeded. If the release also has the potential to go off-site, the release must be reported to the McCracken County and Ballard County Disaster Emergency Services. Kentucky Statute, *KRS* 224.1-400, in addition to releases of materials if the abovementioned RQs are exceeded, also sets RQs for petroleum products (gasoline, oil) that are specifically excluded from the CERCLA lists.

In addition to the plans mentioned above, Deactivation and Remediation Contractor procedure CP3-ES-0003, *Environmental Incident Reporting*, ISSC-ESH-PR-008, *Accident-Incident Reporting*, and ISSC-ESH-IN-006, *Environmental Compliance Instructions*, provides site direction for reporting spills or discharges. The PSS in concert with Environmental Field Compliance makes event notifications to appropriate agencies/parties including EPA, DOE/DOE Contractors, Kentucky, etc., as required by regulation/policy in accordance with this procedure.

## **2.16 QUALIFIED OIL-FILLED OPERATIONAL EQUIPMENT—40 *CFR* § 112.7(k)**

Electrical transformers and circuit breakers located at PGDP meet the 40 *CFR* § 112.2 definition of qualified oil-filled operational equipment. This equipment is located outdoors. Some electrical equipment does not have secondary containment due to electrical hazards associated with accumulated water. Outfall inspections are conducted in accordance with CP4-ES-0041, *Environmental Monitoring Inspections*.

The C-531, C-533, C-535, and C-537 Switchyards are no longer operational. Transformers and oil circuit breakers located at C-531, C-533, C-535, and C-537 have been drained. Storage tanks and piping for the transformers and oil circuit breaker oils at C-540 and C-541 have been drained. Although drained and no longer operational, the C-531, C-533, C-535, and C-537 Switchyard equipment is inspected for leaks, spills, and other operational issues. Inspections of C-531, C-532, C-533, C-535, C-536, C-537, C-540, and C-541 are conducted in accordance with CP4-UT-0105, *Routine Station Checks and Maintenance C-531, C-533, C-535, C-537*.

The C-538 substation drains to KPDES Outfall 010, which is equipped with an inverted pipe dam designed to permit the passage of water, but contain floating materials such as mineral oil. The dam is designed to overflow only during severe rainstorms and will provide effective oil containment during moderately heavy rains.

### 3. ON-SHORE NONPRODUCTION FACILITIES—40 CFR § 112.8(A)

#### 3.1 FACILITY DRAINAGE—40 CFR § 112.8(b)

PGDP is located approximately 3.5 miles south of the Ohio River in a generally rural area of McCracken County, Kentucky. The WKWMA completely surrounds the facility. There are two tributaries of the Ohio River running through WKWMA, Bayou Creek on the west and Little Bayou Creek on the east. These two streams join north of the site and discharge to the Ohio River. These creeks exhibit widely fluctuating discharge characteristics that are tied closely to local precipitation. Natural runoff makes up a small portion of the flow in Bayou and Little Bayou Creeks during the dry periods and was supplemented largely by continuous water discharge from the Paducah facility. Surface runoff from the facility drains through 15 permitted outfalls directly to one of the tributaries. Because the facilities discharge flow directly into WKWMA, the distance to a fish and wildlife and sensitive environment essentially is zero from the facility outfalls.

These creeks are not used as drinking water supplies, but are accessible to wildlife and recreationists. Both creeks are classified by the Commonwealth of Kentucky as being for “all uses” and, therefore, are subject to warm water aquatic habitat criteria standards in the creeks and drinking water standards at the nearest drinking water withdrawal location (Cairo, IL).

In general, plant drainage is divided into east and west systems with some overlap. A site drainage diagram is provided in Appendix B. Liquid discharges (including potentially released oil and oil products) would be expected to flow to the major drainage ditches and potentially to Bayou Creek or Little Bayou Creek. The flow rate would vary according to the size and location of the discharge and the weather conditions at the time. Flow rate estimates are provided in Appendix B.

##### 3.1.1 Drainage from Diked Storage Areas—40 CFR § 112.8(b)(1) & (2)

Outdoor dikes are designed to contain 110% of the largest tank or container contents and also will contain the maximum expected rainfall in addition to the container or tank contents. Except for the drain valve at the C-752-B Refueling Station, which is locked in the open position,<sup>4</sup> all dikes are equipped with manual drain valves that remain closed unless rainwater is being discharged following the determination that no material has been spilled within the containment area in accordance with plant procedures.

The facility manager of any area with secondary containment is responsible for inspecting and maintaining dikes in accordance with procedures. For example, the C-601 secondary containment is inspected and the inspection documented as described in CP4-UT-0405, *Utilities Routine Duties, Checks, and Inspections*.

##### 3.1.2 Drainage from Undiked Storage Areas—40 CFR § 112.8(b)(3)

Areas such as tanker truck loading/unloading areas, oil-filled equipment, and piping associated with storage tanks or oil filled equipment also do not have secondary containment dikes. These areas do, however, flow into facility drainage systems that are equipped with engineered, oil diversion/retention structures. Inverted pipe dams designed to permit the passage of water, but contain floating materials such as oil, have been constructed in PGDP drainage ditches with the potential to receive an oil discharge. Outfalls 001, 002, 008, 009, 010, and 015 have functional oil containment inverted pipe dams to prevent the flow of oil to the flume and contain the oil on-site prior to reaching Bayou or Little Bayou Creeks.

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<sup>4</sup> Each of the tanks in this area is a double-wall tank.

At Outfall 008, an oil sheen would be skimmed above the inverted pipe dam. The skimmer at the Outfall 008 dam consists of a dam, quiet zone, and weir. Adjacent to the dam is an oil containment pond. The dam creates a quiet zone with a three-hour retention time to allow oil and other buoyant materials to separate from the water. A skirted oil boom diverts floating materials to a slightly submerged float-controlled weir. Most of the ditch flow will underflow the floating boom and then overflow the dam. Diverted materials will flow to the containment pond and remain there for remediation. An inverted pipe dam maintains the water level in the containment area.

Should an oil or chemical spill reach a drainage ditch, inflatable pipe stoppers are available to fit any of the culverts in these ditches. Spill containment can be provided within the perimeter fence, if necessary. Booms and absorbent pads can be used in the event a spill reached the creeks.

### **3.1.3 Drainage Diversion Systems—40 CFR § 112.8(b)(4)**

The facility drainage system is equipped such that, in the event of an uncontrolled discharge, oil will be retained on facility property. Inverted pipe dams designed to permit the passage of water, but that contain floating materials such as oil, have been constructed in the plant drainage ditches with the potential to receive an oil discharge. The dams are designed to provide effective oil containment and were installed as a preemptive response action for potential future spills to contain the oil prior to reaching Bayou Creek or Little Bayou Creek. Inverted pipe dams are located within the ditches leading to Outfalls 001, 002, 008, 009, 010, and 015. If it is determined that there is no longer a potential for release of floating materials upstream from the outfalls, then these inverted pipe dams can be removed.

### **3.1.4 Facility Drainage Water Treatment—40 CFR § 112.8(b)(5)**

Facility drainage waters are not treated continuously at the site prior to discharge.

## **3.2 BULK STORAGE CONTAINERS—40 CFR § 112.8(c)**

Per 40 CFR § 112.2, bulk storage container means any container used to store oil. These containers are used for purposes including, but not limited to, the storage of oil prior to use, while being used, or prior to further distribution in commerce. Oil-filled electrical, operating, or manufacturing equipment is not a bulk storage container. Bulk storage containers are identified in Table B.1. Bulk storage containers will meet 40 CFR § 112.7 requirements outlined in Section 2.0 of this SPCC Plan and the following additional requirements.

### **3.2.1 Container Compatibility—40 CFR § 112.8(c)(1)**

Bulk storage containers utilized at the site are constructed of steel, plastic, or another suitable material and are compatible with the materials being stored and storage conditions. Quality Control inspects the integrity of corrosive liquid storage tanks located on the plant site in accordance with plant procedures and preventive maintenance schedules. Corrosive liquid storage tanks are any tanks that contain substances that can cause destruction of living tissue by chemical action. This includes oil storage tanks. A list of oil storage tanks and respective inspection criteria/scheduling is maintained by the Activity Level Work Control Planning and Control Program. Prior to any new containers being used or constructed on-site for bulk oil/oil product storage in excess of 55 gal, the responsible project coordinates with Engineering and Environmental Field Compliance to evaluate container compatibility and to ensure inclusion on the oil inventory and identification of inspection/testing requirements.



### 3.2.2 Secondary Containment for Bulk Storage Containers—40 CFR § 112.8(c)(2)

Oil storage tanks at the site are provided with secondary containment. Secondary containment dikes are constructed to be impervious to the materials stored. Typically, the dikes are concrete and painted or otherwise sealed. In some cases, secondary containment is provided by double-wall construction, which may be augmented by containment dikes. The in-service fuel oil storage tank at C-600 has an earthen dike lined with a synthetic material impervious to oil. Secondary containment areas located outside of buildings or facilities will hold at least 110% of the largest tank in the containment area. This will allow enough containment capacity for both expected rainfall and the entire contents of the tank. Secondary containment areas located inside the buildings will hold 100% of the largest tank in the containment area.

### 3.2.3 Valve Closure and Drainage—40 CFR § 112.8(c)(3)

Except for the drain valve at the C-752-B Refueling Station, which is locked in the open position,<sup>5</sup> all dikes are equipped with manual drain valves that remain closed unless rainwater is being discharged. Prior to discharge, a determination that no material has been spilled within the containment area is required in accordance with site procedures. Valve closure status is an element of periodic inspections identified in site procedures and is captured on inspection logs. Personnel conduct visual inspections of diked areas before draining as described in CP4-UT-0405, *Utilities Routine Duties, Checks, and Inspections*. Records of these inspections are maintained in accordance with CP2-RD-0001, *Records Management Plan for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, for a minimum of at least three years.

### 3.2.4 Corrosion Protection of Buried/Partially Buried Storage Metallic Tanks—40 CFR § 112.8(c)(4) & (5)

PGDP currently does not have any buried or partially buried metallic oil storage tanks in service.

### 3.2.5 Integrity Testing of Aboveground Containers—40 CFR § 112.8(c)(6)

Aboveground containers undergo inspection on a regular schedule and whenever material repairs are made. All aboveground tanks, with the exception of the C-601-B Fuel Oil Storage tank, meet the following standards:

- Elevated or double-wall, such that the bottom of the primary tank is not in contact with the ground and can be visually inspected.
- Secondary containment or double-wall tank provides release prevention barrier of material sufficiently impervious to stored material.
- Leaks can be detected visually by operators.

All in-service tanks included in Appendix B are inspected periodically by operations personnel in accordance with site procedures. These inspections are documented on roundsheets or checklists. For a list of AST inspection and testing criteria, refer to Table 3.

Integrity testing of the C-601-B Fuel Oil Storage Tank is performed by a qualified contractor in accordance with requirements outlined in API-653. External and internal ultrasonic inspection is conducted by API/STI certified inspectors.

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<sup>5</sup> Each of the tanks in this area is a double-wall tank.

### **3.2.6 Internal Heating Coils—40 CFR § 112.8(c)(7)**

The site has no bulk storage containers with internal heating coils.

### **3.2.7 Liquid Level Sensing—40 CFR § 112.8(c)(8)**

The fuel storage locations at the C-600 facility are equipped with spill detection alarms and automatic shut-off devices. Originally, the oil supply line from the fuel oil storage tank to the C-600 boiler system was equipped with a flow alarm that would detect abnormal flow in the event of a leak. A remote shutoff valve was installed in the supply line. With replacement of the old boilers with the package boilers, the configuration of the tank has been changed. Now the C-601-B tank is used to charge a 500-gal double-wall tank that connects to the C-600-A Number 1 package boiler that can use fuel oil. Filling of the 500-gal tank from the C-601-B tank is conducted in accordance with site procedures and is monitored continuously by site personnel during the process. The 500-gal day tank is connected to C-600-A Number 1 package boiler.

The C-752-B Refueling Station has spill detection alarms and automatic shut-off devices. There is a floating valve inside each of the internal tanks that engages a gate valve to physically close and automatically stop fuel transfer at 95% of tank capacity. In the event of a valve malfunction, multiple alarms sound in C-752-B-T01 that fuel has entered that 5-10% free space, and automatic email notices are sent to a specified list of individuals.

The ASTs at C-333 and C-337 are of double-wall construction with leak detection monitors for the interstitial space.

Other smaller containers are monitored directly by personnel during transfer operations using gauges, sight glasses, or other visual measurements. Liquid levels are included in periodic inspections and documented on inspection logs, which are maintained in accordance with CP2-RD-0001, *Records Management Plan for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*.

Discovery of alarms or a spill will be reported immediately to the PSS. The PSS will respond to the scene and determine if a spill actually has occurred, and, if so, the required level of response needed. Alarm response and spill response are addressed in site procedures.

### **3.2.8 Effluent Treatment Facilities—40 CFR § 112.8(c)(9)**

PGDP has no effluent treatment facilities dedicated solely to treating drainage from storage areas.

### **3.2.9 Leakage Response—40 CFR § 112.8(c)(10)**

Facility managers are responsible to inspect and drain dikes. If any visible discharge or leak has occurred, the material must be reported, removed, and properly dispositioned in accordance with site procedures. If necessary, repairs to storage container or associated equipment will be initiated immediately.

### **3.2.10 Mobile or Portable Storage Containers—40 CFR § 112.8(c)(11)**

Product containers such as drums are stored in areas with secondary containment, typically, a portable system such as a drum pan.

### **3.3 FACILITY TRANSFER OPERATIONS—40 CFR § 112.8(d)**

#### **3.3.1 Buried Piping at Transfer Operations—40 CFR § 112.8(d)(1)**

PGDP does not operate any buried piping associated with oil transfer operations.

#### **3.3.2 Terminal Connections at Transfer Operations—40 CFR § 112.8(d)(2)**

The primary oil transfer operations are associated with filling the C-601-B fuel oil storage tank and operation of electrical equipment. The terminal connections for piping systems associated with these systems are capped or plugged with appropriate fittings to prevent leakage in the event a valve fails or is not sealed properly.

#### **3.3.3 Pipe Supports at Transfer Operations—40 CFR § 112.8(d)(3)**

Support structures for aboveground oil transfer piping are engineered in accordance with established specifications to prevent abrasion and corrosion. Typically, these supports consist of painted metal structures anchored to concrete footings. The piping is attached to the supports using “U”-type bolts or piping hangers that will allow for proper expansion and contraction of the piping. Supports are inspected during periodic tank and pipe inspections and documented on inspection logs.

#### **3.3.4 Inspections for Transfer Operations—40 CFR § 112.8(d)(4)**

Although no longer operational, the piping systems associated with the facility transfer operations primarily related to switchyard equipment maintenance are inspected for leaks during use in accordance with site procedures. Removal of the fuel oil from the C-601-B tank is currently ongoing and anticipated to be completed by the end of CY 2023.

#### **3.3.5 Posting for Aboveground Piping—40 CFR § 112.8(d)(5)**

Aboveground piping was used primarily for oil transfers in the electrical switchyards areas. The majority of this system is located so that vehicle traffic is not an issue. Access to the areas where it does cross roadways typically is restricted to authorized individuals only. Delivery and/or vendor vehicles, if allowed in the area, would be escorted by facility personnel.

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**APPENDIX A**  
**REGULATORY CITATION CROSS REFERENCE**

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Table A.1. Regulatory Citation Cross Reference

Requirement	Regulatory Citation	Location in SPCC Plan
<b>SPCC Regulation 40 CFR Part 112 Requirements</b>		
Oil storage facilities meeting criteria in 40 CFR § 112.1 must have a written SPCC Plan.	40 CFR § 112.3(a)	Section 1.0; Section 2.2
A Professional Engineer must certify the SPCC Plan.	40 CFR § 112.3(d)	Certification Page
Maintain complete copy of the plan onsite if attended at least 4 hours per day.	40 CFR § 112.3(e)	Section 2.2
Prepare written report to EPA (and state) within 60 days of oil spill greater than 1,000 gallons, or two reportable spills greater than 42 gallon within a 12-month period.	40 CFR § 112.4(a), (c)	Management Approval, Section 1.3; Section 2.5
Amend SPCC Plan to reflect facility changes that materially affect potential of discharge.	40 CFR § 112.5(a)	Section 1.3
Review and update SPCC Plan at least every five years.	40 CFR § 112.5(b)	SPCC Plan Management Review Record (“Review Record”); Section 1.3; Section 2.2
Document completion of review by a signed statement in a log within plan.	40 CFR § 112.5(b)	Review Record; Section 1.3; Section 2.2
A Professional Engineer must certify any technical amendment to the SPCC Plan.	40 CFR § 112.5(c)	Section 1.3
SPCC Plan shall have full approval of management at a level with authority to commit necessary resources.	40 CFR § 112.7	Certification Page; Section 2.1
Must include in plan a section index cross-reference to regulatory citation.	40 CFR § 112.7	Appendix A
If plan calls for additional facilities, procedures, methods or equipment not yet fully operational, details of their installation and start-up are discussed.	40 CFR § 112.7	Section 1.1; Section 2.4.1; Section 2.16
Include a discussion of the facility’s conformance with requirements in the regulation.	40 CFR § 112.7(a)(1)	Section 2.2
Include a discussion of the facility’s deviation from the requirements in the regulation.	40 CFR § 112.7(a)(2)	Section 2.3
Describe in the plan the physical layout of the facility.	40 CFR § 112.7(a)(3)	Section 2.4
Include a facility diagram marking location and content of each container including transfer stations & interconnecting pipes.	40 CFR § 112.7(a)(3)	Section 2.4
Address in plan the type of oil in each container & its capacity.	40 CFR § 112.7(a)(3)(i)	Section 2.4.1
Address in plan the discharge prevention measures including procedures for routine handling of products (loading/unloading).	40 CFR § 112.7(a)(3)(ii)	Section 2.4.2
Address in plan the measures and procedures for containment drainage and discharge control.	40 CFR § 112.7(a)(3)(iii)	Section 2.4.3
Address in plan the countermeasures for discharge discovery, response and clean up.	40 CFR § 112.7(a)(3)(iv)	Section 2.4.4
Address in plan methods of disposal of recovered spill materials.	40 CFR § 112.7(a)(3)(v)	Section 2.4.5
Contact lists & phone numbers of facility response coordinator, NRC, cleanup contractors, & agencies.	40 CFR § 112.7(a)(3)(vi)	Section 2.4.6
Provide information and procedures in plan to enable proper reporting of a discharge.	40 CFR § 112.7(a)(4)	Section 2.5

Table A.1. Regulatory Citation Cross Reference (Continued)

Requirement	Regulatory Citation	Location in SPCC Plan
Organize plan to describe procedures to be used when discharge occurs.	40 <i>CFR</i> § 112.7(a)(5)	Section 2.6
SPCC Plan should include flow prediction and total quantity where equipment/tank failure may lead to discharge.	40 <i>CFR</i> § 112.7(b)	Section 2.7
Provide appropriate containment and/or diversionary structures to prevent discharged oil from reaching navigable watercourse.	40 <i>CFR</i> § 112.7(c)	Section 2.8
Provide information related to impracticability of secondary containment.	40 <i>CFR</i> § 112.7(d)	Section 2.9
Inspection tests & records: Provide for written procedures.	40 <i>CFR</i> § 112.7(e)	Section 2.10
Training – provide at minimum to oil handling personnel, training in discharge prevention, laws, rules and content of plan.	40 <i>CFR</i> § 112.7(f)(1)	Section 2.11
Designate a person at each facility who is accountable for discharge prevention.	40 <i>CFR</i> § 112.7(f)(2)	Section 2.11
Schedule and conduct discharge prevention briefings for oil handling personnel at least annually.	40 <i>CFR</i> § 112.7(f)(3)	Section 2.11
Provide information related to facility security.	40 <i>CFR</i> § 112.7(g)	Section 2.12
Tank car and tank truck loading/unloading rack present at facility.	40 <i>CFR</i> § 112.7(h)	Section 2.13
Tank car/truck loading/unloading: drain into catchment basin or treatment or use quick drainage system.	40 <i>CFR</i> § 112.7(h)(1)	Section 2.13
Provide an interlocked warning light or physical barrier, wheel chocks, etc. to prevent vehicle departing before disconnection.	40 <i>CFR</i> § 112.7(h)(2)	Section 2.13
Prior to filling & departing of tank trucks closely inspect for discharge.	40 <i>CFR</i> § 112.7(h)(3)	Section 2.13
Provide information on Brittle Fracture evaluation of Field Erected tanks.	40 <i>CFR</i> § 112.7(i)	Section 2.14
Include in plan a complete discussion of conformance with applicable requirements & other discharge prevention procedures.	40 <i>CFR</i> § 112.7(j)	Section 2.15
Include in plan a description of qualified oil-filled operational equipment.	40 <i>CFR</i> § 112.7(k)	Section 2.16
Storage Facility Drainage: restrain drainage from diked areas using manually operated valves or pumps.	40 <i>CFR</i> § 112.8(b)(1)	Section 3.1.1
Drainage of rainfall in secondary containment must be inspected and evaluated prior to release directly to a surface watercourse.	40 <i>CFR</i> § 112.8(b)(2)	Section 3.1.1
Design facility drainage outside diked area (such as piping) to flow into ponds, lagoons or catchments.	40 <i>CFR</i> § 112.8(b)(3)	Section 3.1.2
Bulk storage containers materials of construction must be compatible with contents.	40 <i>CFR</i> § 112.8(c)(1)	Section 3.2.1
Aboveground tanks must have secondary containment for specified minimum capacity of largest tank, plus freeboard for precipitation.	40 <i>CFR</i> § 112.8(c)(2)	Section 3.2.2
Facility does not allow drainage from diked areas unless inspected and records are kept on drainage of secondary containment if directly to surface watercourse.	40 <i>CFR</i> § 112.8(c)(3)	Section 3.2.3
Protect any completely buried storage tank (after 1/10/74) from corrosion with coating or cathodic protection & regular leak test.	40 <i>CFR</i> § 112.8(c)(4)	Section 3.2.4
Facility does not use partially buried or bunkered tanks.	40 <i>CFR</i> § 112.8(c)(5)	Section 3.2.4
Test each aboveground container for integrity.	40 <i>CFR</i> § 112.8(c)(6)	Section 3.2.5
Address leaking through defective internal heating coils.	40 <i>CFR</i> § 112.8(c)(7)	Section 3.2.6



Table A.1. Regulatory Citation Cross Reference (Continued)

Requirement	Regulatory Citation	Location in SPCC Plan
Engineer or update each container with good engineering overfill protection.	40 <i>CFR</i> § 112.8(c)(8)	Section 3.2.7
Facility does not have effluent treatment facilities dedicated to treating drainage from storage areas.	40 <i>CFR</i> § 112.8(c)(9)	Section 3.2.8
Promptly correct visible leaks.	40 <i>CFR</i> § 112.8(c)(10)	Section 3.2.9
Mobile or portable Tanks: locate to prevent discharge and provide secondary containment.	40 <i>CFR</i> § 112.8(c)(11)	Section 3.2.10
Describe in plan facility transfer operations.	40 <i>CFR</i> § 112.8(d)	Section 3.3
Buried pipes installed after 08/16/02 must be installed with protective wrapping and coating and be cathodically protected.	40 <i>CFR</i> § 112.8(d)(1)	Section 3.3.1
When a pipeline is not in service or in standby, the terminal end should be capped or blank flanged.	40 <i>CFR</i> § 112.8(d)(2)	Section 3.3.2
Properly design pipe supports to minimize abrasion and corrosion.	40 <i>CFR</i> § 112.8(d)(3)	Section 3.3.3
Regularly inspection all valves, pipelines, etc.	40 <i>CFR</i> § 112.8(d)(4)	Section 3.3.4
Warn all vehicles entering the facility to be sure not to endanger above pipe or transfer operations.	40 <i>CFR</i> § 112.8(d)(5)	Section 3.3.5
Certification of the applicability of the substantial harm criteria.	40 <i>CFR</i> § 112.20(e)	Section 2.15, Appendix C

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**APPENDIX B**  
**TANK EVALUATION**

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**TABLES**

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Table B.1. Aboveground Storage Tanks and Oil-Filled Equipment

SPCC ID No.	Inventory Category	Tank No./Equipment Type	Location	No. of Containers	Capacity per Container (gal)	Total Capacity (gal)	Substance Stored	Secondary Containment Capacity (gal)	Anticipated Maximum Flow Rate (gal/hr)	Direction and Destination of Flow (Outfall), if applicable	Outfall No.	Function
68	AST	A1	C-333	1	1,000	1,000	Gasoline	1,100	100	Double-wall tank, spill wholly contained.	009	AST - Fuel
1	AST	A2	C-337	1	1,000	1,000	Gasoline	1,100	100	Double-wall tank, spill wholly contained.	001 & 002	AST - Fuel
2	AST	A5	C-746-A	1	250	250	Gasoline	1,120	Empty	N/A	001	AST - Fuel
3	AST	A6	C-746-A	1	250	250	Diesel	1,120	Empty	N/A	001	AST - Fuel
73	AST	A9	C-200	1	550	550	Diesel	1,050	55	Spill wholly contained within secondary containment.	009	AST - Fuel
40	AST	TANK A24 (Sanitary Pumps No.'s 4, 5, & 6)	C-611-H	1	1,500	1,500	Diesel	2,090	150	Spill wholly contained within secondary containment	006	AST - Fuel
41	AST	Sanitary Pump No. 7	C-611	1	450	450	Diesel	N/A	45	Double-wall tank, spill wholly contained	006	AST-Fuel
45	AST	A23	C-607	1	550	550	Diesel	750	Empty	Spill wholly contained within secondary containment	008	AST - Fuel
47	AST	Boiler Fuel Tank	C-600	1	500	500	Diesel	Double-wall tank	50	Double-wall tank, spill wholly contained.	008	AST - Fuel
52	AST	A28	C-601-B	1	420,000	420,000	Fuel Oil	675,000	42,000	Spill wholly contained within secondary containment.	008	AST - Fuel
58	AST	N/A	C-409	1	150	150	Lube Oil	In Building	Empty	Spill wholly contained within building.	008	AST - Lube Oil
59	AST	Mobile Refueling Tank	C-741	4	1,000	4,000	Diesel	Double-wall tank	100	Mobile equipment.	008	Mobile Refueling Tank
215	AST	Mobile Refueling Tank	C-742	1	251	251	Diesel	Double-wall tank	25	Mobile equipment.	008	Mobile Refueling Tank
104	AST	A33 (Not Used)	C-540-B (NW)	1	15,000	15,000	Transformer Oil	38,000	Empty	Spill wholly contained within secondary containment.	011	AST - Oil
105	AST	A34 (Not Used)	C-540-C (SW)	1	15,000	15,000	Transformer Oil	38,000	Empty	Spill wholly contained within secondary containment.	011	AST - Oil
117	AST	A35 (Not Used)	C-540-D (NE)	1	7,500	7,500	OCB Oil	11,400	Empty	Spill wholly contained within secondary containment.	011	AST - Oil
118	AST	A36 (Not Used)	C-540-E (SE)	1	7,500	7,500	OCB Oil	11,400	Empty	Spill wholly contained within secondary containment.	011	AST - Oil
8	AST	A37 (Not Used)	C-541 (SE)	1	15,000	15,000	Transformer Oil	38,000	Empty	Spill wholly contained within secondary containment.	001	AST - Oil
9	AST	A38 (Not Used)	C-541 (SW)	1	15,000	15,000	Transformer Oil	38,000	Empty	Spill wholly contained within secondary containment.	001	AST - Oil
10	AST	A39 (Not Used)	C-541 (NE)	1	7,500	7,500	OCB Oil	11,400	Empty	Spill wholly contained within secondary containment.	001	AST - Oil
11	AST	A40 (Not Used)	C-541 (NW)	1	7,500	7,500	OCB Oil	11,400	Empty	Spill wholly contained within secondary containment.	001	AST - Oil
128	AST	N/A	C-746-U	1	1,000	1,000	Diesel	Double-wall tank	Empty	Double-wall tank, spill wholly contained.	019	AST - Fuel
129	AST	N/A	C-746-U	1	500	500	Gasoline	Double-wall tank	Empty	Double-wall tank, spill wholly contained.	019	AST - Fuel
69	AST	N/A	C-752-B	1	3,000	3,000	Unleaded Gasoline	7,400	300	Double-wall tank, spill wholly contained.	009	AST - Fuel
70	AST	N/A	C-752-B	1	3,000	3,000	Biodiesel (on-road)	7,400	300	Double-wall tank, spill wholly contained.	009	AST - Fuel
71	AST	N/A	C-752-B	1	1,000	1,000	Ethanol (E-85)	7,400	100	Double-wall tank, spill wholly contained.	009	AST - Fuel
72	AST	N/A	C-752-B	1	1,000	1,000	Diesel (off-road)	7,400	100	Double-wall tank, spill wholly contained.	009	AST - Fuel
17	AST	Lube Oil Skid	C-335	1	300	300	Oil	In Building	30	Spill wholly contained within building.	001	Miscellaneous Oil Containing Equipment and Containers
24	AST	Lube Oil Skid	C-337	1	300	300	Oil	In Building	30	Spill wholly contained within building.	001	Miscellaneous Oil Containing Equipment and Containers
136	AST	C71414	C-337	1	2,000	2,000	Pyranol	N/A	Empty	Spill wholly contained within building.	001	AST - Oil
26	AST	Hydraulic Oil Tank	C-337-A	1	125	125	Oil	In Building	Empty	Spill wholly contained within building.	001	Miscellaneous Oil Containing Equipment and Containers
147	AST	TANK (NOT USED)	C-360	1	200	200	Hydraulic Oil	N/A	Empty	Spill wholly contained within building.	002	AST - Oil
158	Drum	55-gal oil drum	C-724-A	1	55	55	Used Oil	Stored in Secondary Containment	< 55	Located in drainage area to Outfall 008	008	Miscellaneous Oil Containing Equipment and Containers
100	Drum	55-gal oil drum	C-310	1	55	55	Conoco Fleet Supreme 15W-30 Oil	In Building	< 55	Spill wholly contained within building.	009	Miscellaneous Oil Containing Equipment and Containers
193	Drum	55-gal oil drum	C-310	2	55	110	Fuch's Renolin VP 200	In Building	< 55	Spill wholly contained within building.	009	Miscellaneous Oil Containing Equipment and Containers
123	Drum	55-gal oil drum	C-331	3	55	165	CVP-550 Vacuum Pump Oil	In Building	< 55	Spill wholly contained within building.	008, 009, 010 & 011	Miscellaneous Oil Containing Equipment and Containers
184	Drum	55-gal oil drum	C-331	1	55	55	Fuch's Renolin VP 200	In Building	< 55	Spill wholly contained within building.	008, 009, 010 & 011	Miscellaneous Oil Containing Equipment and Containers
167	Drum	Plastic Drum	C-331	1	55	55	Chevron GST Lubricant	In Building	< 55	Spill wholly contained within building.	008, 009, 010 & 011	Miscellaneous Oil Containing Equipment and Containers
101	Drum	55-gal oil drums	C-331	3	55	165	Exxon Mobil DXT Oil	In Building	< 55	Spill wholly contained within building.	008, 009, 010 & 011	Miscellaneous Oil Containing Equipment and Containers

Table B.1. Aboveground Storage Tanks and Oil-Filled Equipment (Continued)

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SPCC ID No.	Inventory Category	Tank No./Equipment Type	Location	No. of Containers	Capacity per Container (gal)	Total Capacity (gal)	Substance Stored	Secondary Containment Capacity (gal)	Anticipated Maximum Flow Rate (gal/hr)	Direction and Destination of Flow (Outfall), if applicable	Outfall No.	Function
18	Drum	55-gal oil drum	C-335	2	55	110	Turbine Lubricating Oil	In Building	< 55	Spill wholly contained within building.	001	Miscellaneous Oil Containing Equipment and Containers
21	Drum	55-gal oil drum	C-335	3	55	165	Chevron GST Lubricant	In Building	< 55	Spill wholly contained within building.	001	Miscellaneous Oil Containing Equipment and Containers
22	Drum	55-gal oil drum	C-335	1	55	55	CVP-550 Vacuum Pump Oil	In Building	< 55	Spill wholly contained within building.	001	Miscellaneous Oil Containing Equipment and Containers
23	Drum	55-gal oil drum	C-335	1	55	55	Cito Pacemaker HV-68 Vacuum Pump Fluid	In Building	< 55	Spill wholly contained within building.	001	Miscellaneous Oil Containing Equipment and Containers
137	Drum	55-gal oil drum	C-337	1	55	55	CVP 550 Vac Pump	In Building	< 55	Spill wholly contained within building.	001 & 002	Miscellaneous Oil Containing Equipment and Containers
208	Drum	55-gal oil drum	C-337	1	55	55	Kinney HYD KV 100	In Building	5.5	Spill wholly contained within building.	001 & 002	Miscellaneous Oil Containing Equipment and Containers
138	Drum	55-gal oil drum	C-337	1	55	55	Renolin VP 200 (Fuchs)	In Building	22	Spill wholly contained within building.	001 & 002	Miscellaneous Oil Containing Equipment and Containers
153	Drum	55-gal oil drum	C-601	1	55	55	BG Oil	In Building	< 55	Spill wholly contained within building.	008	Miscellaneous Oil Containing Equipment and Containers
209	Drum	55-gal oil drum	C-601	1	55	55	Conoco Synthetic Centac Oil	In Building	< 55	Spill wholly contained within building.	008	Miscellaneous Oil Containing Equipment and Containers
210	Drum	55-gal oil drum	C-601	1	55	55	Schaffer Oil	In Building	< 55	Spill wholly contained within building.	008	Miscellaneous Oil Containing Equipment and Containers
211	Drum	55-gal oil drum	C-601	1	55	55	Amerilube A1000C	in building	< 55	Spill wholly contained within building.	008	Miscellaneous Oil Containing Equipment and Containers
149	Drum	55-gal oil drum	C-611-A1	1	55	55	Schaffer Oil	In Building	< 55	Spill wholly contained within building.	006	Miscellaneous Oil Containing Equipment and Containers
66	Drum	55-gal oil drums	C-750	8	55	440	Motor, Gear, Hydraulic, & Trans.	In Building	< 55	Spill wholly contained within building.	009	Miscellaneous Oil Containing Equipment and Containers
212	Drum	55-gal oil drums	C-733	8	55	440	Kerosene	Stored in Secondary Containment	< 55	Spill wholly contained within building	008	Miscellaneous Oil Containing Equipment and Containers
213	Drum	55-gal oil drums	C-733	3	55	165	Diesel	Stored in Secondary Containment	< 55	Spill wholly contained within building	008	Miscellaneous Oil Containing Equipment and Containers
14	Tote	Lube Oil Totes	C-337	6	250	1,500	Lube Oil	Stored in Secondary Containment	150	Spill wholly contained within building.	001	Miscellaneous Oil Containing Equipment and Containers
25	Tote	31A Oil Totes	C-337	59	350	20,650	PCB Oil	Stored in Secondary Containment	Empty	Spill wholly contained within building.	001	Miscellaneous Oil Containing Equipment and Containers
67	Tote	Waste Oil Tote	C-750	1	330	330	Used Oil	In Building	35	Double-wall tank, spill wholly contained.	009	Miscellaneous Oil Containing Equipment and Containers
207	Tote	Waste Oil Tote	C-750	1	250	250	Used Oil	in Building	25	Spill wholly contained within building.	009	Miscellaneous Oil Containing Equipment and Containers
86	Generator	Cummins Generator Models DGFA and DSGAB, CA11298 & CA11299	C-100	2	308	616	Diesel	Double-wall tank	31	Double-wall tank, spill wholly contained.	009	Miscellaneous Oil Containing Equipment and Containers
206	Generator	Generac, 6.7L IVECO Diesel, S/N 3080646 with United Alloy, Inc. Tank	C-105	1	969	969	Diesel	Double-wall tank	97	Double-wall tank, spill wholly contained.	009	Miscellaneous Oil Containing Equipment and Containers
60	Generator	Caterpillar Generator Model XQ-175, CA09035	C-310	1	264	264	Diesel	Double-wall tank	27	Double-wall tank, spill wholly contained.	008 & 009	Miscellaneous Oil Containing Equipment and Containers
61	Generator	MQ Power Generator Model DCA-150SSJU, C900353	C-720	1	69	69	Diesel	Double-wall tank	10	Double-wall tank, spill wholly contained.	008	Miscellaneous Oil Containing Equipment and Containers
62	Generator	Caterpillar Generator Model XQ-100, CA07475	C-720	1	167	167	Diesel	Double-wall tank	10	Double-wall tank, spill wholly contained.	008	Miscellaneous Oil Containing Equipment and Containers
27	Generator	Caterpillar Generator Model XQ-60 (C56283)	C-720	1	157	157	Diesel	Double-wall tank	15.7	Double-wall tank, spill wholly contained.	008	Miscellaneous Oil Containing Equipment and Containers
143	Generator	Atlas Copco Generator, QAS150 (CA09598)	C-720	1	219	219	Diesel	Double-wall tank	22	Double-wall tank, spill wholly contained.	008	Miscellaneous Oil Containing Equipment and Containers
144	Generator	Atlas Copco Generator, QAS70 (CA0959)	C-720	1	219	219	Diesel	Double-wall tank	22	Double-wall tank, spill wholly contained.	008	Miscellaneous Oil Containing Equipment and Containers
170	Generator	C-600, Olympian Portable Generator	C-600	1	100	100	Diesel	Double-wall tank	10	Double-wall tank, spill wholly contained.	008	Miscellaneous Oil Containing Equipment and Containers
42	Generator	Tank for C-611-U Generator	C-611-U	1	550	550	Diesel	Double-wall tank	45	Double-wall tank, spill wholly contained.	006	Miscellaneous Oil Containing Equipment and Containers
63	Generator	MQ Power Generator Model DCA-150SSJU, C900352	C-720	1	69	69	Diesel	Double-wall tank	10	Double-wall tank, spill wholly contained.	008	Miscellaneous Oil Containing Equipment and Containers
64	Generator	Caterpillar Generator Model XQ-300 (CA07476)	C-720	1	400	400	Diesel	Double-wall tank	40	Double-wall tank, spill wholly contained.	008	Miscellaneous Oil Containing Equipment and Containers
156	Generator	AGGREKO GENERATOR	C-720	1	100	100	Diesel	Double-wall tank	10	Double-wall tank, spill wholly contained.	008	Miscellaneous Oil Containing Equipment and Containers
102	Generator	Caterpillar Generator Model XQ-600, CA07942	C-746-D	1	428	428	Diesel	Double-wall tank	42	Double-wall tank, spill wholly contained.	010	Miscellaneous Oil Containing Equipment and Containers



Table B.1. Aboveground Storage Tanks and Oil-Filled Equipment (Continued)

CP2-RA-0016/FRI

SPCC ID No.	Inventory Category	Tank No./Equipment Type	Location	No. of Containers	Capacity per Container (gal)	Total Capacity (gal)	Substance Stored	Secondary Containment Capacity (gal)	Anticipated Maximum Flow Rate (gal/hr)	Direction and Destination of Flow (Outfall), if applicable	Outfall No.	Function
88	Generator	Cummins Generator Model DGGD S# G030521342	C-802	1	200	200	Diesel	Double-wall tank	20	Double-wall tank, spill wholly contained.	009	Miscellaneous Oil Containing Equipment and Containers
141	Oil-Filled Operating Equipment	Auxiliary Transformers (TL1 & TL2)	C-400	2	Varies	1,790	Oil	Qualified Operational Equipment	179	Located in drainage area to Outfall 008	008	Qualified Operational Equipment
145	Oil-Filled Operating Equipment	Auxiliary Transformer (LW1)	C-616	1	316	316	Oil	Qualified Operational Equipment	32	Located in drainage area to Outfall 001.	001	Qualified Operational Equipment
146	Oil-Filled Operating Equipment	Auxiliary and Spare Transformers	C-537	6	60	360	Oil	Qualified Operational Equipment	36	Located in drainage area to Outfall 001.	001	Qualified Operational Equipment
148	Oil-Filled Operating Equipment	Auxiliary and Spare Transformers	C-635	5	Varies	3,234	Oil	Qualified Operational Equipment	323	Located in drainage area to Outfall 001.	001	Qualified Operational Equipment
155	Oil-Filled Operating Equipment	Auxiliary and Spare Transformers	C-631	5	Varies	2,349	Oil	Qualified Operational Equipment	235	Located in drainage area to Outfall 008.	008	Qualified Operational Equipment
162	Oil-Filled Operating Equipment	Auxiliary Regulator (M6)	C-720	1	750	750	Oil	Qualified Operational Equipment	75	Located in drainage area to Outfall 008.	008	Qualified Operational Equipment
189	Oil-Filled Operating Equipment	Auxiliary and Spare Transformers	C-409	1	152	152	Oil	Qualified Operational Equipment	15	Located in drainage area to Outfalls 008.	008	Qualified Operational Equipment
182	Oil-Filled Operating Equipment	Auxiliary and Spare Transformers	C-709	1	316	316	Oil	Qualified Operational Equipment	32	Located in drainage area to Outfalls 008 and 009.	008 & 009	Qualified Operational Equipment
190	Oil-Filled Operating Equipment	Aux Transformer (C7)	C-200	1	226	226	Oil	Qualified Operational Equipment	23	Located in drainage area to Outfall 009.	009	Qualified Operational Equipment
192	Oil-Filled Operating Equipment	Transformer (C-750)	C-750	1	450	450	Oil	Qualified Operational Equipment	45	Located in drainage area to Outfall 009.	009	Qualified Operational Equipment
98	Oil-Filled Operating Equipment	161/13kV XFMR Units	C-538	2	5,054	10,108	Mineral Oil	19,500	1,011	Located in drainage area to Outfall 010.	010	Qualified Operational Equipment
99	Oil-Filled Operating Equipment	Metering XFMR Units	C-538	6	121	726	Mineral Oil	Qualified Operational Equipment	73	Located in drainage area to Outfall 010.	010	Qualified Operational Equipment
159	Oil-Filled Operating Equipment	Auxiliary and Spare Transformers (SW1, SW2, SW3, SW4)	C-315	3	386	1,158	Transformer Oil	Qualified Operational Equipment	116	Located in drainage area to Outfall 011.	011	Qualified Operational Equipment
194	Oil-Filled Operating Equipment	Spare Transformers	C-333-A	2	551	1,102	Oil	Qualified Operational Equipment	55	Located in drainage area to Outfall 012.	012	Qualified Operational Equipment
160	Oil-Filled Operating Equipment	Auxiliary and Spare Transformers (3PH1 and 3PH2), Cable Terminal	C-633	2	60	120	Oil	Qualified Operational Equipment	6	Located in drainage area to Outfall 012.	012	Qualified Operational Equipment
161	Oil-Filled Operating Equipment	Spare Transformers (3PH1 & 3PH2)	C-633	2	283	566	Oil	Qualified Operational Equipment	57	Located in drainage area to Outfalls 012.	012	Qualified Operational Equipment
198	Oil-Filled Operating Equipment	Sunbelt 14 Kv Transformer (SP6) 2848981707	C-601	1	488	488	Oil	Qualified Operational Equipment	49	Located in drainage area to Outfall 008.	008	Qualified Operational Equipment
199	Oil-Filled Operating Equipment	Transformer, Square D 7230, XFMR, 14.4 Kv	C-304 Annex	1	248	248	Mineral Oil	Qualified Operational Equipment	25	Located in drainage area to Outfalls 009.	009	Qualified Operational Equipment
200	Oil-Filled Operating Equipment	Transformer (CC3)	C-302	1	187	187	Mineral Oil	Qualified Operational Equipment	19	Located in drainage area to Outfalls 009.	009	Qualified Operational Equipment
201	Oil-Filled Operating Equipment	Transformer, CG Power Systems, 150 KVa, S/N 20111346148	C-105	1	96	96	Mineral Oil	Qualified Operational Equipment	10	Located in drainage area to Outfalls 009.	009	Qualified Operational Equipment
202	Oil-Filled Operating Equipment	Transformer, Howard Industries, 150 KVa, S/N 1358650717	C-208	1	163	163	Type II Transformer Oil	Qualified Operational Equipment	16	Located in drainage area to Outfalls 009.	009	Qualified Operational Equipment
203	Oil-Filled Operating Equipment	Transformer, ERMCO, 150 Kva, S/N C1811268554	C-210	1	148	148	Type II Mineral Oil	Qualified Operational Equipment	15	Located in drainage area to Outfalls 009.	009	Qualified Operational Equipment
204	Oil-Filled Operating Equipment	Transformer, ERMCO, 300 Kva, S/N 32112245275	C-752-EV	1	161	161	Type II Mineral Oil	Qualified Operational Equipment	16	Located in drainage area to Outfalls 009.	009	Qualified Operational Equipment
205	Oil-Filled Operating Equipment	Transformer, Howard Industries, 167 KVa, S/N 1084830222	C-103-EV	1	75	75	Mineral Oil	Qualified Operational Equipment	8	Located in drainage area to Outfalls 009.	009	Qualified Operational Equipment
150	Oil-Filled Operating Equipment	Global Pump	C-600 (portable)	1	100	100	Fuel Oil	Mobile Equipment	10	Mobile equipment.	008	Miscellaneous Oil Containing Equipment and Containers
151	Oil-Filled Operating Equipment	Goodwin Pumps, 1,2, & 3	C-600 (portable)	3	55	165	Fuel Oil	Mobile Equipment	< 55	Mobile equipment.	008	Miscellaneous Oil Containing Equipment and Containers
152	Oil-Filled Operating Equipment	LeRoi Air Compressor	C-600 (portable)	1	100	100	Fuel Oil	Mobile Equipment	10	Mobile equipment.	008	Miscellaneous Oil Containing Equipment and Containers
196	Oil-Filled Operating Equipment	Ametek Tensile Test Machine	C-710 (Rm-22)	1	100	100	Pydrual 50E	In Building	10	Spill wholly contained within building.	009	Oil-Filled Operating Equipment

Table B.1. Aboveground Storage Tanks and Oil-Filled Equipment (Continued)

CP2-RA-0016/FRI

SPCC ID No.	Inventory Category	Tank No./Equipment Type	Location	No. of Containers	Capacity per Container (gal)	Total Capacity (gal)	Substance Stored	Secondary Containment Capacity (gal)	Anticipated Maximum Flow Rate (gal/hr)	Direction and Destination of Flow (Outfall), if applicable	Outfall No.	Function
130	Mobile Refuelers	2016 Ford F250 (G63-0869S) VIN:1DF7W2B65GEC75611	C-724	1	100	100	Diesel	N/A	10	Mobile refueling equipment.	Varies	Truck
132	Mobile Refuelers	2016 Ford F350 (G63-0870S) VIN: 1FD8W3H65GEC87890	C-743-T16	1	100	100	Diesel	N/A	10	Mobile refueling equipment.	Varies	Truck
134	Mobile Refuelers	2016 Chevy K2500HD (G63-1524S) VIN: 1GC1KUEG6GF195010	C-746-U	1	100	100	Diesel	N/A	10	Mobile refueling equipment.	Varies	Truck
185	Mobile Refuelers	2019 Ford F350 (G63-0583W) VIN: 1FD8W3H66KEF60778	Varies	1	100	100	Diesel	N/A	10	Mobile refueling equipment.	Varies	Truck
186	Mobile Refuelers	2018 Dodge Ram (G62-2507V) VIN: 1C6RR7KG5JS306687	Varies	1	100	100	Diesel	N/A	10	Mobile refueling equipment.	Varies	Truck
187	Mobile Refuelers	2023 Ford F150 4x4 (G62-5260Z) VIN: V1FTEX1EB7PKD33750	C-755	1	100	100	Diesel	N/A	10	Mobile refueling equipment.	Varies	Truck
35	Mobile Refuelers	2008/09 Chevy Silverado (G62-A3389) Vehicle Identification Number (VIN): 1GCEK14009Z256969	C-750	1	100	100	Diesel	N/A	10	Mobile equipment.	008	Truck
37	Mobile Refuelers	2015 Ford F150 4x4 (G62-4310P) VIN: 1FTMF1EM2EKF29821	C-755	1	90	90	Diesel	N/A	9	Mobile refueling equipment	002	Truck
214	Mobile Refuelers	2020 Ford F450 (G710520X) VIN:1FT8W4DT3LEE38631	C-755	1	90	90	Diesel	N/A	9	Mobile refueling equipment	002	Truck
54	Lube Oil System	A42	C-310	1	14,700	14,700	Lube Oil (Drain)	16,159	Empty	Spill wholly contained within building.	008	AST - Lube Oil
55	Lube Oil System	A43	C-310	1	9,320	9,320	Lube Oil (Supply)	In Building	Empty	Spill wholly contained within building.	008	AST - Lube Oil
106	Lube Oil System	A44	C-315	1	380	380	Lube Oil (Drain)	636	Empty	Spill wholly contained within building.	011	AST - Lube Oil
107	Lube Oil System	A45	C-315	1	330	330	Lube Oil (Supply)	449	Empty	Spill wholly contained within building.	011	AST - Lube Oil
215	Oil-Filled Operating Equipment	Overbuilt Model 10, Crusher	C-720-C	1	175	175	Hydraulic Oil, ISO 32 to 46	In Building	18	Located in drainage area to Outfall 008	008	Miscellaneous Oil Containing Equipment and Containers



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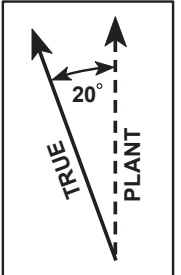
Locations of tanks listed in Table B.1 are shown on Figure B.1. Figure B.2 includes the drainage infrastructure for PGDP.

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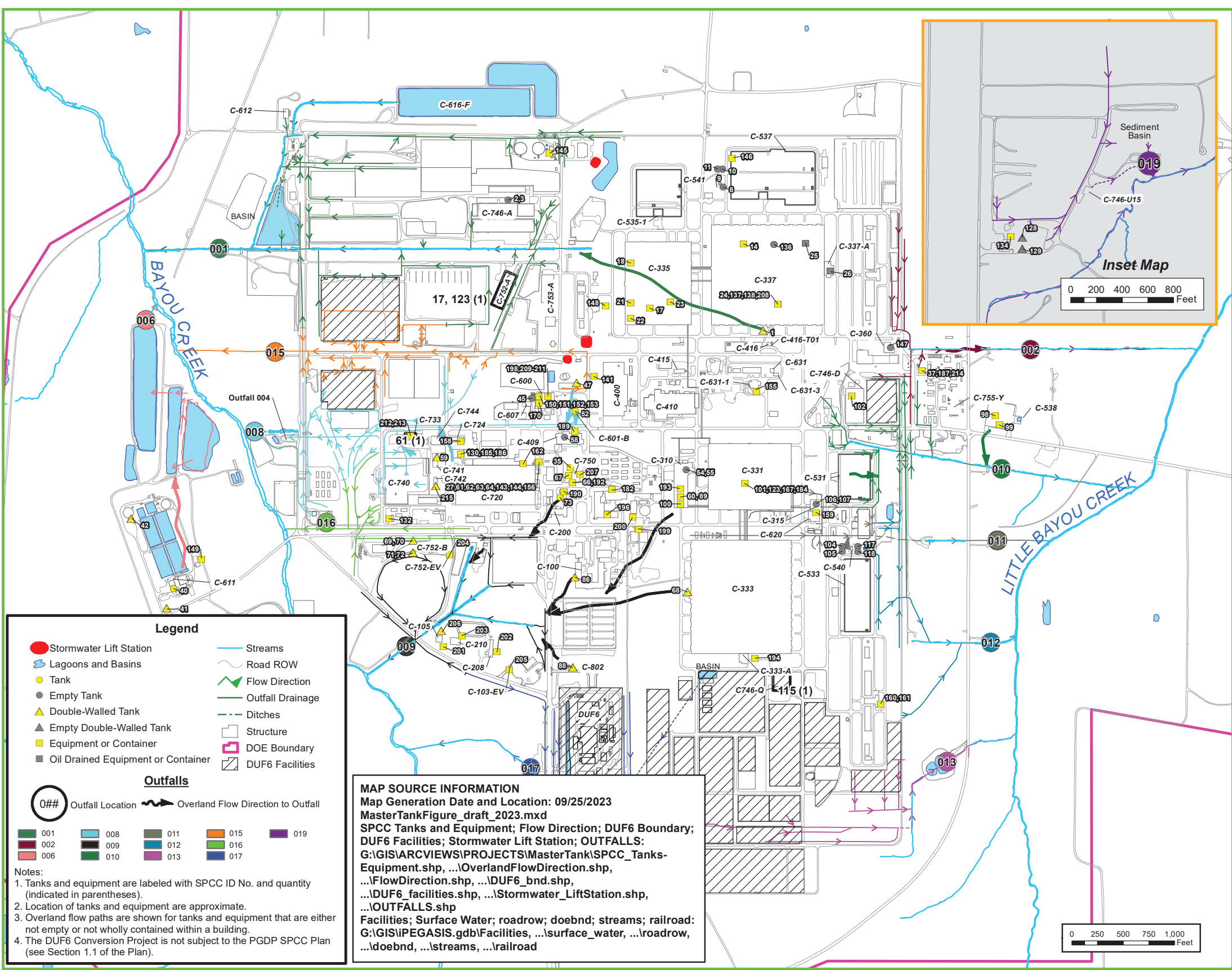
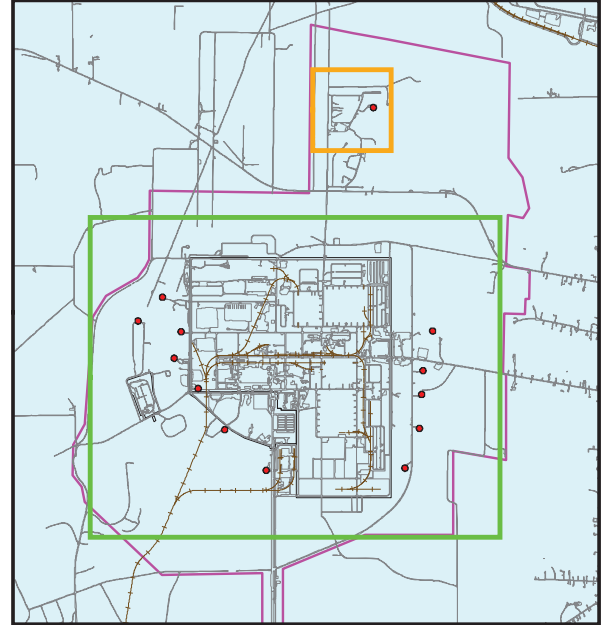
# Kentucky Pollutant Discharge Elimination System (KPDES)

KY0004049

- 001, 002, 004, 006,
- 008, 009, 010, 011,
- 012, 013, 015, 016,
- 017, 019, 020\*



\* Note: KPDES 019 & 020 are in the same location.



**Legend**

- Stormwater Lift Station
- ☪ Lagoons and Basins
- Tank
- Empty Tank
- ▲ Double-Walled Tank
- ▲ Empty Double-Walled Tank
- Equipment or Container
- Oil Drained Equipment or Container
- Streams
- Road ROW
- Flow Direction
- Outfall Drainage
- Ditches
- Structure
- DOE Boundary
- DUF6 Facilities

**Outfalls**

○## Outfall Location    → Overland Flow Direction to Outfall

001	008	011	015	019
002	009	012	016	
006	010	013	017	

**MAP SOURCE INFORMATION**  
 Map Generation Date and Location: 09/25/2023  
 MasterTankFigure\_draft\_2023.mxd  
 SPCC Tanks and Equipment; Flow Direction; DUF6 Boundary;  
 DUF6 Facilities; Stormwater Lift Station; OUTFALLS:  
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 ...DUF6\_facilities.shp, ...Stormwater\_LiftStation.shp,  
 ...OUTFALLS.shp  
 Facilities; Surface Water; roadrow; doebnd; streams; railroad:  
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 ...doebnd, ...streams, ...railroad

- Notes:**
- Tanks and equipment are labeled with SPCC ID No. and quantity (indicated in parentheses).
  - Location of tanks and equipment are approximate.
  - Overland flow paths are shown for tanks and equipment that are either not empty or not wholly contained within a building.
  - The DUF6 Conversion Project is not subject to the PGDP SPCC Plan (see Section 1.1 of the Plan).

This figure shows storm water flow. Some of the depicted structures shown may have been demolished as part of the mission of the site, but would not have impacted the surface storm water flow path.

**U.S. DEPARTMENT OF ENERGY**  
 DOE PORTSMOUTH/PADUCAH PROJECT OFFICE  
 PADUCAH GASEOUS DIFFUSION PLANT



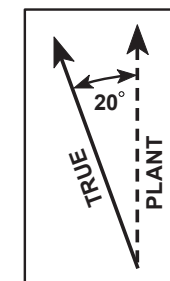
Figure No. MasterTankFigure\_draft\_2023.mxd  
 Date: 9/26/2023

Figure B.1. Above Ground Storage Tanks and Oil-Filled Equipment

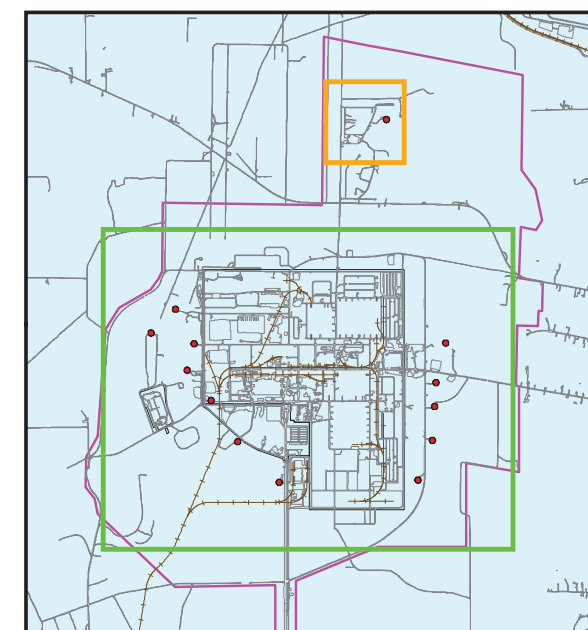
# Kentucky Pollutant Discharge Elimination System (KPDES)

KY0004049

001, 002, 004, 006,  
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012, 013, 015, 016,  
017, 019, 020\*



\* Note: KPDES 019 & 020 are in the same location.

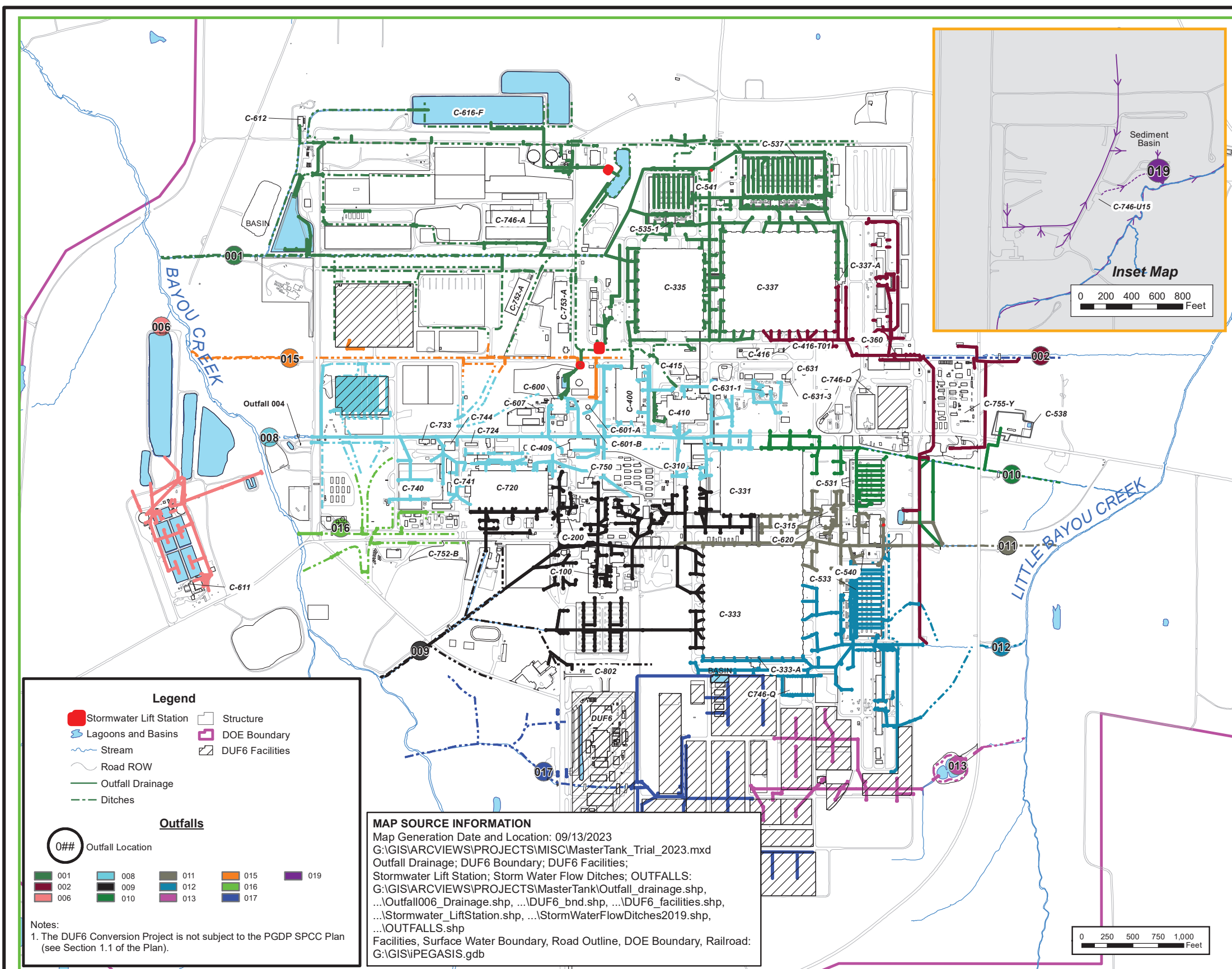


U.S. DEPARTMENT OF ENERGY

DOE PORTSMOUTH/PADUCAH PROJECT OFFICE  
PADUCAH GASEOUS DIFFUSION PLANT



Figure No. MasterTank\_Trial\_2023.mxd  
Date: 9/27/2023



This figure shows storm water flow. Some of the depicted structures shown may have been demolished as part of the mission of the site, but would not have impacted the surface storm water flow path.

Figure B.2. Drainage Infrastructure



**APPENDIX C**

**CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL  
HARM CRITERIA**

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**CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL  
HARM CRITERIA**

**FACILITY NAME:** U.S. Department of Energy Paducah Gaseous Diffusion Plant

**FACILITY ADDRESS:** 5600 Hobbs Road, Kevil, KY 42053

Does the facility have an oil storage capacity that is greater than or equal to 42,000 gal and conduct operations that include over-water transfers to or from vessels?

YES \_\_\_ NO X

Does the facility have a oil storage capacity greater than or equal to 1,000,000 gal, **and** does the facility lack secondary containment that is sufficiently large enough to contain the capacity of the largest aboveground oil storage tank, plus sufficient freeboard to allow for precipitation with any aboveground storage area?

YES \_\_\_ NO X

Does the facility have a oil storage capacity greater than or equal to 1,000,000 gal, **and** is the facility located at a distance such that a discharge from the facility could cause injury to fish, wildlife, and sensitive environments?

YES \_\_\_ NO X

Does the facility have a oil storage capacity greater than or equal to 1,000,000 gal, **and** is the facility located at such a distance that a discharge from the facility would shut down a public drinking water intake?

YES \_\_\_ NO X

Does the facility have a total oil storage capacity greater than or equal to 1,000,000 gal, and has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gal within the last 5 years?


YES \_\_\_ NO X

## CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining information, I believe that the submitted information is true, accurate, and complete.

Name: Myrna Espinosa Redfield

Title: Program Manager, Four Rivers Nuclear Partnership, LLC

Signature: 

Date: 9/27/20