

PPPO-02-10034706-25



## **Department of Energy**

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September 30, 2025

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

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

Dear Mr. Begley and Ms. Webb:

TRANSMITTAL OF THE OPERATION AND MAINTENANCE PLAN FOR THE NORTHWEST STORM WATER CONTROL FACILITY AT THE PADUCAH

GASEOUS DIFFUSION PLANT PADUCAH, KENTUCKY, DOE/OR/07-2044&D1/R5

Please find enclosed the *Operation and Maintenance Plan for the Northwest Storm Water Control Facility at the Paducah Gaseous Diffusion Plant Paducah, Kentucky*, DOE/OR/07-2044&D1/R5. This document has been revised to better detail the current operations of the C-613 storm water collection facility and provide clarification on how and when maintenance is performed.

In accordance with Section XX of the Paducah Federal Facility Agreement (FFA), the U.S. Environmental Protection Agency and the Kentucky Department for Environmental Protection have a review period of 90 days or by December 29, 2025. If the FFA parties have no substantive comments, then the U.S. Department of Energy requests a letter of concurrence.

If you have any questions or require additional information, please contact Angus MacKelvey at (270) 349-7526.

Sincerely,

APRIL LADD Date: 2025.09.30 14:59:42

April Ladd Federal Facility Agreement Manager Portsmouth/Paducah Project Office

#### Enclosure:

Operation and Maintenance Plan for the Northwest Storm Water Control Facility at the Paducah Gaseous Diffusion Plant Paducah, Kentucky, DOE/OR/07-2044&D1/R5

Administrative Record File—(PD-24) Post-Decision File for WAG 24 (Scrap Metal Disposition)

cc w/enclosure:

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## Operation and Maintenance Plan for the Northwest Storm Water Control Facility at the Paducah Gaseous Diffusion Plant Paducah, Kentucky



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#### DOE/OR/07-2044&D1/R5 Secondary Document

## Operation and Maintenance Plan for the Northwest Storm Water Control Facility at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky

Date Issued—September 2025

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 Gaeous Diffusion Plant
under contract DE-EM0004895

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## **CONTENTS**

AC	RONYMS	v					
EX	ECUTIVE SUMMARY	. vi					
1.	INTRODUCTION	1					
2.	EQUIPMENT START-UP AND OPERATOR TRAINING	1					
	2.1 TECHNICAL SPECIFICATIONS						
	2.2 SERVICE REQUIREMENTS						
	2.3 TRAINING SCHEDULE						
3.	DESCRIPTION OF NORMAL O&M	vi11223333375666677777					
	3.1 TASKS REQUIRED FOR SYSTEM OPERATION						
	3.1.1 Direct Discharge						
	3.1.2 Discharge after Treatment						
	3.2 TASKS REQUIRED FOR SYSTEM MAINTENANCE	3					
	3.3 PRESCRIBED TREATMENT AND OPERATING CONDITIONS						
	3.4 FREQUENCY OF O&M TASKS						
4.	DESCRIPTION OF POTENTIAL OPERATING PROBLEMS	4					
5.	DESCRIPTION OF ROUTINE MONITORING AND LABORATORY TESTING	5					
	5.1 MONITORING TASKS	5					
	5.2 REQUIRED LABORATORY TESTS AND THEIR INTERPRETATION	5					
	5.3 REQUIRED QUALITY ASSURANCE/QUALITY CONTROL						
	5.4 MONITORING FREQUENCY						
6.	DESCRIPTION OF ALTERNATE O&M	6					
	6.1 ALTERNATE PROCEDURES	6					
	6.2 ANALYSIS OF VULNERABILITY						
7.	SAFETY PLAN	6					
8.	DESCRIPTION OF EQUIPMENT	7					
	8.1 EQUIPMENT IDENTIFICATION	7					
	8.1.1 Collection Basin	7					
	8.1.2 Recirculation/Discharge System	7					
	8.1.3 Building	7					
	8.1.4 Security Fence	7					
	8.1.5 Electrical System						
	•						
	8.2 INSTALLATION OF MONITORING COMPONENTS						
	8.3 MAINTENANCE OF SITE EQUIPMENT						
	8.4 REPLACEMENT SCHEDULE	8					
9.	RECORDS AND REPORTING8						
10	PROJECTED O&M COSTS	Q					

11. REFEREN	CES	8
APPENDIX:	FIGURES	A-1

### **ACRONYMS**

DOE U.S. Department of Energy FFA Federal Facility Agreement HDPE high-density polyethylene

HDPE high-density polyethylene
KPDES Kentucky Pollutant Discharge Elimination System
NTU nephelometric turbidity unit

NTU nephelometric turbidity unit
O&M operation and maintenance
PGDP Paducah Gaseous Diffusion Plant

SU standard unit

TSS total suspended solids

#### **EXECUTIVE SUMMARY**

In June 2007, the U.S. Department of Energy completed a removal action at the Paducah Gaseous Diffusion Plant (PGDP) by safely removing and disposing of 22,809.20 tons of contaminated scrap metal and miscellaneous material that was contained in scrapyards located in the northwestern portion of the fenced area of PGDP. The infrastructure of this completed project included a storm water control facility that limited the migration of sediments from the work site. The C-613 storm water collection facility and ditches were completed and became operational on September 4, 2002. The U.S. Department of Energy is submitting this Operation and Maintenance (O&M) Plan for the O&M of the Northwest Storm Water Control Facility. This plan follows the outline for O&M Plans found in Appendix D of the Federal Facility Agreement.

Operation of the Northwest Storm Water Control Facility consists of passive collection of runoffs from a 61-acre watershed in which the work site was located. The level of total suspended solids (TSS) is reduced through passive gravity settling in the basin constructed as part of the facility. The impounded water is tested to ensure that discharges to Ditch 001 will not cause the effluent at Kentucky Pollutant Discharge Elimination System Outfall 001 to exceed 30 mg/L monthly average, or 60 mg/L daily maximum TSS, or cause the pH to fall below 6 or to rise above 9 standard units (SU). If the water is not within the targeted discharge range, the water is treated through the application of polymers to induce flocculation and the introduction of acids and bases to adjust pH and TSS as necessary.

Maintenance of the Northwest Storm Water Control Facility consists of routine inspections of the equipment and materials that make up the system. Faulty or worn materials and equipment are replaced or repaired to avoid or minimize disruption of normal operations.

The focus of both operation and maintenance is to achieve the discharge objectives discussed above in a safe and efficient manner.

#### 1. INTRODUCTION

Between 1974 and 1983, contaminated equipment was removed from the process buildings at the Paducah Gaseous Diffusion Plant (PGDP) as a part of numerous uranium enrichment process upgrade programs. Much of the scrap material from this program was contained in the Scrap Metal Yards located in the northwestern corner of the fenced area of PGDP. The U.S. Department of Energy (DOE) conducted a Comprehensive Environmental Response, Compensation, and Liability Act removal action to safely remove and dispose of the scrap material that was completed June 21, 2007 (DOE 2002). The infrastructure of this project included a Storm Water Control Facility (Facility) to limit the migration of sediments from the work site (see Figure A.1). This plan follows the outline for O&M Plans found in Appendix D of the Federal Facility Agreement (FFA). This document presents the plan for operating and maintaining the Facility. This document is not intended to be utilized as a procedure, operator's manual, or work instruction.

#### 2. EQUIPMENT START-UP AND OPERATOR TRAINING

#### 2.1 TECHNICAL SPECIFICATIONS

The Facility design consists of three components: storm water collection and conveyance, gravity-settling basin, and enhanced settling by chemical treatment. A sketch of the Facility is shown in Figure A.2. According to specifications presented in the engineering evaluation/cost analysis (DOE 2001), the Facility is designed with the following criteria.

- (1) The Facility is designed to detain the estimated runoff volume from the Scrap Metal Yards for a 10-year, 24-hour (hour) precipitation event of 5 inches. Extra volume is included to enhance Facility operation and efficiency. The volume of the basin at the design maximum water level (360 ft above mean sea level) is approximately 3,750,000 gal. At the elevation of the facility spillway (365 ft above mean sea level), the basin capacity is approximately 4,500,000 gal.
- (2) The Facility is lined to minimize seepage. A double liner system consists of a 60 mil high-density polyethylene (HDPE) primary liner and a 3 ft thick secondary liner of compacted earthen soil.
- (3) Major components are designed for a 30-year life.
- (4) Hydraulic components (i.e., ditches, culverts, emergency spillway) are designed to route the peak flow from a 25-year, 24-hour precipitation event. Ditch 001 receives emergency discharge, and the lower end has been upgraded and protected with riprap.
- (5) The Facility is designed to enhance solids settling. Collected storm water is routed to the rear of the Facility for energy dissipation and entry to the pond. A perforated baffle is placed within the Facility near the entrance to create even horizontal flow and further dissipate energy. Facility discharge is performed by pumping from the surface of the water, opposite the entrance.

- (6) Components for total suspended solids (TSS) treatment and pH adjustment are included in the design. In accordance with the 2023 Kentucky Pollutant Discharge Elimination System (KPDES) permit limits, TSS target levels are 60 mg/L daily maximum and a monthly average of 30 mg/L, and pH discharge target levels are 6 to 9 standard units (SUs).
- (7) The discharge pump operation (one pump in operation) has the capacity to remove the 10-year, 24-hour runoff volume (14 acre-ft or 4,560,000 gal) from the Facility within four days after completion of treatment. (Each of the two facility pumps is rated to discharge up to 1,000 gal per minute.) Treatment for pH or TSS of the basin water requires a minimum of one day.

#### 2.2 SERVICE REQUIREMENTS

To assure proper operation of the Facility, inspection and maintenance is required. An example inspection and maintenance checklist is included in the Appendix (Figure A.3). The exact forms to be used and the frequency of the inspections will be included in a work instruction for the Facility. An inspection form similar to the one shown in the Appendix is completed during inspection.

#### 2.3 TRAINING SCHEDULE

The workers responsible for conducting the inspections and maintaining the Facility perform the work according to the applicable work instruction. A training matrix is maintained for Facility technicians.

#### 3. DESCRIPTION OF NORMAL O&M

#### 3.1 TASKS REQUIRED FOR SYSTEM OPERATION

In general, the Facility operates in one of two modes: direct discharge or discharge after treatment.

#### 3.1.1 Direct Discharge

Normal operation of the Facility consists of removing water from the Facility using both water-transfer pumps. The transfer pumps extract the water from the Facility via skimmers to ensure bottom sediments are not disturbed by the suction of the pumps. The water initially is recirculated to the Facility inlet, while turbidity (used as an indicator of TSS, see Section 5.3) and pH values are measured. These measurements are made using meters mounted on and within the transfer pump flowline (in-line meters). Once it has been determined that TSS and pH values are acceptable for discharge, water from the transfer pumps is diverted to the manhole at the southeast corner of the Facility enclosure, which leads to Ditch 001. Under normal operating conditions, water discharge into Ditch 001 is not initiated without first verifying that the discharge will not cause TSS values at KPDES Outfall 001 to rise above of 30 mg/L (monthly average) or 60 mg/L (daily maximum), or pH values to fall below 6 SU or rise above 9 SU. Once discharge is initiated, pH levels and turbidity are monitored every 24 hours of discharge time to ensure that pH and turbidity levels remain stable. If a sustained significant increase in turbidity levels or pH fluctuations is observed in discharge stream, direct discharge operations shall cease.

#### 3.1.2 Discharge after Treatment

#### 3.1.2.1 Polymer Treatment System Operation

If it is determined that TSS values of the basin's water are elevated above a level that will cause TSS values at KPDES Outfall 001 to rise above of 30 mg/L (monthly average) or 60 mg/L (daily maximum), then the TSS level is reduced by increasing settling time, or through manual dispersion of granular additive. Manual dispersion of a granular additive is conducted by slowly pouring bagged contents into the water pooled at the basin inlet and allowing the system to remain in circulation mode until desired turbidity (used as a measure of TSS) is reached. A preliminary test may be conducted to determine the most effective treatment for the water by using a jar testing system and various cationic polymers and doses. In order for coagulation and flocculation to occur, it may be necessary to correct the pH of the basin water before treatment with the appropriate polymer system.

#### 3.1.2.2 pH Treatment System Operation

If it is determined that pH values of the basin discharge can cause the pH at KPDES Outfall 001 to rise above 9 SU or fall below 6 SU, then the pH must be adjusted by either extended recirculating of the basin contents, or through manual dispersion of granular additive. Manual dispersion of a granular additive is conducted by slowly pouring bagged contents into the water pooled at the basin inlet and allowing the system to remain in circulation mode until desired pH is reached. In addition to adjusting pH to meet discharge parameters, pH adjustment may be necessary to optimize polymer performance.

#### 3.2 TASKS REQUIRED FOR SYSTEM MAINTENANCE

A general inspection of all equipment, pumps, buildings, and structures is performed on a routine basis. Inspection checklist items are included as Figure A.3. Any material or equipment that jeopardizes system performance or worker safety will be replaced, modified, or repaired as needed. Inspections to identify debris in the inlet culverts occur on a regular basis. Debris that impairs system operation will be removed from culverts, baffle wall, and skimmers. All removed debris will be characterized for disposal.

#### 3.3 PRESCRIBED TREATMENT AND OPERATING CONDITIONS

Basin water discharged to Ditch 001 shall not cause the effluent at KPDES Outfall 001 to have a pH below 6 SU or above 9 SU. Nor shall the discharge cause the effluent at KPDES Outfall 001 to have a TSS load greater than 30 mg/L monthly average or 60 mg/L daily maximum. While these conditions are met, operation of the Facility occurs in the normal operational mode described in Section 3.1.1. Should these conditions not be met, recirculating of the water, extended retention, or chemical treatment of the water is conducted prior to discharge as described in Section 3.1.2.

#### 3.4 FREQUENCY OF O&M TASKS

The Facility operates continually receiving runoff from the watershed and allowing for gravity settling. Frequency of discharge operations will vary depending on water elevation, sediment elevation, and meteorological conditions. The following questions are considered prior to commencing discharge.

• Is the water elevation sufficiently greater than sediment elevation to prevent sediment disturbance if pumping is initiated?

- Is the emergency spillway elevation sufficiently greater than water elevation to prevent routine discharge as a result of heavy rainfall?
- Are the TSS and pH values of the basin water at or near the target discharge levels?
- What is the weather forecast?

Inspection and maintenance activities are performed on a routine schedule. An example inspection and maintenance checklist is included in Appendix Figure A.3. The exact forms to be used and the specific frequency of the inspections are included in the performance document for the Facility.

#### 4. DESCRIPTION OF POTENTIAL OPERATING PROBLEMS

Stagnant water conditions during warm weather are conducive to algae growth. Algae convert the carbon dioxide in basin waters to oxygen that then is released to the atmosphere. This natural process can raise the pH of the host water to levels as high as 11 SU. Robust algae blooms may create pH problems that are correctable using the pre-discharge chemical treatment regimes described in Sections 3.1.2 and 3.1.3.. A likely corrective action will be to reduce the pH by recirculating the basin contents and adding granular citric acid as necessary.

Equipment or material failure or rainfall overflow could prevent normal discharge and/or pre-treatment operations from occurring. If material or equipment failure cannot be corrected, equipment is repaired or replaced. Both the discharge system and the treatment system are equipped with redundant pumps; if a pump fails, the system will operate on one pump until the broken pump is replaced or repaired. Other materials and equipment that make up the Facility are readily available from local suppliers, thus minimizing the potential for significant downtime as a result of waiting on replacement parts.

Turbidity (used as a measure of TSS, see Section 5.3) and pH meter failure could prevent in-line monitoring of these parameters. If the in-line pH or turbidity meters should fail, measurements are taken on grab samples until the broken meter is replaced or repaired.

An electrical outage during freezing weather would render the installed heat tracing ineffective, thus leaving the piping vulnerable to freeze damage. Under these circumstances, all standing water in exposed piping should be drained. Additionally, if the surface water of the basin freezes, the skimmers associated with the discharge pumps will be rendered inoperable. Under these circumstances, discharge and treatment operations will cease until the ice in the basin thaws.

Dramatic rainfall events after long dry periods may result in the resuspension of sediment from the bottom of the basin. Retreatment of the water may be necessary in these situations.

Buildup of vegetation in the basin trough can threaten the integrity of the basin. An inspection of the structure is performed annually and documented in project files. A maintenance work order will be initiated for cleanout of the inlet trough area (upstream of the 18-inch corrugated metal pipes and downstream of the three ripples) after annual inspection documents vegetation and sediment buildup.

# 5. DESCRIPTION OF ROUTINE MONITORING AND LABORATORY TESTING

#### **5.1 MONITORING TASKS**

TSS and pH associated with water retained in the basin are monitored to optimize the timing of discharge and treatment system operations. Water elevation in the basin is monitored to protect against basin overflow and to optimize treatment regimen. The pH and TSS levels of the system's effluent are monitored to prevent discharge of water with unacceptable pH or TSS levels to Outfall 001.

#### 5.2 REQUIRED LABORATORY TESTS AND THEIR INTERPRETATION

The objectives of this Facility are to discharge water within specified pH and TSS parameters. Both parameters are field monitored using instrumentation prior to releasing water to Ditch 001. Instrumentation is calibrated against commercially prepared laboratory standards. Once per quarter, a sample is collected to analyze the relationship between turbidity (used as a measure of TSS) and TSS as described in Section 5.3.

#### 5.3 REQUIRED QUALITY ASSURANCE/QUALITY CONTROL

The C-613 Basin was designed and constructed to reduce the level of suspended solids in the storm water runoff from the scrapyards and to control the pH of discharge from the basin; therefore, the instrumentation used to monitor these parameters is subject to quality control activities. Because the measure of suspended solids typically is a laboratory analysis, turbidity (which can be readily measured by a field probe) is used as a measure of suspended solids. The reliability of turbidity as an indicator of suspended solids is well documented.

The pH and turbidity meters were calibrated to standard solutions after they were installed. The turbidity meter was calibrated using 40, 200, 800 nephelometric turbidity unit (NTU) standards and the manufacturer's operating manual. The pH meter was calibrated using standard buffer solutions of pH 4 SU and pH 7 SU. Continuing quality assurance activities consist of calibrating the turbidity and pH meters with factory standards on a quarterly basis.

The relationship of turbidity to total suspended solids in the runoff from the scrapyards was determined from laboratory analysis of TSS and suspended solids obtained from seven samples collected at the basin. All but one of the five samples collected on March 19, 2003, (from various locations within the basin and recirculation system) and 1 sample each collected on May 7 and May 12, 2003, (from within the recirculation system) represented normal basin conditions under stable weather. The 5th sample collected on March 19, 2003, is a fabricated turbidity sample, generated by mixing bottom sediment with the water sample, to aid in correlation of TSS and NTU values. The TSS and NTU values of each sample were plotted on a graph (see Figure A.4). The graph shows a linear regression line through seven data points where le = 0.9362 and the regression equation TSS =  $1.282605 + 0.862264 \times NTU$ . The high R2 means the linear model accounts for 93.62% of the variation in TSS. The model predicted the 30 mg/L of TSS will occur at 33.3 NTU. The model is updated four times annually with the results of the quarterly laboratory sample discussed in Section 5.2. This information will be included in the O&M Basin Facility section of the Semiannual FFA Progress Report.

#### **5.4 MONITORING FREQUENCY**

Water retained in the basin is monitored under normal operation for TSS (as turbidity) and pH to optimize discharge and treatment system operations. The pH and turbidity levels of system effluent shall be determined prior to discharge to Ditch 001 and every 24 hours thereafter during a discharge event.

#### 6. DESCRIPTION OF ALTERNATE O&M

#### **6.1 ALTERNATE PROCEDURES**

In order to prevent undue hazards if the basin's normal discharge system undergoes a long-term failure, the basin is designed with an emergency spillway designed to pass the peak flow from a 25-year, 24-hour precipitation event.

#### 6.2 ANALYSIS OF VULNERABILITY

Should the basin's normal discharge system undergo long-term failure, the additional runoff retention time caused by the basin would continue to reduce TSS. Since the 2007 completion of the removal action to safely remove and dispose of the scrap material, the watershed area has been largely undisturbed, and vegetative cover has been maintained. The established vegetative cover and the lack of project/ground disturbance has reduced current vulnerability.

#### 7. SAFETY PLAN

Safety and Health Work Permits or Activity Hazard Assessments will be issued to personnel who operate and perform maintenance for the basin. These permits describe the requirements to wear appropriate personal protective equipment (PPE) such as steel-toed boots, eye and hearing protection, and companyissued clothing. Equipment is inspected prior to use, and sites are walked-down prior to work to assess for any potential hazards that might impact the operation and maintenance. All O&M activities are conducted under the Integrated Safety Management System. All work, under normal and alternate operating conditions (see Sections 3 and 6), is governed by the DOE contractor-approved health and safety plans, procedures, and activity hazard assessments. Work performed in radiological areas is governed by the DOE contractor-approved procedures, work instructions, radiological work permits, and hazard assessments. Although this O&M plan addresses equipment and operations associated with the introduction of chemicals to adjust TSS or pH of basin water, the actual introduction and use of these chemicals will be authorized only after associated facility Safety Basis documents are updated to account for their presence and usage.

#### 8. DESCRIPTION OF EQUIPMENT

#### 8.1 EQUIPMENT IDENTIFICATION

The Facility consists of three major components: storm-water collection and conveyance, gravity-settling basin, and enhanced settling by chemical treatment.

#### **8.1.1 Collection Basin**

The Collection Basin consists of entrance structures, and settling zone. Entrance structures include a basin entrance channel; three ripples or bumps; an inlet trough; 12, 18-inch corrugated metal pipes; and a perforated wooden baffle wall. In combination, these structures serve to dissipate energy and distribute flow uniformly over the entire cross-section of the settling zone. The settling zone is constructed with a primary liner of textured, 60 mil, HDPE underlain with a 3 ft thick low-permeable earthen secondary liner. A heavy nonwoven, geotextile fabric is installed between the secondary liner and primary liner. The slopes in the southern area of the basin are double lined in areas near the intake components of the transfer pumps.

#### 8.1.2 Recirculation/Discharge System

The recirculation/discharge system provides the option of recirculating the water from the discharge end of the basin to the inlet or discharging to Ditch 001. The major components of the system are two pumps (approximately 1,000 gal per minute each, housed in weather resistant heated buildings); two floating intake point (skimmers); skimmer anchors and tethers; piping to two separate discharge points (basin inlet and Ditch 001); TSS and pH meters; discharge manhole leading to Ditch 001.

#### 8.1.3 Building

The prefabricated building is divided into three compartments: two storage compartments and one process compartment. The process compartment houses the TSS and pH meters on the recirculation/discharge system.

#### **8.1.4 Security Fence**

A lockable security fence encircles the basin.

#### 8.1.5 Electrical System

The electrical system consists of components for supplying electrical power to the discharge pumps; the treatment system pumps; heat tracing elements; lighting; and heating, ventilation, and air conditioning (HVAC) for the building and exterior lighting for select work areas.

#### 8.2 INSTALLATION OF MONITORING COMPONENTS

In-line pH and turbidity (as a measure of TSS) probes, flow indicators, and pressure gauges are installed on the treatment loops of the recirculation/discharge system.

#### 8.3 MAINTENANCE OF SITE EQUIPMENT

The building and structures, skimmers, sprinklers, and pumps undergo periodic documented inspections. Buildings and air conditioner filters will be cleaned to maintain a safe and productive work environment. Lubricants are replaced or replenished, as needed. Valves, bearings, and housings are inspected. An inspection and maintenance form similar to the one shown in Appendix Figure A.3 is completed and submitted to records management. The exact forms to be used are included in the associated work package.

#### 8.4 REPLACEMENT SCHEDULE

Lubricants are scheduled for replacement annually. An additional suggested replacement schedule is found in Figure A.3. The basin liner has a 30-year life expectancy. Repair or replacement of the basin liner will be performed after inspection determines the liner is in an unacceptable condition.

#### 9. RECORDS AND REPORTING

Records for the Northwest Storm Water Control Facility include discharge and treatment operation logs and maintenance work packages. Field and laboratory records for turbidity, pH, and TSS are completed and submitted to records management. Reporting on the O&M Basin Facility will occur in the Semiannual FFA Progress Report. Monthly discharge data are provided to the Kentucky Department for Environmental Protection when requested.

#### 10. PROJECTED O&M COSTS

The costs associated specifically with O&M activities are not accounted for separately, because they are performed as part of the facility-wide, long-term surveillance and maintenance and environmental monitoring programs.

#### 11. REFERENCES

- DOE (U.S. Department of Energy) 2001. Engineering Evaluation/Cost Analysis for Scrap Metal Disposition at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/OR/07-1880&D2/R1, U.S. Department of Energy, Paducah, KY, March.
- DOE 2002. Removal Action Work Plan for Paducah Scrap Metal Removal and Disposal at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/OR/07-2013&D2, U.S. Department of Energy, Paducah, KY, April.
- EPA (U.S. Environmental Protection Agency) 1998. Federal Facility Agreement for the Paducah Gaseous Diffusion Plant, U.S. Environmental Protection Agency, Region 4, Atlanta, GA, February 13.

# APPENDIX FIGURES

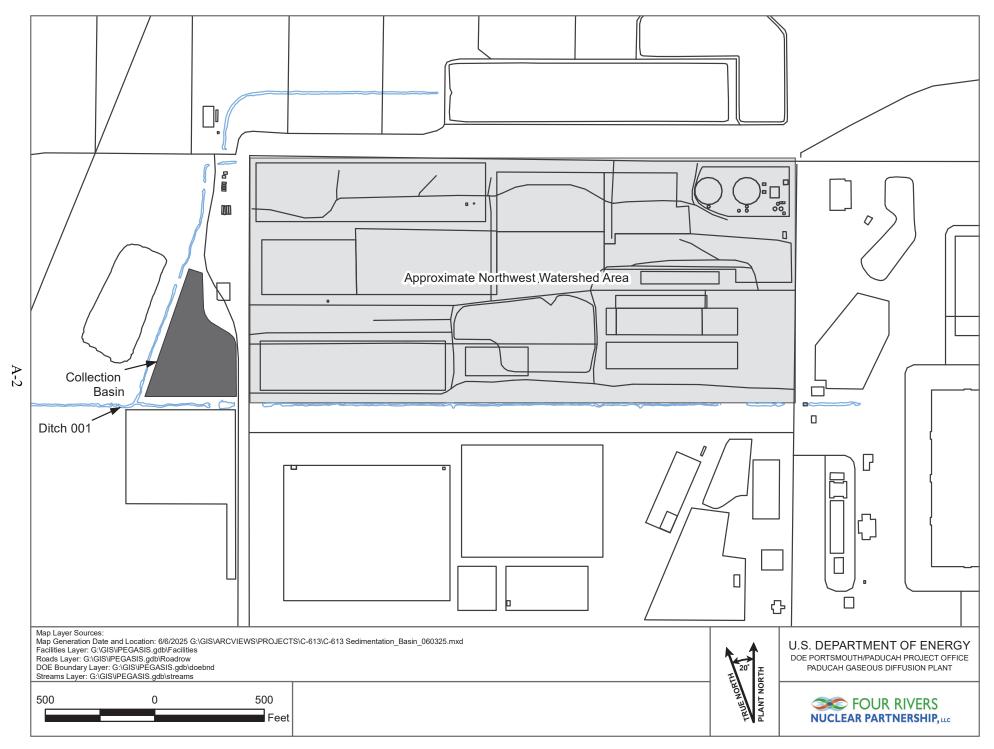


Figure A.1. Location of the Northwest Storm Water Control Facility

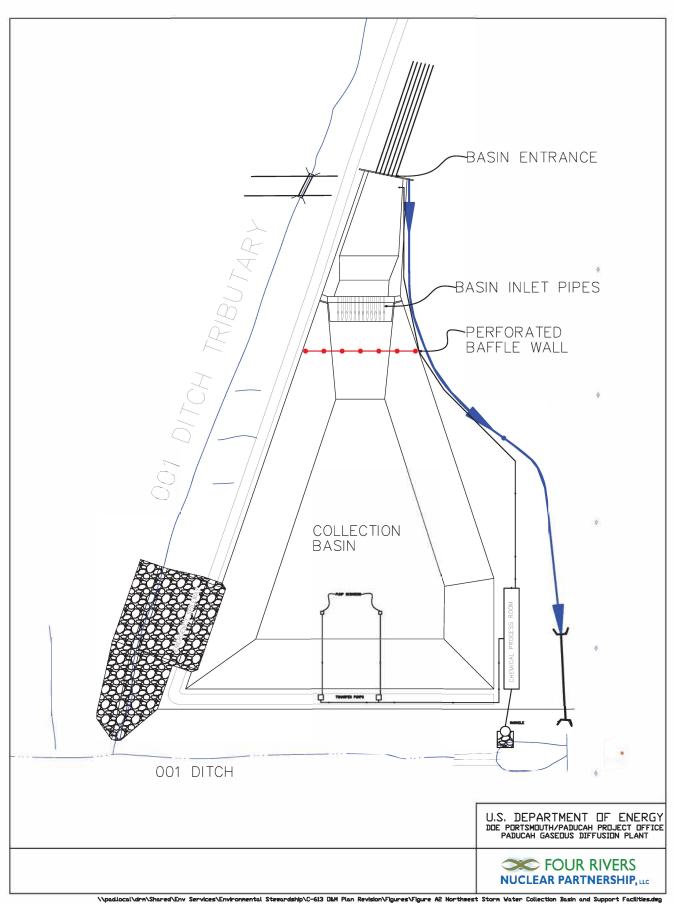


Figure A.2. Northwest Storm Water Collection Basin and Support Facilities

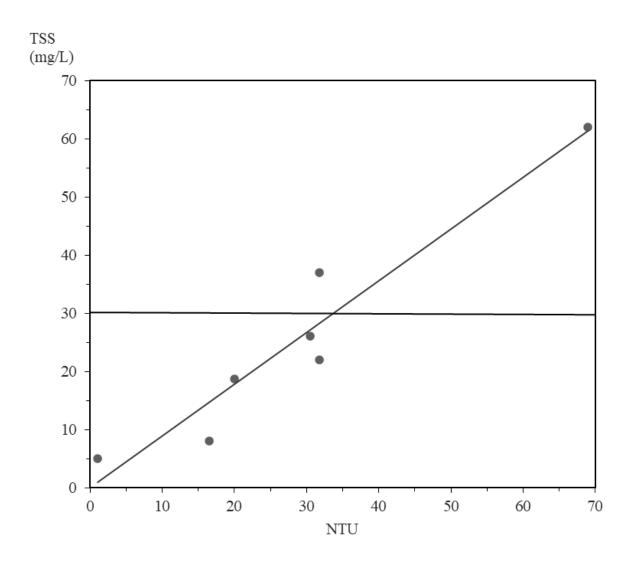
## C-613 Inspection and Maintenance Checklist (Example)

Check "SAT" to indicate compliance with the requirement. Check "UNSAT" to indicate **un**satisfactory condition(s) exist and describe the condition(s) under "Deficient Condition." If a condition was previously identified and has still **not** been corrected, report that condition under "Comments."

Inspection/Maintenance	A/Q/M*	SAT	UNSAT	<b>Deficient Condition</b>	Comments
Transfer pumps air relief	A				
Transfer pumps vibration	A				
Transfer pumps v-belts	A				
Transfer pumps alignment	A				
Transfer pumps bearings and bearing temp	A				
Transfer pumps housing	A				
Transfer pumps piping	A				
General condition of buildings and structures (dents, holes, etc.)	A				
Basin liner free of cuts, tears, or other damage.	A				
Basin Inlet (wooded growth)	A				
Basin Inlet Culverts (blockage)	A				
Building leaks	A				
Building air conditioners	A				
Building thermostats	A				
Building lights	A				
Building heaters	A				
Building fans	A				
Transfer pumps bearing lubricant – Replace	A				
Transfer pumps seal lubricant – Replace	A				
Transfer pumps performance (gauges, speed, flow)	Q				
Transfer pumps bearing temp	Q				
Transfer pumps bearing lubricant – Add if necessary	Q				
Transfer pumps seal lubricant – Add if necessary	Q				
Inspect facility for chemical leaks (Alum, Citric Acid, etc.).	M				

<sup>\*(</sup>A/Q/M = Annual/Quarterly/Monthly Frequency)

Figure A.3. C-613 Inspection and Maintenance Checklist



TSS = Total Suspended Solids NTU = Nephelometric Turbidity Unit

Figure A.4. Relationship of NTU to TSS in samples collected from the C-613 Basin (March through May 2003)

