Pennsylvania Department of Environmental Protection

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**New**	Application No.	**PA0285072**
Facility Type	**Storm Water**	APS ID	**1084106**
Major / Minor	**Minor**	Authorization ID	**1432107**

NPDES PERMIT FACT SHEET INDIVIDUAL INDUSTRIAL WASTE (IW) AND IW STORMWATER

Applicant and Facility Information

Applicant Name	**Washington Penn Plastics**	Facility Name	**Washington Penn Plastics VBAT Plastics Division**
Applicant Address	480 Racetrack Road	Facility Address	1500 Weirich Avenue
	Washington, PA 15301-8935		Washington, PA 15301-2462
Applicant Contact	Stacey Lucas	Facility Contact	Stacey Lucas
Applicant Phone	(724) 206-4450	Facility Phone	(724) 206-4450
Client ID	92130	Site ID	270569
SIC Code	3087	Municipality	Canton Township
SIC Description	Manufacturing - Custom Compound Purchased Resins	County	Washington
Date Application Received	March 22, 2023	EPA Waived?	Yes
Date Application Accepted		If No, Reason	

Purpose of Application: A new individual IW permit to replace prior coverage under General Permit PAR236130

Summary of Review

Washington Penn Plastics, Inc. (WPP), on behalf of its VBAT Plastics Division (VBAT) submitted a new application for coverage under an individual industrial waste (IW) National Pollutant Discharge Elimination System (NPDES) coverage on March 20, 2023, for their existing intermittent storm water discharge from their plastic resins plant (Standard Industrial Classification code 3087) in Canton Township, Washington County. The facility is used for bulk storage, compounding and marketing of thermoplastic resins and polyolefin materials such as polypropylene and polyethylene for customized applications in the automotive, packaging, consumer products, construction, and other industries. Raw materials including feedstock, dyes and other color additives used in compounding and manufacturing are brought in by either truck or rail. These raw materials like resin pellets (“nurdles”) are received in bulk, stored in various surface containers, storage tanks and siloes, then blended, heated, extruded, reformed, shaped, finished and distributed to customers via truck or rail.

WPP is part of the Audia group of companies with multiple locations in the greater Pittsburgh area and in other U.S. locations, as well as Mexico, Slovakia, Japan and China. WPP’s headquarters is on Racetrack Road in Washington, Pa. WPP’s VBAT facility is located at 1500 Weinrich Avenue, Washington, PA in an industrial area. Although the VBAT location was operational before the early 1990’s, WPP submitted its initial application circa September 1992 and it was first permitted in January 1996 under Individual Permit **PAS236105**, which was renewed in 2001. Subsequently the Department determined that the WPP VBAT facility qualified for coverage under a General Permit (PAG03), designated **PAR236130**, which was issued on January 5, 2006, and became effective on February 1, 2006. In a letter, dated September 30, 2016, the Department communicated that the SIC code applicable for the VBAT facility, going forward, would be changed to a new Appendix (S), specifically created for this type of facility. All facilities covered under the Department’s PAG-03 General Permits were required to apply for renewal in early 2023.

Approve	Deny	Signatures	Date
X		John L Duryea, Jr., P.E. / Environmental Engineer	January 22, 2025
X		Michael E. Fifth, P.E. / Environmental Engineer Manager	January 24, 2024

Summary of Review

Presently the only discharge from the facility is stormwater runoff, with no process water discharges. Due to the intermittent release of plastic "nurdles" from WPP sites, the Department required WPP to apply for an individual NPDES permit despite the lack of process water discharges. With their March 2023, individual NPDES permit application WPP included an updated VBAT site map showing the drainage areas contributing to the stormwater of each of the five VBAT outfalls. WPP property covers 5 acres and is shown in Figure 1 below:

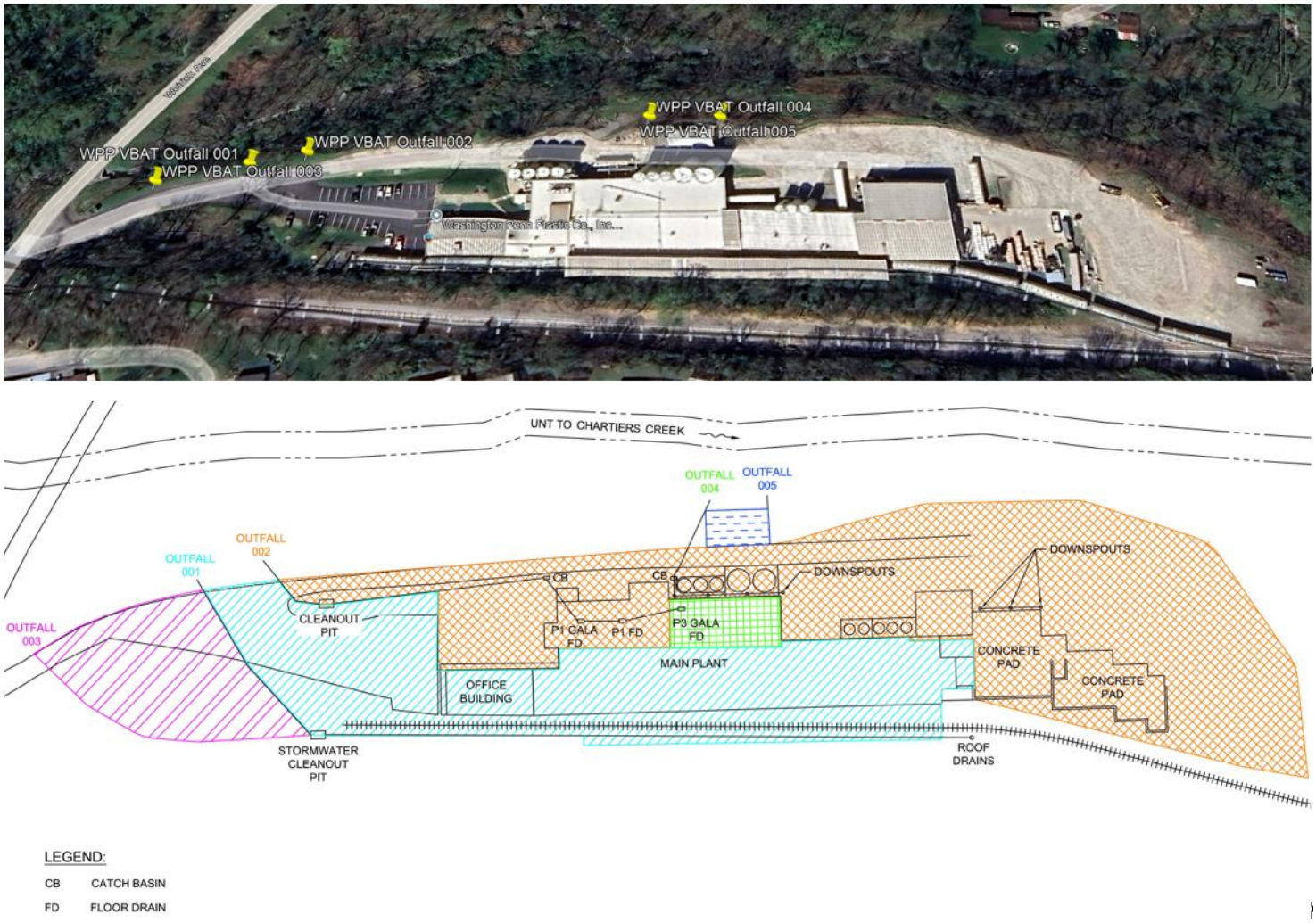

Figure 1: Site Map and Annotated Satellite Image of the Washington Penn Plastics, VBAT Division Site

As can be seen in the image and site map above, toward the northwest (top of these images) of this WPP facility flows to an unknown tributary (UNT) (37135) to Chartiers Creek (86052) both of which are designated in Chapter 93 as warm water fisheries (WWF). Available drainage models and elevation data indicate that the majority of the stormwater runoff from this site naturally drains from right to left in the images (toward the southwest) and then through the five site outfalls as color coded in the site map above to UNT 37135 to Chartiers Creek. However, roof drainage from the portion of the building shaded in green and the cleanout area shaded in blue in the site map above in Figure 1, has been redirected to flow more directly to Outfall 004 (green) and Outfall 005 (blue) toward the nearby UNT.

WPP informed the Department via email, received on November 26, 2013, that boiler blowdown was no longer going to be discharged to stormwater outfalls. The overflow of the cooling tower would be discharged to Washington - East Washington Joint Authority Sanitary Sewer System. Potential pollutant sources at the facility include outdoor parking areas, plastic and other material transfer areas, outdoor oil and propane storage tanks; as well as, whatever collects in the drainage lines, catch basins and floor drains. Since that time, only uncontaminated stormwater is authorized for discharge at this location's outfalls.

Summary of Review

Truck and rail loading/off-loading areas are mainly interior to the buildings or under roof, but also in spaces in proximity to outdoor tanks and siloes, along the rail spur access. In the past, these areas have had accumulations of residual materials (i.e., oil, grease, plastic resin "nurdles") that may come in contact with precipitation. In addition, accidental spills or release of any materials in these outdoor areas have the potential to become entrained in precipitation runoff and then drain to the receiving stream.

The locations of the site's five outfalls were updated to match those documented in the application on January 9, 2025.

Conclusion

There were open violations documented by Client Record from June 2022. As part of this review, an inquiry was made on the client's submission of corrective action plans (CAPs). In reply WPP supplied submitted CAPs from 2019 and 2020. Subsequently, WPP and the Department entered into a Consent Order Agreement (COA), executed on October 3, 2024, which controls elimination of the release of plastics nurdles at this facility (and two other WPP facilities). All open violations have been closed out.

Draft permit issuance is recommended.

Following sections included an explanation of how effluent limitations/monitoring were developed.

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001, 002, 003, 004 and 005	Design Flow (MGD)	0
Latitude	40º 9' 37"	Longitude	-80º 17' 32.05"
Latitude	40º 9' 37.57"	Longitude	-80º 17' 31.74"
Latitude	40º 9' 36.09"	Longitude	-80º 17' 32.58"
Latitude	40º 9' 40.83"	Longitude	-80º 17' 29.34"
Latitude	40º 9' 41.44"	Longitude	-80º 17' 28.71"
Quad Name	Washington West	Quad Code	1703
Wastewater Description:	Stormwater		

Receiving Waters	Unnamed Tributary of Chartiers Creek (WWF)	Stream Code	37135
NHD Com ID	99694728	RMI	1.2
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)		Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	20-F	Chapter 93 Class.	WWF
Existing Use	**Aquatic Life**	Existing Use Qualifier	None
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Impaired		
Cause(s) of Impairment	METALS, SILTATION, SILTATION		
Source(s) of Impairment	ACID MINE DRAINAGE, ACID MINE DRAINAGE, URBAN RUNOFF/STORM SEWERS		
TMDL Status	Final, Final	Name	Chartiers Creek and the Chartiers Creek Watershed

Nearest Downstream Public Water Supply Intake	West View Water Authority, J. A. Berkley WTP		
PWS Waters	Ohio River	Flow at Intake (cfs)	4730/2 = 2365
PWS RMI	976 (35.5 miles from Ohio)	Distance from Outfall (mi)	> 45 miles

Changes Since Last Permit Issuance: No changes since last permitted under PA236130.

Other Comments: Refer to the COA, dated October 3, 2024, and associated communications, for details on control of plastic nurdles.

Compliance History	
Summary of DMRs:	**The permittee has been submitting DMR data over the term of their permits. Since the second half of 2017, these results have been submitted via the Department's eDMR system. These more recent results generally demonstrated compliance with the permittee's permit benchmarks for all outfalls, with a few exceptions. These exceptions included only exceedances for Total Suspended Solids (TSS) for the results during late 2018 and early 2019 at Outfall 005, in early 2021 at Outfalls 001 and 002, at Outfall 005 in late 2021, late 2022 and again in early 2024.** **In response, the permittee should consider additional Best Management Practices (BMPs), especially in the vicinity of Outfall 005. During the next permit renewal cycle, the Department should consider if coverage under the General Permit is, once again, appropriate.**
Summary of Inspections:	**There have been four onsite inspections at this facility since the termination of blowdown discharges in 2013. Two of these resulted in violations being documented, in January 2022 and March 2023. In addition, Notices of Violation were issued after both of these inspections, involving a total of eight violations being documented.** **However, all of these violations have since been closed. With the COA of last year, all outstanding issues have been resolved and the permittee is currently in compliance with their permits. This fact was documented in the Department's Operations' compliance report of January 7, 2025, which documented that all of these prior issues have now been resolved**

Other Comments: None

Development of Effluent Limitations

Outfall No.	001, 002, 003, 004 and 005	**Design Flow (MGD)**	0
	40º 9' 37",		-80º 17' 32.05"
	40º 9' 37.57"		-80º 17' 31.74"
	40º 9' 36.09"		-80º 17' 32.58"
	40º 9' 40.83"		-80º 17' 29.34"
Latitude	40º 9' 41.44"	**Longitude**	-80º 17' 28.71"

Wastewater Description: Stormwater

Technology-Based Limitations

Stormwater Technology Limits

Outfalls 001 through 005 will be subject to PAG-03 General Stormwater Permit conditions as a minimum requirement because the outfalls receive stormwater. One of the applicable SIC codes for the site is 3087 and the corresponding appendix of the PAG-03 that would apply to the facility is **Appendix S**. The reporting requirements applicable to stormwater discharges are shown in Table 1 below. Along with the monitoring requirements, sector specific BMPs that are included in Appendix S of the PAG-03 will also be included in Part C of the Draft Permit.

Table 1: PAG-03 Appendix (S) Monitoring Requirements

Parameter	Max Daily Concentration	Measurement Frequency	Sample Type
pH	Monitor and Report	1/6 Months	Grab
Total Suspended Solids (TSS)	Monitor and Report	1/6 Months	Grab
Total Zinc	Monitor and Report	1/6 Months	Grab
Total Nitrogen (1)	Monitor and Report	1/6 Months	Calculation
Total Phosphorus	Monitor and Report	1/6 Months	Grab

(1) Total Nitrogen is the sum of Total Kjeldahl-N (TKN) plus Nitrite-Nitrate as N (NO_2+NO_3-N), where TKN and NO_2+NO_3-N are measured in the same sample.

Water Quality-Based Limitations

Stormwater WQBELs

Water quality analyses are typically performed under low-flow (Q7-10) conditions. Stormwater discharges occur at variable rates and frequencies but not however during Q7-10 conditions. Since the discharges from these outfalls are composed entirely of stormwater, a formal water quality analysis cannot be accurately conducted. Accordingly, water quality-based effluent limitations based on water quality analyses are not proposed.

Total Maximum Daily Loads (TMDL)

Wastewater discharges from WPP's VBAT site are located within the Chartiers Creek Watershed for which the Department has developed a TMDL in cooperation with the U.S. Environmental Protection Agency (EPA) and their contractor TetraTech. The TMDL was finalized on April 9, 2003, and establishes waste load allocations for the discharge of metals, aluminum, iron and manganese within the Chartiers Creek Watershed. Section 303(d) of the Clean Water Act and U.S. EPA's Water Quality Planning and Management Regulations (codified at Title 40 of the *Code of Federal Regulations* Part 130) require states to develop a TMDL for impaired water bodies.

A TMDL establishes the amount of a pollutant that a water body can assimilate without exceeding the water quality criteria for that pollutant. TMDLs provide the scientific basis for a state to establish water quality-based controls to reduce pollution from both point and non-point sources in order to restore and maintain the quality of the state's water resources (USEPA 1991a). Stream reaches within the Chartiers Creek Watershed are included in the state's Section 303(d) list because of various impairments, including metals, aluminum, iron and manganese. The TMDL includes consideration for each river segment and tributary within the target watershed and its impairment sources. Stream data is then used to calculate minimum pollutant reductions that are necessary to attain water quality criteria levels. Target concentrations published in the TMDL were based on established water quality criteria of 0.750 $^{mg}/_{L}$ total recoverable aluminum, 1.5 $^{mg}/_{L}$ total recoverable iron based on a 30-day average and 1.0 $^{mg}/_{L}$ total recoverable manganese. The reduction needed to

meet the minimum water quality standards is then allocated among each known point and non-point pollutant source in the form of a watershed allocation using a stream's assimilative capacity. TMDLs prescribe allocations that minimally achieve water quality criteria (i.e., 100 percent use of a stream's assimilative capacity).

Aluminum: The specific water quality criterion for aluminum is expressed as an acute risk with a maximum daily limit in 25 Pa. Code Chapter 93. Discharges of aluminum may only be authorized to the extent that they will not cause or contribute to any violation of the water quality standards. Therefore, the water quality criterion for aluminum (0.75 mg/L) is imposed as a maximum daily effluent limit (MDL). Whenever the most stringent criterion is selected for the MDL, the Department should also impose an average monthly limit (AML) and instantaneous maximum limit (IMAX) if applicable. The imposition of an AML that is more stringent than the MDL is typically not appropriate because the water quality concerns have already been fully addressed by setting the MDL equal to the most stringent applicable criterion. Therefore, where the MDL is set at the value of the most stringent applicable criterion, the AML should be set equal to the MDL. Accordingly, TMDL aluminum limits are proposed for this outfall.

Iron: The specific water quality criterion for iron is expressed as a 30-day average of 1.5 mg/L in 25 Pa. Code § 93.7(a). The criterion is based on the protection of aquatic life and is associated with chronic exposure. There are no other criteria for total iron. Since the duration of the total iron criterion coincides with the 30-day duration of the AML, the 30-day average criterion for total iron is set equal to the AML. In addition, because the total iron criterion is associated with chronic exposure, the MDL (representing acute exposure) and the IMAX may be made less stringent according to established procedures described in Section III.C.3.h on Page 13 of the Water Quality Toxics Management Strategy (Doc. # 361-0100-003). These procedures state that a MDL and IMAX may be set at 2 times and 2.5 times the AML, respectively, or there is the option to use multipliers from EPA's Technical Support Document for Water Quality-based Toxics Control, if data are available to support the use of alternative multipliers. Accordingly, TMDL iron limits are proposed for this outfall.

Manganese: The specific water quality criterion for manganese is expressed as an acute or maximum daily of 1.0 mg/L in 25 Pa. Code § 93.7(a). The criterion is based on the protection of human health and is associated with chronic exposure associated with a potable water supply (PWS). Since no duration is given in Chapter 93 for the manganese criterion, a duration of 30 days is used based on the water quality criteria duration for Threshold Human Health (THH) criteria given in Section III.C.3.a., Table 3 on Page 9 of DEP's Water Quality Toxics Management Strategy. The 30-day duration for THH criteria coincides with the 30-day duration of an AML, which is why the manganese criterion is set equal to the AML for a "permitting at criteria" scenario. Because the manganese criterion is interpreted as having chronic exposure, the manganese MDL and IMAX may be made less stringent according to procedures established in Section III.C.2.h. of the Water Quality Toxics Management Strategy (AML multipliers of 2.0 and 2.5 for the MDL and IMAX respectively). Accordingly, TMDL manganese limits are proposed for this outfall.

All new or revised NPDES permits discharging into the Chartiers Creek Watershed have to be consistent with the TMDL Waste Load Allocation based on 40 CFR 122.44(d)(1)(vii)(B). The Department reviewed the TMDL, and this facility has no explicit WLA. Therefore, no reductions below the TMDL endpoints will be imposed. The concentration values may be used as effluent limitations in the WPP VBAT permit. However, since the permittee is transitioning from coverage under a General permit (PAG-03), and there is no history of exceeding the TMDL's endpoints, a monitoring and benchmark approach will be used instead. Refer to Table 2 below, for a summary of the TMDL effluent concentration limitations which will be applied as benchmarks for this facility. Note that this approach should be revisited in the next permit review.

Table 2: Summary of the TMDL Criteria and Applicable Effluent Limitations

Parameter	Monthly Average ($^{mg}/_{L}$)	Daily Maximum ($^{mg}/_{L}$)
Aluminum	0.75	0.75
Iron	1.5	3.0
Manganese	1.0	2.0

Anti-Backsliding

As this permit is new, anti-backsliding provisions do not strictly apply. However, since this permit is basically an extension of coverage previously under PAG-03, Appendix S, it is essentially identical to the previous coverage.

Proposed Effluent Limitations and Monitoring Requirements

The proposed effluent monitoring requirements for Outfalls 001 through 005 are displayed in Table 3 below, these include the most stringent values from the above effluent limitation development. A Part C condition is included in the Draft Permit requiring a Corrective Action Plan (CAP) when there is any exceedance of the benchmark values, which are also included in the Part C condition. The benchmark values are also displayed below in Table 3. These values are not effluent limitations, an exceedance of the benchmark value is not a violation. As described above, if there are two consecutive exceedances of benchmark values at an outfall, a CAP must be created to evaluate site stormwater controls and BMPs. Benchmark monitoring is a feedback tool, along with routine inspections and visual assessments, for assessing the effectiveness of stormwater controls and BMPs. An exceedance of the benchmark provides permittees with an indication that the facility's controls may not be sufficiently controlling pollutants in stormwater.

Table 3: Proposed Effluent Monitoring Requirements for Outfalls 001 thru 005

Parameter	Max Daily Concentration	Benchmark Values (mg/L)	Measurement Frequency	Sample Type
pH (S.U.)	Monitor and Report	Between 6.0–9.0	1/6 Months	Grab
Total Suspended Solids (TSS)	Monitor and Report	100.0	1/6 Months	Grab
Total Aluminum	Monitor and Report	0.75	1/6 Months	Grab
Total Iron	Monitor and Report	3.0	1/6 Months	Grab
Total Manganese	Monitor and Report	2.0	1/6 Months	Grab
Total Zinc	Monitor and Report	XXX	1/6 Months	Grab
Total Nitrogen[1]	Monitor and Report	2.0	1/6 Months	Grab
Total Phosphorus	Monitor and Report	1.0	1/6 Months	Grab

(1) Total Nitrogen is the sum of Total Kjeldahl-N (TKN) plus Nitrite-Nitrate as N (NO_2+NO_3-N), where TKN and NO_2+NO_3-N are measured in the same sample.

Tools and References Used to Develop Permit	
☐	WQM for Windows Model
☐	Toxics Management Spreadsheet
☐	TRC Model Spreadsheet
☐	Temperature Model Spreadsheet
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☐	Technical Guidance for the Development and Specification of Effluent Limitations, 386-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97.
☐	Pennsylvania CSO Policy, 386-2000-002, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97.
☐	Implementation Guidance Design Conditions, 386-2000-007, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 386-2000-016, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 386-2000-020, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 3/99.
☐	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 386-2000-010, 3/1999.
☐	Design Stream Flows, 386-2000-003, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 386-2000-006, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☒	SOP: SOP for Clean Water Program, New and Reissuance IW and Industrial Stormwater, Individual NPDES Permit Applications, BPNPSM-PMT-001
☐	Other: