pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0110680**
Facility Type	**Industrial**	APS ID	**1011873**
Major / Minor	**Minor**	Authorization ID	**1306404**

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

Applicant and Facility Information

Applicant Name	**Wood Mode LLC**	Facility Name	**Wood Mode Inc.**
Applicant Address	1 Second Street	Facility Address	1 Second Street
	Kreamer, PA 17833-5000		Kreamer, PA 17833-5000
Applicant Contact	Robert Gessner	Facility Contact	Robert Gessner
Applicant Phone	(570) 374-2711	Facility Phone	(570) 374-2711
Client ID	351282	Site ID	2760
SIC Code	2434	Municipality	Middlecreek Township
SIC Description	Manufacturing - Wood Kitchen Cabinets	County	Snyder
Date Application Received	February 19, 2020	EPA Waived?	Yes
Date Application Accepted	March 3, 2020	If No, Reason	

Purpose of Application: Application for the renewal of the existing individual NPDES permit.

Summary of Review

Wood Mode LLC has submitted an application for the renewal of the existing NPDES Permit PA0110680 for the Department's review. 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.

Wood Mode, Inc. is a cabinet manufacturer that discharges treated boiler blowdown wastewater to Middle Creek.

Approve	Deny	Signatures	Date
X		*Jonathan P. Peterman* Jonathan P. Peterman / Project Manager	May 7, 2020
		Nicholas W. Hartranft, P.E. / Environmental Engineer Manager	

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.0006
Latitude	40º 48' 18.58"	Longitude	-76º 57' 40.02"
Quad Name	Freeburg	Quad Code	1230
Wastewater Description:	IW Process Effluent without ELG (Boiler Blowdown)		
Receiving Waters	Middle Creek (TSF)	Stream Code	17701
NHD Com ID	54965497	RMI	7.55
Drainage Area	151.24	Yield (cfs/mi^2)	0.1134
Q_{7-10} Flow (cfs)	17.15	Q_{7-10} Basis	Gage No. 1565000
Elevation (ft)	475	Slope (ft/ft)	0.0003
Watershed No.	6-A	Chapter 93 Class.	TSF
Existing Use	TSF	Existing Use Qualifier	N/A
Exceptions to Use	None.	Exceptions to Criteria	None.
Assessment Status	Impaired		
Cause(s) of Impairment	SILTATION		
Source(s) of Impairment	AGRICULTURE		
TMDL Status	Pending	Name	N/A
Nearest Downstream Public Water Supply Intake	United Water Pennsylvania		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	2610
PWS RMI	79	Distance from Outfall (mi)	44.34

Changes Since Last Permit Issuance: A comparative stream analysis was conducted using a comparative stream gage (1565000) based on basin characteristics. The updated Q_{7-10} data was obtained from the updated stream gage information obtained from *Stuckey, M.H., and Roland, M.A., 2011, Selected Streamflow Statistics for Streamgage Locations In and Near Pennsylvania*. The Q_{7-10} calculations, which are attached in Appendix A, indicate that the Q_{7-10} is 17.15 cfs.

Other Comments:

Treatment Facility Summary

The treatment facility is comprised of blowdown pit with automated pH adjustment.

Changes Since Last Permit Issuance: None.
Other Comments: None.

Anti-Backsliding

In accordance with 40 CFR 122.44(l)(1) and (2), this permit does not contain effluent limitations, standards, or conditions that are less stringent than the previous permit.

TMDL Impairment

The Departments Geographical Information System indicates that there are no associated TMDLs for this segment of Middle Creek. However, the Department's eMapPA system indicates that Middle Creek is impaired for siltation due to agricultural activities. Given that the source of the impairment is identified, and the effluent will not contribute to the impairment or create an in-stream excursion above water quality standards.

Chesapeake Bay Requirements

This facility is classified as a "non-significant" IW given that the gross effluent discharges do not exceed 75 lbs/day of TN or 25 lbs/day of TP. The permittee will be not be required to monitor and report TN and TP throughout the permit term in accordance with the Phase II WIP Chesapeake Bay Strategy for non-significant industrial waste facilities. Non-significant IW dischargers should receive monitoring requirements in permits if there is any possibility of a net increase in nutrients as a result of facility processes, and monitoring frequencies should be established using the general guidance in the Phase II WIP Supplement. It was determined that there is no potential that the associated facility processes could create a net increase in TP.

Existing Effluent Limitations and Monitoring Requirements

Outfall 001 - Existing Limits

	Limitations							
	Mass (lb/day)		Concentration (mg/L)				Monitoring	
Discharge Parameter	Monthly Average	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instantaneous Maximum	Minimum Frequency	Sample Type
Flow (GPD)	Report	Report					1/day	Measured
pH (S.U.)			6.0			9.0	1/day	Grab
Temperature (ºF)					110		1/month	I-S
Total Suspended Solids				30		60	1/week	24-Hr Composite
Oil and Grease				15		30	1/month	Grab

The existing effluent limits for Outfall 001 were based on a design flow of 0.0006 MGD.

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.0006
Latitude 40° 48’ 17” **Longitude** 76° 57’ 43”
Wastewater Description: Boiler Blowdown

Technology-Based Limitations
The following effluent standards for industrial waste will apply, subject to water quality analysis and BPJ where applicable:

Parameter	**Limit (mg/l)** (Average Monthly)	**Limit (mg/l)** (Daily Maximum)	**Limit (mg/l)** (Inst. Maximum)	**Federal Regulation**	**State Regulation**
Oil & Grease	15	-	30	-	95.2(2)(ii)
pH	6-9 at all times	-		§133.102(c)	§95.2

There are no applicable technology-based effluent limitations for boiler blowdown. However, 25 Pa. Code § 95.2 does set forth effluent standards for pH, dissolved iron, and oil and grease for discharges of industrial wastewater. The characteristics of the blowdown do not show a potential to negatively impact the receiving surface water.

Water Quality-Based Limitations

To establish whether or not water-quality based effluent limitations (WQBELs) are required, the Department models in-stream conditions. In order to determine limitations for toxics, the Department utilizes the PENTOXSD v2.0d model. However, given that there is only “Non-process water” discharged from this facility, a “Reasonable Potential Analysis” was not required and there were no candidates for Pentox modeling. The use of a WQM7.0 analysis is not required for this discharge type.

Best Professional Judgement (BPJ) Limitations
Comments: See below.
Additional Considerations
None.

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit and reflect the most stringent limitations amongst the abovementioned technology, water quality, and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001) and/or BPJ.

Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date

Outfall 001 - Proposed Limits

	Limitations							
	Mass (lb/day)		Concentration (mg/L)				Monitoring	
Discharge Parameter	Monthly Average	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instantaneous Maximum	Minimum Frequency	Sample Type
Flow (GPD)	Report	Report					1/day	Measured
pH (S.U.)			6.0			9.0	1/day	Grab
Temperature (ºF)					110		1/month	I-S
Total Suspended Solids				30		60	1/week	24-Hr Composite
Oil and Grease				15		30	1/month	Grab

The existing proposed limits for Outfall 001 were based on a design flow of 0.0006 MGD.

Monitoring Frequencies and Sample Types
The proposed monitoring frequencies and sample types correspond with the Technical Guidance for the Development and Specification of Effluent Limitations (362-0400-001) Table 6-4.

Flow
The existing monitoring frequency (1/Day) and sample type (Measured) for Flow correspond with the *Technical Guidance for the Development and Specification of Effluent Limitations* (362-0400-001) Table 6-4. Reporting of maximum daily flow and monthly average is appropriate for this type of facility and consistent with similar facility types.

Total Suspended Solids (TSS)
A previous determination using BPJ imposed TSS limits on this outfall. Upon review of the DMRs, it appears that these effluent limits are appropriate, the facility is consistently meeting this limit, and therefore, the limits shall remain.

pH
The existing permit limits for pH were implemented in accordance with 25 PA Code §95.2(1), which provide the basis of effluent limitations for pH, and shall remain. Additionally, the only treatment process associated with this outfall is a pH adjustment. Therefore, pH limitations shall remain and are appropriate.

Oil and Grease
It was previously determined that since the oil and grease concentrations reported in the previous applications were approaching the effluent standards for industrial waste, a reasonable potential existed that the effluent may exceed the industrial waste effluent standards for Oil and Grease as stipulated in 25 PA Code §95.2(2)(ii). Best professional judgment dictates that limits be imposed for this parameter and these shall remain.

Temperature
Since the effluent is comprised of thermally-elevated cooling water, the existing permit requires daily temperature sampling. Given the results and the characteristics of the discharge, the temperature spreadsheet does not require any effluent limits for temperature (ºF) or heat load. However, the Department's *Implementation Guidance for Temperature Criteria* (391-2000-017) stipulates a daily maximum temperature limit of 110ºF at any point accessible to the public. (Note: The 110ºF limit does not apply to limits for internal monitoring points located within a facility.) This effluent limit will be applied in order to in order to protect public safety.

Other Comments: None.

Stormwater Requirements

The industrial activities associated with Wood Mode, Inc.'s facility are identified in 40 CFR 122.26(b)(14)(ix) and thus the facility required to obtain an NPDES permit to discharge stormwater into waters of the Commonwealth of Pennsylvania. The facility is classified under SIC Code 2434- Establishments primarily engaged in manufacturing wood kitchen cabinets and wood bathroom vanities, generally for permanent installation. Therefore, Appendix J [Monitoring Requirements and Best Management Practices (BMPs)] will be implemented. The following stormwater requirements will be incorporated into this permit:

DISCHARGE PARAMETER	UNITS	SAMPLE TYPE	MEASUREMENT FREQUENCY
TKN	mg/L	1 Grab	1/6 months
Total Iron	mg/L	1 Grab	1/6 months
Oil and Grease	mg/L	1 Grab	1/6 months
Total Suspended Solids (TSS)	mg/L	1 Grab	1/6 months

Note: A previous BPJ determination included monitoring for TKN and Total Nitrogen in the stormwater outfalls. Oil and Grease and TSS are Appendix J requirements. The abovementioned parameters will be applied in part A of the permit for each outfall.

Chemical Additives

Wood Mode, Inc. has listed Guardian CSC products in their chemical additive usage sheet. The following chemical additives were listed on the usage sheet, previously approved, and on the approved chemical additive list: GCS-5452, GCS-5708, GCS-5420, and GCS-5644. However, GCS-5215 is listed on the usage sheet and it is not on the approved chemical additive list. The applicant will be notified of this potential non-compliance in the drat permit cover letter. Additionally, the permittee is proposing the use of sulfuric acid, which is on the approved chemical additive list. However, the applicant must supply the appropriate modeling/ calculations to ensure that the usage rate is appropriate. The compliance section will be notified of this issue. Additionally, Part "C" condition C 118 will remain in the permit to address chemical additives.

Compliance History

Summary of Inspections -The last facility inspection was conducted on 12/12/19 by the Department which reveals that there were no issues and the facility was operating normally. The boiler operator adjusted the sulfuric acid feed rate due to the violation listed below.

WMS Query Summary – A WMS Query was run at *Reports - Violations & Enforcements – Open Violations for Client Report* to determine whether there are any unresolved violations associated with the client that will affect issuance of the permit (per CSL Section 609). This query revealed one (1) open violations in the Air Quality Water program. The Safe Drinking Water program will be contacted, and this open violation will be resolved in the system prior to issuance of this permit.

Summary of e-DMR- A review of the e-DMR data over the permit term reveals a single violation listed in the compliance section below. The pH violation was a failure to properly control sulfuric acid feed equipment which has been addressed.

Attachments

Appendices

Compliance History

DMR Data for Outfall 001 (from February 1, 2019 to January 31, 2020)

Parameter	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19
Flow (GPD) Average Monthly	528	526	426	176	148				432	575	714	755
Flow (GPD) Daily Maximum	680	674	648	530	546				568	744	982	1060
pH (S.U.) Instantaneous Minimum	6.05	6.15										
pH (S.U.) Minimum			6.02	6.73	6.42				6.1	6.1	6.1	6.3
pH (S.U.) Instantaneous Maximum	8.94	9.30										
pH (S.U.) Maximum			8.98	8.94	8.31				8.9	8.9	8.9	8.9
Temperature (ºF) Daily Maximum	50	46	57	65	64				60	56	58	42
TSS (mg/L) Average Monthly	< 5	5.4	5.5	7.5	25				5	5	6	7
TSS (mg/L) Instantaneous Maximum	6	7	7	14	25				5	5	8	8
Oil and Grease (mg/L) Average Monthly	< 2	2	2	2	E				E	2	2	2
Oil and Grease (mg/L) Instantaneous Maximum	< 2	2	2	2	E				E	2	2	2

DMR Data for Outfall 002 (from February 1, 2019 to January 31, 2020)

Parameter	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19
TSS (mg/L) Daily Maximum		GG										
TKN (mg/L) Daily Maximum		GG										
Total Iron (mg/L) Daily Maximum		GG										

DMR Data for Outfall 003 (from February 1, 2019 to January 31, 2020)

Parameter	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19
TSS (mg/L) Daily Maximum		GG										
TKN (mg/L) Daily Maximum		GG										
Total Iron (mg/L) Daily Maximum		GG										

DMR Data for Outfall 004 (from February 1, 2019 to January 31, 2020)

Parameter	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19
TSS (mg/L) Daily Maximum		GG										
TKN (mg/L) Daily Maximum		GG										
Total Iron (mg/L) Daily Maximum		GG										

DMR Data for Outfall 005 (from February 1, 2019 to January 31, 2020)

Parameter	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19
TSS (mg/L) Daily Maximum		GG										
TKN (mg/L) Daily Maximum		GG										
Total Iron (mg/L) Daily Maximum		GG										

DMR Data for Outfall 006 (from February 1, 2019 to January 31, 2020)

Parameter	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19
TSS (mg/L) Daily Maximum		GG										
TKN (mg/L) Daily Maximum		GG										
Total Iron (mg/L) Daily Maximum		GG										

DMR Data for Outfall 007 (from February 1, 2019 to January 31, 2020)

Parameter	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19
TSS (mg/L) Daily Maximum		GG										
TKN (mg/L) Daily Maximum		GG										
Total Iron (mg/L) Daily Maximum		GG										

DMR Data for Outfall 008 (from February 1, 2019 to January 31, 2020)

Parameter	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19
TSS (mg/L) Daily Maximum		GG										
TKN (mg/L) Daily Maximum		GG										
Total Iron (mg/L) Daily Maximum		GG										

DMR Data for Outfall 009 (from February 1, 2019 to January 31, 2020)

Parameter	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19
TSS (mg/L) Daily Maximum		GG										
TKN (mg/L) Daily Maximum		GG										
Total Iron (mg/L) Daily Maximum		GG										

DMR Data for Outfall 010 (from February 1, 2019 to January 31, 2020)

Parameter	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19
TSS (mg/L) Daily Maximum		GG										
TKN (mg/L) Daily Maximum		GG										
Total Iron (mg/L) Daily Maximum		GG										

DMR Data for Outfall 011 (from February 1, 2019 to January 31, 2020)

Parameter	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19
TSS (mg/L) Daily Maximum		GG										
TKN (mg/L) Daily Maximum		GG										
Total Iron (mg/L) Daily Maximum		GG										

DMR Data for Outfall 012 (from February 1, 2019 to January 31, 2020)

Parameter	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19
TSS (mg/L) Daily Maximum		GG										
TKN (mg/L) Daily Maximum		GG										
Total Iron (mg/L) Daily Maximum		GG										

DMR Data for Outfall 013 (from February 1, 2019 to January 31, 2020)

Parameter	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19
TSS (mg/L) Daily Maximum		GG										
TKN (mg/L) Daily Maximum		GG										
Total Iron (mg/L) Daily Maximum		GG										

DMR Data for Outfall 014 (from February 1, 2019 to January 31, 2020)

Parameter	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19
TSS (mg/L) Daily Maximum		GG										
TKN (mg/L) Daily Maximum		GG										
Total Iron (mg/L) Daily Maximum		GG										

DMR Data for Outfall 015 (from February 1, 2019 to January 31, 2020)

Parameter	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19
TSS (mg/L) Daily Maximum		GG										
TKN (mg/L) Daily Maximum		GG										
Total Iron (mg/L) Daily Maximum		GG										

DMR Data for Outfall 016 (from February 1, 2019 to January 31, 2020)

Parameter	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19
TSS (mg/L) Daily Maximum		GG										
TKN (mg/L) Daily Maximum		GG										
Total Iron (mg/L) Daily Maximum		GG										

DMR Data for Outfall 017 (from February 1, 2019 to January 31, 2020)

Parameter	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19
TSS (mg/L) Daily Maximum		GG										
TKN (mg/L) Daily Maximum		GG										
Total Iron (mg/L) Daily Maximum		GG										

DMR Data for Outfall 018 (from February 1, 2019 to January 31, 2020)

Parameter	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19
TSS (mg/L) Daily Maximum		GG										
TKN (mg/L) Daily Maximum		GG										
Total Iron (mg/L) Daily Maximum		GG										

Compliance History

Effluent Violations for Outfall 001, from: March 1, 2019 To: January 31, 2020

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
pH	12/31/19	IMAX	9.30	S.U.	9.0	S.U.
pH	12/31/19	IMAX	9.30	S.U.	9.0	S.U.

Tools and References Used to Develop Permit	
☒	Q7-10 Analysis and Stream Data (see Appendix **A**)
☐	WQM 7.0 Model Input/Output (see Appendix)
☐	Toxics Screening Analysis v2.4 (see Appendix)
☐	PENTOXSD v2.0d Model Input/Output (see Appendix)
☒	Facility Map and Schematic (see Appendix **A**)
☐	TRC Evaluation Spreadsheet (see Appendix)
☐	Lake Model Output (see Appendix)
☐	WETT Spreadsheet (see Appendix)
☒	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☒	Technical Guidance for the Development and Specification of Effluent Limitations, 362-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98.
☒	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 362-2183-004, 12/97.
☐	Pennsylvania CSO Policy, 385-2000-011, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97.
☒	Determining Water Quality-Based Effluent Limits, 391-2000-003, 12/97.
☐	Implementation Guidance Design Conditions, 391-2000-006, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 391-2000-007, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 391-2000-008, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 391-2000-010, 3/99.
☒	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 391-2000-011, 5/2004.
☒	Implementation Guidance for Section 93.7 Ammonia Criteria, 391-2000-013, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 391-2000-014, 4/2008.
☒	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 391-2000-015, 11/1994.
☒	Implementation Guidance for Temperature Criteria, 391-2000-017, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 391-2000-018, 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, 391-2000-019, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 391-2000-021, 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, 391-2000-022, 3/1999.
☒	Design Stream Flows, 391-2000-023, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 391-2000-024, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 391-3200-013, 6/97.
☒	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☐	Other: