pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0086312**
Facility Type	**Non-Municipal**	APS ID	**32779**
Major / Minor	**Minor**	Authorization ID	**1274172**

Applicant and Facility Information

Applicant Name	**James P Dorwart**	Facility Name	**Quaker Station Dorwart Apt**
Applicant Address	1375 Old Quaker Road	Facility Address	1375 Old Quaker Road
	Etters, PA 17319-9116		Etters, PA 17319-9116
Applicant Contact	James Dorwart	Facility Contact	James Dorwart
Applicant Phone	(717) 938-4545	Facility Phone	
Client ID	90148	Site ID	255948
Ch 94 Load Status	Not Overloaded	Municipality	Fairview Township
Connection Status	No Limitations	County	York
Date Application Received	May 1, 2019	EPA Waived?	Yes
Date Application Accepted	May 22, 2019	If No, Reason	

Purpose of Application: NPDES Renewal.

Summary of Review

James P Dorwart has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its NPDES permit for the Quaker Station Dorwart Apartments STP. The permit was last reissued to James P Dorwart on February 25, 2015 and became effective on March 1, 2015. The permit expired on February 29, 2020 but the terms and conditions of the permit have been administratively extended since that time.

Based on the review outlined in this fact sheet, it is recommended that the permit be drafted, and a notice of the draft permit be published in the *Pennsylvania Bulletin* for public comments for 30 days. A file review of documents associated with the discharge or permittee may be available at the PA DEP southcentral regional office (SCRO), 909 Elmerton Avenue, Harrisburg, PA 17110. To make an appointment for file reviews, contact the SCRO file review coordinator at 717.705.4700.

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.

Approve	Deny	Signatures	Date
x		Aaron Baar / Permits Section ***Aaron Baar***	October 1, 2020
		Daniel W. Martin, P.E. / Environmental Engineer Manager	

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.025
Latitude	40º 9' 1.58"	Longitude	-76º 52' 38.38"
Quad Name	Lemoyne	Quad Code	1730
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to Bennett Run (WWF)	Stream Code	08494
NHD Com ID	57463747	RMI	1.24
Drainage Area	1.07 mi^2	Yield (cfs/mi^2)	0.03
Q_{7-10} Flow (cfs)	0.0321	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	459.79	Slope (ft/ft)	
Watershed No.	7-F	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	Wrightsville Water Supply Company		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI	28.51	Distance from Outfall (mi)	30.71

Drainage Area

The discharge is to Nauvoo Run at RMI 1.24. A drainage area upstream of the discharge point is determined to be 1.07 sq.mi. according to USGS PA StreamStats available at https://streamstats.usgs.gov/ss/.

Stream Flow

According to StreamStats, this watershed has a Q_{7-10} of 0.0321 cfs and a drainage area of 1.07 mi^2, which results in a LFY of 0.03 cfs/mi^2.

Nauvoo Run

Nauvoo Run is classified as a WWF waterway. Effluent limits for this discharge have been developed to ensure that existing in-stream water uses and the level of water quality necessary to protect the existing uses are maintained and protected.

Public Water Supply Intake

The nearest downstream public water supply intake is the Wrightsville Water Supply Company intake located on the Susquehanna River. Considering the distance and nature of the discharge, the discharge is not expected to significantly affect the water supply.

Class A Wild Trout Streams

The receiving stream is not a Class A Wild Trout stream.

Treatment Facility Summary

Treatment Facility Name: Quaker Station Apartments

WQM Permit No.	Issuance Date
6795404	

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Tertiary	Extended Aeration With Solids Removal	Ultraviolet	0.025

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.025		Not Overloaded	Aerobic Digestion	

James P Dorwart owns and operates the Quaker Station Dorwart Apartments sanitary wastewater treatment facility located in Fairview Township, York County. The facility serves only the Quaker Station Dorwart Apartments, all wastes are residential in nature, and all sewer systems are 100% separated. Having an annual average design flow of 0.025 MGD and a hydraulic design capacity of 0.025 MGD, this facility consists of a headworks (comminutor), aeration tank x1, secondary clarification x2, a tertiary sand filter, a UV disinfection system and the outfall (Outfall 001). No chemical amendments are identified in the application. Solids are stored in an onsite sludge holding tank for offsite disposal.

Compliance History

Summary of DMRs:	A summary of past DMR data is presented on the next page.
Summary of Inspections:	Since the last NPDES permit renewal, there are no records in the Department's File Room that the facility has been inspected.

Other Comments: A records review revealed that there are no Clean Water open violations associated with this permitee as of October 1, 2020.

Existing Permit Limits

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Instantaneous Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
CBOD5	XXX	XXX	XXX	25	XXX	50	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	30	XXX	60	2/month	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
UV Transmittance (%)	XXX	XXX	Report	Report	XXX	XXX	1/day	Recorded
Nitrate-Nitrite	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	8-Hr Composite
Nitrate-Nitrite (lbs)	Report Total Qrtly	XXX	XXX	XXX	XXX	XXX	1/quarter	Calculation
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	Calculation
Total Nitrogen (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/quarter	Calculation
Total Nitrogen (lbs)	Report Total Qrtly	XXX	XXX	XXX	XXX	XXX	1/quarter	Calculation
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	3.0	XXX	6	2/month	8-Hr Composite
Ammonia May 1 - Oct 31	XXX	XXX	XXX	1.0	XXX	2	2/month	8-Hr Composite
TKN	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	8-Hr Composite

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Instantaneous Minimum	Average Monthly	Maximum	Instant. Maximum		
TKN (lbs)	Report Total Qrtly	XXX	XXX	XXX	XXX	XXX	1/quarter	Calculation
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	8-Hr Composite
Total Phosphorus (lbs)	Report Total Qrtly	XXX	XXX	XXX	XXX	XXX	1/quarter	Calculation
Total Phosphorus (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/quarter	Calculation

Compliance History

DMR Data for Outfall 001 (from August 1, 2019 to July 31, 2020)

Parameter	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19
Flow (MGD) Average Monthly	0.011	0.011	0.012	0.012	0.012	0.011	0.012	0.011	0.011	0.01	0.01	0.011
Flow (MGD) Daily Maximum	0.015	0.016	0.017	0.014	0.014	0.014	0.014	0.014	0.014	0.015	0.012	0.013
pH (S.U.) Minimum	7.35	7.21	7.12	7.13	7.08	7.08	7.26	7.12	6.9	7.03	6.93	7.06
pH (S.U.) Maximum	7.6	7.52	7.44	7.41	7.4	7.45	7.56	7.36	7.42	7.4	7.37	7.63
DO (mg/L) Minimum	6.74	6.88	7.12	8.3	8.0	9.68	9.73	9.54	8.82	8.29	7.5	6.93
CBOD5 (mg/L) Average Monthly	< 3	< 3	< 4	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
TSS (mg/L) Average Monthly	2	2	5	4	2	3	2	1	3	2	3	4
Fecal Coliform (CFU/100 ml) Geometric Mean	< 0.1	< 0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.01	< 0.01	< 0.01	< 0.1	< 0.02
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	< 0.1	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.01	< 0.01	< 0.03	< 0.1	< 0.02

UV Transmittance (%) Minimum	100	100	100	100	100	100	100	100	100	100	100	100
UV Transmittance (%) Average Monthly	100	100	100	100	100	100	100	100	100	100	100	100
Nitrate-Nitrite (mg/L) Average Monthly		20			15			77.4			18	
Nitrate-Nitrite (lbs) Total Quarterly		182			148			594			124	
Total Nitrogen (mg/L) Average Monthly		20			15			77.4			18	
Total Nitrogen (lbs) Total Quarterly		182			148			594			124	
Total Nitrogen (lbs) Total Annual								863				
Ammonia (mg/L) Average Monthly	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.17	< 0.1	< 0.1	< 0.1	< 0.1
TKN (mg/L) Average Monthly		< 0.5			0.5			< 0.5			< 0.5	
TKN (lbs) Total Quarterly		5			5			4			4	
Total Phosphorus (mg/L) Average Monthly		4.7			4			6			3.3	
Total Phosphorus (lbs) Total Quarterly		43			40			46			23	
Total Phosphorus (lbs) Total Annual								122				

Compliance History

There are no records of the facility being in non-compliance during the last permit cycle.

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .025
Latitude 40º 9' 2.07" **Longitude** -76º 52' 38.40"
Wastewater Description: Sewage Effluent

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
$CBOD_5$	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
Total Suspended Solids	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Comments: These standards apply, subject to water quality analysis and BPJ where applicable.

Water Quality-Based Limitations

CBOD5, NH3-N and Dissolved Oxygen (DO)

WQM 7.0 version 1.0b is a water quality model designed to assist DEP to determine appropriate permit requirements for CBOD5, NH3-N and DO. DEP's guidance 391-2000-007 provides the technical methods contained in WQM 7.0 for conducting wasteload allocation and for determining recommended NPDES effluent limits for point source discharges.

The model was utilized, and the model output indicated that existing limits for both CBOD5 and ammonia are lower than those specified in the model. Due to anti-backsliding provisions, however, the existing limits are deemed to be still appropriate. The existing D.O. limit of 5 mg/L is also considered still appropriate.

The monitoring frequency and sample type for CBOD5, DO and ammonia are proposed to remain unchanged.

Toxics

There are no industrial contributions to this facility. DEP's NPDES permit application for minor sewages (less than 1.0 MGD) does not require sampling for heavy metals including Total Copper, Total Lead, and Total Zinc.

Best Professional Judgment (BPJ) Limitations

Total Phosphorus & Total Nitrogen

DEP's SOP no. BPNPSM-PMT-033 recommends monitoring requirements for Total Phosphorus and Total Nitrogen for all sewage facilities. Monitoring for these parameters is proposed to continue unchanged from the last renewal.

Ultraviolet Disinfection

The existing UV system is equipped with a transmissivity sensor; therefore, UV transmittance will continue to be specified as the monitoring parameter for UV system.

Additional Considerations

Flow Monitoring

The requirement to monitor the volume of effluent will remain in the draft permit per 40 CFR § 122.44(i)(1)(ii).

Chesapeake Bay TMDL

The Department formulated a strategy in April 2007, to comply with the EPA's and Chesapeake Bay Foundation's requirements to reduce point source loadings of Total Nitrogen (TN) and Total Phosphorus (TP) to the Bay. In the Strategy, sewage dischargers have been prioritized by Central Office based on their delivered TN loadings to the Bay. The highest priority (Phases 1, 2, and 3) dischargers received annual loading caps based on their design flow on August 29, 2005 and concentrations of 6 mg/l TN and 0.8 mg/l TP. Phase 4 (0.2 -0.4mgd) and Phase 5 (below 0.2mdg) facilities were required to monitor and report TN and TP during permit renewal at a monitoring frequency following Table 6-3 of DEP's Technical Guidance for Development and Specification of effluent Limitations (No. 362-0400-001).

EPA published the Chesapeake Bay Total Maximum Daily Load (TMDL) in December of 2010. Despite extensive restoration efforts during the past 25 years, the TMDL was prompted by insufficient progress and continued poor water quality in the Chesapeake Bay and its tidal tributaries.

In order to address the TMDL, Pennsylvania developed, in addition to the Bay Strategy, a Chesapeake Watershed Implementation Plan (WIP) Phase 1 in January 2011 and Phase 2 in March 2012. In accordance with the Phase 3 WIP and its supplement, re-issuing permits for significant dischargers follow the same phased approach formulated in the original Bay strategy, whilst Phase 4 and Phase 5 will be required to monitor and report TN and TP during permit renewal.

The Phase 3 WIP categorizes this facility as a phase 5 non-significant sewage facility that has a design flow less than 0.2 MGD but greater than 0.002 MGD. The WIP recommends monitoring and reporting for Total Nitrogen and Total Phosphorus throughout the permit term at a frequency no less than annual. The monitoring of NOx, TKN and TN once every six months will be written in the permit in conformity with other permits issued in the region.

Monitoring Frequency and Sample Type

The facility currently is required to collect 2/month grab effluent samples for CBOD5, TSS, fecal, and ammonia. This monitoring frequency is consistent with Table 6-3 of DEP's technical guidance no. 362-0400-001 and will remain unchanged in this permit.

Antidegradation Requirements

All effluent limitations and monitoring requirements have been developed to ensure that existing instream water uses and the level of water quality necessary to protect the existing uses are maintained and protected.

Anti-backsliding Requirement

All effluent limits proposed in this fact sheet are as stringent as effluent limits specified in the existing permit renewal. This approach is in accordance with 40 CFR §122.44(l(1).

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 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), SOPs and/or BPJ.

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

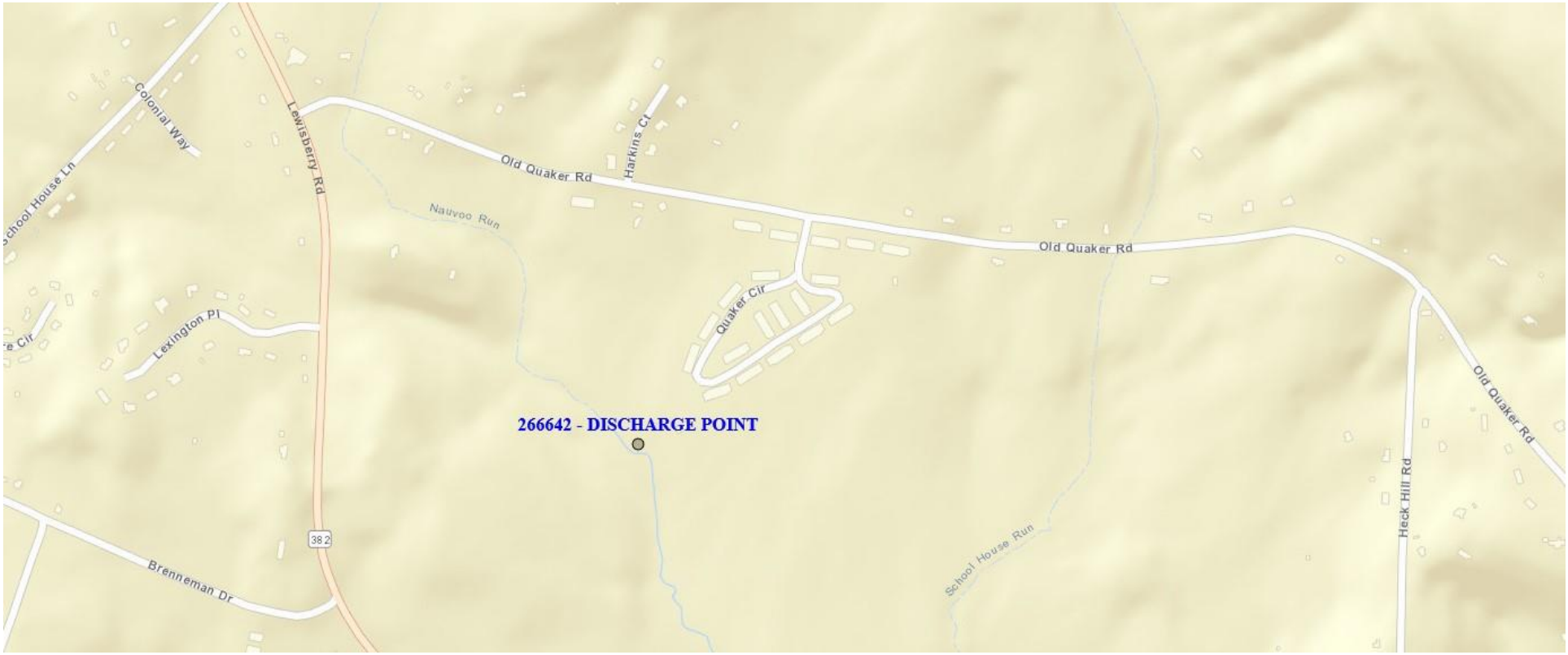
Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Instantaneous Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
CBOD5	XXX	XXX	XXX	25	XXX	50	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	30	XXX	60	2/month	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
UV Transmittance (%)	XXX	XXX	Report	Report	XXX	XXX	1/day	Recorded
Nitrate-Nitrite	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	8-Hr Composite
Nitrate-Nitrite (lbs)	Report Total Qrtly	XXX	XXX	XXX	XXX	XXX	1/quarter	Calculation
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	Calculation
Total Nitrogen (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/quarter	Calculation
Total Nitrogen (lbs)	Report Total Qrtly	XXX	XXX	XXX	XXX	XXX	1/quarter	Calculation
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	3.0	XXX	6	2/month	8-Hr Composite

Outfall 001, Continued (from Permit Effective Date through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Instantaneous Minimum	Average Monthly	Maximum	Instant. Maximum		
Ammonia May 1 - Oct 31	XXX	XXX	XXX	1.0	XXX	2	2/month	8-Hr Composite
TKN	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	8-Hr Composite
TKN (lbs)	Report Total Qrtly	XXX	XXX	XXX	XXX	XXX	1/quarter	Calculation
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	8-Hr Composite
Total Phosphorus (lbs)	Report Total Qrtly	XXX	XXX	XXX	XXX	XXX	1/quarter	Calculation
Total Phosphorus (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/quarter	Calculation

Compliance Sampling Location: Outfall 001

Permit No. PA0086312



PA0086312 StreamStats 001.pdf
PA0086312 StreamStats Downst
PA0086312 Report 5.pdf
PA0086312 Report 6.pdf
PA0086312 Report 1.pdf
PA0086312 Report 2.pdf
PA0086312 Report 3.pdf
PA0086312 Report 4.pdf

Tools and References Used to Develop Permit	
☒	WQM for Windows Model (see Attachment)
☐	PENTOXSD for Windows Model (see Attachment)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Toxics Screening Analysis Spreadsheet (see Attachment)
☐	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.
☐	SOP:
☐	Other: