pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

NPDES/WQM PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0083038 & 0186410 T-2 WQM**
Facility Type	**Non-Municipal**	APS ID	**996218**
Major / Minor	**Minor**	Authorization ID	**1278384 & 1278395-WQM**

Applicant and Facility Information

Applicant Name	**Tripwire Operations Group LLC**	Facility Name	**1685 Baltimore Pike Office Building**
Applicant Address	1685 Baltimore Pike	Facility Address	1685 Baltimore Pike
	Gettysburg, PA 17325		Gettysburg, PA 17325
Applicant Contact	Ryan Morris	Facility Contact	Ryan Morris
Applicant Phone	(717) 648-2792	Facility Phone	(717) 648-2792
Client ID	299617	Site ID	625
Ch 94 Load Status	Not Overloaded	Municipality	Mount Joy Township
Connection Status		County	Adams
Date Application Received	June 13, 2019	EPA Waived?	Yes
Date Application Accepted	June 27, 2019	If No, Reason	
Purpose of Application	NPDES permit renewal.		

Summary of Review

On October 21, 2013, an existing NPDES permit No. PA0083038 (for the sewer treatment plan (STP) issued on August 12, 2013 and expired on August 31, 2018) was transferred to Mr. Ryan J. Morris, Owner. However, Mr. Morris failed to submit an application for reissuance of the permit at least 180 days prior to the expiration of the permit (permission had not been granted for a later date by the Department). Due to the discharge of treated sewage to waters of the Commonwealth without a valid NPDES permit from August 31, 2018 to April 3rd, 2019 an "Administrative Order" was mailed by the Department, per Water & Wastewater Systems Operators Certification Act (63 P.S. §§1001-1015.1), & Sections 201 & 202 of the Clean Streams Law, 35 P.S. §§ 691.201 & 691.202. The April 3rd, 2019, Administrative Order states "*Until the Department issues a renewed NPDES permit for STP, Mr. Morris shall comply with the terms and conditions included in the expired NPDES permit PA0083038*."

On June 13, 2019, the Department received a NPDES permit No. PA0083038 renewal application for discharge of treated sewage located in Mount Joy Township, Adams County which was prepared by Mr. Morris in response to the April 3rd, 2019 Administrative Order. This facility formerly known as Jack Waybrant Family Limited Partnership was transferred to Ryan J. Morris on October 21, 2013. The renewal application permit also noted that the original name changed from Ryan Morris to Tripwire Operations Group LLC (owned by Mr. Morris).

WQM permit No. 0186410 was originally issued on January 7, 1987. It will be transferred in conjunction with issuance of the final NPDES permit.

Changes from the previous permit: Unit of Fecal Coliform changed from CFU/100 ml to No./100 ml. The average monthly limit of NH_3-N changed from 6.5 mg/L to 6.0 mg/L. TRC limit of 0.48 mg/L monthly average and 1.48 mg/L IMAX changed to 0.40 mg/L monthly average and 1.4 mg/L IMAX.

Based on the review outlined in this fact sheet, it is recommended that the permit be drafted and published in the Pennsylvania Bulletin for public comments for 30 days.

Approve	Deny	Signatures	Date
X		Hilary H. Le / Environmental Engineering Specialist	August 21, 2019
		Daniel W. Martin, P.E. / Environmental Engineer Manager	
		Maria D. Bebenek, P.E. / Clean Water Program Manager	

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.005
Latitude	39º 48' 12.56"	Longitude	-77º 12' 33.42"
Quad Name	Gettysburg	Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to Rock Creek (WWF)	Stream Code	59139
NHD Com ID	53320378	RMI	0.10 mi.
Drainage Area	0.53 mi.^{2}	Yield (cfs/mi^2)	See comments below
Q_{7-10} Flow (cfs)	See comments below	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	447.24 ft	Slope (ft/ft)	
Watershed No.	13-D	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	City of Frederick, MD		
PWS Waters	Monocacy River	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	Approximate 40 miles

Changes Since Last Permit Issuance: none

Drainage Area
The discharge is to Unnamed Tributary 59139 to Rock Creek at RMI 0.10 mile. A drainage area upstream of the discharge is estimated to be 0.53 mi.^{2}, according to USGS PA StreamStats available at https://streamstats.usgs.gov/ss/.

Streamflow
There are no nearby stream gages with low flow data that have extensive or recent periods of record. Since USGS PA StreamStats estimated the drainage area that is below the minimum value allowed by USGS's regression equations, the USGS gage station No. 59041 on Rock Creek watershed (at the PA/MD border) will be used to calculate the Q_{7-10} at the point of discharge using a low flow yield method. The Q_{7-10} here is 2.52 cfs and the drainage area is 63.6 mi.^{2} which results in a Q_{7-10} low flow yield of 0.04 cfs/mi.^{2}. This information is used to obtain a chronic or 30-day (Q_{30-10}), and an acute or 1-day (Q_{1-10}) exposure stream flow for the discharge point as follows (Guidance No. 391-2000-023):

$$\text{Low Flow Yield} = Q_{7\text{-}10gage} / \text{Drainage Area}_{gage} = 2.52 \text{ cfs} / 63.6 \text{ mi.}^2 = 0.04 \text{ cfs/mi.}^2$$
$$Q_{7\text{-}10discharge} = 0.04 \text{ cfs/mi.}^2 * \text{Drainage Area}_{discharge} = 0.04 \text{ cfs/mi.}^2 * 0.53 \text{ mi.}^2 = 0.021 \text{ cfs}$$
$$Q_{30\text{-}10} = 1.36 * Q_{7\text{-}10discharge} = 1.36 * 0.021 \text{ cfs} = 0.029 \text{ cfs}$$
$$Q_{1\text{-}10} = 0.64 * Q_{7\text{-}10discharge} = 0.64 * 0.021 \text{ cfs} = 0.013 \text{ cfs}$$

Potable Water Supply Intake
The nearest downstream public water supply intake is the City of Frederick, MD intake on the Monocacy River, approximately 40 miles from the point of discharge. Given the nature and dilution, the discharge is not expected to significantly impact the water supply.

Treatment Facility Summary

Treatment Facility Name: 1685 Baltimore Pike Office Building WWTP

WQM Permit No.	Issuance Date
0186410	1/7/1987
0186410 T-1	10/21/2013

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary With Ammonia Reduction	Extended Aeration	Hypochlorite	0.005

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.005		Not Overloaded	Anaerobic Digestion	Other WWTP

Changes Since Last Permit Issuance: none

The WWTP train is as follows:

The treatment process is as follows: Bar Screen (1) – Aeration Tanks (2) – Settling Tank (1) – Tablet Chlorinator (1) – Chlorination Contact Tank (1) – Post Aeration Tank (1) – Sludge Holding Tank (1) - Discharge (Outfall to Unnamed Tributary to Rock Creek).

Calcium hypochlorite tablets are used for disinfection. Soda ash is used to control pH. A sludge holding tank is used for solids storage.

Compliance History	
Summary of DMRs:	A summary of past 12-month DMR is presented on the next page.
Summary of Inspections:	2/14/19: Department conducted a follow up on a previous inspection on 11/13/18. No records for November 2018 through February 2019. No DMRs for November 2018 through February 2019 received by the Department. A change of operator notice has not been received by the Department since the resignation of the previous certified operator on October 31, 2018. There were violations identified during inspection such as: the NPDES permit No. PA0083038 expired on August 31, 2018, thus an unauthorized and unpermitted discharge of sewage to waters of the Commonwealth is in violation of the Clean Stream Law, Sections 201 & 202. 11/13/18: Department conducted an inspection. The effluent had a slight haze and a yellow tint in appearance. The results of grab sample were pH = 7.73 S.U., D.O. = 10.67 mg/L, and TRC = 0.31 mg/L with a temperature of 10.0 degree Celsius. They indicated under permit limit. There were violations identified during inspection such as (1) failure to retain records as required by NPDES permit No. PA0083038 Part A.III.A.2, (2) failure to employ a certified wastewater treatment operator in violation of NPDES permit No. PA0083038 Part B Section I.E.1., and (3) NPDES permit No. PA0083038 expired on August 31, 2018 without renewal. And requested Mr. Morris to correspond to a NOV dated 11/2/18 by 12/1/18. 11/2/18: Department conducted an administrative review of its files for the STP and NPDES permit. During the inspection, the Department noted that Mr. Morris allowed the NPDES permit No. PA0083038 to expire on August 31, 2018, without submitting to the Department an application for permit reissuance.
Notice of Violations:	- 3/19/18 NOV: Grab sample on 2/26/18 exceeded the IMAX limit for TSS contained in NPDES permit, such as TSS reported 74 mg/L while IMAX limit is 60 mg/L in NPDES permit. - 4/23/18 NOV: NPDES permit renewal application was not received. - 11/2/18 NOV: NPDES-Discharge of pollutants from a point source into surface waters without an NPDES permit. - 11/28/18 NOV: Failed to employ a certified wastewater treatment operator since 11/1/18, and to retain all monitoring records at the facility for a period of three (3) years.
Other Comments:	DEP's database; there are four (4) open violations associated with this facility. Based on a conversation with DEP Operations Section, these violations will be closed/resolved in the near future. Additionally, the April 3rd, 2019 Administrative Order document was mailed by the Department; pursuance to Sections 5, 402, and 610 of the Clean Stream Law, 35 P.S. § § 691.5, 691.402, & 691.610, Section 1917-A of the Administrative Code, 71 P.S. § 510-7, 63 P.S. §§ 1001-1015.1, and 25 Pa Code § 302.1202(a)(1)-(5); the NPDES permit No. PA0083038 had expired on August 31, 2018, the discharge from STP to waters of the Commonwealth without authorization since August 31, 2018, and failure to employ certified operator at STP since November 1, 2018.

Compliance History

DMR Data for Outfall 001 (from July 1, 2018 to June 30, 2019)

Parameter	JUN-19	MAY-19	APR-19	MAR-19	FEB-19	JAN-19	DEC-18	NOV-18	OCT-18	SEP-18	AUG-18	JUL-18
Flow (MGD) Average Monthly	0.00028	0.00028	0.000166	0.000275					0.00026	0.000236	0.000195	0.000303
Flow (MGD) Daily Maximum	0.00075	0.00102	0.00049	0.000348					0.000513	0.00028 7	0.000357	0.000418
pH (S.U.) Minimum	6.3	6.72	6.7	6.7					6.3	6.9	6.4	6.7
pH (S.U.) Maximum	6.98	7.18	7.71	6.8					7.9	7.8	8.2	8.3
DO (mg/L) Minimum	8.58	8.27	6.9	7.1					9.8	9.1	8.1	10.0
TRC (mg/L) Average Monthly	0.20	0.07	0.10	< 0.04					0.14	0.16	0.23	0.28
TRC (mg/L) Instantaneous Maximum	0.46	0.14	0.19	0.08					0.31	0.34	0.54	0.61
CBOD5 (mg/L) Average Monthly	< 2	< 2	3	< 2					< 3.0	< 3	< 3	< 2.9
CBOD5 (mg/L) Instantaneous Maximum	< 2	2	3.7	< 2					< 3.0	3	< 3	3.7
TSS (mg/L) Average Monthly	< 9	12	< 5	< 9					8	16	7	7
TSS (mg/L) Instantaneous Maximum	13	15	< 5	13					10	23	7	9
Fecal Coliform (CFU/100 ml) Geometric Mean	12	211	< 1	374					78	29	< 6	< 10
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	28	240	< 1	1470					84	32	38	94
Ammonia (mg/L) Average Monthly	0.43	< 0.1	0.632	0.275					< 0.1	< 0.1	< 0.1	0.27
Ammonia (mg/L) Instantaneous Maximum	0.535	< 0.1	0.863	0.344					< 0.1	< 0.1	< 0.1	0.281

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.005
Latitude 39º 48' 12.35" **Longitude** -77º 12' 33.27"
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)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	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)

Water Quality-Based Limitations

Receiving Stream

The receiving stream is an unnamed tributary of Rock Creek. According to 25 Pa. Code § 93.9z, this stream is protected for Warm Water (WWF) and Migratory Fishes (MF). It is located in Drainage List Z and State Watershed 13-D. It has been assigned stream code 59139. The 2012 PA Integrated Water Quality Report indicates that the Unnamed Tributary to Rock Creek is not impaired and there is no TMDL associated with this discharge.

Flow

Flow monitoring remains unchanged in the proposed permit and is recommended by the Table 6-3 of the permit manual (ID No. 362-0400-001) & required by 25 Pa. Code §§ 92a.27 & 92a.61.

pH

pH limits and daily grab sample remain unchanged in the proposed permit and are required by 40 CFR §133.102 & recommended by the Table 6-3 of the permit manual (ID No. 362-0400-001).

NH_3-N Calculations

NH_3-N calculations will be based on the Department's Implementation Guidance of Section 93.7 Ammonia Criteria, dated 11/4/97 (ID No. 391-2000-013). The following data is necessary to determine the instream NH_3-N criteria used in the attached computer model of the stream:

STP Temp = 25°C (Default)
Stream pH = 7.0
Stream Temp = 25°C
Background NH_3-N = 0 mg/L (Assumed)

$CBOD_5$ & NH_3-N

WQM7.0 is a steady state model that simplifies many natural processes into a reach-by-reach simulation that was used for the analysis. The attached computer printout of the WQM 7.0 stream model indicates secondary treatment is adequate to protect the water quality of the stream. $CBOD_5$ limits remain unchanged in the proposed permit and are required by 25 Pa. Code § 92a.47(a)(1). The instantaneous maximum limitation is determined by multiplying the average monthly by a factor of two to account for variability. Past DMRs and inspection reports show that the STP has been consistently achieving below this limitation.

The attached computer printout of the WQM 7.0 stream model also indicates that a summer limitation of 6.0 mg/L NH_3-N as a monthly average is necessary to protect the aquatic life from toxicity effects. This limit is slightly more stringent than the existing limit of 6.5 mg/L, however past DMR and inspection report indicate the facility is capable of meeting the new

limitation. Therefore, an average monthly limit of 6.0 mg/L NH_3-N will be written in the proposed permit. Winter limit is 3 times the summer limit.

Fecal Coliform
Fecal Coliform limits and 2/month grab sample remain unchanged in the proposed permit as per 25 Pa. Code § 92a.47(a)(4) & (5).

Dissolved Oxygen (D.O.)
The existing permit contains a limit of 5.0 mg/L for D.O. DEP's Technical Guidance for the Development and Specification of Effluent Limitations (ID No. 362-0400-001, 10/97) suggests that either the adopted minimum stream D.O. criteria for the receiving stream or the effluent level determined through water quality modeling be used for the limit. Since the WQM 7.0 model was run using a minimum D.O. of 5.0 mg/L, this limit will be continued in the renewed permit with a daily monitoring requirement per DEP guidance.

Total Residual Chlorine (TRC)
The attached computer printout utilizes the equations and calculations as presented in the Department's May 1, 2003 Implementation Guidance for TRC (ID No. 391-2000-015) for developing chlorine limitations. The Guidance references 25 Pa. Code § 92.2d(3) which establishes a standard BAT limit of 0.5 mg/l unless a facility-specific BAT has been developed. The attached printout indicates that a water quality limit of 0.4 mg/L monthly average and 1.3 mg/L IMAX would be needed to prevent toxicity concerns. This limit is slightly more stringent than the existing limit. Past DMR and inspection data indicates the facility has capability to meet the limit with some adjustment in operation. Therefore, it is recommended that a TRC limit of 0.40 mg/L monthly average and 1.40 mg/L IMAX be applied for the proposed permit.

Total Suspended Solids (TSS)
There are no water quality criteria for TSS. A limit of 30 mg/L is the required minimum level of effluent quality attainable by secondary treatment as defined in EPA's 40 CFR Chapter 1, Part 133, Section 133.102(b), in the existing permit will remain. 2/month grab sample will remain in the proposed permit.

Toxics
The facility treats mainly domestic sewage, there are no parameters of concern associated with this discharge.

Chesapeake Bay Strategy
The Department formulated a strategy to comply with the EPA and Chesapeake Bay Foundation requirements by reducing point source loadings of Total Nitrogen (TN) and Total Phosphorus (TP). Sewage discharges have been prioritized based on their delivered TN and TP loadings to the Bay. The highest priority (Phases I, II, and III) dischargers will receive annual loading caps based on their design flow on August 29, 2005 and concentrations of 6.0 mg/L TN and 0.8 mg/L TP. These limits may be achieved through a combination of treatment technology, credits, or offsets if approved by DEP. Phase IV (0.2 - 0.4 MGD) and Phase V (below 0.2 MGD) will be required to monitor and report TN and TP during permit renewal. Any facility in Phases IV and V that undergoes expansion is subjected to cap load right away. This facility is 0.005 MGD plant, classified as a Phase V, and will be required to monitor and report TN and TP throughout next permit cycle. Consistent with SOP for establishing effluent limitation for individual sewage permit, annual monitoring frequency for nutrients is required for this discharge. Annual monitoring and report, and sample type will remain in the proposed permit.

Anti-backsliding
Not applicable to this permit.

Class A Wild Trout Fisheries
No Class A Wild Trout Fisheries are impacted by this discharge.

Antidegradation (93.4)
The effluent limits for this discharge 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. No High Quality Waters are impacted by this discharge. No Exceptional Value Waters are impacted by this discharge.

Attachment
It is a WQM7.0 data.

20190819144958252
.pdf

WQM 7.0 MODEL INPUT

1. Outfall 001 on Trib 59139 to Rock Creek
   a. Elevation: 447.24 ft
   b. RMI: 9.96 miles to Monocacy River located at PA & MD boundaries
   c. Drainage Area: 0.53 mi^2
   d. Low Flow Yield: 0.04 cfs/mi^2
   e. Discharge Flow: 0.005 MGD
2. Just before 59041 to Rock Creek
   a. Elevation: 405.64 ft
   b. RMI: 8.31 miles to Monocacy River located at PA & MD boundaries
   c. Drainage Area: 24.7 mi^2
   d. Low Flow Yield: 0.04 cfs/mi^2
   e. Discharge Flow: 0.000 MGD

TRC EVALUATION					
Input appropriate values in A3:A9 and D3:D9					
0.021	= Q stream (cfs)		0.5	= CV Daily	
0.005	= Q discharge (MGD)		0.5	= CV Hourly	
30	= no. samples		1	= AFC_Partial Mix Factor	
0.3	= Chlorine Demand of Stream		1	= CFC_Partial Mix Factor	
0	= Chlorine Demand of Discharge		15	= AFC_Criteria Compliance Time (min)	
0.5	= BAT/BPJ Value		720	= CFC_Criteria Compliance Time (min)	
0	= % Factor of Safety (FOS)			=Decay Coefficient (K)	
Source	Reference	AFC Calculations		Reference	CFC Calculations
TRC	1.3.2.iii	WLA afc = 0.885		1.3.2.iii	WLA cfc = 0.855
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373		5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 0.330		5.1d	LTA_cfc = 0.497
Source		Effluent Limit Calculations			
PENTOXSD TRG	5.1f	AML MULT = 1.231			
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.406		AFC	
		INST MAX LIMIT (mg/l) = 1.328			

WLA afc	**(.019/e(-k*AFC_tc)) + [(AFC_Yc*Qs*.019/Qd*e(-k*AFC_tc))...**
	...+ Xd + (AFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)
LTAMULT afc	EXP((0.5*LN(cvh^2+1))-2.326*LN(cvh^2+1)^0.5)
LTA_afc	wla_afc*LTAMULT_afc
WLA_cfc	**(.011/e(-k*CFC_tc) + [(CFC_Yc*Qs*.011/Qd*e(-k*CFC_tc))...**
	...+ Xd + (CFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)
LTAMULT_cfc	EXP((0.5*LN(cvd^2/no_samples+1))-2.326*LN(cvd^2/no_samples+1)^0.5)
LTA_cfc	wla_cfc*LTAMULT_cfc
AML MULT	EXP(2.326*LN((cvd^2/no_samples+1)^0.5)-0.5*LN(cvd^2/no_samples+1))
AVG MON LIMIT	MIN(BAT_BPJ,MIN(LTA_afc,LTA_cfc)*AML_MULT)
INST MAX LIMIT	**1.5*((av_mon_limit/AML_MULT)/LTAMULT_afc)**

Existing Effluent Limitations and Monitoring Requirements

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/week	Weir
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
D.O.	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.48	XXX	1.58	1/day	Grab
$CBOD_5$	XXX	XXX	XXX	25	XXX	50	2/month	Grab
TSS	XXX	XXX	XXX	30	XXX	60	2/month	Grab
Fecal Coliform (CFU/100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2,000 Geo Mean	XXX	10,000	2/month	Grab
Fecal Coliform (CFU/100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	2/month	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	19.5	XXX	39	2/month	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	6.5	XXX	13	2/month	Grab
Total Nitrogen	Report Annl Avg	Report Total Annual	XXX	Report Annl Avg	XXX	XXX	1/year	Calculation
Total Phosphorus	Report Annl Avg	Report Total Annual	XXX	Report Annl Avg	XXX	XXX	1/year	8-Hr Composite

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	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/week	Weir
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
D.O.	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.40	XXX	1.40	1/day	Grab
$CBOD_5$	XXX	XXX	XXX	25	XXX	50	2/month	Grab
TSS	XXX	XXX	XXX	30	XXX	60	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2,000 Geo Mean	XXX	10,000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	2/month	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	18.0	XXX	36.0	2/month	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	6.0	XXX	12.0	2/month	Grab
Total Nitrogen	Report Annl Avg	Report Total Annual	XXX	Report Annl Avg	XXX	XXX	1/year	Calculation
Total Phosphorus	Report Annl Avg	Report Total Annual	XXX	Report Annl Avg	XXX	XXX	1/year	8-Hr Composite

Compliance Sampling Location:

Other Comments:

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.
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