pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0080586**
Facility Type	**Industrial**	APS ID	**276925**
Major / Minor	**Minor**	Authorization ID	**1307804**

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

Applicant and Facility Information

Applicant Name	**Morton Bldg Inc.**	Facility Name	**Morton Bldg Manufacturing**
Applicant Address	3370 York Road	Facility Address	3370 York Road
	Gettysburg, PA 17325-8258		Gettysburg, PA 17325-8258
Applicant Contact	Robert Mcmaster	Facility Contact	Robert Mcmaster
Applicant Phone	(717) 624-8000	Facility Phone	(717) 624-8000
Client ID	80413	Site ID	250875
SIC Code	3448	Municipality	Straban Township
SIC Description	Manufacturing - Prefabricated Metal Buildings	County	Adams
Date Application Received	August 6, 2019	EPA Waived?	Yes
Date Application Accepted	August 28, 2019	If No, Reason	
Purpose of Application	NPDES permit renewal.		

Summary of Review

Morton Building, Inc. has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its National Pollutant Discharge Elimination System (NPDES) permit. The permit was issued on February 20, 2015 and became effective on March 1, 2015. The existing permit expiration date was February 29, 2020.

The permit authorized discharge of treated sewage from the existing wastewater treatment plant (WWTP) located in Straban Township, Adams County to Unnamed Tributary of Swift Run (WWF).

The discharge design flow and hydraulic capacity is 0.003 MGD. The facility manufactures the wood and steel components, and directly discharges stormwater to a stormwater retention pond which is located in the southeast corner of the 20.5 acres of the operating facility. Therefore, the facility is subject to NPDES regulations per the General Stormwater NPDES permit for Industrial which is included in Part C Condition III Requirement applicable to Stormwater Outfalls in this proposed permit.

WQM No. 01104040 was issued on October 4, 2010.

Changes from the previous permit: Unit of Fecal Coliform changed from CFU/100 ml to No./100 ml.

Based on the review outline 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	March 16, 2020
		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)	0.003
Latitude	39º 51' 54.36"	Longitude	-77º 7' 37.92"
Quad Name	Gettysburg	Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to Swift Run (WWF)	Stream Code	08955
NHD Com ID	133624954	RMI	0.71 mile
Drainage Area	0.42 mi.^{2}	Yield (cfs/mi^2)	0.015
Q_{7-10} Flow (cfs)	0.006	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	560.45	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 Borough Municipal Authority, York County		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI	28.52 miles	Distance from Outfall (mi)	Approximate 69 miles

Changes Since Last Permit Issuance:

Drainage Area
The discharge is to unnamed tributary of Swift Run at RMI 0.71 miles. A drainage area upstream of the discharge is estimated to be 0.42 mi.^{2}, according to USGS StreamStats available at https://streamstats.usgs.gov/ss/.

Stream Flow
According to USGS StreamStats, the Q_{7-10} at the discharge point is 0.0061 cfs and the drainage area is 0.42 mi.^{2} which results in a Q_{7-10} low flow yield of 0.015 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):

$$Q_{7-10} = 0.0061 \text{ cfs}$$
$$\text{Low Flow Yield} = 0.0061 \text{ cfs} / 0.42 \text{ mi.}^2 \approx 0.015 \text{ cfs/mi.}^2$$
$$Q_{30-10} = 1.36 * 0.0061 \text{ cfs} \approx 0.008 \text{ cfs}$$
$$Q_{1-10} = 0.64 * 0.0061 \text{ cfs} \approx 0.004 \text{ cfs}$$

Unnamed Tributary to Swift Run
25 Pa Code § 93.9o classifies Unnamed Tributary to Swift Run as warm water fishes (WWF) surface water. Based on the 2018 Integrated Report, Swift Run (Assessment ID 11591), is not impaired. A TMDL currently does not exist for this stream segment, therefore, no TMDL has been taken into consideration during this review.

Potable Water Supply Intake
The nearest downstream public water supply intake is the Wrightsville Borough Municipal Authority, York County intake on the Susquehanna River, approximately 69 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: Morton Bldg Manufacturing				
WQM Permit No.	**Issuance Date**			
01104040	10/4/2010			
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Industrial			Hypochlorite	0.0026
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.003		Not Overloaded		

Changes Since Last Permit Issuance:

The facility is a 3,000 GPD system with the following treatment units:

One (1), Bar Screen
One (1), Equalization Tank
One (1), Aeration Tank
One (1), Final Clarifier
One (1), Chlorine Contact Tank
One (1), Post-Aeration Tank
One (1), Sludge Holding Tank

Sodium Hypochlorite is used for disinfection. Sodium Bisulfate is used for de-chlorination. Sodium Carbonate is used for pH adjustment as need. Aluminum sulfate is used for coagulant/phosphate precipitation as need. Anti-foam is used for surfactant as need.

Compliance History	
Summary of DMRs:	See DMR reported from February 1, 2019 to January 31, 2020 Table below (Page # 4).
Summary of Inspections:	8/1/2018: Mr. Bowen, DEP WQS, conducted routine partial inspection. The field test results were within permitted limits. There were no violations noted during inspection. 10/31/2017: Mr. Bowen, DEP WQS, conducted compliance evaluation inspection. There were some recommendations such as clean the contact tank and effluent pump sump, lower the clarifier level before brushing down clarifier, use approved test methods for pH and D.O., and submit non-compliance form for September 2017 fecal coliform IMAX exceedance. The field test results were within permitted limits. There were no violations noted during inspection.
Other Comments:	There are currently no open violations associated with the permittee or the facility.

Other Comments:

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 (MGD) Average Monthly	0.0005	0.0005	0.0005	0.0005	0.0006	0.0004	0.0004	0.0005	0.0006	0.0007	0.0006	0.0007
Flow (MGD) Daily Maximum	0.0007	0.0008	0.0008	0.0008	0.0008	0.0006	0.0008	0.0007	0.0011	0.0032	0.0008	0.0010
pH (S.U.) Minimum	8.2	8.1	8.4	8.3	8.3	8.2	7.9	8.3	8.2	8.1	8.2	8.2
pH (S.U.) Maximum	8.8	8.6	8.7	8.6	8.6	8.6	8.8	8.7	8.6	8.7	8.6	8.6
DO (mg/L) Minimum	13.4	11.6	10.2	8.6	8.2	8.2	8.5	8.8	9.6	10.5	12.4	14.2
TRC (mg/L) Average Monthly	0.12	0.11	0.11	0.10	0.10	0.10	0.10	0.08	0.11	0.12	0.12	0.09
TRC (mg/L) Instantaneous Maximum	0.23	0.23	0.27	0.32	0.27	0.27	0.22	0.16	0.22	0.37	0.32	0.20
CBOD5 (mg/L) Average Monthly	3.8	2.45	< 2.0	2.6	< 2.0	2.5	2.05	< 2.0	< 2.0	3.1	3	2.35
TSS (mg/L) Average Monthly	< 5	< 5	< 5	6.5	6.5	< 5	5.5	5	< 5	< 5	9	5
Fecal Coliform (CFU/100 ml) Geometric Mean	2.2	< 1.0	< 1.0	34.6	1.7	98.6	29.0	19.6	< 1	< 1	60.3	29
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	5	< 1	< 1.0	1200	3	270	84	77	< 1	< 1	260	44
Nitrate-Nitrite (mg/L) Average Monthly	81.2	69.6	40.7	78.4	72.1	71.1	47.5	52.8	46.3	11.6	47.8	58.4
Total Nitrogen (mg/L) Average Monthly	82.2	70.6	41.7	80.1	73.1	72.1	48.5	53.8	47.3	12.6	48.8	59.4
Ammonia (mg/L) Average Monthly	0.125	0.107	< 0.10	0.238	0.17	0.113	0.15	< 0.10	< 0.10	0.182	0.1999	0.207
TKN (mg/L) Average Monthly	1.0	< 1.0	< 1.0	1.7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Phosphorus (mg/L) Average Monthly	6.9	6.4	5.0	13.2	10.5	12.2	4.7	5.6	2.3	0.59	5.1	6.0

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.003
Latitude 39º 51' 53.81" **Longitude** -77º 7' 37.94"
Wastewater Description: Sewage Effluent

Technology-Based Limitations

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

Parameter	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

Carbonaceous Biochemical Oxygen Demand ($CBOD_5$):
The attached computer printout of the WQM 7.0 stream model indicates that a monthly average limit of 25 mg/L, or secondary treatment, is adequate to protect the water quality of the stream. However, the existing limits of 25 mg/L average monthly (AML), and 50 mg/L instantaneous maximum (IMAX) will remain in the proposed permit as per guidance document 391-2000-014. Recent DMRs and inspection reports show that the facility has been consistently achieving these limits.

Ammonia (NH_3-N):
NH_3-N calculations were first 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 in-stream NH_3-N criteria used in the attached computer model of the stream:

Discharge pH	=	7.0	(Default)
Discharge Temperature	=	20°C	(Default)
Stream pH	=	7.0	(Default)
Stream Temperature	=	20ºC	(Default)
Background NH_3-N	=	0	(Default)

The model input data and results are attached. The printout of the WQM 7.0 output indicates that at a discharge of 0.003 MGD, limits (rounded according to the NPDES Technical Guidance 362-0400-001) of 5.46 mg/L NH_3-N as a monthly average (AML) and 10.92 mg/L NH_3-N instantaneous maximum (IMAX) are necessary to protect the aquatic life from toxicity effects. However, the more stringent in existing limits of 5.0 mg/L AML and 10.0 mg/L IMAX will remain in the proposed permit due to anti-backsliding requirements.

The winter effluent limit will be set at three-times the summer limits; therefore, the average monthly winter limit for NH_3-N will be 15.0 mg/L (5.0 mg/L x 3). For the same reason, the instantaneous maximum limit for the winter season will be 30 mg/L (10 mg/L x 3).

Additionally, past DMRs and inspection reports show that the facility has been consistently achieving concentrations under these limits.

Total Suspended Solids (TSS):
There is no water quality criterion for TSS. A limit of 30 mg/L AML and 60 mg/L IMAX will be required based on the minimum level of effluent quality attainable by secondary treatment as defined in 40 CFR 133.102b(1) and 25 Pa. Code § 92a.47(a)(1).

Dissolved Oxygen (D.O.):
A minimum D.O. of 5.0 mg/L is required per 25 Pa. Code § 93.7. This is consistent with the previous permit and current Department criteria.

pH:
The effluent discharge pH should remain above 6.0 and below 9.0 standard units according to 25 Pa. Code § 95.2(2).

Fecal Coliform:
The recent coliform guidance in 25 Pa. Code § 92a.47.(a)(4) requires a summer technology limit of 200/100 ml as a geometric mean and an instantaneous maximum not greater than 1,000/100 ml and 25 Pa. Code § 92a.47.(a)(5) requires a winter limit of 2,000/100 ml as a geometric mean and an instantaneous maximum not greater than 10,000/100 ml.

Toxics:
This is a minor sewage facility receiving domestic wastewater only and the current application does not require sampling of toxic pollutants (or heavy metals) for those facilities with design flows less than 0.1 MGD. Therefore, no reasonable potential analysis for toxic pollutants has been performed for this permit renewal.

Total Residual Chlorine:
The attached computer printout utilizes the equations and calculations as presented in the Department's 2003 Implementation Guidance for Total Residual Chlorine (TRC), dated 11/15/94 (ID No. 391-2000-015) for developing chlorine limitations. The attached printout indicates that an average monthly water quality limit of 0.2 mg/L and 0.6 mg/L max daily would be needed to prevent toxicity concerns. This is consistent with the existing permit. The treatment facility is meeting this limit.

Phosphorus:
Phosphorus limitations are based on the Department's Implementation Guidance for Section 95.9 Phosphorus Discharge to Free Flowing Streams, dated 10/27/97 (ID No. 391-2000-018). This Guidance requires phosphorus control to be implemented at the technology-based limit of 2.0 mg/L if the discharge is to a stream or tributary that has a nutrient-related problem, provided that the discharger contributes 0.25% or more of the total point source phosphorus loading to the Lower Susquehanna. To determine the percentage of phosphorus contributed by the point discharge, the following calculations are utilized:

Phosphorus Loading from Discharger = (Flow Rate) x (Total P. Concentration) x (Density of Water)
= (0.003 MGD)(12.675 mg/L)(8.34 (lb/MG)(L/mg)) = 0.317 lbs. P/day

Phosphorus Loading from Discharger Corrected for Biological Uptake = (Calculated Loading from Discharge) x $(0.99^{\text{Distance from Outfall to Lower Susquehanna(mi.)}})$

= (0.317 lbs. P/day)$(0.99^{95.63})$ = 0.121 lbs. P/day

Percentage of Phosphorus Loading from Discharger Relative to Total Phosphorus Loading from Watershed = (0.121 lbs. P/day)/(3814 lbs. P/day) x 100% = 0.003%.

0.003% < 0.25%; therefore, a Total Phosphorus limit is not required.

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 by Central Office based on their delivered TN loadings to the Bay. The highest priority (Phases 1, 2, and 3) 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. Phase 4 (0.2 - 0.4 MGD) will be required to monitor and report TN and TP during permit renewal monthly and Phase 5 (below 0.2 MGD) will monitor during current permit renewal once a year unless two years of monitoring were completed and documented. Any facility in Phases 4 and 5 that undergoes expansion is subjected to cap load right away. This plant is classified as a phase 5 and will be required to monitor and report Nitrate-Nitrite as N, Total Kjeldahl Nitrogen, Total Phosphorus, and Total Nitrogen. The once per month monitoring and report requirements for these parameters will remain in the proposed permit.

Stormwater Requirements:
Morton Building Inc. is classified under SIC Code 3448 for Prefabricated Metal Buildings and Components which is subject to 40 CFR §122.26(b)(14)(xi), standard stormwater conditions will be included in Part C of the permit. Raw materials, intermediates, and final products at this facility are not exposed to stormwater. Additionally, the sample analysis submitted along with application summarized in Table below.

Pollutant	Average Concentration	Maximum Concentration
	Grab Sample	Grab Sample
Oil and Grease (mg/L)	ND	ND
BOD5 (mg/L)	2.7	2.7
COD (mg/L)	23	23
TSS (mg/L)	14	14
Total Nitrogen (mg/L)	ND	ND
Total Phosphorus (mg/L)	ND	ND
pH (S.U.)	Min. 8.07/Max. 8.07	Min. 8.07/Max. 8.07

Therefore, there are no limit requirements for stormwater outfall 002.

Anti-Degradation (93.4)

The 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. No High-Quality Waters are impacted by this discharge. No Exceptional Value Waters are impacted by this discharge.

Class A Wild Trout Fisheries

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

303d Listed Streams:

The discharge is not located on a 303d listed stream segment.

WQM 7.0 model inputs:

Node 1: Trib 08955 of Swift Run (stream code 08955)

Elevation:	560.45 ft (USGS National Map Viewer)
Drainage Area:	0.42 $mi.^2$ (USGS PA StreamStats)
River Mile Index:	0.710 miles (PA DEP eMapPA)
Low Flow Yield:	0.015 $cfs/mi.^2$
Discharge Flow:	0.003 MGD (NPDES PA0080586)

Node 2: Just before conjunction to Trib 08954 to Swift Run

Elevation:	510.73 ft (USGS National Map Viewer)
Drainage Area:	0.76 $mi.^2$ (USGS PA StreamStats)
River Mile Index:	0.10 mile (PA DEP eMapPA)
Low Flow Yield:	0.015 $cfs/mi.^2$
Discharge Flow:	0.00 MGD

WQM 7.0 Data is attached.

Morton Bldg WQM 7.0 data.pdf

TRC results

TRC EVALUATION			
Input appropriate values in A3:A9 and D3:D9			
0.0061	= Q stream (cfs)	0.5	= CV Daily
0.003	= 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 = 0.438	1.3.2.iii	WLA cfc = 0.420
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 0.163	5.1d	LTA_cfc = 0.244

Source		Effluent Limit Calculations	
PENTOXSD TRG	5.1f	AML MULT = 1.231	
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.201	AFC
		INST MAX LIMIT (mg/l) = 0.657	

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)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly		Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
Dissolved Oxygen	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
Total Residual Chlorine	XXX	XXX	XXX	0.2	XXX	0.6	1/day	Grab
$CBOD_5$	XXX	XXX	XXX	25	XXX	50	2/month	Grab
Total Suspended Solids	XXX	XXX	XXX	30	XXX	60	2/month	Grab
Fecal Coliform (CFU/100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	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
Ammonia-Nitrogen May 1 – Sep 30	XXX	XXX	XXX	5.0	XXX	10.0	2/month	Grab
Ammonia-Nitrogen Oct 1 - Apr 30	XXX	XXX	XXX	15.0	XXX	30.0	2/month	Grab
Nitrate-Nitrite as N	XXX	XXX	XXX	Report	XXX	XXX	1/month	8-Hr Composite
Total Kjeldahl Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/month	8-Hr Composite
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/month	8-Hr Composite
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/month	Calculation

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	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	5.0 Daily Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.2	XXX	0.60	1/day	Grab
CBOD5	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	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
Nitrate-Nitrite	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/month	Calculation
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	15	XXX	30	2/month	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	5.0	XXX	10	2/month	Grab
TKN	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab

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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