pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0080209**
Facility Type	**Non-Municipal**	APS ID	**275426**
Major / Minor	**Minor**	Authorization ID	**1177207**

Applicant and Facility Information

Applicant Name	**Hoffman Homes Inc.**	Facility Name	**Hoffman Homes For Youth Inc.**
Applicant Address	815 Orphanage Road	Facility Address	815 Orphanage Road
	Littlestown, PA 17340-9329		Littlestown, PA 17340-9329
Applicant Contact	William Posner	Facility Contact	William Posner
Applicant Phone	(717) 359-7148	Facility Phone	(717) 359-7148
Client ID	66334	Site ID	509940
Ch 94 Load Status	Not Overloaded	Municipality	Mount Joy Township
Connection Status	**No Limitations**	County	Adams
Date Application Received	March 9, 2017	EPA Waived?	Yes
Date Application Accepted	May 15, 2017	If No, Reason	

Purpose of Application: NPDES permit renewal.

Summary of Review

Hoffman Homes, 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 August 15, 2012 and became effective on September 1, 2012. The permit authorized discharge of treated sewage from the existing wastewater treatment plant (WWTP) located in Mount Joy Township, Adams County into Unnamed Tributary to Lousy Run. The existing permit expiration date was August 31, 2017, and the permit has been administratively extended since that time.

Changes from the previous permit: Unit of Fecal Coliform is 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.

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		Hilary H. Le / Environmental Engineering Specialist	July 17, 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)	0.02
Latitude	39º 44' 53.49"	Longitude	-77º 10' 40.27"
Quad Name	Taneytown	Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to Lousy Run (WWF)	Stream Code	59042
NHD Com ID	53321146	RMI	3.95 miles
Drainage Area	0.44 mi^2	Yield (cfs/mi^2)	See comments below
Q_{7-10} Flow (cfs)	NA	Q_{7-10} Basis	NA
Elevation (ft)	545 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	Not Assessed		
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 35 miles

Changes Since Last Permit Issuance: none

Drainage Area
The discharge is to Unnamed Tributary 59042 to Lousy run at RMI 3.95 miles. A drainage area upstream of the discharge is estimated to be 0.44 sq.mi, according to USGS PA StreamStats available at https://streamstats.usgs.gov/ss/.

Streamflow
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):

$$\text{Low Flow Yield} = Q_{7\text{-}10gage} / \text{Drainage Area}_{gage} = 2.52 \text{ cfs} / 63.6 \text{ mi}^2 = 0.04 \text{ cfs/mi}^2$$
$$Q_{7\text{-}10discharge} = 0.04 \text{ cfs/mi}^2 * \text{Drainage Area}_{discharge} = 0.04 \text{ cfs/sq.mi} * 0.44 \text{ mi}^2 = 0.0176 \text{ cfs}$$
$$Q_{30\text{-}10} = 1.36 * Q_{7\text{-}10discharge} = 1.36 * 0.0176 \text{ cfs} = 0.024 \text{ cfs}$$
$$Q_{1\text{-}10} = 0.64 * Q_{7\text{-}10discharge} = 0.64 * 0.0176 \text{ cfs} = 0.011 \text{ cfs}$$

Point of First Use
A point of first use was conducted by DEP Water Pollutant Biologist in 1986 indicated that the Lousy Run is an intermittent stream at the facility's discharge point with the point of first use existing approximately 0.7 mile downstream. The drainage area for the point of first use was determined to be 0.78 mi^2 by the USGS StreamStats GIS application.

Potable Water Supply Intake
The nearest downstream public water supply intake is the City of Frederick intake on the Monocacy River, approximately 35 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: Hoffman Homes Inc.				
WQM Permit No.	**Issuance Date**			
0178403				
0178403 98-1	3/26/1999			
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Tertiary	Extended Aeration With Solids Removal	Chlorine With Dechlorination	0.02
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.02	1.66	Not Overloaded		

Changes Since Last Permit Issuance: none

The WWTP train is as follows:

The treatment process is as follows: Comminutor – Equalization Tank – Aeration Tanks (2) – Clarifiers (2) – Dosing Tank – Sand filter – Mixed media filter – Chlorine Contact – De-chlorination – Sludge Holding Tank – Outfall to Lousy Run.

Calcium hypochlorite tablets are used for chlorination and sodium sulfite tablets are used for dechlorination. A sludge holding tank is used for solids storage. An intermittent sand filter is used as a backup filter if necessary.

Compliance History	
Summary of DMRs:	See Table below.
Summary of Inspections:	10/24/2016: Bob Haines, DEP Water Quality Specialist, conducted a routine inspection. The monitoring/maintenance issue was noted at the time of inspection such as when the pump in the dosing tank was activated for the sand filter bed a slug of dark brown, thick sludge water was observed spouting from the distribution pipe initially. This is violation of NPDES permit No. PA0080209 part B.I.E.2. 5/8/2017: Mr. Bowen, DEP Water Quality Specialist, conducted a follow up inspection. The outfall 001 was clear. The collection period on 4/18 – 4/19/2017 was 21-hr composite sample, since NPDES permit requires collection of 24-hr composite samples. However, there were no violations identified during the inspection. 2/27/2018: Mr. Bowen, DEP Water Quality Specialist, conducted a routine inspection. There were no violations identified during the inspection.
Other Comments:	There are currently no open violations associated with the permittee or the facility.

Compliance History

DMR Data for Outfall 001 (from January 1, 2018 to October 31, 2018, except May 2018)

Parameter	Jan-18	FEB-18	MAR-18	APR-18	JUN-18	JUL-18	AUG-18	SEP-18	OCT-18
Flow (MGD) Average Monthly	0.005	0.005	0.004	0.004	0.003	0.004	0.004	0.008	0.003
Flow (MGD) Daily Maximum	0.009	0.01	0.007	0.01	0.007	0.018	0.009	0.055	0.006
pH (S.U.) Minimum	6.45	6.19	6.44	6.26	6.48	6.49	6.59	6.51	6.67
pH (S.U.) Maximum	7.49	7.19	7.15	7.52	7.25	7.29	7.58	7.22	7.43
DO (mg/L) Minimum	7.50	8.14	9.08	8.1	6.46	6.98	6.31	6.73	7.24
TRC (mg/L) Average Monthly	0.03	0.02	0.03	0.04	0.04	0.03	0.03	0.04	0.05
TRC (mg/L) Instantaneous Maximum	0.09	0.04	0.10	0.35	0.09		0.07	0.14	0.13
$CBOD_5$ (mg/L) Average Monthly	< 3	< 3	< 3	3	< 3	< 3	< 3	< 3	< 3
TSS (mg/L) Average Monthly	2	2	6	1	2	1	1	2	2
Fecal Coliform (CFU/100 ml) Geometric Mean	101	< 2	81	< 1	< 1	< 18	< 2	< 1	< 1
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	422	< 2	412	< 2	2	156	< 2	< 2	< 2
Nitrate-Nitrite (lbs/day) Annual Average	< 2								
Nitrate-Nitrite (mg/L) Annual Average	< 29.4	< 0.1	< 0.1	< 1.7	< 0.1	< 0.1	< 0.12	< 0.1	< 0.1
Total Nitrogen (lbs/day) Annual Average	2								
Total Nitrogen (mg/L) Annual Average	< 29.9								
Ammonia-Nitrogen (mg/L) Nov 1 – Apr 30	< 0.1								
TKN (lbs/day) Total Annual	< 0.03								
TKN (mg/L) Annual Average	< 0.5								
Total Phosphorus (lbs/day) Total Annual	0.08								
Total Phosphorus (mg/L) Total Annual	1.3								

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.02
Latitude 39º 44' 47.55" **Longitude** -77º 10' 42.70"
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

Pursuant to 40 CFR § 122.44(d)(1)(i), more stringent requirements should be considered when pollutants are discharged at the levels which have the reasonable potential to cause or contribute to excursions above water quality standards.

Carbonaceous biochemical oxygen demand ($CBOD_5$), ammonia-nitrogen (NH_3-N), and dissolved oxygen (D.O.)
WQM 7.0 ver. 1.0b is a water quality model designed to assist DEP in determining appropriate water quality based effluent limits (WQBELs) for carbonaceous biochemical oxygen demand ($CBOD_5$), ammonia-nitrogen (NH_3-N), and dissolved oxygen (D.O.). DEP's Technical Guidance No. 391-2000-007 provides the technical methods contained in WQM 7.0 for determining wasteload allocations and for determining recommended NPDES effluent limits for point source discharges.

Due to the very low-flow conditions expected in the receiving stream, the entire watershed of this receiving stream has been evaluated. The model was utilized for this permit application. The model output indicated a $CBOD_5$ average monthly limit of 10 mg/l, an NH_3-N average monthly limit of 3 mg/l, and a D.O. minimum limit of 5.0 mg/l were protective of water quality.

However, as per the previous protection report, a more stringent $CBOD_5$ of 10 mg/L monthly average and 20 mg/L instantaneous maximum limits is included in the existing permit, and will remain in the renewal permit as per guidance document 391-2000-014.

The attached printout of the WQM 7.0 data indicates that at a discharge of 0.02 MGD, limits of 3.00 mg/L NH_3-N as a monthly average and 6.00 mg/L NH_3-N instantaneous maximum are necessary to protect the aquatic life from toxicity effects. Also, the NH_3-N winter effluent limit will be 9.00 mg/L for average monthly and 18.00 mg/L for IMAX based on a typical multiplier of 3.0 used by DEP to calculate. Past DMR data showed that the discharge consistently contains NH_3-N levels less than 0.1 mg/L. Therefore, the facility has consistently been achieving concentrations well below these limits.

A minimum of 5.0 mg/L for D.O. is an existing effluent limit and is a water quality criterion for warm water fishery waters taken directly from 25 Pa. Code § 93.7(a). The effluent limit will remain unchanged in the draft permit to ensure that the discharge to achieve compliance with DEP water quality standards.

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 (average monthly) and not greater than 1,000/100 ml (IMAX) and 25 Pa. Code § 92a.47(a)(5) requires a winter limit of 2,000/100 ml as a geometric mean (average monthly) and not greater than 10,000/100 ml (IMAX), respectively.

pH
The effluent discharge pH should remain above 6 and below 9 standard units according to 25 Pa. Code § 95.2(2).

Total Residual Chlorine (TRC)
Since chlorine is used for disinfection and the current permit contains permit requirements for TRC, DEP's TRC-CALC worksheet is utilized to determine if existing WQBELs of 0.12 mg/L (average monthly) and 0.39 mg/L (IMAX) are still adequate. The worksheet indicated that existing WQBELs are still protecting water quality. Therefore, no changes are recommended.

TSS
The existing limits of 10 mg/L (average monthly) and 20 mg/L (IMAX) will remain in the proposed permit as per guidance document 391-2000-014. Past DMRs reports showed that the facility has been consistently achieving these limits.

Toxic
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.

Best Professional Judgment (BPJ) Limitations

Total Phosphorus
The Rock Creek basin is designated as having nutrient-related problems. As per the previous protection report, it has been decided that phosphorus limits would not be necessary because the discharge is not to a perennial stream and the soil would absorb the phosphorus before a significant portion of it reached the point of first use. This approach is consistent with DEP's SOP No. BPNPSM-PMT-033 as well as the State regulation found in 25 Pa. Code § 96.5(c) which states the following: *"When it is determined that the discharge of phosphorus, alone or in combination with the discharge of other pollutants, contributes or threatens to impair existing or designated uses in a free-flowing surface water, phosphorus discharges from point source discharges shall be limited to an average monthly concentration of 2 mg/l. More stringent controls on point source discharges may be imposed, or may be otherwise adjusted as a result of a TMDL which has been developed*." Consequently, existing effluent limits will remain unchanged in the draft permit in accordance with 40 CFR §122.44(l)(1).

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 Strategy
According to DEP's Chesapeake Bay Phase II Watershed Implementation Plan (WIP) Wastewater Supplement, this facility is considered a phase 5 non-significant sewage discharger with design flow less than 0.2 MGD but greater than 0.002 MGD. In general, DEP will issue permits for all phase 5 facilities with monitoring and reporting for Total Nitrogen (TN) and Total Phosphorus (TP) throughout the permit term at a frequency no less than annually. Furthermore, DEP's SOP No. BPNPSM-PMT-033 states that in general, at a minimum, monitoring for TN and TP should be included in new and reissued permits for sewage discharges with design flows > 2,000 gpd. At this time, the Department is not requiring a total maximum annual nitrogen or phosphorus loading cap. TN and TP monitoring is already included in the existing permit and will remain in the renewal.

Monitoring Frequency and Sample Type
The facility currently is required to collect daily effluent grab samples for DO, TRC, and pH; bi-monthly effluent 24-hr composite samples of $CBOD_5$, TSS, and ammonia-nitrogen; bi-monthly effluent grab samples of fecal coliform; annually effluent 24-hr composite samples of nitrate-nitrite as N, Total Kjeldahl nitrogen, and TP; and annually effluent calculation samples of TN. Based on the best professional judgement of the author, the existing monitoring frequencies are sufficient and necessary. Therefore, the existing monitoring frequencies will remain the same as those specified in the existing permit except for CBOD5 and TSS. Currently, 24-hr composite samples are required for CBOD5 and TSS. Since there have been no effluent violations over the past three years, 8-hr composite sampling is recommended for these parameters in Table 6-3 of DEP's technical guidance no. 362-0400-001.

Anti-Degradation 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. 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 charge.

Anti-Backsliding

Unless stated otherwise in this fact sheet, all permit requirements proposed in this fact sheet are at least as stringent as existing permit requirements in accordance with 40 CFR §122.44(l)(1).

TRC Results:

	A	B	C	D	E	F	G
1	**TRC EVALUATION**						
2	Input appropriate values in A3:A9 and D3:D9						
3	0.032	= Q stream (cfs)		0.5	= CV Daily		
4	0.02	= Q discharge (MGD)		0.5	= CV Hourly		
5	30	= no. samples		1	= AFC_Partial Mix Factor		
6	0.3	= Chlorine Demand of Stream		1	= CFC_Partial Mix Factor		
7	0	= Chlorine Demand of Discharge		15	= AFC_Criteria Compliance Time (min)		
8	0.12	= BAT/BPJ Value		720	= CFC_Criteria Compliance Time (min)		
9	0	= % Factor of Safety (FOS)			=Decay Coefficient (K)		
10	Source	Reference	AFC Calculations		Reference	CFC Calculations	
11	TRC	1.3.2.iii	WLA afc = 0.349		1.3.2.iii	WLA cfc = 0.333	
12	PENTOXSD TRG	5.1a	LTAMULT afc = 0.373		5.1c	LTAMULT cfc = 0.581	
13	PENTOXSD TRG	5.1b	LTA_afc= 0.130		5.1d	LTA_cfc = 0.193	
14							
15	Source		Effluent Limit Calculations				
16	PENTOXSD TRG	5.1f	AML MULT = 1.231				
17	PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.120		BAT/BPJ		
18			INST MAX LIMIT (mg/l) = 0.392				
19							
20							
21							
22	WLA afc	**(.019/e(-k*AFC_tc)) + [(AFC_Yc*Qs*.019/Qd*e(-k*AFC_tc))...**					
23		**...+ Xd + (AFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)**					
24	LTAMULT afc	EXP((0.5*LN(cvh^2+1))-2.326*LN(cvh^2+1)^0.5)					
25	LTA_afc	wla_afc*LTAMULT_afc					
26							
27	**WLA_cfc**	**(.011/e(-k*CFC_tc) + [(CFC_Yc*Qs*.011/Qd*e(-k*CFC_tc))...**					
28		**...+ Xd + (CFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)**					
29	LTAMULT_cfc	EXP((0.5*LN(cvd^2/no_samples+1))-2.326*LN(cvd^2/no_samples+1)^0.5)					
30	**LTA_cfc**	wla_cfc*LTAMULT_cfc					
31							
32	AML MULT	EXP(2.326*LN((cvd^2/no_samples+1)^0.5)-0.5*LN(cvd^2/no_samples+1))					
33	AVG MON LIMIT	MIN(BAT_BPJ,MIN(LTA_afc,LTA_cfc)*AML_MULT)					
34	INST MAX LIMIT	**1.5*((av_mon_limit/AML_MULT)/LTAMULT_afc)**					
35							

WQM 7.0 Data:

WQM 7.0 MODEL INPUTS

Two nodes were used for the WQM 7.0 model since there are no other WWTP discharges within close proximity.

Node 1: Point of First Use on Lousy Run

Elevation:	512 ft (USGS National Map Viewer)
Drainage Area:	0.78 mi^2 (USGS PA StreamStats)
River Mile Index:	3.25 (PA DEP eMapPA)
Low Flow Yield:	0.041 cfs/mi^2
Discharge Flow:	0.02 MGD (NPDES PA0080209 Application)

Node 2: Just before confluence with UNT 59044

Elevation:	427 ft (USGS National Map Viewer)
Drainage Area:	2.35 mi^2 (USGS PA StreamStats)
River Mile Index:	1.26 (PA DEP eMapPA)
Low Flow Yield:	0.041 cfs/mi^2
Discharge Flow:	0.00 MGD

Attachment:

20190702085526585
.pdf

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	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
TRC	XXX	XXX	XXX	0.12	XXX	0.39	1/day	Grab
CBOD5	XXX	XXX	XXX	10	XXX	20	2/month	24-Hr Composite
TSS	XXX	XXX	XXX	10	XXX	20	2/month	24-Hr Composite
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
Nitrate-Nitrite	XXX	Report	XXX	Report Daily Max	XXX	XXX	1/year	24-Hr Composite
Total Nitrogen	XXX	Report	XXX	Report Daily Max	XXX	XXX	1/year	Calculation
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	9.0	XXX	18.0	2/month	24-Hr Composite
Ammonia May 1 - Oct 31	XXX	XXX	XXX	3.0	XXX	6.0	2/month	24-Hr Composite
TKN	XXX	Report	XXX	Report Daily Max	XXX	XXX	1/year	24-Hr Composite
Total Phosphorus	XXX	Report	XXX	Report Daily Max	XXX	XXX	1/year	24-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	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	0.12	XXX	0.39	1/day	Grab
CBOD5	XXX	XXX	XXX	10.0	XXX	20.0	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	10.0	XXX	20.0	2/month	8-Hr Composite
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
Nitrate-Nitrite	XXX	Report	XXX	Report Daily Max	XXX	XXX	1/year	24-Hr Composite
Total Nitrogen	XXX	Report	XXX	Report Daily Max	XXX	XXX	1/year	Calculation
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	9.0	XXX	18.0	2/month	24-Hr Composite
Ammonia May 1 - Oct 31	XXX	XXX	XXX	3.0	XXX	6.0	2/month	24-Hr Composite
TKN	XXX	Report	XXX	Report Daily Max	XXX	XXX	1/year	24-Hr Composite
Total Phosphorus	XXX	Report	XXX	Report Daily Max	XXX	XXX	1/year	24-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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