pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0113913**
Facility Type	**Industrial**	APS ID	**1001291**
Major / Minor	**Minor**	Authorization ID	**1287678**

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

Applicant and Facility Information

Applicant Name	**Irvin's Corporation**	Facility Name	**Irvins Tinwear Co.**
Applicant Address	115 Cedar Lane	Facility Address	115 Cedar Lane
	Mount Pleasant Mills, PA 17853-8016		Mt Pleasant Mills, PA 17853-8016
Applicant Contact	Irvin Hoover	Facility Contact	Irvin Hoover
Applicant Phone	(570) 539-8200	Facility Phone	(570) 539-8200
Client ID	79938	Site ID	254302
SIC Code	3645	Municipality	West Perry Township
SIC Description	Manufacturing - Residential Lighting Fixtures	County	Snyder
Date Application Received	September 4, 2019	EPA Waived?	Yes
Date Application Accepted	September 13, 2019	If No, Reason	

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

Summary of Review

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Irvin's Country Tinware previously installed a new air stripper remediation system and associated outfall 003 to replace the existing air stripper and outfall 002 (this outfall will now be listed as inactive). This outfall was temporarily permitted through the Environmental Cleanups and Brownfields program. These systems were installed to remediate the tetrachloroethylene contamination in the groundwater.

Approve	Deny	Signatures	Date
X		*Jonathan P. Peterman* Jonathan P. Peterman / Project Manager	August 19, 2020
X		*Nicholas W. Hartranft* Nicholas W. Hartranft, P.E. / Environmental Engineer Manager	August 20, 2020

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.0009
Latitude	40º 43' 26.31"	Longitude	-77º 3' 34.43"
Quad Name	Richfield	Quad Code	1329
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to North Branch Mahantango Creek (CWF)	Stream Code	17422
NHD Com ID	54969977	RMI	0.38
Drainage Area	0.83	Yield (cfs/mi^2)	0.11
Q_{7-10} Flow (cfs)	0.094	Q_{7-10} Basis	Stream Gage No. 01565000
Elevation (ft)	710	Slope (ft/ft)	0.003
Watershed No.	6-C	Chapter 93 Class.	CWF
Existing Use	CWF	Existing Use Qualifier	N/A
Exceptions to Use	None.	Exceptions to Criteria	None
Assessment Status	Impaired		
Cause(s) of Impairment	Nutrients ; Organic Enrichment/Low D.O. ; Siltation		
Source(s) of Impairment	Agriculture		
TMDL Status	Final, 4/9/2001	Name	North Branch Mahantango Creek Watershed TMDL
Nearest Downstream Public Water Supply Intake	United Water Pennsylvania		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	2,440
PWS RMI	76.73	Distance from Outfall (mi)	41.13

Changes Since Last Permit Issuance: None.

Other Comments: Given that there are no stream gages located downstream of the discharge location, a simple comparative stream analysis is needed. Previously, the USGS Pennsylvania Baseline Streamflow Calculator 1.0 (EcoFlows) was used to determine a comparative stream gage. The stream with the highest correlation was stream gage 01565700 (Little Lost Creek at Oakland Mills). However, given that the data for this gage is not current (1965-1981), the stream gage with the next highest correlation and current data was utilized (Gage No. 01565000 Kishacoquillas Creek at Reedsville). The updated Q_{7-10} stream gage information obtained from *Stuckey, M.H., and Roland, M.A., 2011, Selected Streamflow Statistics for Streamgage Locations In and Near Pennsylvania*. This comparative analysis reveals that the Q_{7-10} is 0.094 cfs. Q_{7-10} calculations are attached in Appendix A. The calculated Q_{7-10} of 0.094 cfs is still appropriate and will be utilized for this review.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	003	Design Flow (MGD)	0.036
Latitude	40º 43' 19.28"	Longitude	-77º 3' 21.04"
Quad Name	Richfield	Quad Code	1329
Wastewater Description:	Groundwater Cleanup Discharge		
Receiving Waters	Unnamed Tributary to North Branch Mahantango Creek (CWF, MF)	Stream Code	17422
NHD Com ID	54969977	RMI	0.38
Drainage Area	0.83	Yield (cfs/mi^2)	0.11
Q_{7-10} Flow (cfs)	0.094	Q_{7-10} Basis	Stream Gage No. 01565000
Elevation (ft)	740	Slope (ft/ft)	0.003
Watershed No.	6-C	Chapter 93 Class.	CWF
Existing Use	CWF	Existing Use Qualifier	N/A
Exceptions to Use	None.	Exceptions to Criteria	None
Assessment Status	Impaired		
Cause(s) of Impairment	Nutrients ; Organic Enrichment/Low D.O. ; Siltation		
Source(s) of Impairment	Agriculture		
TMDL Status	Final, 4/9/2001	Name	North Branch Mahantango Creek Watershed TMDL
Nearest Downstream Public Water Supply Intake	United Water Pennsylvania		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	2,440
PWS RMI	76.73	Distance from Outfall (mi)	41.13

Changes Since Last Permit Issuance: None.

Other Comments: See comments for outfall 001 for Q_{7-10} discussion.

TMDL Impairment

North Branch Mahatango Creek TMDL
The Department's GIS system indicates that the receiving stream, the unnamed tributary to the North Branch Mahantango Creek, is impaired and a TMDL exists for this segment. Biological surveys of the aquatic life in the stream identified stream segments which were impaired by organic enrichment from agricultural sources. The pollutant reductions in the TMDL are allocated entirely to agricultural activities in the watershed and there are no point source contributions within the segments addressed in this TMDL. It can be assumed that the discharge from this facility will not contribute to an in-stream excursion above water quality criteria. No effluent limits or further TMDL review will be required.

Chesapeake Bay Requirements

The annual average flow for outfall 001 is 0.0009 MGD. Facilities that are designed based on a flow of less than 2,000 GPD (900 GPD design flow for this facility) are not a part of Pennsylvania's Chesapeake Bay Tributary Strategy. Accordingly, it is not practicable to require the permittee to perform nutrient monitoring. Outfalls 002 and 003 are not considered to be sources of nitrogen or phosphorous and no Chesapeake Bay requirements will be imposed.

Anti-Backsliding

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

Treatment Facility Summary

Treatment Facility Name: Irvins' Country Tinware Wastewater Treatment Plant
Tributary Sewer System Information: The Irvins' Country Tinware Treatment Plant serves the sanitary flows from the facility itself.

WQM Permit No.	Issuance Date
5589404	1/5/1990

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Primary	Septic Tank	Hypochlorite	0.0009
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.0009	N/A	Not Overloaded	N/A	Landfill

Treatment System Components:
- Two (2) Septic Tanks.
- One (1) Dosing Tank
- Two (2) Sand Filters.
- One (1) Tablet Erosion Chlorine Disinfection System.
- One (1) Chlorine Contact Tank.
- One (1) Outfall 001.

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

Existing Effluent Limitations and Monitoring Requirements

Existing Limits – Outfall 001

Discharge Parameter	Limitations							
	Mass (lb/day)		Concentration (mg/L)				Monitoring Requirements	
	Monthly Average	Daily Maximum	Minimum	Average Monthly	Average Weekly	Instantaneous Maximum	Minimum Frequency	Sample Type
Flow (MGD)	Report						1/ Week	Pump or Weir
C-BOD_5				25		50	1/ Month	Grab
TSS				30		60	1/ Month	Grab
TRC				1.0		2.3	1/ Week	Grab
pH (Std. Units)			6.0			9.0	1/ Week	Grab
Fecal Coliforms (5/1-9/30)	200 colonies/100 ml as a geometric mean and not greater than 1,000 colonies/100 ml in more than 10% of the samples tested						1/ Month	Grab
Fecal Coliforms (10/1-4/30)	2,000 colonies/100 ml as a geometric mean							

*The existing effluent limits for Outfall 001 were based on a design flow of 0.0009 MGD.

Existing Limits – Outfall 003

Discharge Parameter	Limitations							
	Mass (lb/day)		Concentration (mg/L)				Monitoring Requirements	
	Monthly Average	Daily Maximum	Minimum	Average Monthly	Average Weekly	Instantaneous Maximum	Minimum Frequency	Sample Type
Flow (MGD)	Report						1/ Week	Pump or Weir
pH (S.U.)			6.0			9.0	1/week	Grab
Total Cadmium				Report			1/month	Grab
Total Chromium				Report			1/month	Grab
Total Lead				Report			1/month	Grab
Ethylbenzene				Report			1/month	Grab
1,2-Dichloroethane				Report			1/month	Grab
trans-1,2-Dichloroethylene				Report			1/month	Grab
Tetrachloroethylene				0.012			1/month	Grab
Vinyl Chloride				Report			1/month	Grab

*The existing effluent limits for Outfall 002 were based on a design flow of 0.036 MGD.

Development of Effluent Limitations for Outfall 001

Outfall No. 001 **Design Flow (MGD)** 0.0009
Latitude 40° 43’ 28” **Longitude** -77° 4’ 6”
Wastewater Description: Treated 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
The Department utilizes the WQM 7.0 v1.0b and PENTOXSD v2.0d models to establish water quality based effluent limitations. This modeling is not utilized for facilities that discharge less than 2,000 gpd. However, the "TRC Spreadsheet" is utilized for non-SRSTP (SFTF) facilities.

Best Professional Judgment (BPJ) Limitations
Comments: None.

Additional Considerations
None

Development of Effluent Limitations for Outfall 003

Outfall No. 003 **Design Flow (MGD)** 0.036
Latitude 40° 43' 29.47" **Longitude** -77° 3' 19.16"
Wastewater Description: Remediated Groundwater

Water Quality-Based Limitations
To establish whether or not water-quality based effluent limitations (WQBELs) are required, the Department models in-stream conditions. In order to determine limitations for toxics, the Department utilizes the PENTOXSD v2.0d model.

PENTOXSD for Windows Version 2.0d
PENTOXSD V2.0d is a single discharge wasteload allocation program for toxics that uses a mass-balance water quality analysis to determine recommended water quality-based effluent limits. The model incorporates consideration for mixing, first-order decay and other factors to computes a Wasteload Allocation (WLA) for each applicable criterion. Finally, the model determines a maximum water quality-based effluent limitation (WQBEL) for each parameter and outputs the more stringent of the WQBEL or the input concentration. The output of which is the recommends average monthly and maximum daily effluent limitations.

In order to determine which parameters are required to be analyzed in the PENTOXSD model, a Toxics Screening Analysis is used to identify toxic pollutants of concern. In this particular case, sampling for pollutant Groups was submitted with the application. These values were input into the Toxics Screening Analysis v2.7 spreadsheet to determine if each pollutant was a candidate for PENTOXSD modeling (pollutant of concern). Refer to Appendix B for the Toxics Screening Analysis v2.7.

The Toxics Screening Analysis v2.7 determines pollutants of concern using the following logic:

- All toxic pollutants whose maximum concentrations, as reported in the permit application or on DMRs, that are greater than the most stringent applicable water quality criterion were considered to be pollutants of concern.
- Also, where the maximum reported value in an application for a pollutant is less than the detection limit using the most sensitive analytical method listed in Chapter 16, the parameter is not a parameter of concern, even if the maximum reported value exceeds the applicable Chapter 93 criterion.
- Where the maximum reported values in an application for a parameter is less than the detection limit for some analytical method other than the most sensitive analytical method listed in Chapter 16, the parameter is a

pollutant of concern if the maximum reported value exceeds the Chapter 93 criterion, even if the value is reported as “non-detect.”

The PENTOXSD model was then run for all parameters of concern to evaluate reasonable potential (RP) for other toxic pollutants to cause an excursion above water quality standards. See Appendix C for the PENTOXSD model input/output. The most stringent WQBEL recommended by the model was then entered back into the same Toxics Screening Analysis v2.7 spreadsheet in order to determine which action to take regarding the pollutant. The permit recommendations of Monitor, Establish Limits, or to take no action (-) are established in the Toxics Screening Analysis v2.7 spreadsheet for each pollutant based off of the following logic:

- Establish average monthly and IMAX limits in the draft permit where the maximum reported concentration exceeds 50% of the WQBEL.
- For non-conservative pollutants, establish monitoring requirements where the maximum reported concentration is between 25% - 50% of the WQBEL.
- For conservative pollutants, establish monitoring requirements where the maximum reported concentration is between 10% - 50% of the WQBEL.

A “Reasonable Potential Analysis” (See Appendix B) determined that the following parameters were candidates for monitoring or limitations shown below:

Parameter	Effluent Limit (µg/l)	Governing Criterion	Max Daily Limit (µg/l)	WQBEL (µg/l)	WQBEL Criterion	Permit Recommendation
TETRACHLOROETHYLENE	12.357	CRL	19.279	12.357	CRL	Establish Limits

Comments: This proposed effluent limit for tetrachloroethylene is the same as the existing limit.

Best Professional Judgment (BPJ) Limitations

Previously limits and monitoring were required for ethylbenzene, cadmium, lead, and chromium. These were applied due to BPJ given that they are pollutants of concern and shall remain. Additionally, 1,2-Trans-Dichloroethylene, 1,2-Dichloroethane, and Vinyl Chloride monitoring were required given that these are partial degradation daughter products of tetrachloroethylene.

Comments: None.

Additional Considerations
None

Proposed Effluent Limitations and Monitoring Requirements

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

Proposed Limits - Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date

Discharge Parameter	Limitations							
	Mass (lb/day)		Concentration (mg/L)				Monitoring Requirements	
	Monthly Average	Daily Maximum	Minimum	Average Monthly	Average Weekly	Instantaneous Maximum	Minimum Frequency	Sample Type
Flow (MGD)	Report						1/ Week	Pump or Weir
C-BOD_5				25		50	1/ Month	Grab
TSS				30		60	1/ Month	Grab
TRC				0.5		1.6	1/ Week	Grab
pH (Std. Units)			6.0			9.0	1/ Week	Grab
Fecal Coliforms (5/1-9/30)	200 colonies/100 ml as a geometric mean					1,000	1/ Month	Grab
Fecal Coliforms (10/1-4/30)	2,000 colonies/100 ml as a geometric mean					10,000		

*The proposed effluent limits for Outfall 001 were based on a design flow of 0.0009 MGD.

Proposed Limits - Outfall 003, Effective Period: Permit Effective Date through Permit Expiration Date

Discharge Parameter	Limitations							
	Mass (lb/day)		Concentration (mg/L)				Monitoring Requirements	
	Monthly Average	Daily Maximum	Minimum	Average Monthly	Average Weekly	Instantaneous Maximum	Minimum Frequency	Sample Type
Flow (MGD)	Report						1/ Week	Pump or Weir
pH (Std. Units)			6.0			9.0	1/ Week	Grab
Tetrachloroethylene				0.012			1/ Month	Grab
Ethylbenzene				Report			1/ Month	Grab
Lead				Report			1/ Month	Grab
Cadmium				Report			1/ Month	Grab
Chromium				Report			1/ Month	Grab
1,2-Trans-Dichloroethylene				Report			1/ Month	Grab
1,2-Dichloroethane				Report			1/ Month	Grab
Vinyl Chloride				Report			1/ Month	Grab

*The existing effluent limits for Outfall 003 were based on a design flow of 0.036 MGD.

Effluent Limit Determination for Outfall 001

Flow
The existing monitoring frequency (1/ Week) and sample type (Pump or Weir) for Flow correspond with the *Technical Guidance for the Development and Specification of Effluent Limitations* (362-0400-001) Table 6-3.

Carbonaceous Biochemical Oxygen Demand ($CBOD_5$)
The previously applied secondary treatment standards (25 PA Code §92a.47 (a) (1&2)) for $CBOD_5$ may remain given that the facility was permitted prior to publication of the Small Flow Treatment Facilities Manual (362-0300-002. Additionally, the facility has no documented compliance concerns and the facility has been well maintained. Therefore the existing effluent limits will be carried over to the renewal. The existing monitoring frequency (1/ Month) and sample type (Grab) for $CBOD_5$ correspond with the *Technical Guidance for the Development and Specification of Effluent Limitations* (362-0400-001) Table 6-3 and will remain.

Total Suspended Solids (TSS)
The previously applied secondary treatment standards (25 PA Code §92a.47 (a) (1&2)) for TSS may remain given that the facility was permitted prior to publication of the Small Flow Treatment Facilities Manual (362-0300-002). Additionally, the facility has no documented compliance concerns and the facility has been well maintained. Therefore the existing effluent limits will be carried over to the renewal. The existing monitoring frequency (1/ Month) and sample type (Grab) for TSS correspond with the *Technical Guidance for the Development and Specification of Effluent Limitations* (362-0400-001) Table 6-3 and will remain.

pH
CFR Title 40 §133.102(c) and 25 PA Code §95.2(1) provide the basis of effluent limitations for pH. The existing monitoring sample type (Grab) for pH corresponds with the *Technical Guidance for the Development and Specification of Effluent Limitations* (362-0400-001) Table 6-3 and will remain. The existing monitoring frequency (1/ Week) does not correspond with this guidance which stipulates daily monitoring for this parameter. However, given the lack of documented operational issues and effluent violations at this facility, and the monthly monitoring for pH is typically employed for SFTF's, weekly monitoring is acceptable and will remain.

Fecal Coliforms
The existing fecal coliform limits with I-max limits were updated from the previous Chapter 92 code to correspond with what is specified in the updated 25 PA Code § 92a.47 (a)(4)&(5). The existing monitoring frequency (1/ Month) and sample type (Grab) for Fecal Coliforms correspond with the *Technical Guidance for the Development and Specification of Effluent Limitations* (362-0400-001) Table 6-3 and will remain.

Total Residual Chlorine (TRC)
In accordance with 25 Pa. Code 92a.48(b)(2), a best available technology (BAT) value of 0.5 mg/l was used in lieu of the existing effluent limit (1.0 mg/L) in the TRC Spreadsheet. The attached TRC model indicates that the technology-based effluent limits of 0.5 mg/L (Average Monthly) and 1.6 mg/L (Instantaneous Maximum) are protective of water quality. The facility currently utilizes tablet chlorination as a disinfection method. It has been proven that this method, if operated properly and maintained, can effectively and consistently meet these effluent requirements. The existing sample type (grab) for TRC corresponds with the *Technical Guidance for the Development and Specification of Effluent Limitations* (362-0400-001) Table 6-3 and will remain. The existing and monitoring frequency of (1/ Week) for TRC is more stringent than the monthly monitoring required for SFTF's and will remain.

As stated above, 25 PA Code § 92a.48(b)(2) provides a BAT limit of 0.5 mg/L unless a site-specific study has been conducted. Given that a site-specific TRC study has not been provided for this facility, the BAT limit will be established. Historical DMR data provided from the previous year was reviewed to determine if the facility will require a compliance schedule to comply with the proposed effluent limits. The DMR results are listed in the compliance review below. Based on the data, it appears that the facility can currently meet the proposed TRC effluent limits (0.50 mg/L and 1.6 mg/l) on a majority basis. Therefore, no compliance schedule will be required for the facility to comply with the decreased limits.

Other Comments: All effluent limits are appropriate and typical for this facility type.

Effluent Limit Determination for Outfall 003

Flow
The existing monitoring frequency (1/ Week) and sample type (Pump or Weir) for Flow is appropriate and shall remain.

Tetrachloroethylene
The existing water quality-based effluent limitations that have been established for tetrachloroethylene and based upon the above-mentioned modeling results, they are still protective. Monthly monitoring for this parameter is appropriate and will remain.

pH
The existing permit limits for pH were implemented in accordance with 25 PA Code §95.2(1), which provide the basis of effluent limitations for pH, and shall remain. Weekly monitoring is appropriate for pH.

Ethylbenzene, Lead, Cadmium, and Chromium
These parameters have been previously been determined to be pollutants of concern and shall remain in the permit with monthly monitoring.

1,2-Trans-Dichloroethylene, 1,2-Dichloroethane, and Vinyl Chloride
Best Professional Judgment (BPJ) dictates that monthly monitoring be proposed for these parameters given that these are partial degradation daughter products of tetrachloroethylene and are considered to be pollutants of concern.

Compliance History

Summary of Inspections -The last facility inspection was conducted on 11/13/19 by the Department which reveals that there were no major issues and the facility was operating normally. A minor issue was noted regarding cracks in the septic tank riser covers. It was recommended that these covers be replaced to prevent surface water inflow.

WMS Query Summary – A WMS Query was run at *Reports - Violations & Enforcements – Open Violations for Client Report* to determine whether there are any unresolved violations associated with the client that will affect issuance of the permit (per CSL Section 609). This query revealed no open violations.

Summary of e-DMR- A review of the e-DMR data over the previous year reveals no effluent violations listed in the compliance section below.

Stormwater Requirements

The applicant submitted the no exposure certification for discharges of stormwater associated with industrial activities and selected no to the exposure checklist.

Attachments

Appendices

Compliance History

DMR Data for Outfall 001 (from July 1, 2019 to June 30, 2020)

Parameter	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19
Flow (MGD) Average Monthly	0.0004	0.0005	0.0006	0.0006	0.0005	0.0006	0.0005	0.0004	0.0002	0.0002	0.00013	0.0002
pH (S.U.) Minimum	6.3	6.2	6.29	6.6	6.6	6.6	6.5	6.6	6.8	6.4	6.5	6.5
pH (S.U.) Maximum	6.6	6.5	6.9	6.8	6.9	6.8	7.0	7.0	6.9	6.7	7.0	6.6
TRC (mg/L) Average Monthly	0.19	0.31	0.25	0.28	0.32	0.21	0.33	0.29	0.29	0.31	0.23	0.27
TRC (mg/L) Instantaneous Maximum	0.26	0.59	0.59	0.34	0.36	0.35	0.34	0.34	0.33	0.33	0.35	0.31
CBOD5 (mg/L) Average Monthly	< 2.2	< 2.2	< 2	< 2.2	< 2.2	2.7	< 2.2	< 1.9	< 2	< 2.2	< 2.2	< 2.1
TSS (mg/L) Average Monthly	< 4	< 4	5	< 4	< 4	< 4	< 4	10	< 4	< 4	< 4	< 4
Fecal Coliform (CFU/100 ml) Geometric Mean	< 1	< 1	< 1	< 1	1	344.1	268.2	< 1	1	< 1	1	< 1
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	< 1	< 1	< 1	< 1	1	344.1	268.2	< 1	1	< 1	1	< 1

DMR Data for Outfall 003 (from July 1, 2019 to June 30, 2020)

Parameter	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19
Flow (MGD) Average Monthly	0.005	0.0069	0.0095	0.0076	0.0073	0.0077	0.007	0.005	0.0037	0.0039	0.0044	0.0046
pH (S.U.) Minimum	7.0	6.6	7.3	6.8	6.7	7.0	6.7	7.0	6.9	7.0	6.6	6.7
pH (S.U.) Maximum	7.3	7.5	7.6	7.0	7.4	7.2	7.1	7.3	8.2	7.9	8.0	7.8
Total Cadmium (mg/L) Average Monthly	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	E	< 0.0002
Total Lead (mg/L) Average Monthly	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.001	< 0.001	< 0.001	< 0.001	< 0.001	E	< 0.001

1,2-Dichloroethane (mg/L) Average Monthly	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	E	< 0.001
trans-1,2-Dichloroethylene (mg/L) Average Monthly	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	E	< 0.001
Tetrachloro-ethylene (mg/L) Average Monthly	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	E	< 0.001
Vinyl Chloride (mg/L) Average Monthly	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	E	< 0.001

Tools and References Used to Develop Permit	
☒	Q7-10 Analysis and Stream Data (see Appendix **A**)
☐	WQM 7.0 Model Input/Output (see Appendix)
☒	Toxics Screening Analysis v2.4 (see Appendix B)
☒	PENTOXSD v2.0d Model Input/Output (see Appendix C)
☒	Facility Map and Schematic (see Appendix **D**)
☐	TRC Evaluation Spreadsheet (see Appendix)
☐	Lake Model Output (see Appendix)
☐	WETT Spreadsheet (see Appendix)
☒	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☒	Technical Guidance for the Development and Specification of Effluent Limitations, 362-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98.
☒	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 362-2183-004, 12/97.
☐	Pennsylvania CSO Policy, 385-2000-011, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97.
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☐	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.
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☒	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.
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☐	Other: