

Application Type New  
 Facility Type Industrial  
 Major / Minor Minor

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

Application No. PA0296198  
 APS ID 1144613  
 Authorization ID 1539146

**Applicant and Facility Information**

Applicant Name	<u>Jamestown Paint Co.</u>	Facility Name	<u>Jamestown Paint</u>
Applicant Address	<u>PO Box 157</u> <u>Jamestown, PA 16134-0157</u>	Facility Address	<u>108 Main Street</u> <u>Jamestown, PA 16134-8510</u>
Applicant Contact	<u>Carla George</u>	Facility Contact	<u></u>
Applicant Phone	<u>(724) 932-3101</u>	Facility Phone	<u></u>
Client ID	<u>2602</u>	Site ID	<u>264399</u>
SIC Code	<u>2851</u>	Municipality	<u>Jamestown Borough</u>
SIC Description	<u>Manufacturing - Paints And Allied Products</u>	County	<u>Mercer</u>
Date Application Received	<u>August 26, 2025</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u></u>	If No, Reason	<u></u>
Purpose of Application	<u>NPDES permit for IW and Industrial Stormwater discharge.</u>		

**Summary of Review**

This site is classified as an industrial waste (IW) facility with ELGs that discharges non-contact cooling water in the process of producing industrial paints and coatings in ball mills. It also discharges industrial stormwater through the same outfall.

This facility sources potable water as its source, therefore 316b requirements are not applicable, but monitoring for Total Residual Chlorine shall be imposed.

Annual monitoring for PFAS shall be imposed.

There are currently no open violations for this client (2602) as of 3/12/2026.

A compliance schedule for TRC has been added to the NPDES Permit

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		Jordan A. Frey, E.I.T. Jordan A. Frey, E.I.T. / Project Manager	March 12, 2026
X		Adam Olesnanik Adam Olesnanik, P.E. / Environmental Engineer Manager	March 27, 2026

**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>001</u>	Design Flow (MGD)	<u>.1</u>
Latitude	<u>41° 28' 43.84"</u>	Longitude	<u>-80° 26' 17.46"</u>
Quad Name	<u>Greenville West</u>	Quad Code	<u>41080D4</u>
Wastewater Description: <u>Noncontact Cooling Water (NCCW), Stormwater</u>			
Receiving Waters	<u>Shenango River (WWF)</u>	Stream Code	<u>35482</u>
NHD Com ID	<u>130027727</u>	RMI	<u></u>
Drainage Area	<u>64.2</u>	Yield (cfs/mi <sup>2</sup> )	<u>0.026</u>
Q <sub>7-10</sub> Flow (cfs)	<u>1.67</u>	Q <sub>7-10</sub> Basis	<u>streamstats</u>
Elevation (ft)	<u>1093</u>	Slope (ft/ft)	<u>---</u>
Watershed No.	<u>20-A</u>	Chapter 93 Class.	<u>WWF</u>
Existing Use	<u></u>	Existing Use Qualifier	<u></u>
Exceptions to Use	<u></u>	Exceptions to Criteria	<u></u>
Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u></u>		
Source(s) of Impairment	<u></u>		
TMDL Status	<u></u>	Name	<u></u>
Background/Ambient Data		Data Source	
pH (SU)	<u>7.0</u>	Default	<u></u>
Temperature (°F)	<u>25</u>	Default	<u></u>
Hardness (mg/L)	<u>100</u>	Default	<u></u>
Other:	<u></u>		<u></u>
Nearest Downstream Public Water Supply Intake	<u>Greenville Municipal Water Authority</u>		
PWS Waters	<u>Shenango River</u>	Flow at Intake (cfs)	<u>10.6</u>
PWS RMI	<u>8.0</u>	Distance from Outfall (mi)	<u>7.28</u>

Changes Since Last Permit Issuance: None.

Other Comments: None.

**Development of Effluent Limitations**

<b>Outfall No.</b>	001	<b>Design Flow (MGD)</b>	.1
<b>Latitude</b>	41° 28' 43.00"	<b>Longitude</b>	-80° 26' 18.00"
<b>Wastewater Description:</b> Noncontact Cooling Water (NCCW), Stormwater			

**Technology-Based Limitations**

Federal Effluent Limitations Guidelines (ELGs)

The process wastewater related to 40 CFR 446 Paint Formulating Point Source Category do not discharges via Outfall 001. The ELGs applicable to this process discharge do not impose any specific parameter limits, but state “There shall be no discharge of process wastewater pollutants to navigable waters.” Only non-process wastewater in the form of noncontact cooling water and industrial stormwater is discharged via Outfall 001,

Regulatory Effluent Standards and Monitoring Requirements

25 PA Code Chapter 92a.48(a)(2) requires pH to be limited to a minimum of 6.0 and a maximum of 9.0 S.U. for industrial waste discharges.

25 PA Code Chapter 95.2(2)(ii) requires monitoring for Oil & Grease when sampling shows concentrations above 4mg/l, but not greater than 8 mg/l. The maximum sampled value for Oil & Grease on the application was 6.3 mg/l, so monitoring only shall be imposed.

25 PA Code Chapter 95.10 requires monitoring for Total Dissolved Solids (TDS) is the maximum sampled value exceeds 1,000 mg/l. The maximum sampled value for TDS was 303 mg/l, so no monitoring shall be imposed.

DEP’s Thermal Limits Spreadsheet results do not recommend temperature limits; however, temperature limits will be imposed per the Department’s *“Implementation Guidance for Temperature Criteria.”* As a policy, DEP normally imposes a maximum temperature limit of 110°F on discharges that contain residual heat. The limit is intended as a safety measure to protect sampling personnel or anyone who may come into contact with the heated discharge where it enters the receiving water.

Since this site also discharges industrial stormwater from the same outfall, semi-annual monitoring for all parameters on the PAG-03 relevant Appendix (Appendix F – Chemicals And Allied Products) shall be imposed.

Since this facility utilizes potable water for its non-contact cooling water, which contains a chlorine residual at such levels as to prevent bacteria from multiplying in the distribution system, an effluent limit for Total Residual Chlorine (TRC) shall be imposed. This limit was calculated using the Department’s TRC Spreadsheet, which yielded an Average Monthly limit of 0.5 mg/l and an Instantaneous Maximum limit of 1.2 mg/l. Based on the samples provided with the application, the permittee may not be able to achieve the limits upon permit issuance; therefore, the Department is granting the permittee a two-year compliance schedule to achieve the final limits.

Per- and Polyfluoroalkyl Substances (PFAS)

In February 2024, DEP implemented a new monitoring initiative for PFAS consistent with an EPA memorandum that provides guidance to states for addressing PFAS discharges. PFAS are a family of thousands of synthetic organic chemicals that contain a chain of strong carbon-fluorine bonds. Many PFAS are highly stable, water- and oil-resistant, and exhibit other properties that make them useful in a variety of consumer products and industrial processes. PFAS are resistant to biodegradation, photooxidation, direct photolysis, and hydrolysis and do not readily degrade naturally; thus, many PFAS accumulate over time. According to the United States Department of Health and Human Services, Agency for Toxic Substances and Disease Registry (ATSDR), the environmental persistence and mobility of some PFAS, combined with decades of widespread use, have resulted in their presence in surface water, groundwater, drinking water, rainwater, soil, sediment, ice caps, outdoor and indoor air, plants, animal tissue, and human blood serum across the globe. ATSDR also reported that exposure to certain PFAS can lead to adverse human health impacts. Due to their durability, toxicity, persistence, and pervasiveness, PFAS have emerged as potentially significant pollutants of concern.

In accordance with Section II.I of DEP’s “Standard Operating Procedure (SOP) for Clean Water Program – Establishing Effluent Limitations for Individual Industrial Permits” [SOP No. BCW-PMT-032] and under the authority of 25 Pa. Code § 92a.61(b), DEP has determined that monitoring for a subset of common/well-studied PFAS including Perfluorooctanoic acid

(PFOA), Perfluorooctanesulfonic acid (PFOS), Perfluorobutanesulfonic acid (PFBS), and Hexafluoropropylene oxide dimer acid (HFPO-DA) is necessary to help understand the extent of environmental contamination by PFAS in the Commonwealth and the extent to which point source dischargers are contributors. SOP BCW-PMT-032 directs permit writers to consider special monitoring requirements for PFOA, PFOS, PFBS, and HFPO-DA in the following instances:

- a. If sampling that is completed as part of the permit renewal application reveals a detection of PFOA, PFOS, HFPO-DA or PFBS (any of these compounds), the application manager will establish a quarterly monitoring requirement for PFOA, PFOS, HFPO-DA and PFBS (all of these compounds) in the permit.
- b. If sampling that is completed as part of the permit renewal application demonstrates non-detect values at or below the Target QLs for PFOA, PFOS, HFPO-DA and PFBS (all of these compounds in a minimum of 3 samples), the application manager will establish an annual monitoring requirement for PFOA, PFOS, HFPO-DA and PFBS in the permit.
- c. In all cases the application manager will include a condition in the permit that the permittee may cease monitoring for PFOA, PFOS, HFPO-DA and PFBS when the permittee reports non-detect values at or below the Target QL for four consecutive monitoring periods for each PFAS parameter that is analyzed. Use the following language: The permittee may discontinue monitoring for PFOA, PFOS, HFPO-DA, and PFBS if the results in 4 consecutive monitoring periods indicate non-detects at or below Quantitation Limits of 4.0 ng/L for PFOA, 3.7 ng/L for PFOS, 3.5 ng/L for PFBS and 6.4 ng/L for HFPO-DA. When monitoring is discontinued, permittees should enter a No Discharge Indicator (NODI) Code of "GG" on DMRs.

This facility falls under the Point Source Category "Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF)" in the Environmental Protection Agency's "Multi-Industry Per- and Polufluoralkyl Substances (PFAS) Study – 2021 Preliminary Report" as a producer of commercial chemical products (e.g. protective coatings). Since this is a category suspected of producing PFAS, monitoring shall be imposed even though this facility has not sampled for PFAS during their application. Quarterly monitoring is deemed sufficient so long as the results are non-detect. As stated in Section II.I.c of the SOP, if non-detect values at or below DEP's Target QLs are reported for four consecutive monitoring periods (i.e., four consecutive annual results in this case), then the monitoring may be discontinued.

**Water Quality-Based Limitations**

A "Reasonable Potential Analysis" did not determine any parameters were candidates for limitations. The Department's Toxics Management Spreadsheet (TMS) was used.

**Best Professional Judgment (BPJ) Limitations**

Comments: None.

**Anti-Backsliding**

N/A

**Threatened and Endangered Mussel Species Concerns and Considerations**

The Shenango River is known to contain state and federally listed threatened and endangered mussel species. Due to this being a direct discharge to the Shenango River, potential impacts to endangered and threatened species were evaluated.

The USFWS has indicated in comment letters on other NPDES permits that in order to protect threatened and endangered mussel species, wastewater discharges containing ammonia-nitrogen (NH<sub>3</sub>-N), chloride (Cl<sup>-</sup>), copper, zinc and nickel, where mussels or their habitat exist, can be no more than 1.9 mg/l, 78 mg/l, 10.0 µg/l, 13.18 µg/l and 7.3 µg/l, respectively.

As an industrial waste discharger, this facility has no foreseeable sources of chloride or ammonia-nitrogen, so monitoring for those parameters is deemed unnecessary. Monitoring for Zinc semi-annually shall already be imposed from the application of PAG-03 Appendix F. Semi-annual monitoring for Copper and Nickel will also be imposed so the Department can gather data on estimating any potential impacts to Threatened & Endangered species present in the area downstream of the discharge.

**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" (386-0400-001), SOPs and/or BPJ.

**Interim Limitations: Outfall 001, Effective Period: Permit Effective Date through Two Years After Permit Effective Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Annual Average	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	Report Daily Min	XXX	Report	XXX	1/day	Grab
Temperature (°F)	XXX	XXX	XXX	XXX	XXX	110	2/month	I-S
TRC	XXX	XXX	XXX	Report Avg Mo	Report	XXX	2/month	Grab
COD	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	Report Avg Mo	Report Daily Max	XXX	Report	2/month	Grab
Nitrate-Nitrite	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Calculation
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Copper	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Lead	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Nickel	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Zinc	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

**Outfall 001, Effective Period: Permit Effective Date through Two Years After Permit Effective Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Annual Average	Daily Maximum	Instant. Maximum		
PFOA (ng/L)	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	Grab
PFOS (ng/L)	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	Grab
PFBS (ng/L)	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	Grab
HFPO-DA (ng/L)	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	Grab

**Final Limitations: Outfall 001, Effective Period: Two Years After Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Annual Average	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	Report Daily Min	XXX	Report	XXX	1/day	Grab
Temperature (°F)	XXX	XXX	XXX	XXX	XXX	110	2/month	I-S
TRC	XXX	XXX	XXX	0.5 Avg Mo	1.2	XXX	2/month	Grab
COD	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	Report Avg Mo	Report Daily Max	XXX	Report	2/month	Grab
Nitrate-Nitrite	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Calculation
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Copper	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

**Outfall 001, Effective Period: Two Years After Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Annual Average	Daily Maximum	Instant. Maximum		
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Lead	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Nickel	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Zinc	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
PFOA (ng/L)	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	Grab
PFOS (ng/L)	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	Grab
PFBS (ng/L)	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	Grab
HFPO-DA (ng/L)	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	Grab

Compliance Sampling Location: Outfall 001, prior to mixing with any other waters.

Other Comments: None.



Instructions

Inputs

Facility: **Jamestown Paint**

Permit No.: **PA0296198**

Stream Name: **Shenango River**

Analyst/Engineer: **Jordan A. Frey, E.I.T.**

Stream Q7-10 (cfs)\*: **1.7**

Outfall No.: **001**

Analysis Type\*: **WWF**

**Facility Flows**

Semi-Monthly Increment	Intake (Stream) (MGD)*	Intake (External) (MGD)*	Consumptive Loss (MGD)*	Discharge Flow (MGD)
Jan 1-31		0.1		0.1
Feb 1-29		0.1		0.1
Mar 1-31		0.1		0.1
Apr 1-15		0.1		0.1
Apr 16-30		0.1		0.1
May 1-15		0.1		0.1
May 16-31		0.1		0.1
Jun 1-15		0.1		0.1
Jun 16-30		0.1		0.1
Jul 1-31		0.1		0.1
Aug 1-15		0.1		0.1
Aug 16-31		0.1		0.1
Sep 1-15		0.1		0.1
Sep 16-30		0.1		0.1
Oct 1-15		0.1		0.1
Oct 16-31		0.1		0.1
Nov 1-15		0.1		0.1
Nov 16-30		0.1		0.1
Dec 1-31		0.1		0.1

**Stream Flows**

Q7-10 Multipliers (Default Shown)	PMF	Seasonal Stream Flow (cfs)	Downstream Stream Flow (cfs)
3.2	1.00	5.34	5.50
3.5	1.00	5.85	6.00
7	1.00	11.69	11.84
9.3	1.00	15.53	15.69
9.3	1.00	15.53	15.69
5.1	1.00	8.52	8.67
5.1	1.00	8.52	8.67
3	1.00	5.01	5.16
3	1.00	5.01	5.16
1.7	1.00	2.84	2.99
1.4	1.00	2.34	2.49
1.4	1.00	2.34	2.49
1.1	1.00	1.84	1.99
1.1	1.00	1.84	1.99
1.2	1.00	2.00	2.16
1.2	1.00	2.00	2.16
1.6	1.00	2.67	2.83
1.6	1.00	2.67	2.83
2.4	1.00	4.01	4.16





Thermal Limits Spreadsheet  
 Version 1.0, April 2024

Instructions **WWF Results**

**Recommended Limits for Case 1 or Case 2**

Semi-Monthly Increment	WWF Target Maximum Stream Temp. (°F)	Case 1 Daily WLA (Million BTUs/day)	Case 2 Daily WLA (°F)
Jan 1-31	40	N/A -- Case 2	110.0
Feb 1-29	40	N/A -- Case 2	110.0
Mar 1-31	46	N/A -- Case 2	110.0
Apr 1-15	52	N/A -- Case 2	110.0
Apr 16-30	58	N/A -- Case 2	110.0
May 1-15	64	N/A -- Case 2	110.0
May 16-31	72	N/A -- Case 2	110.0
Jun 1-15	80	N/A -- Case 2	110.0
Jun 16-30	84	N/A -- Case 2	110.0
Jul 1-31	87	N/A -- Case 2	110.0
Aug 1-15	87	N/A -- Case 2	110.0
Aug 16-31	87	N/A -- Case 2	110.0
Sep 1-15	84	N/A -- Case 2	110.0
Sep 16-30	78	N/A -- Case 2	110.0
Oct 1-15	72	N/A -- Case 2	110.0
Oct 16-31	66	N/A -- Case 2	110.0
Nov 1-15	58	N/A -- Case 2	110.0
Nov 16-30	50	N/A -- Case 2	110.0
Dec 1-31	42	N/A -- Case 2	110.0

Date	Version
4/3/2024	1.0

Change(s)
Original



Toxics Management Spreadsheet  
Version 1.4, May 2025

## Discharge Information

Instructions Discharge Stream

Facility: Jamestown Paint NPDES Permit No.: PA0296198 Outfall No.: 001

Evaluation Type: Major Sewage / Industrial Waste Wastewater Description: Non-Contact Cooling Water and Stormwater

Discharge Characteristics								
Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Partial Mix Factors (PMFs)				Complete Mix Times (min)	
			AFC	CFC	THH	CRL	Q <sub>7-10</sub>	Q <sub>h</sub>
0.1	100	7						

Discharge Pollutant	Units	Max Discharge Conc	0 if left blank		0.5 if left blank		0 if left blank			1 if left blank		
			Trib Conc	Stream Conc	Daily CV	Hourly CV	Stream CV	Fate Coeff	FOS	Criteria Mod	Chem Transl	
Group 1	Total Dissolved Solids (PWS)	mg/L	303									
	Chloride (PWS)	mg/L										
	Bromide	mg/L										
	Sulfate (PWS)	mg/L										
	Fluoride (PWS)	mg/L										
Group 2	Total Aluminum	µg/L										
	Total Antimony	µg/L										
	Total Arsenic	µg/L										
	Total Barium	µg/L										
	Total Beryllium	µg/L										
	Total Boron	µg/L										
	Total Cadmium	µg/L										
	Total Chromium (III)	µg/L										
	Hexavalent Chromium	µg/L										
	Total Cobalt	µg/L										
	Total Copper	mg/L										
	Free Cyanide	µg/L										
	Total Cyanide	µg/L										
	Dissolved Iron	µg/L										
	Total Iron	µg/L										
	Total Lead	µg/L										
	Total Manganese	µg/L										
	Total Mercury	µg/L										
	Total Nickel	µg/L										
	Total Phenols (Phenolics) (PWS)	µg/L										
	Total Selenium	µg/L										
	Total Silver	µg/L										
	Total Thallium	µg/L										
Total Zinc	mg/L											
Total Molybdenum	µg/L											
Acrolein	µg/L	<										
Acrylamide	µg/L	<										
Acrylonitrile	µg/L	<										
Benzene	µg/L	<										
Bromoform	µg/L	<										







## Stream / Surface Water Information

Jamestown Paint, NPDES Permit No. PA0296198, Outfall 001

Instructions Discharge **Stream**

Receiving Surface Water Name: Shenango River

No. Reaches to Model: 1

- Statewide Criteria
- Great Lakes Criteria
- ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi <sup>2</sup> )*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	035482	64.2	1093	174			Yes
End of Reach 1	035482	57.5	1136	295			Yes

**Q<sub>7-10</sub>**

Location	RMI	LFY (cfs/mi <sup>2</sup> )*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	64.2	0.026										100	7		
End of Reach 1	57.5	0.03													

**Q<sub>h</sub>**

Location	RMI	LFY (cfs/mi <sup>2</sup> )*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness	pH	Hardness	pH
Point of Discharge	64.2														
End of Reach 1	57.5														



## Model Results

Jamestown Paint, NPDES Permit No. PA0296198, Outfall 001

All
  Inputs
  Results
  Limits

Hydrodynamics

Wasteload Allocations

**AFC**

CCT (min):  PMF:  Analysis Hardness (mg/l):  Analysis pH:

Pollutants	Stream Conc (µg/l)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	#NUM!	

**CFC**

CCT (min):  PMF:  Analysis Hardness (mg/l):  Analysis pH:

Pollutants	Stream Conc (µg/l)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	#NUM!	

**THH**

CCT (min):  PMF:  Analysis Hardness (mg/l):  Analysis pH:  #NUM!

Pollutants	Stream Conc (µg/l)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	500,000	500,000	#NUM!	#NUM!

**CRL**

CCT (min):  PMF:  Analysis Hardness (mg/l):  Analysis pH:

Pollutants	Stream Conc (µg/l)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	#NUM!	

Recommended WQBELs & Monitoring Requirements

No. Samples/Month:

Mass Limits	Concentration Limits
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Pollutants	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units	Governing WQBEL	WQBEL Basis	Comments
#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!

**Other Pollutants without Limits or Monitoring**

The following pollutants do not require effluent limits or monitoring based on water quality because reasonable potential to exceed water quality criteria was not determined and the discharge concentration was less than thresholds for monitoring, or the pollutant was not detected and a sufficiently sensitive analytical method was used (e.g., <= Target QL).

Pollutants	Governing WQBEL	Units	Comments
Total Dissolved Solids (PWS)	N/A	N/A	PWS Not Applicable

**TRC EVALUATION**

1.67	= Q stream (cfs)	0.5	= CV Daily	
0.1	= Q discharge (MGD)	0.5	= CV Hourly	
4	= 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)	
	= % Factor of Safety (FOS)		=Decay Coefficient (K)	
Source	Reference	AFC Calculations	Reference	CFC Calculations
TRC	1.3.2.iii	WLA_afc = 3.463	1.3.2.iii	WLA_cfc = 3.368
PENTOXSD TRG	5.1a	LTAMULT_afc = 0.373	5.1c	LTAMULT_cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc = 1.290	5.1d	LTA_cfc = 1.958
Source	Effluent Limit Calculations			
PENTOXSD TRG	5.1f	AML_MULT = 1.720		
PENTOXSD TRG	5.1g	AVG_MON_LIMIT (mg/l) = 0.500	BAT/BPJ	
		INST_MAX_LIMIT (mg/l) = 1.170		
WLA_afc	(.019/e <sup>-k*AFC_tc</sup> ) + [(AFC_Yc*Qs*.019/Qd*e <sup>-k*AFC_tc</sup> )]... ...+ Xd + (AFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)			
LTAMULT_afc	EXP((0.5*LN(cvh <sup>2</sup> +1))-2.326*LN(cvh <sup>2</sup> +1) <sup>0.5</sup> )			
LTA_afc	wla_afc*LTAMULT_afc			
WLA_cfc	(.011/e <sup>-k*CFC_tc</sup> ) + [(CFC_Yc*Qs*.011/Qd*e <sup>-k*CFC_tc</sup> )]... ...+ Xd + (CFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)			
LTAMULT_cfc	EXP((0.5*LN(cvd <sup>2</sup> /no_samples+1))-2.326*LN(cvd <sup>2</sup> /no_samples+1) <sup>0.5</sup> )			
LTA_cfc	wla_cfc*LTAMULT_cfc			
AML_MULT	EXP(2.326*LN((cvd <sup>2</sup> /no_samples+1) <sup>0.5</sup> )-0.5*LN(cvd <sup>2</sup> /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)			