Pennsylvania Department of Environmental Protection

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0217026**
Facility Type	**Industrial**	APS ID	**1132217**
Major / Minor	**Minor**	Authorization ID	**1517977**

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

Applicant and Facility Information

Applicant Name	**Cemline Corporation**	Facility Name	**Cemline Corporation Facility**
Applicant Address	PO Box 55	Facility Address	808 Freeport Road
	Cheswick, PA 15024-0055		Cheswick, PA 15024
Applicant Contact	William Chappell	Facility Contact	Same as Applicant
Applicant Phone	(724) 274-5430	Facility Phone	Same as Applicant
Applicant email	bill@cemline.com	Facility email	Same as Applicant
Client ID	4343	Site ID	245486
SIC Code	3443	Municipality	Harmar Township
SIC Description	Manufacturing - Fabricated Plate Work (Boiler Shops)	County	Allegheny
Date Application Received	February 25, 2025	EPA Waived?	Yes
Date Application Accepted		If No, Reason	
Purpose of Application	Renewal NPDES Permit Coverage		

Summary of Review

On February 25, 2025, on behalf of Cemline Corporation, Civil & Environmental Consultants submitted an application to renew the NPDES Permit PA0217026. The Facility has a SIC Code of 3443 (Fabricated plate work).

Cemline Corporation is a Steel Fabrication facility which manufactures pressure vessels, package water heaters, unfired steam clean generators, and replacement tube bundles.

Designated loading and unloading areas are used for vehicle traffic control, with physical barriers, such as wheel chocks, to prevent a vehicle related incident. Cemline loads and unloads the following materials at the facility: carbon steel, stainless steel, scrap steel, metal turnings, new oils (hydraulic oil, cutting oil), waste oils, new paint (5-gall on pails), new solvent (acetone in 5-gallon pails), and waste paint/solvent (55-gallon drum).

All water utilized at the facility for operations and as drinking water is from an onsite groundwater well. All sanitary wastewater is discharged to an onsite septic tank that is pumped out on a routine basis. Pressure testing and storm water discharges are to the Allegheny River.

The facility was last inspected by Zachary Flannigan, on September 27, 2022, with no violations noted.

The facility has no open violations.

Approve	Deny	Signatures	Date
X		Angela Rohrer / Environmental Engineering Specialist	March 20, 2025
X		Michael E. Fifth, P.E. / Environmental Engineer Manager	April 14, 2025

Summary of Review

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.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.0027
Latitude	40º 32' 23.96"	Longitude	-79º 49' 0.386"
Quad Name	Smithton	Quad Code	1708
Wastewater Description:	Water used in hydrostatic pressure testing of pressure vessels		

Receiving Waters	Allegheny River (WWF)	Stream Code	42122
NHD Com ID	123972861	RMI	14.68
Drainage Area	11,500	Yield (cfs/mi^2)	0.207
Q_{7-10} Flow (cfs)	2,390	Q_{7-10} Basis	US Army Corp of Engineers
Elevation (ft)	727	Slope (ft/ft)	0.0003
Watershed No.	18-A	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Polychlorinated Biphenyls (PCBS)		
Source(s) of Impairment	Unknown		
TMDL Status	Final	Name	Allegheny River TMDL

Nearest Downstream Public Water Supply Intake	Oakmont Water Authority (9.2 MGD)		
PWS Waters	Allegheny River	Flow at Intake (cfs)	2,390
PWS RMI	13.51	Distance from Outfall (mi)	1.17

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002	Design Flow (MGD)	0.0029
Latitude	40º 32' 24.64"	Longitude	-79º 49' 04.807"
Quad Name	Smithton	Quad Code	1708
Wastewater Description:	Water used in hydrostatic pressure testing of pressure vessels		

Receiving Waters	Allegheny River (WWF)	Stream Code	42122
NHD Com ID	123972861	RMI	14.61
Drainage Area	11,500	Yield (cfs/mi^2)	0.207
Q_{7-10} Flow (cfs)	2,390	Q_{7-10} Basis	US Army Corp of Engineers
Elevation (ft)	727	Slope (ft/ft)	0.0003
Watershed No.	18-A	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Polychlorinated Biphenyls (PCBS)		
Source(s) of Impairment	Unknown		
TMDL Status	Final	Name	Allegheny River TMDL

Nearest Downstream Public Water Supply Intake	Oakmont Water Authority (9.2 MGD)		
PWS Waters	Allegheny River	Flow at Intake (cfs)	2,390
PWS RMI	13.51	Distance from Outfall (mi)	1.11

Discharge, Receiving Waters and Water Supply Information

Outfall No.	003	Design Flow (MGD)	0.0029
Latitude	40º 32' 24.21"	Longitude	-79º 49' 08.15"
Quad Name	Smithton	Quad Code	1708
Wastewater Description:	Water used in hydrostatic pressure testing of pressure vessels		
Receiving Waters	Allegheny River (WWF)	Stream Code	42122
NHD Com ID	123972861	RMI	14.58
Drainage Area	11,500	Yield (cfs/mi^2)	0.207
Q_{7-10} Flow (cfs)	2,390	Q_{7-10} Basis	US Army Corp of Engineers
Elevation (ft)	727	Slope (ft/ft)	0.0003
Watershed No.	18-A	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Polychlorinated Biphenyls (PCBS)		
Source(s) of Impairment	Unknown		
TMDL Status	Final	Name	Allegheny River TMDL
Nearest Downstream Public Water Supply Intake	Oakmont Water Authority (9.2 MGD)		
PWS Waters	Allegheny River	Flow at Intake (cfs)	2,390
PWS RMI	13.51	Distance from Outfall (mi)	1.06

Discharge, Receiving Waters and Water Supply Information

Outfall No.	004 - 008	Design Flow (MGD)	0 (Varied)
Latitude	See Table 1	Longitude	See Table 1
Quad Name	Smithton	Quad Code	1708
Wastewater Description:	Stormwater		
Receiving Waters	Allegheny River (WWF)	Stream Code	42122
NHD Com ID	123972861	RMI	See Table 1
Drainage Area	11,500	Yield (cfs/mi^2)	0.207
Q_{7-10} Flow (cfs)	2,390	Q_{7-10} Basis	US Army Corp of Engineers
Elevation (ft)	727	Slope (ft/ft)	0.0003
Watershed No.	18-A	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Polychlorinated Biphenyls (PCBS)		
Source(s) of Impairment	Unknown		
TMDL Status	Final	Name	Allegheny River TMDL
Nearest Downstream Public Water Supply Intake	Oakmont Water Authority (9.2 MGD)		
PWS Waters	Allegheny River	Flow at Intake (cfs)	2,390
PWS RMI	13.51	Distance from Outfall (mi)	1.06

Table 1: Outfall Locations

OUTFALL	LATITUDE	LONGITUDE	RMI
004	40º 32' 25.05"	-79º 48' 58.64"	14.73
005	40º 32' 24.73"	-79º 49' 04.03"	14.63
006	40º 32' 24.48"	-79º 49' 05.85"	14.60
007	40º 32' 24.19"	-79º 49' 08.37"	14.57
008	40º 32' 24.10"	-79º 49' 09.59"	44.55

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.0027
Latitude 40º 32' 23.96" **Longitude** -79º 49' 0.386"
Wastewater Description: Water used in hydrostatic pressure testing of pressure vessels

Outfall No. 002 **Design Flow (MGD)** 0.0029
Latitude 40º 32' 24.64" **Longitude** -79º 49' 04.807"
Wastewater Description: Water used in hydrostatic pressure testing of pressure vessels

Outfall No. 003 **Design Flow (MGD)** 0.0029
Latitude 40º 32' 24.21" **Longitude** -79º 49' 08.15"
Wastewater Description: Water used in hydrostatic pressure testing of pressure vessels

Technology-Based Effluent Limitations (TBELs)

There are no Federal Effluent Limitations Guidelines (ELGs) applicable to the Facility's discharges.

Regulatory Effluent Standards and Monitoring Requirements

Flow monitoring is required pursuant to 25 Pa. Code § 92a.61(d)(1).

Effluent standards for pH are also imposed on industrial wastes by 25 Pa. Code §§ 95.2(1).

Dissolved iron limitations are imposed pursuant to 25 Pa. Code §§ 95.2(4).

Table 2: Regulatory Effluent Standards and Monitoring Requirements for Outfalls 001, 002 and 003

Parameter	Monthly Average	Daily Maximum	Units
Flow	Monitor and Report		MGD
Iron, dissolved	Report	7.0	$^{mg}/_{L}$
pH	Not less than 6.0 nor greater than 9.0		S.U.

Discharges from hydrostatic testing

The hydrostatic test water will be subject to the effluent limits and monitoring requirements specified for new tanks and pipelines in the PAG-10 General Permit for Discharges Resulting from Hydrostatic Testing of Tanks and Pipelines (PAG-10), with the exception of Total Residual Chlorine requirements. This exception is due to the fact that the hydrostatic testing uses water from a groundwater well, which is no longer chlorinated.

Table 3: Regulatory Effluent Standards and Monitoring Requirements for Outfalls 001, 002 and 003

Parameter	Effluent Limitations			Monitoring Requirements	
	Instant Minimum (mg/L)	Average Monthly (mg/L)	Instant Maximum (mg/L)	Minimum Measurement Frequency	Sample Type
Flow (GPM)	XXX	Report	XXX	1/discharge	Measured
Duration of Discharge (hours)	XXX	Report	XXX	1/discharge	Measured
Total Volume Discharged (Million Gallons)	XXX	Report (Total Monthly)	XXX	1/month	Calculated
Dissolved Oxygen	5.0	XXX	XXX	2/discharge	Grab
pH	6.0	XXX	9.0	2/discharge	Grab

Parameter	Effluent Limitations			Monitoring Requirements	
	Instant Minimum (mg/L)	Average Monthly (mg/L)	Instant Maximum (mg/L)	Minimum Measurement Frequency	Sample Type
Total Residual Chlorine	XXX	XXX	0.05	2/discharge	Grab
Total Suspended Solids	XXX	30	60	1/discharge	Grab
Oil and Grease	XXX	15	30	1/discharge	Grab
Dissolved Iron	XXX	XXX	7.0	1/discharge	Grab

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.

Outfall 001: Sample data revealed PFAS detection, however, the detection values were below the Quantitation Limits established above. Therefore, annual reporting of PFOA, PFOS, PFBS, and HFPO-DA will be required consistent with Section II.I.b of SOP BCW-PMT-032.

Outfall 002: Sample data revealed PFAS detection, triggering quarterly reporting of PFOA, PFOS, PFBS, and HFPO-DA, consistent with Section II.I.b of SOP BCW-PMT-032. Furthermore, the Draft Permit will include a Part C condition requiring a PFAS Reduction Plan.

Outfall 003: Sample data revealed PFAS detection, however, the detection values were below the Quantitation Limits established above. Therefore, annual reporting of PFOA, PFOS, PFBS, and HFPO-DA will be required consistent with Section II.I.b of SOP BCW-PMT-032.

Water Quality-Based Effluent Limitations

Toxics Management Spread Sheet

The Department of Environmental Protection (DEP) has developed the DEP Toxics Management Spreadsheet ("TMS") to facilitate calculations necessary for completing a reasonable potential (RP) analysis and determining water quality-based effluent limitations for discharges of toxic pollutants. The Toxics Management Spreadsheet is a macro-enabled Excel binary file that combines the functions of the PENTOXSD model and the Toxics Screening Analysis spreadsheet to evaluate the reasonable potential for discharges to cause excursions above water quality standards and to determine WQBELs. The Toxics Management Spread Sheet is a single discharge, this-balance water quality calculation spread sheet that includes consideration for mixing, first-order decay and other factors to determine recommended WQBELs for toxic substances and several non-toxic substances. Required input data including stream code, river mile index, elevation, drainage area, discharge name, NPDES permit number, discharge flow rate and the discharge concentrations for parameters in the permit application or in DMRs, which are entered into the spread sheet to establish site-specific discharge conditions. Other data such as low flow yield, reach dimensions and partial mix factors may also be entered to further characterize the conditions of the discharge and receiving water. Discharge concentrations for the parameters are chosen to represent the "worst case" quality of the discharge (i.e., maximum reported discharge concentrations). The spread sheet then evaluates each parameter by computing a Waste Load Allocation for each applicable criterion, determining a recommended maximum WQBEL and comparing that recommended WQBEL with the input discharge concentration to determine which is more stringent. Based on this evaluation, the Toxics Management Spread sheet recommends average monthly and maximum daily WQBELs.

Reasonable Potential Analysis and WQBEL Development for Outfalls 001, 002 and 003

Discharges from Outfalls 001, 002 and 003 are evaluated based on concentrations reported on the application and on the DMRs; data from those sources are entered into the Toxics Management Spread Sheet. The maximum reported value of the parameters from the application form or from previous DMRs is used as the input concentration in the Toxics Management Spread Sheet. All toxic pollutants whose maximum concentrations, as reported in the permit application or on DMRs, are greater than the most stringent applicable water quality criterion are considered to be pollutants of concern. [This includes pollutants reported as "Not Detectable" or as "<MDL" where the method detection limit for the analytical method used by the applicant is greater than the most stringent water quality criterion]. The Toxics Management Spread Sheet is run with the discharge and receiving stream characteristics shown in Table 4. For IW discharges, the design flow used in modeling is the average flow during production or operation taken from the permit application. Pollutants for which water quality standards have not been promulgated (e.g., TSS, oil and grease) are excluded from the analysis. All the parameters are evaluated using the model to determine the water quality-based effluent limits applicable to the discharge and the receiving stream. The spreadsheet then compares the reported discharge concentrations to the calculated water quality-based effluent limitations to determine if a reasonable potential exists to exceed the calculated WQBELs. Effluent limitations are established in the draft permit where a pollutant's maximum reported discharge concentration equals or exceeds 50% of the WQBEL. For non-conservative pollutants, monitoring requirements are established where the maximum reported concentration is between 25% - 50% of the WQBEL. For conservative pollutants, monitoring requirements are established where the maximum reported concentration is between 10% - 50% of the WQBEL. The information described above including the maximum reported discharge concentrations, the most stringent water quality criteria, the pollutant-of-concern (reasonable potential) determinations, the calculated WQBELs, and the WQBEL/monitoring recommendations are displayed in the Toxics Management Spread Sheet in Attachment D of this Fact Sheet. The Toxics Management Spread Sheet did not recommend any WQBELs for Outfalls 001, 002 and 003.

Table 4: TMS Inputs for Outfalls 001, 002 and 003

Parameter	Value		
	Outfall 001	Outfall 002	Outfall 003
River Mile Index	14.68	14.61	14.58
Discharge Flow (MGD)	0.0027	0.0029	0.0029
Basin/Stream Characteristics			
Parameter	**Value (Outfalls 001, 002 and 003)**		
Area in Square Miles	11,500		
Q_{7-10} (cfs)	2,390		
Low-flow yield (cfs/mi^2)	0.207		
Elevation (ft)	727		
Slope	0.0003		

Anti-Backsliding

Previous limits can be used pursuant to EPA's anti-backsliding regulation, 40 CFR 122.44(l) and are displayed below in Table 5 and Table 6. These limitations are currently imposed on Outfalls 001, 002 and 003.

Table 5: Current Limitations at Outfalls 001 and 003

Parameter	Mass Units (lb/day)		Concentrations (mg/L)				Monitoring Requirements	
	Average Monthly	Daily Maximum	Instant Minimum	Average Monthly	Daily Maximum	Instantaneous Maximum	Sample Frequency	Sample Type
Flow (MGD)	Report	Report	-	-	-	-	2/month	Measured
pH (S.U.)	-	-	6.0	-	-	9.0	2/month	Grab
Total Suspended Solids	-	-	-	30.0	-	60.0	2/month	Grab
Dissolved Iron	-	-	-	-	-	7.0	2/month	Grab

Table 6: Current Limitations at Outfalls 002

Parameter	Mass Units (lb/day)		Concentrations (mg/L)				Monitoring Requirements	
	Average Monthly	Daily Maximum	Instant Minimum	Average Monthly	Daily Maximum	Instantaneous Maximum	Sample Frequency	Sample Type
Flow (MGD)	Report	Report	-	-	-	-	2/month	Measured
pH (S.U.)	-	-	6.0	-	-	9.0	2/month	Grab
Total Suspended Solids	-	-	-	30.0	-	60.0	2/month	Grab

Proposed Effluent Limitations and Monitoring Requirements

The proposed effluent limitations and monitoring requirements for Outfalls 001, 002 and 003 are shown below in Table 7 and Table 8.

Table 7: Proposed Final Effluent Limitation at Outfalls 001 and 003

Parameter	Mass Units (lb/day)		Concentrations (mg/L)				Monitoring Requirements	
	Average Monthly	Daily Maximum	Instant Minimum	Average Monthly	Daily Maximum	Instantaneous Maximum	Sample Frequency	Sample Type
Flow (MGD)	Report	Report	-	-	-	-	2/month	Measured
pH (S.U.)	-	-	6.0	-	-	9.0	2/month	Grab
Iron, Dissolved	-	-	-	-	-	7.0	2/month	Grab
Total Suspended Solids	-	-	-	30.0	-	60.0	2/month	Grab
Dissolved Oxygen	-	-	5.0	-	-	-	2/month	Grab
Oil and Grease	-	-	-	15.0	-	30.0	2/month	Grab
PFOA (ng/L)	-	-	-	-	Report	-	1/year	Grab
PFOS (ng/L)	-	-	-	-	Report	-	1/year	Grab
PFBS (ng/L)	-	-	-	-	Report	-	1/year	Grab
HFPO-DA (ng/L)	-	-	-	-	Report	-	1/year	Grab

Table 8: Proposed Final Effluent Limitation at Outfall 002

Parameter	Mass Units (lb/day)		Concentrations (mg/L)				Monitoring Requirements	
	Average Monthly	Daily Maximum	Instant Minimum	Average Monthly	Daily Maximum	Instantaneous Maximum	Sample Frequency	Sample Type
Flow (MGD)	Report	Report	-	-	-	-	2/month	Measured
pH (S.U.)	-	-	6.0	-	-	9.0	2/month	Grab
Iron, Dissolved	-	-	-	-	-	7.0	2/month	Grab
Total Suspended Solids	-	-	-	30.0	-	60.0	2/month	Grab
Dissolved Oxygen	-	-	5.0	-	-	-	2/month	Grab
Oil and Grease	-	-	-	15.0	-	30.0	2/month	Grab
PFOA (ng/L)	-	-	-	-	Report	-	1/quarter	Grab
PFOS (ng/L)	-	-	-	-	Report	-	1/quarter	Grab
PFBS (ng/L)	-	-	-	-	Report	-	1/quarter	Grab
HFPO-DA (ng/L)	-	-	-	-	Report	-	1/quarter	Grab

Development of Effluent Limitations

Outfall No.	004	**Design Flow (MGD)**	0.0 (varied)
Latitude	40º 32' 25.05"	**Longitude**	-79º 48' 58.64"
Wastewater Description:	Stormwater		

Outfall No.	005	**Design Flow (MGD)**	0.0 (varied)
Latitude	40º 32' 24.73"	**Longitude**	-79º 49' 04.03"
Wastewater Description:	Stormwater		

Outfall No.	006	**Design Flow (MGD)**	0.0 (varied)
Latitude	40º 32' 24.48"	**Longitude**	-79º 49' 05.85"
Wastewater Description:	Stormwater		

Outfall No.	007	**Design Flow (MGD)**	0.0 (varied)
Latitude	40º 32' 24.19"	**Longitude**	-79º 49' 08.37"
Wastewater Description:	Stormwater		

Outfall No.	008	**Design Flow (MGD)**	0.0 (varied)
Latitude	40º 32' 24.10"	**Longitude**	-79º 49' 09.59"
Wastewater Description:	Stormwater		

Technology-Based Limitations

Stormwater Technology Limits

Outfalls 004-008 will be subject to PAG-03 General Stormwater Permit conditions because it discharges stormwater associated with industrial activity. Based on the site's SIC code, the corresponding appendix that would apply to the facility is Appendix U of the PAG-03. The proposed monitoring requirements are shown in Table 9 below. The benchmark values listed below are not effluent limitations, and exceedances do not constitute permit violations. However, if the permittee's sampling demonstrates exceedances of benchmark values for two consecutive monitoring periods, the permittee shall submit a Corrective Action Plan. This requirement will be included in Part C of the permit.

Table 9: PAG-03 Appendix (U) Monitoring Requirements

Parameters	Monitoring Requirements		Benchmark Values
	Minimum Measurement Frequency	Sample Type	
Total Nitrogen (mg/L)	1 / 6 Months	Calculation	XXX
Total Phosphorus (mg/L)	1 / 6 Months	Grab	XXX
pH (S.U))	1 / 6 Months	Grab	9.0
Total Suspended Solids (TSS) (mg/L)	1 / 6 Months	Grab	100
Oil and Grease (mg/L)	1 / 6 Months	Grab	30
Nitrate + Nitrite-Nitrogen (mg/L)	1 / 6 Months	Grab	3.0
Total Aluminum (mg/L)	1 / 6 Months	Grab	XXX
Total Iron (mg/L)	1 / 6 Months	Grab	XXX
Total Lead (mg/L)	1 / 6 Months	Grab	XXX
Total Zinc (mg/L)	1 / 6 Months	Grab	XXX

Water Quality-Based Limitations

Stormwater WQBELs

Water quality analyses are typically performed under low-flow (Q7-10) conditions. Stormwater discharges occur at variable rates and frequencies but not however during Q7-10 conditions. Since the discharge from Outfalls 004-008 is composed

entirely of stormwater, a formal water quality analysis cannot be accurately conducted. Accordingly, water quality-based effluent limitations based on water quality analyses are not proposed.

Anti-Backsliding

Previous limits can be used pursuant to EPA's anti-backsliding regulation, 40 CFR 122.44(l) and are displayed below in Tables 10 and 11. These limitations are currently imposed on Outfalls 004, 005, 006, 007 and 008.

The previous permit required increased monitoring frequency (quarterly) for Outfalls 004 and 005 due to elevated concentrations for Total Suspended Solids reported during the permit cycle.

Table 10. Current Effluent Limitation at Outfalls 004 and 005

Parameter	Mass Units (lb/day)		Concentrations (mg/L)				Monitoring Requirements	
	Average Monthly	Daily Maximum	Instant Minimum	Average Monthly	Daily Maximum	Instantaneous Maximum	Sample Frequency	Sample Type
Total Suspended Solids	-	-	-	-	Report	-	1/Quarter	Grab

Table 11. Current Effluent Limitation at Outfalls 006, 007 and 008

Parameter	Mass Units (lb/day)		Concentrations (mg/L)				Monitoring Requirements	
	Average Monthly	Daily Maximum	Instant Minimum	Average Monthly	Daily Maximum	Instantaneous Maximum	Sample Frequency	Sample Type
Total Suspended Solids	-	-	-	-	Report	-	2/year	Grab

Proposed Effluent Limitations and Monitoring Requirements

As part of the technical review of the application, sample data submitted with the application and DMRs were evaluated. The review indicated that Outfalls 004 - 008 have maintained compliance throughout the current permit cycle, with reported values below the benchmark. However, Outfalls 004 and 005 exceeded the benchmark value for TSS in one monitoring period, with maximum concentrations as follows:

Table 12: Maximum reported values from Permit Application and DMRs

Parameter	Maximum Concentration reported (mg/L)					Benchmark Values
	Outfall 004	Outfall 005	Outfall 006	Outfall 007	Outfall 008	
Oil and Grease	<1.4	2.3	<5.0	<5.0	<1.4	30
BOD_5	<2.0	57.6	<2.0	<2.0	<2.0	30
Chemical Oxygen Demand (COD)	<15.0	38.4	<15.0	<15.0	22.1	120
Total Suspended Solids (TSS)	213	211	8.0	8.0	17.0	100
Total Nitrogen	0.829	<0.729	<0.729	0.846	<0.729	-
Total Phosphorus	<0.100	<0.100	<0.100	<0.100	<0.100	-
pH (S.U)	7.5	8.3	7.6	7.5	7.6	-

As a result of the review, the Department is proposing to eliminate the monitoring requirements for Outfalls 004, 006, 007 and 008. Instead, due to the similar activities within their drainage areas, and the fact that nearly all industrial activities are conducted indoors, Outfall 005 will be considered representative. Although exempt from monitoring, these Outfalls will be listed in Part C of the permit for documentation purposes and to aid DEP in conducting inspections. Additionally, the site is still required to implement and maintain best management practices (BMPs) outlined in Part C of the Draft Permit for Outfalls 004, 006, 007 and 008 to ensure compliance with regulatory standards. Note that during the next permit issuance process,

the facility should submit sample data for Outfalls 04 – 008 according to Module I of the application to verify ongoing compliance.

The Department identified exceedances of benchmark values for BOD_5 at Outfall 005 in the sample data provided with the application, with concentration levels of 57.6 mg/L. Therefore, the DEP is adding supplemental monitoring requirements for BOD_5 at Outfall 005, with a benchmark value of 30.0 mg/L. Furthermore, the facility may consider implementing additional Best Management Practices (BMPs) to improve the quality of the discharge from Outfall 005.

The previous permit required monitoring at Outfall 005 to be conducted one per quarter. However, the monitoring frequency has been revised to require sampling twice per year, on a semiannual basis, due to the current permitting practices.

The proposed effluent monitoring requirements for Outfall 005 are displayed in Table 13 below. A Part C condition is included in the Draft Permit requiring development and submission of a Corrective Action Plan whenever there are two or more consecutive exceedances of the benchmark values, which are also included in the Part C condition. The benchmark values are also displayed below in Table 13. These values are not effluent limitations, an exceedance of the benchmark value is not a violation. As described above, if there are two consecutive exceedances of the benchmark value, a Corrective Action Plan must be conducted to evaluate site stormwater controls and BMPs. Benchmark monitoring is a feedback tool, along with routine inspections and visual assessments, for assessing the effectiveness of stormwater controls and BMPs. An exceedance of the benchmark provides permittees with an indication that the facility's controls may not be sufficiently controlling pollutants in stormwater.

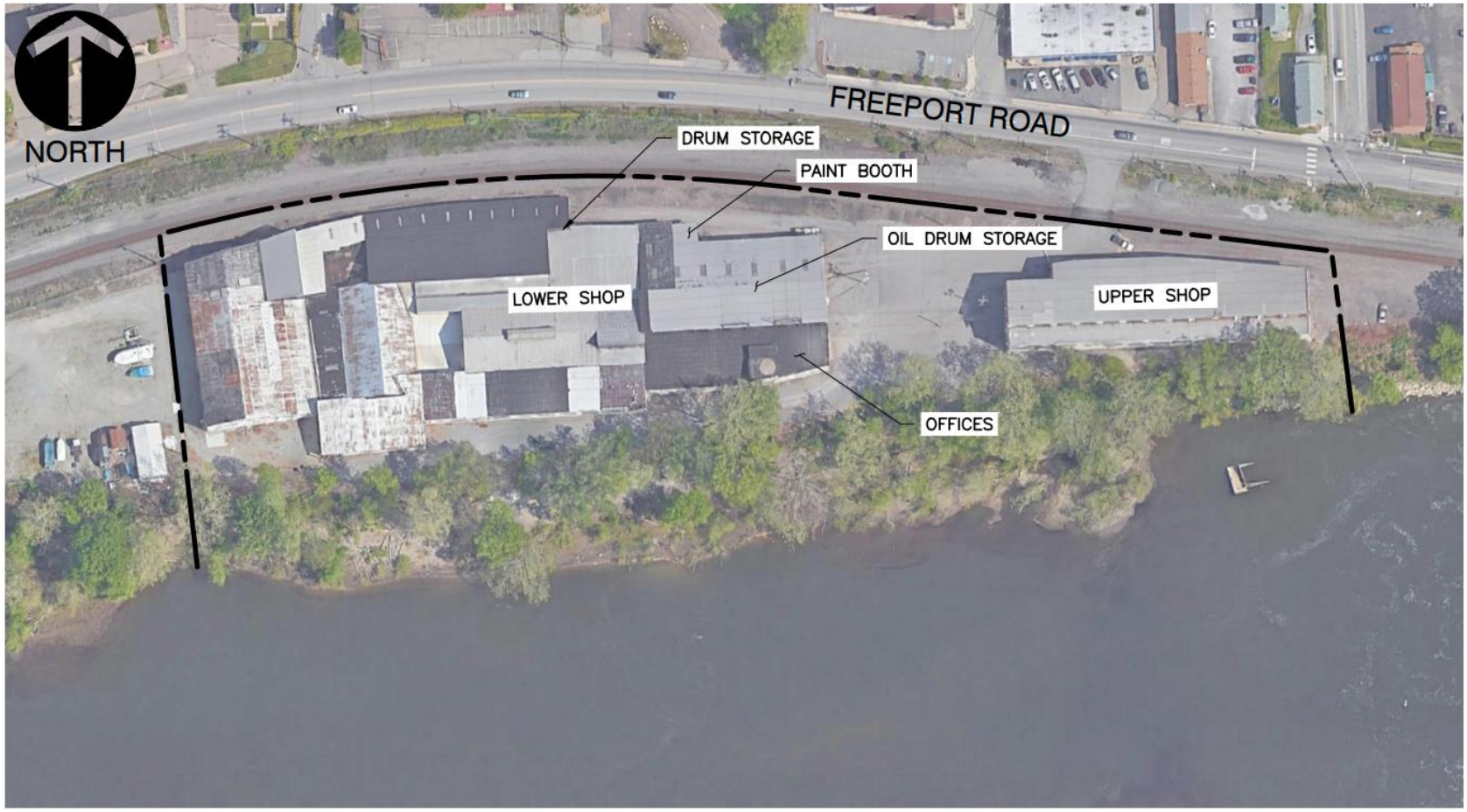
Table 13: Proposed Final Effluent Limitation at Outfall 005

Parameters	Mass (lb/day)		Concentration (mg/L)				Monitoring Requirements		No Exposure Benchmark Value (mg/L)
	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Frequency	Sample Type	
Total Suspended Solids (TSS)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab	100.0
BOD_5	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab	30.0

Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☒	Toxics Management Spreadsheet (see Attachment D, E, F)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☐	Technical Guidance for the Development and Specification of Effluent Limitations, 386-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97.
☐	Pennsylvania CSO Policy, 386-2000-002, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97.
☐	Implementation Guidance Design Conditions, 386-2000-007, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 386-2000-016, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 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, 386-2000-020, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 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, 386-2000-010, 3/1999.
☐	Design Stream Flows, 386-2000-003, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 386-2000-006, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☐	SOP:
☐	Other:

ATTACHMENT A.
Site Plan

P:\340-000\345-198\-CADD\DWG\EN01\345198-EN01-FIGURE 2.DWG{FIG2} LS:(DDIABLE - 2/7/2025 7:49:34 AM) - LP: 2/7/2025 7:51:02 AM



*HAND SIGNATURE ON FILE

REFERENCE

AERIAL IMAGE WAS TAKEN FROM GOOGLE PRO, DATED APRIL 14, 2015.

Civil & Environmental Consultants, Inc.

700 Cherrington Parkway
Moon Township, PA 15108

Ph: 412.429.2324 · 800.365.2324

www.cecinc.com

CEMLINE CORPORATION
CHESWICK, PENNSYLVANIA

SITE LAYOUT MAP

DRAWN BY:	DWD	CHECKED BY:	EMD	APPROVED BY:	PWT*	FIGURE NO.:	2
DATE:	2/7/2025	DWG SCALE:	NTS	PROJECT NO:	345-198		

ATTACHMENT B.
Outfall Locations

P:\340-000\345-198\-CADD\DWG\EN01\345198-EN01-FIGURE 3.DWG{FIG3} LS:(DDIABLE - 2/7/2025 7:33:27 AM) - LP: 2/7/2025 7:36:36 AM

LEGEND

● OUTFALL LOCATION

REFERENCE

AERIAL IMAGE WAS TAKEN FROM GOOGLE PRO, DATED APRIL 14, 2015.

*HAND SIGNATURE ON FILE

Civil & Environmental Consultants, Inc.
700 Cherrington Parkway
Moon Township, PA 15108
Ph: 412.429.2324 · 800.365.2324
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APPROXIMATE OUTFALL LOCATIONS

DRAWN BY:	DWD	CHECKED BY:	EMD	APPROVED BY:	PWT*	FIGURE NO.:	3
DATE:	2/7/2025	DWG SCALE:	NTS	PROJECT NO:	345-198		

ATTACHMENT C
StreamStats Report

PA0217026 - StreamStats Report

Region ID: PA
Workspace ID: PA20250320120359856000
Clicked Point (Latitude, Longitude): 40.53694, -79.81664
Time: 2025-03-20 08:04:34 -0400

Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	11500	square miles
ELEV	Mean Basin Elevation	1598	feet
PRECIP	Mean Annual Precipitation	44	inches

Low-Flow Statistics

Low-Flow Statistics Parameters [97.0 Percent (11200 square miles) Low Flow Region 3]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	11500	square miles	2.33	1720
ELEV	Mean Basin Elevation	1598	feet	898	2700

Attachment D: Toxic Management Spreadsheet for Outfall 001

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2023

Discharge Information

Instructions | Discharge | Stream

Facility: **Cemline Harmar Facility** NPDES Permit No.: **PA0217026** Outfall No.: **001**

Evaluation Type: **Major Sewage / Industrial Waste** Wastewater Description: **Water used in hydrostatic testing**

Discharge Characteristics								
Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Partial Mix Factors (PMFs)				Complete Mix Times (min)	
			AFC	CFC	THH	CRL	Q_{7-10}	Q_h
0.0027	160	8.3						

					0 if left blank		0.5 if left blank		0 if left blank			1 if left blank	
	Discharge Pollutant	Units	Max Discharge Conc		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		872									
	Chloride (PWS)	mg/L		49.7									
	Bromide	mg/L	<	0.1									
	Sulfate (PWS)	mg/L		47.1									
	Fluoride (PWS)	mg/L		0.197									
Group 2	Total Aluminum	µg/L	<	75.6									
	Total Antimony	µg/L	<	0.4									
	Total Arsenic	µg/L		8									
	Total Barium	µg/L		54									
	Total Beryllium	µg/L	<	0.4									
	Total Boron	µg/L		103									
	Total Cadmium	µg/L	<	0.1									
	Total Chromium (III)	µg/L	<	5									
	Hexavalent Chromium	µg/L	<	0.1									
	Total Cobalt	µg/L	<	1									
	Total Copper	µg/L	<	2									
	Free Cyanide	µg/L											
	Total Cyanide	µg/L	<	5									
	Dissolved Iron	mg/L		0.119									
	Total Iron	µg/L		185									
	Total Lead	µg/L	<	1									
	Total Manganese	µg/L		12.4									
	Total Mercury	µg/L	<	0.2									
	Total Nickel	µg/L	<	50									
	Total Phenols (Phenolics) (PWS)	µg/L	<	5									
	Total Selenium	µg/L	<	2									
	Total Silver	µg/L	<	0.2									
	Total Thallium	µg/L	<	0.4									
	Total Zinc	µg/L		80									
	Total Molybdenum	µg/L		10									
	Acrolein	µg/L	<										
	Acrylamide	µg/L	<										
	Acrylonitrile	µg/L	<										
	Benzene	mg/L	<										
	Bromoform	µg/L	<										
	Carbon Tetrachloride	µg/L	<										
	Chlorobenzene	µg/L											
	Chlorodibromomethane	µg/L	<										
	Chloroethane	µg/L	<										
	2-Chloroethyl Vinyl Ether	µg/L	<										

Group 3	Chloroform	µg/L	<										
	Dichlorobromomethane	µg/L	<										
	1,1-Dichloroethane	µg/L	<										
	1,2-Dichloroethane	µg/L	<										
	1,1-Dichloroethylene	µg/L	<										
	1,2-Dichloropropane	µg/L	<										
	1,3-Dichloropropylene	µg/L	<										
	1,4-Dioxane	µg/L	<										
	Ethylbenzene	mg/L	<										
	Methyl Bromide	µg/L	<										
	Methyl Chloride	µg/L	<										
	Methylene Chloride	µg/L	<										
	1,1,2,2-Tetrachloroethane	µg/L	<										
	Tetrachloroethylene	mg/L	<										
	Toluene	mg/L	<										
	1,2-trans-Dichloroethylene	µg/L	<										
	1,1,1-Trichloroethane	µg/L	<										
	1,1,2-Trichloroethane	µg/L	<										
	Trichloroethylene	mg/L	<										
	Vinyl Chloride	mg/L	<										
Group 4	2-Chlorophenol	µg/L	<										
	2,4-Dichlorophenol	µg/L	<										
	2,4-Dimethylphenol	µg/L	<										
	4,6-Dinitro-o-Cresol	µg/L	<										
	2,4-Dinitrophenol	µg/L	<										
	2-Nitrophenol	µg/L	<										
	4-Nitrophenol	µg/L	<										
	p-Chloro-m-Cresol	µg/L	<										
	Pentachlorophenol	µg/L	<										
	Phenol	µg/L	<										
	2,4,6-Trichlorophenol	µg/L	<										
Group 5	Acenaphthene	µg/L	<										
	Acenaphthylene	µg/L	<										
	Anthracene	µg/L	<										
	Benzidine	µg/L	<										
	Benzo(a)Anthracene	mg/L	<										
	Benzo(a)Pyrene	mg/L	<										
	3,4-Benzofluoranthene	µg/L	<										
	Benzo(ghi)Perylene	mg/L	<										
	Benzo(k)Fluoranthene	mg/L	<										
	Bis(2-Chloroethoxy)Methane	µg/L	<										
	Bis(2-Chloroethyl)Ether	µg/L	<										
	Bis(2-Chloroisopropyl)Ether	µg/L	<										
	Bis(2-Ethylhexyl)Phthalate	µg/L	<										
	4-Bromophenyl Phenyl Ether	µg/L	<										
	Butyl Benzyl Phthalate	µg/L	<										
	2-Chloronaphthalene	µg/L	<										
	4-Chlorophenyl Phenyl Ether	µg/L	<										
	Chrysene	mg/L	<										
	Dibenzo(a,h)Anthrancene	µg/L	<										
	1,2-Dichlorobenzene	µg/L	<										
	1,3-Dichlorobenzene	µg/L	<										
	1,4-Dichlorobenzene	µg/L	<										
	3,3-Dichlorobenzidine	µg/L	<										
	Diethyl Phthalate	µg/L	<										
	Dimethyl Phthalate	µg/L	<										
	Di-n-Butyl Phthalate	µg/L	<										
	2,4-Dinitrotoluene	µg/L	<										
	2,6-Dinitrotoluene	µg/L	<										
	Di-n-Octyl Phthalate	µg/L	<										
	1,2-Diphenylhydrazine	µg/L	<										
	Fluoranthene	µg/L	<										
	Fluorene	µg/L	<										
	Hexachlorobenzene	µg/L	<										
	Hexachlorobutadiene	µg/L	<										
	Hexachlorocyclopentadiene	µg/L	<										
	Hexachloroethane	µg/L	<										

	Indeno(1,2,3-cd)Pyrene	µg/L	<										
	Isophorone	µg/L	<										
	Naphthalene	mg/L	<										
	Nitrobenzene	µg/L	<										
	n-Nitrosodimethylamine	µg/L	<										
	n-Nitrosodi-n-Propylamine	µg/L	<										
	n-Nitrosodiphenylamine	µg/L	<										
	Phenanthrene	mg/L	<										
	Pyrene	mg/L	<										
	1,2,4-Trichlorobenzene	µg/L	<										
Group 6	Aldrin	µg/L	<										
	alpha-BHC	µg/L	<										
	beta-BHC	µg/L	<										
	gamma-BHC	µg/L	<										
	delta BHC	µg/L	<										
	Chlordane	µg/L	<										
	4,4-DDT	µg/L	<										
	4,4-DDE	µg/L	<										
	4,4-DDD	µg/L	<										
	Dieldrin	µg/L	<										
	alpha-Endosulfan	µg/L	<										
	beta-Endosulfan	µg/L	<										
	Endosulfan Sulfate	µg/L	<										
	Endrin	µg/L	<										
	Endrin Aldehyde	µg/L	<										
	Heptachlor	µg/L	<										
	Heptachlor Epoxide	µg/L	<										
	PCB-1016	mg/L	<										
	PCB-1221	mg/L	<										
	PCB-1232	mg/L	<										
	PCB-1242	mg/L	<										
	PCB-1248	mg/L	<										
	PCB-1254	mg/L	<										
	PCB-1260	mg/L	<										
	PCBs, Total	µg/L	<										
	Toxaphene	µg/L	<										
	2,3,7,8-TCDD	ng/L	<										
Group 7	Gross Alpha	pCi/L											
	Total Beta	pCi/L	<										
	Radium 226/228	pCi/L	<										
	Total Strontium	µg/L	<										
	Total Uranium	µg/L	<										
	Osmotic Pressure	mOs/kg											

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Toxics Management Spreadsheet
Version 1.4, May 2023

Stream / Surface Water Information

Cemline Harmar Facility, NPDES Permit No. PA0217026, Outfall 001

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **Allgheny River**

No. Reaches to Model: **1**

- (•) Statewide Criteria
- ( ) Great Lakes Criteria
- ( ) ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi^2)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	042122	14.68	727	11,500			Yes
End of Reach 1	042122	13.51	725	11,600			Yes

$Q_{7\text{-}10}$

Location	RMI	LFY (cfs/mi^2)*	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	14.68	0.1	2,390			1,430						81.1	7		
End of Reach 1	13.51	0.1	2,390			703									

Q_h

Location	RMI	LFY (cfs/mi^2)	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	14.68														
End of Reach 1	13.51														

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Toxics Management Spreadsheet
Version 1.4, May 2023

Model Results

Cemline Harmar Facility, NPDES Permit No. PA0217026, Outfall 001

Instructions | Results | RETURN TO INPUTS | SAVE AS PDF | PRINT | All | Inputs | Results | Limits

Hydrodynamics

Wasteload Allocations

AFC CCT (min): 15 PMF: 0.009 Analysis Hardness (mg/l): 81.116 Analysis pH: 7.00

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	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Fluoride (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	750	750	3,709,894	
Total Antimony	0	0		0	1,100	1,100	5,441,177	
Total Arsenic	0	0		0	340	340	1,681,818	Chem Translator of 1 applied
Total Barium	0	0		0	21,000	21,000	##########	
Total Boron	0	0		0	8,100	8,100	40,066,852	
Total Cadmium	0	0		0	1.643	1.72	8,530	Chem Translator of 0.953 applied
Total Chromium (III)	0	0		0	480.013	1,519	7,513,906	Chem Translator of 0.316 applied
Hexavalent Chromium	0	0		0	16	16.3	80,595	Chem Translator of 0.982 applied
Total Cobalt	0	0		0	95	95.0	469,920	
Total Copper	0	0		0	11.034	11.5	56,854	Chem Translator of 0.96 applied
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	51.384	62.5	309,402	Chem Translator of 0.821 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	1.400	1.65	8,147	Chem Translator of 0.85 applied
Total Nickel	0	0		0	392.255	393	1,944,188	Chem Translator of 0.998 applied
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	Chem Translator of 0.922 applied
Total Silver	0	0		0	2.244	2.64	13,061	Chem Translator of 0.85 applied
Total Thallium	0	0		0	65	65.0	321,524	
Total Zinc	0	0		0	98.139	100	496,366	Chem Translator of 0.978 applied

☑ ***CFC*** CCT (min): 720 PMF: 0.060 Analysis Hardness (mg/l): 81.102 Analysis pH: 7.00

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	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Fluoride (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	220	220	7,538,212	
Total Arsenic	0	0		0	150	150	5,139,690	Chem Translator of 1 applied
Total Barium	0	0		0	4,100	4,100	##########	
Total Boron	0	0		0	1,600	1,600	54,823,364	
Total Cadmium	0	0		0	0.213	0.23	7,940	Chem Translator of 0.918 applied
Total Chromium (III)	0	0		0	62.431	72.6	2,487,418	Chem Translator of 0.86 applied
Hexavalent Chromium	0	0		0	10	10.4	356,181	Chem Translator of 0.962 applied
Total Cobalt	0	0		0	19	19.0	651,027	
Total Copper	0	0		0	7.488	7.8	267,267	Chem Translator of 0.96 applied
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	1,500	1,500	##########	WQC = 30 day average; PMF = 1
Total Lead	0	0		0	2.002	2.44	83,501	Chem Translator of 0.822 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	0.770	0.91	31,040	Chem Translator of 0.85 applied
Total Nickel	0	0		0	43.561	43.7	1,497,099	Chem Translator of 0.997 applied
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	4.600	4.99	170,951	Chem Translator of 0.922 applied
Total Silver	0	0		0	N/A	N/A	N/A	Chem Translator of 1 applied
Total Thallium	0	0		0	13	13.0	445,440	
Total Zinc	0	0		0	98.928	100	3,437,841	Chem Translator of 0.986 applied

☑ ***THH*** CCT (min): 720 PMF: 0.060 Analysis Hardness (mg/l): N/A Analysis pH: N/A

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	N/A	
Chloride (PWS)	0	0		0	250,000	250,000	N/A	
Sulfate (PWS)	0	0		0	250,000	250,000	N/A	
Fluoride (PWS)	0	0		0	2,000	2,000	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	5.6	5.6	191,882	
Total Arsenic	0	0		0	10	10.0	342,646	
Total Barium	0	0		0	2,400	2,400	82,235,045	
Total Boron	0	0		0	3,100	3,100	##########	
Total Cadmium	0	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	N/A	N/A	N/A	
Hexavalent Chromium	0	0		0	N/A	N/A	N/A	
Total Cobalt	0	0		0	N/A	N/A	N/A	
Total Copper	0	0		0	N/A	N/A	N/A	
Dissolved Iron	0	0		0	300	300	10,279,381	

Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Manganese	0	0		0	1,000	1,000	34,264,602	
Total Mercury	0	0		0	0.050	0.05	1,713	
Total Nickel	0	0		0	610	610	20,901,407	
Total Phenols (Phenolics) (PWS)	0	0		0	5	5.0	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	
Total Silver	0	0		0	N/A	N/A	N/A	
Total Thallium	0	0		0	0.24	0.24	8,224	
Total Zinc	0	0		0	N/A	N/A	N/A	

☑ ***CRL*** CCT (min): 720 PMF: 0.084 Analysis Hardness (mg/l): N/A Analysis pH: N/A

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	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Fluoride (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	N/A	N/A	N/A	
Total Arsenic	0	0		0	N/A	N/A	N/A	
Total Barium	0	0		0	N/A	N/A	N/A	
Total Boron	0	0		0	N/A	N/A	N/A	
Total Cadmium	0	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	N/A	N/A	N/A	
Hexavalent Chromium	0	0		0	N/A	N/A	N/A	
Total Cobalt	0	0		0	N/A	N/A	N/A	
Total Copper	0	0		0	N/A	N/A	N/A	
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	N/A	N/A	N/A	
Total Nickel	0	0		0	N/A	N/A	N/A	
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	
Total Silver	0	0		0	N/A	N/A	N/A	
Total Thallium	0	0		0	N/A	N/A	N/A	
Total Zinc	0	0		0	N/A	N/A	N/A	

☑ ***Recommended WQBELs & Monitoring Requirements***

No. Samples/Month: 4

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

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
Chloride (PWS)	N/A	N/A	PWS Not Applicable
Bromide	N/A	N/A	No WQS
Sulfate (PWS)	N/A	N/A	PWS Not Applicable
Fluoride (PWS)	N/A	N/A	PWS Not Applicable
Total Aluminum	2,377,892	µg/L	Discharge Conc ≤ 10% WQBEL
Total Antimony	N/A	N/A	Discharge Conc < TQL
Total Arsenic	342,646	µg/L	Discharge Conc ≤ 10% WQBEL
Total Barium	66,580,979	µg/L	Discharge Conc ≤ 10% WQBEL
Total Beryllium	N/A	N/A	No WQS
Total Boron	25,681,235	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cadmium	5,467	µg/L	Discharge Conc < TQL
Total Chromium (III)	2,487,418	µg/L	Discharge Conc ≤ 10% WQBEL
Hexavalent Chromium	51,658	µg/L	Discharge Conc < TQL
Total Cobalt	301,200	µg/L	Discharge Conc < TQL
Total Copper	36,441	µg/L	Discharge Conc < TQL
Total Cyanide	N/A	N/A	No WQS
Dissolved Iron	10,279	mg/L	Discharge Conc ≤ 10% WQBEL
Total Iron	#########	µg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	83,501	µg/L	Discharge Conc < TQL
Total Manganese	34,264,602	µg/L	Discharge Conc ≤ 10% WQBEL
Total Mercury	1,713	µg/L	Discharge Conc < TQL
Total Nickel	1,246,146	µg/L	Discharge Conc ≤ 10% WQBEL
Total Phenols (Phenolics) (PWS)		µg/L	Discharge Conc < TQL
Total Selenium	170,951	µg/L	Discharge Conc < TQL
Total Silver	8,371	µg/L	Discharge Conc < TQL
Total Thallium	8,224	µg/L	Discharge Conc < TQL
Total Zinc	318,151	µg/L	Discharge Conc ≤ 10% WQBEL
Total Molybdenum	N/A	N/A	No WQS

Attachment E: Toxic Management Spreadsheet for Outfall 002

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2023

Discharge Information

Instructions | Discharge | Stream

Facility: **Cemline Harmar Facility** NPDES Permit No.: **PA0217026** Outfall No.: **002**

Evaluation Type: **Major Sewage / Industrial Waste** Wastewater Description: **Water used in hydrostatic testing**

Discharge Characteristics								
Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Partial Mix Factors (PMFs)				Complete Mix Times (min)	
			AFC	CFC	THH	CRL	Q_{7-10}	Q_h
0.0029	159	7.9						

					0 if left blank		*0.5 if left blank*		*0 if left blank*			*1 if left blank*	
	Discharge Pollutant	Units	Max Discharge Conc		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		418									
	Chloride (PWS)	mg/L		61.5									
	Bromide	mg/L	<	0.1									
	Sulfate (PWS)	mg/L		47.7									
	Fluoride (PWS)	mg/L		0.195									
Group 2	Total Aluminum	µg/L		75.6									
	Total Antimony	µg/L	<	0.4									
	Total Arsenic	µg/L		8									
	Total Barium	µg/L		51									
	Total Beryllium	µg/L	<	0.4									
	Total Boron	µg/L		110									
	Total Cadmium	µg/L	<	0.1									
	Total Chromium (III)	µg/L	<	5									
	Hexavalent Chromium	µg/L	<	0.1									
	Total Cobalt	µg/L	<	1									
	Total Copper	µg/L		180									
	Free Cyanide	µg/L											
	Total Cyanide	µg/L	<	5									
	Dissolved Iron	µg/L		185									
	Total Iron	µg/L		801									
	Total Lead	µg/L	<	1									
	Total Manganese	µg/L		12.4									
	Total Mercury	µg/L	<	0.2									
	Total Nickel	µg/L		50									
	Total Phenols (Phenolics) (PWS)	µg/L	<	5									
	Total Selenium	µg/L	<	2									
	Total Silver	µg/L	<	0.2									
	Total Thallium	µg/L	<	0.4									
	Total Zinc	µg/L		88									
	Total Molybdenum	µg/L	<	10									
	Acrolein	µg/L	<										
	Acrylamide	µg/L	<										
	Acrylonitrile	µg/L	<										
	Benzene	mg/L	<										
	Bromoform	µg/L	<										
	Carbon Tetrachloride	µg/L	<										
	Chlorobenzene	µg/L											
	Chlorodibromomethane	µg/L	<										
	Chloroethane	µg/L	<										
	2-Chloroethyl Vinyl Ether	µg/L	<										

Group 3	Chloroform	µg/L	<										
	Dichlorobromomethane	µg/L	<										
	1,1-Dichloroethane	µg/L	<										
	1,2-Dichloroethane	µg/L	<										
	1,1-Dichloroethylene	µg/L	<										
	1,2-Dichloropropane	µg/L	<										
	1,3-Dichloropropylene	µg/L	<										
	1,4-Dioxane	µg/L	<										
	Ethylbenzene	mg/L	<										
	Methyl Bromide	µg/L	<										
	Methyl Chloride	µg/L	<										
	Methylene Chloride	µg/L	<										
	1,1,2,2-Tetrachloroethane	µg/L	<										
	Tetrachloroethylene	mg/L	<										
	Toluene	mg/L	<										
	1,2-trans-Dichloroethylene	µg/L	<										
	1,1,1-Trichloroethane	µg/L	<										
	1,1,2-Trichloroethane	µg/L	<										
	Trichloroethylene	mg/L	<										
	Vinyl Chloride	mg/L	<										
Group 4	2-Chlorophenol	µg/L	<										
	2,4-Dichlorophenol	µg/L	<										
	2,4-Dimethylphenol	µg/L	<										
	4,6-Dinitro-o-Cresol	µg/L	<										
	2,4-Dinitrophenol	µg/L	<										
	2-Nitrophenol	µg/L	<										
	4-Nitrophenol	µg/L	<										
	p-Chloro-m-Cresol	µg/L	<										
	Pentachlorophenol	µg/L	<										
	Phenol	µg/L	<										
	2,4,6-Trichlorophenol	µg/L	<										
Group 5	Acenaphthene	µg/L	<										
	Acenaphthylene	µg/L	<										
	Anthracene	µg/L	<										
	Benzidine	µg/L	<										
	Benzo(a)Anthracene	mg/L	<										
	Benzo(a)Pyrene	mg/L	<										
	3,4-Benzofluoranthene	µg/L	<										
	Benzo(ghi)Perylene	mg/L	<										
	Benzo(k)Fluoranthene	mg/L	<										
	Bis(2-Chloroethoxy)Methane	µg/L	<										
	Bis(2-Chloroethyl)Ether	µg/L	<										
	Bis(2-Chloroisopropyl)Ether	µg/L	<										
	Bis(2-Ethylhexyl)Phthalate	µg/L	<										
	4-Bromophenyl Phenyl Ether	µg/L	<										
	Butyl Benzyl Phthalate	µg/L	<										
	2-Chloronaphthalene	µg/L	<										
	4-Chlorophenyl Phenyl Ether	µg/L	<										
	Chrysene	mg/L	<										
	Dibenzo(a,h)Anthrancene	µg/L	<										
	1,2-Dichlorobenzene	µg/L	<										
	1,3-Dichlorobenzene	µg/L	<										
	1,4-Dichlorobenzene	µg/L	<										
	3,3-Dichlorobenzidine	µg/L	<										
	Diethyl Phthalate	µg/L	<										
	Dimethyl Phthalate	µg/L	<										
	Di-n-Butyl Phthalate	µg/L	<										
	2,4-Dinitrotoluene	µg/L	<										
	2,6-Dinitrotoluene	µg/L	<										
	Di-n-Octyl Phthalate	µg/L	<										
	1,2-Diphenylhydrazine	µg/L	<										
	Fluoranthene	µg/L	<										
	Fluorene	µg/L	<										
	Hexachlorobenzene	µg/L	<										
	Hexachlorobutadiene	µg/L	<										
	Hexachlorocyclopentadiene	µg/L	<										
	Hexachloroethane	µg/L	<										

	Indeno(1,2,3-cd)Pyrene	µg/L	<										
	Isophorone	µg/L	<										
	Naphthalene	mg/L	<										
	Nitrobenzene	µg/L	<										
	n-Nitrosodimethylamine	µg/L	<										
	n-Nitrosodi-n-Propylamine	µg/L	<										
	n-Nitrosodiphenylamine	µg/L	<										
	Phenanthrene	mg/L	<										
	Pyrene	mg/L	<										
	1,2,4-Trichlorobenzene	µg/L	<										
Group 6	Aldrin	µg/L	<										
	alpha-BHC	µg/L	<										
	beta-BHC	µg/L	<										
	gamma-BHC	µg/L	<										
	delta BHC	µg/L	<										
	Chlordane	µg/L	<										
	4,4-DDT	µg/L	<										
	4,4-DDE	µg/L	<										
	4,4-DDD	µg/L	<										
	Dieldrin	µg/L	<										
	alpha-Endosulfan	µg/L	<										
	beta-Endosulfan	µg/L	<										
	Endosulfan Sulfate	µg/L	<										
	Endrin	µg/L	<										
	Endrin Aldehyde	µg/L	<										
	Heptachlor	µg/L	<										
	Heptachlor Epoxide	µg/L	<										
	PCB-1016	mg/L	<										
	PCB-1221	mg/L	<										
	PCB-1232	mg/L	<										
	PCB-1242	mg/L	<										
	PCB-1248	mg/L	<										
	PCB-1254	mg/L	<										
	PCB-1260	mg/L	<										
	PCBs, Total	µg/L	<										
	Toxaphene	µg/L	<										
	2,3,7,8-TCDD	ng/L	<										
Group 7	Gross Alpha	pCi/L											
	Total Beta	pCi/L	<										
	Radium 226/228	pCi/L	<										
	Total Strontium	µg/L	<										
	Total Uranium	µg/L	<										
	Osmotic Pressure	mOs/kg											

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Toxics Management Spreadsheet
Version 1.4, May 2023

Stream / Surface Water Information

Cemline Harmar Facility, NPDES Permit No. PA0217026, Outfall 002

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **Allgheny River**

No. Reaches to Model: **1**

- (•) Statewide Criteria
- ( ) Great Lakes Criteria
- ( ) ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi^2)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	042122	14.61	727	11,500			Yes
End of Reach 1	042122	13.51	725	11,600			Yes

$Q_{7\text{-}10}$

Location	RMI	LFY (cfs/mi^2)*	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	14.61	0.1	2,390			614						81.1	7		
End of Reach 1	13.51	0.1	2,390			703									

Q_h

Location	RMI	LFY (cfs/mi^2)	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	14.61														
End of Reach 1	13.51														

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Toxics Management Spreadsheet
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Model Results

Cemline Harmar Facility, NPDES Permit No. PA0217026, Outfall 002

Instructions | Results | RETURN TO INPUTS | SAVE AS PDF | PRINT | All | Inputs | Results | Limits

Hydrodynamics

Wasteload Allocations

AFC CCT (min): 15 PMF: 0.038 Analysis Hardness (mg/l): 81.104 Analysis pH: 7.00

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	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Fluoride (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	750	750	15,368,971	
Total Antimony	0	0		0	1,100	1,100	22,541,158	
Total Arsenic	0	0		0	340	340	6,967,267	Chem Translator of 1 applied
Total Barium	0	0		0	21,000	21,000	##########	
Total Boron	0	0		0	8,100	8,100	##########	
Total Cadmium	0	0		0	1.643	1.72	35,330	Chem Translator of 0.953 applied
Total Chromium (III)	0	0		0	479.954	1,519	31,124,028	Chem Translator of 0.316 applied
Hexavalent Chromium	0	0		0	16	16.3	333,881	Chem Translator of 0.982 applied
Total Cobalt	0	0		0	95	95.0	1,946,736	
Total Copper	0	0		0	11.032	11.5	235,495	Chem Translator of 0.96 applied
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	51.376	62.5	1,281,513	Chem Translator of 0.822 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	1.400	1.65	33,751	Chem Translator of 0.85 applied
Total Nickel	0	0		0	392.205	393	8,053,162	Chem Translator of 0.998 applied
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	Chem Translator of 0.922 applied
Total Silver	0	0		0	2.244	2.64	54,092	Chem Translator of 0.85 applied
Total Thallium	0	0		0	65	65.0	1,331,977	
Total Zinc	0	0		0	98.126	100	2,056,035	Chem Translator of 0.978 applied

☑ ***CFC*** CCT (min): 720 PMF: 0.266 Analysis Hardness (mg/l): 81.101 Analysis pH: 7.00

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	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Fluoride (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	220	220	31,232,640	
Total Arsenic	0	0		0	150	150	21,294,982	Chem Translator of 1 applied
Total Barium	0	0		0	4,100	4,100	#########	
Total Boron	0	0		0	1,600	1,600	#########	
Total Cadmium	0	0		0	0.213	0.23	32,896	Chem Translator of 0.918 applied
Total Chromium (III)	0	0		0	62.430	72.6	10,305,792	Chem Translator of 0.86 applied
Hexavalent Chromium	0	0		0	10	10.4	1,475,744	Chem Translator of 0.962 applied
Total Cobalt	0	0		0	19	19.0	2,697,364	
Total Copper	0	0		0	7.488	7.8	1,107,331	Chem Translator of 0.96 applied
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	1,500	1,500	#########	WQC = 30 day average; PMF = 1
Total Lead	0	0		0	2.002	2.44	345,954	Chem Translator of 0.822 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	0.770	0.91	128,605	Chem Translator of 0.85 applied
Total Nickel	0	0		0	43.560	43.7	6,202,731	Chem Translator of 0.997 applied
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	4.600	4.99	708,293	Chem Translator of 0.922 applied
Total Silver	0	0		0	N/A	N/A	N/A	Chem Translator of 1 applied
Total Thallium	0	0		0	13	13.0	1,845,565	
Total Zinc	0	0		0	98.926	100	14,243,548	Chem Translator of 0.986 applied

☑ ***THH*** CCT (min): 720 PMF: 0.266 Analysis Hardness (mg/l): N/A Analysis pH: N/A

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	N/A	
Chloride (PWS)	0	0		0	250,000	250,000	N/A	
Sulfate (PWS)	0	0		0	250,000	250,000	N/A	
Fluoride (PWS)	0	0		0	2,000	2,000	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	5.6	5.6	795,013	
Total Arsenic	0	0		0	10	10.0	1,419,665	
Total Barium	0	0		0	2,400	2,400	#########	
Total Boron	0	0		0	3,100	3,100	#########	
Total Cadmium	0	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	N/A	N/A	N/A	
Hexavalent Chromium	0	0		0	N/A	N/A	N/A	
Total Cobalt	0	0		0	N/A	N/A	N/A	
Total Copper	0	0		0	N/A	N/A	N/A	
Dissolved Iron	0	0		0	300	300	42,589,964	

Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Manganese	0	0		0	1,000	1,000	##########	
Total Mercury	0	0		0	0.050	0.05	7,098	
Total Nickel	0	0		0	610	610	86,599,593	
Total Phenols (Phenolics) (PWS)	0	0		0	5	5.0	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	
Total Silver	0	0		0	N/A	N/A	N/A	
Total Thallium	0	0		0	0.24	0.24	34,072	
Total Zinc	0	0		0	N/A	N/A	N/A	

☑ ***CRL*** CCT (min): 720 PMF: 0.374 Analysis Hardness (mg/l): N/A Analysis pH: N/A

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	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Fluoride (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	N/A	N/A	N/A	
Total Arsenic	0	0		0	N/A	N/A	N/A	
Total Barium	0	0		0	N/A	N/A	N/A	
Total Boron	0	0		0	N/A	N/A	N/A	
Total Cadmium	0	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	N/A	N/A	N/A	
Hexavalent Chromium	0	0		0	N/A	N/A	N/A	
Total Cobalt	0	0		0	N/A	N/A	N/A	
Total Copper	0	0		0	N/A	N/A	N/A	
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	N/A	N/A	N/A	
Total Nickel	0	0		0	N/A	N/A	N/A	
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	
Total Silver	0	0		0	N/A	N/A	N/A	
Total Thallium	0	0		0	N/A	N/A	N/A	
Total Zinc	0	0		0	N/A	N/A	N/A	

☑ ***Recommended WQBELs & Monitoring Requirements***

No. Samples/Month: 4

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

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
Chloride (PWS)	N/A	N/A	PWS Not Applicable
Bromide	N/A	N/A	No WQS
Sulfate (PWS)	N/A	N/A	PWS Not Applicable
Fluoride (PWS)	N/A	N/A	PWS Not Applicable
Total Aluminum	9,850,890	µg/L	Discharge Conc ≤ 10% WQBEL
Total Antimony	N/A	N/A	Discharge Conc < TQL
Total Arsenic	1,419,665	µg/L	Discharge Conc ≤ 10% WQBEL
Total Barium	#########	µg/L	Discharge Conc ≤ 10% WQBEL
Total Beryllium	N/A	N/A	No WQS
Total Boron	#########	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cadmium	22,645	µg/L	Discharge Conc < TQL
Total Chromium (III)	10,305,792	µg/L	Discharge Conc ≤ 10% WQBEL
Hexavalent Chromium	214,004	µg/L	Discharge Conc < TQL
Total Cobalt	1,247,779	µg/L	Discharge Conc < TQL
Total Copper	150,943	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cyanide	N/A	N/A	No WQS
Dissolved Iron	42,589,964	µg/L	Discharge Conc ≤ 10% WQBEL
Total Iron	#########	µg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	345,954	µg/L	Discharge Conc < TQL
Total Manganese	#########	µg/L	Discharge Conc ≤ 10% WQBEL
Total Mercury	7,098	µg/L	Discharge Conc < TQL
Total Nickel	5,161,752	µg/L	Discharge Conc ≤ 10% WQBEL
Total Phenols (Phenolics) (PWS)		µg/L	Discharge Conc < TQL
Total Selenium	708,293	µg/L	Discharge Conc < TQL
Total Silver	34,671	µg/L	Discharge Conc < TQL
Total Thallium	34,072	µg/L	Discharge Conc < TQL
Total Zinc	1,317,835	µg/L	Discharge Conc ≤ 10% WQBEL
Total Molybdenum	N/A	N/A	No WQS

Attachment F: Toxic Management Spreadsheet for Outfall 003

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2023

Discharge Information

Instructions | Discharge | Stream

Facility: **Cemline Harmar Facility** NPDES Permit No.: **PA0217026** Outfall No.: **003**

Evaluation Type: **Major Sewage / Industrial Waste** Wastewater Description: **Water used in hydrostatic testing**

Discharge Characteristics								
Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Partial Mix Factors (PMFs)				Complete Mix Times (min)	
			AFC	CFC	THH	CRL	Q_{7-10}	Q_h
0.0029	178	8.2						

					0 if left blank		*0.5 if left blank*		*0 if left blank*			*1 if left blank*	
	Discharge Pollutant	Units	Max Discharge Conc		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		476									
	Chloride (PWS)	mg/L		49.4									
	Bromide	mg/L	<	0.1									
	Sulfate (PWS)	mg/L		44.7									
	Fluoride (PWS)	mg/L		0.314									
Group 2	Total Aluminum	µg/L		120									
	Total Antimony	µg/L	<	0.4									
	Total Arsenic	µg/L		8									
	Total Barium	µg/L		81									
	Total Beryllium	µg/L	<	0.4									
	Total Boron	µg/L		105									
	Total Cadmium	µg/L	<	0.1									
	Total Chromium (III)	µg/L		5									
	Hexavalent Chromium	µg/L		0.39									
	Total Cobalt	µg/L	<	1									
	Total Copper	µg/L		12									
	Free Cyanide	µg/L											
	Total Cyanide	µg/L	<	5									
	Dissolved Iron	µg/L		0.031									
	Total Iron	µg/L		185									
	Total Lead	µg/L	<	1									
	Total Manganese	µg/L		20									
	Total Mercury	µg/L	<	0.2									
	Total Nickel	µg/L		50									
	Total Phenols (Phenolics) (PWS)	µg/L	<	5									
	Total Selenium	µg/L	<	2									
	Total Silver	µg/L	<	0.2									
	Total Thallium	µg/L	<	0.4									
	Total Zinc	µg/L		93									
	Total Molybdenum	µg/L	<	10									
	Acrolein	µg/L	<										
	Acrylamide	µg/L	<										
	Acrylonitrile	µg/L	<										
	Benzene	mg/L	<										
	Bromoform	µg/L	<										
	Carbon Tetrachloride	µg/L	<										
	Chlorobenzene	µg/L											
	Chlorodibromomethane	µg/L	<										
	Chloroethane	µg/L	<										
	2-Chloroethyl Vinyl Ether	µg/L	<										

Group 3	Chloroform	µg/L	<										
	Dichlorobromomethane	µg/L	<										
	1,1-Dichloroethane	µg/L	<										
	1,2-Dichloroethane	µg/L	<										
	1,1-Dichloroethylene	µg/L	<										
	1,2-Dichloropropane	µg/L	<										
	1,3-Dichloropropylene	µg/L	<										
	1,4-Dioxane	µg/L	<										
	Ethylbenzene	mg/L	<										
	Methyl Bromide	µg/L	<										
	Methyl Chloride	µg/L	<										
	Methylene Chloride	µg/L	<										
	1,1,2,2-Tetrachloroethane	µg/L	<										
	Tetrachloroethylene	mg/L	<										
	Toluene	mg/L	<										
	1,2-trans-Dichloroethylene	µg/L	<										
	1,1,1-Trichloroethane	µg/L	<										
	1,1,2-Trichloroethane	µg/L	<										
	Trichloroethylene	mg/L	<										
	Vinyl Chloride	mg/L	<										
Group 4	2-Chlorophenol	µg/L	<										
	2,4-Dichlorophenol	µg/L	<										
	2,4-Dimethylphenol	µg/L	<										
	4,6-Dinitro-o-Cresol	µg/L	<										
	2,4-Dinitrophenol	µg/L	<										
	2-Nitrophenol	µg/L	<										
	4-Nitrophenol	µg/L	<										
	p-Chloro-m-Cresol	µg/L	<										
	Pentachlorophenol	µg/L	<										
	Phenol	µg/L	<										
	2,4,6-Trichlorophenol	µg/L	<										
Group 5	Acenaphthene	µg/L	<										
	Acenaphthylene	µg/L	<										
	Anthracene	µg/L	<										
	Benzidine	µg/L	<										
	Benzo(a)Anthracene	mg/L	<										
	Benzo(a)Pyrene	mg/L	<										
	3,4-Benzofluoranthene	µg/L	<										
	Benzo(ghi)Perylene	mg/L	<										
	Benzo(k)Fluoranthene	mg/L	<										
	Bis(2-Chloroethoxy)Methane	µg/L	<										
	Bis(2-Chloroethyl)Ether	µg/L	<										
	Bis(2-Chloroisopropyl)Ether	µg/L	<										
	Bis(2-Ethylhexyl)Phthalate	µg/L	<										
	4-Bromophenyl Phenyl Ether	µg/L	<										
	Butyl Benzyl Phthalate	µg/L	<										
	2-Chloronaphthalene	µg/L	<										
	4-Chlorophenyl Phenyl Ether	µg/L	<										
	Chrysene	mg/L	<										
	Dibenzo(a,h)Anthrancene	µg/L	<										
	1,2-Dichlorobenzene	µg/L	<										
	1,3-Dichlorobenzene	µg/L	<										
	1,4-Dichlorobenzene	µg/L	<										
	3,3-Dichlorobenzidine	µg/L	<										
	Diethyl Phthalate	µg/L	<										
	Dimethyl Phthalate	µg/L	<										
	Di-n-Butyl Phthalate	µg/L	<										
	2,4-Dinitrotoluene	µg/L	<										
	2,6-Dinitrotoluene	µg/L	<										
	Di-n-Octyl Phthalate	µg/L	<										
	1,2-Diphenylhydrazine	µg/L	<										
	Fluoranthene	µg/L	<										
	Fluorene	µg/L	<										
	Hexachlorobenzene	µg/L	<										
	Hexachlorobutadiene	µg/L	<										
	Hexachlorocyclopentadiene	µg/L	<										
	Hexachloroethane	µg/L	<										

	Indeno(1,2,3-cd)Pyrene	µg/L	<										
	Isophorone	µg/L	<										
	Naphthalene	mg/L	<										
	Nitrobenzene	µg/L	<										
	n-Nitrosodimethylamine	µg/L	<										
	n-Nitrosodi-n-Propylamine	µg/L	<										
	n-Nitrosodiphenylamine	µg/L	<										
	Phenanthrene	mg/L	<										
	Pyrene	mg/L	<										
	1,2,4-Trichlorobenzene	µg/L	<										
Group 6	Aldrin	µg/L	<										
	alpha-BHC	µg/L	<										
	beta-BHC	µg/L	<										
	gamma-BHC	µg/L	<										
	delta BHC	µg/L	<										
	Chlordane	µg/L	<										
	4,4-DDT	µg/L	<										
	4,4-DDE	µg/L	<										
	4,4-DDD	µg/L	<										
	Dieldrin	µg/L	<										
	alpha-Endosulfan	µg/L	<										
	beta-Endosulfan	µg/L	<										
	Endosulfan Sulfate	µg/L	<										
	Endrin	µg/L	<										
	Endrin Aldehyde	µg/L	<										
	Heptachlor	µg/L	<										
	Heptachlor Epoxide	µg/L	<										
	PCB-1016	mg/L	<										
	PCB-1221	mg/L	<										
	PCB-1232	mg/L	<										
	PCB-1242	mg/L	<										
	PCB-1248	mg/L	<										
	PCB-1254	mg/L	<										
	PCB-1260	mg/L	<										
	PCBs, Total	µg/L	<										
	Toxaphene	µg/L	<										
	2,3,7,8-TCDD	ng/L	<										
Group 7	Gross Alpha	pCi/L											
	Total Beta	pCi/L	<										
	Radium 226/228	pCi/L	<										
	Total Strontium	µg/L	<										
	Total Uranium	µg/L	<										
	Osmotic Pressure	mOs/kg											

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Toxics Management Spreadsheet
Version 1.4, May 2023

Stream / Surface Water Information

Cemline Harmar Facility, NPDES Permit No. PA0217026, Outfall 003

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **Allgheny River**

No. Reaches to Model: **1**

- (•) Statewide Criteria
- ( ) Great Lakes Criteria
- ( ) ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi^2)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	042122	14.58	727	11,500			Yes
End of Reach 1	042122	13.51	725	11,600			Yes

Q_{7-10}

Location	RMI	LFY (cfs/mi^2)*	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	14.58	0.1	2,390			614						81.1	7		
End of Reach 1	13.51	0.1	2,390			703									

Q_h

Location	RMI	LFY (cfs/mi^2)	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	14.58														
End of Reach 1	13.51														

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Toxics Management Spreadsheet
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Model Results

Cemline Harmar Facility, NPDES Permit No. PA0217026, Outfall 003

Instructions | Results | RETURN TO INPUTS | SAVE AS PDF | PRINT | All | Inputs | Results | Limits

Hydrodynamics

Wasteload Allocations

AFC CCT (min): 15 PMF: 0.039 Analysis Hardness (mg/l): 81.105 Analysis pH: 7.00

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	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Fluoride (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	750	750	15,457,937	
Total Antimony	0	0		0	1,100	1,100	22,671,641	
Total Arsenic	0	0		0	340	340	7,007,598	Chem Translator of 1 applied
Total Barium	0	0		0	21,000	21,000	##########	
Total Boron	0	0		0	8,100	8,100	##########	
Total Cadmium	0	0		0	1.643	1.72	35,535	Chem Translator of 0.953 applied
Total Chromium (III)	0	0		0	479.958	1,519	31,304,480	Chem Translator of 0.316 applied
Hexavalent Chromium	0	0		0	16	16.3	335,814	Chem Translator of 0.982 applied
Total Cobalt	0	0		0	95	95.0	1,958,005	
Total Copper	0	0		0	11.032	11.5	236,861	Chem Translator of 0.96 applied
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	51.376	62.5	1,288,950	Chem Translator of 0.822 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	1.400	1.65	33,947	Chem Translator of 0.85 applied
Total Nickel	0	0		0	392.209	393	8,099,855	Chem Translator of 0.998 applied
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	Chem Translator of 0.922 applied
Total Silver	0	0		0	2.244	2.64	54,406	Chem Translator of 0.85 applied
Total Thallium	0	0		0	65	65.0	1,339,688	
Total Zinc	0	0		0	98.127	100	2,067,956	Chem Translator of 0.978 applied

☑ ***CFC*** CCT (min): 720 PMF: 0.268 Analysis Hardness (mg/l): 81.101 Analysis pH: 7.00

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	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Fluoride (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	220	220	31,413,443	
Total Arsenic	0	0		0	150	150	21,418,256	Chem Translator of 1 applied
Total Barium	0	0		0	4,100	4,100	##########	
Total Boron	0	0		0	1,600	1,600	##########	
Total Cadmium	0	0		0	0.213	0.23	33,087	Chem Translator of 0.918 applied
Total Chromium (III)	0	0		0	62.430	72.6	10,365,465	Chem Translator of 0.86 applied
Hexavalent Chromium	0	0		0	10	10.4	1,484,287	Chem Translator of 0.962 applied
Total Cobalt	0	0		0	19	19.0	2,712,979	
Total Copper	0	0		0	7.488	7.8	1,113,743	Chem Translator of 0.96 applied
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	1,500	1,500	##########	WQC = 30 day average; PMF = 1
Total Lead	0	0		0	2.002	2.44	347,957	Chem Translator of 0.822 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	0.770	0.91	129,349	Chem Translator of 0.85 applied
Total Nickel	0	0		0	43.560	43.7	6,238,646	Chem Translator of 0.997 applied
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	4.600	4.99	712,393	Chem Translator of 0.922 applied
Total Silver	0	0		0	N/A	N/A	N/A	Chem Translator of 1 applied
Total Thallium	0	0		0	13	13.0	1,856,249	
Total Zinc	0	0		0	98.926	100	14,326,022	Chem Translator of 0.986 applied

☑ ***THH*** CCT (min): 720 PMF: 0.268 Analysis Hardness (mg/l): N/A Analysis pH: N/A

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	N/A	
Chloride (PWS)	0	0		0	250,000	250,000	N/A	
Sulfate (PWS)	0	0		0	250,000	250,000	N/A	
Fluoride (PWS)	0	0		0	2,000	2,000	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	5.6	5.6	799,615	
Total Arsenic	0	0		0	10	10.0	1,427,884	
Total Barium	0	0		0	2,400	2,400	##########	
Total Boron	0	0		0	3,100	3,100	##########	
Total Cadmium	0	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	N/A	N/A	N/A	
Hexavalent Chromium	0	0		0	N/A	N/A	N/A	
Total Cobalt	0	0		0	N/A	N/A	N/A	
Total Copper	0	0		0	N/A	N/A	N/A	
Dissolved Iron	0	0		0	300	300	42,836,513	

Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Manganese	0	0		0	1,000	1,000	##########	
Total Mercury	0	0		0	0.050	0.05	7,139	
Total Nickel	0	0		0	610	610	87,100,910	
Total Phenols (Phenolics) (PWS)	0	0		0	5	5.0	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	
Total Silver	0	0		0	N/A	N/A	N/A	
Total Thallium	0	0		0	0.24	0.24	34,269	
Total Zinc	0	0		0	N/A	N/A	N/A	

☑ ***CRL*** CCT (min): 720 PMF: 0.376 Analysis Hardness (mg/l): N/A Analysis pH: N/A

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	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Fluoride (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	N/A	N/A	N/A	
Total Arsenic	0	0		0	N/A	N/A	N/A	
Total Barium	0	0		0	N/A	N/A	N/A	
Total Boron	0	0		0	N/A	N/A	N/A	
Total Cadmium	0	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	N/A	N/A	N/A	
Hexavalent Chromium	0	0		0	N/A	N/A	N/A	
Total Cobalt	0	0		0	N/A	N/A	N/A	
Total Copper	0	0		0	N/A	N/A	N/A	
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	N/A	N/A	N/A	
Total Nickel	0	0		0	N/A	N/A	N/A	
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	
Total Silver	0	0		0	N/A	N/A	N/A	
Total Thallium	0	0		0	N/A	N/A	N/A	
Total Zinc	0	0		0	N/A	N/A	N/A	

☑ ***Recommended WQBELs & Monitoring Requirements***

No. Samples/Month: 4

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

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
Chloride (PWS)	N/A	N/A	PWS Not Applicable
Bromide	N/A	N/A	No WQS
Sulfate (PWS)	N/A	N/A	PWS Not Applicable
Fluoride (PWS)	N/A	N/A	PWS Not Applicable
Total Aluminum	9,907,913	µg/L	Discharge Conc ≤ 10% WQBEL
Total Antimony	N/A	N/A	Discharge Conc < TQL
Total Arsenic	1,427,884	µg/L	Discharge Conc ≤ 10% WQBEL
Total Barium	#########	µg/L	Discharge Conc ≤ 10% WQBEL
Total Beryllium	N/A	N/A	No WQS
Total Boron	#########	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cadmium	22,776	µg/L	Discharge Conc < TQL
Total Chromium (III)	10,365,465	µg/L	Discharge Conc ≤ 10% WQBEL
Hexavalent Chromium	215,243	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cobalt	1,255,002	µg/L	Discharge Conc < TQL
Total Copper	151,818	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cyanide	N/A	N/A	No WQS
Dissolved Iron	42,836,513	µg/L	Discharge Conc ≤ 10% WQBEL
Total Iron	#########	µg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	347,957	µg/L	Discharge Conc < TQL
Total Manganese	#########	µg/L	Discharge Conc ≤ 10% WQBEL
Total Mercury	7,139	µg/L	Discharge Conc < TQL
Total Nickel	5,191,680	µg/L	Discharge Conc ≤ 10% WQBEL
Total Phenols (Phenolics) (PWS)		µg/L	Discharge Conc < TQL
Total Selenium	712,393	µg/L	Discharge Conc < TQL
Total Silver	34,872	µg/L	Discharge Conc < TQL
Total Thallium	34,269	µg/L	Discharge Conc < TQL
Total Zinc	1,325,476	µg/L	Discharge Conc ≤ 10% WQBEL
Total Molybdenum	N/A	N/A	No WQS