Pennsylvania Department of Environmental Protection

SOUTHWEST REGIONAL OFFICE
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0218081**
Facility Type	**Industrial**	APS ID	**1108974**
Major / Minor	**Minor**	Authorization ID	**1475907**

NPDES PERMIT FACT SHEET ADDENDUM

Applicant and Facility Information

Applicant Name	**WHEMCO Steel Castings Inc.**	Facility Name	**WHEMCO Steel Castings Inc.**
Applicant Address	601 W 7th Avenue	Facility Address	601 W 7th Avenue
	Homestead, PA 15120-1064		Homestead, PA 15120-1064
Applicant Contact	Christopher Coholich	Facility Contact	Same as Applicant
Applicant Phone	(412) 390-2711	Facility Phone	Same as Applicant
Client ID	216968	Site ID	501839
SIC Code	3547	Municipality	West Homestead Borough
SIC Description	Manufacturing - Rolling Mill Machinery	County	Allegheny
Date Published in PA Bulletin	December 14, 2024	EPA Waived?	Yes
Comment Period End Date	January 13, 2025	If No, Reason	

Purpose of Application: Renewal NPDES Permit Coverage

Internal Review and Recommendations

On December 14, 2024, the Department published notice of 2nd draft NPDES permit PA0218081 in the PA Bulletin. Comments were received from WHEMCO Steel Castings. A copy of WHEMCO's comments is included in Attachment A of this Fact Sheet Addendum. The Department has made changes to the Draft permit in response to these comments. The Department is redrafting the permit because of these changes made to the Draft Permit. A summary of these comments and the Department's responses are included on the following pages.

WHEMCO Comment 1: WHEMCO can show that Outfall 006's total residual chlorine, total copper, total zinc, dichlorobromomethane, and chloroform are all from the Pittsburgh Water and Sewer Authority (PWSA) and are within PWSA's allowable Maximum Concentration Limits (MCLs). WHEMCO feels that these MCLs should be used as average daily concentrations limits in WHEMCO's renewed NPDES Permit and not Water Quality Based Effluent Limits (WQBELs) listed in the draft permit, which are orders of magnitude lower. WHEMCO request that the PA DEP review the second draft NPDES permit requirements under PART C, II Schedule of Compliance and Outfall 006's WQBELSs driving this requirement that would in fact require WHEMCO to treat waters coming from PWSA. Waters intended for human consumption and residential discharge.

Synergy Rolls cast at United Rolls Inc. and Steel Rolls cast at WHEMCO Steel Castings Inc. and PWSA's water contribute to the quench discharge waters of Outfall 106 and 006. Copper is listed in the SDSs as extremely low levels and zinc is not listed at all. Other metals such as nickel and chromium have a factor of 10 to 100 times greater percentage chemical makeup of the roll. Therefore, one would expect to see much greater concentrations of nickel and chromium in the discharge waters at Outfall 006. Much greater than copper or zinc. This in fact is not the case. Therefore, the contributing factor for elevated levels of copper and zinc are coming from PWSA's water not the Synergy or steel rolls.

Total residual chlorine, dichlorobromomethane and chloroform are all constituents remaining following the water treatment by the PWSA and are the PWSA and are within the PWSA's allowable MCL. These chemicals are not present in any other materials introduced in the quench other than from the PWSA water supply.

Approve	Return	Deny	Signatures	Date
X			Angela Rohrer / Environmental Engineering Specialist	February 13, 2025
X			Michael E. Fifth, P.E. / Environmental Engineer Manager	February 19, 2025

Internal Review and Recommendations

The Department's response to WHEMCO comment one:

The Department acknowledges WHEMCO's comment; however, the Department disagrees with WHEMCO's proposed solution. Based on the NPDES Permit Writers' Manual, WQBELs are designed to protect water quality by ensuring that water quality standards are met in the receiving water. On the basis of the requirements of 40 CFR 125.3(a), additional or more stringent effluent limitations and conditions, such as WQBELs, are imposed when TBELs are not sufficient to protect water quality. CWA section 301(b)(1)(C) requires that permits include any effluent limitations necessary to meet water quality standards. To satisfy that requirement, permit writers implement a process to determine when existing effluent limitations (e.g., TBELs) and existing effluent quality are not sufficient to comply with water quality standards and to, where necessary, develop WQBELs.

On a separate note, the Department would like to point out that Drinking Water MCL's and Surface Water Quality Criteria are two very distinct water standards that are applicable to distinctly different types of water. It is important to note that Drinking Water MCL's are designed to protect human health; not necessarily aquatic organisms present in the receiving waters. While the MCL's define pollutant levels that are generally innocuous to humans, some of MCL's are toxic to aquatic organisms. Such is the case for the chlorination byproduct chemicals WHEMCO points out as being compliant with drinking water standards.

No changes were made to the Second Draft Permit due to this comment.

WHEMCO Comment 2: WHEMCO additionally respectfully request that previous permit limits be used for stormwater only outfalls, pursuant to EPA's anti-backsliding regulations and not Appendix U Fabricated Metal products of the PAG-03 General Permit. Appendix U of the General Permit parameters misrepresent the care taken at the facility preventing discharge of chemical pollutants into the stormwater system and the future use of the facility. All industrial materials and activities are indoors at WHEMCO. Stormwater-only Outfalls 001, 003, 004, 005, 008 and 014 would qualify for "No exposure Certification" should WHEMCO meet the criteria to file a PAG-03 General Stormwater Permit.

The Department's response to WHEMCO comment two:

Section III.C of the Pennsylvania Department of Environmental (DEP) Standard Operating Procedure (SOP) for Clean Water Program – Establishing Effluent Limitations for Individual Industrial Permits [SOP No. BCW-PMT-032], states that "The applicable appendix of the PAG-03 General Permit should be considered the minimum standards for limits, benchmarks and monitoring requirements for individual industrial stormwater permits. The application manager may include other limits, benchmarks and monitoring requirements as justified in the fact sheet".

In the permit effective on September 1, 2019, it was determined that the applicable Appendix based on the SIC code, was Appendix J, because the SIC Code 3547 (Rolling mill machinery) did not fall under any sector-specific appendix.

The PAG-03 NPDES General Stormwater Permit was updated in 2022, incorporating the SIC Code 3547 to the Appendix U. Therefore, Outfalls 001, 003, 004, 005, 008 and 014 will be subject to PAG-03 General Stormwater Permit conditions as a minimum requirement because the outfalls discharge stormwater associated with industrial activity. The SIC code for the site is 3547 (Rolling mill machinery) and the corresponding appendix of the PAG-03 that would apply to the facility is Appendix U (Industrial Machinery and equipment).

To qualify as a No Exposure Outfall, the discharge quality must meet the No Exposure criteria. Furthermore, all industrial materials and activities should be protected by storm-resistant shelter or cover to prevent exposure to rain, snow, snowmelt, and/or runoff.

In general, DEP considers the following benchmark values to be indicative of No Exposure conditions.

- Oil and Grease (mg/L): ≤ 5.0
- BOD_5 (mg/L): ≤ 10
- COD (mg/L): ≤ 30
- TSS (mg/L) ≤ 30
- Total Nitrogen (mg/L): ≤ 2.0
- Total Phosphorus (mg/L): ≤ 1.0
- pH (S.U.): 6.0 to 9.0

Internal Review and Recommendations

- Total Iron (mg/L): ≤ 7.0

Based on the sample data provided with the application, Outfalls 001, 003, 004 and 014 do not meet the criteria to be identified as No Exposure. Additionally, Outfalls 005 and 008 are also ineligible for No Exposure due to the presence of uncovered dumpsters and industrial activities conducted within the drainage area.

No changes were made to the Second Draft Permit due to this comment.

WHEMCO Comment 3: To better understand discharge limits in Part A under the table for Outfall 006, please clarify if the concentrations for Average Monthly, Daily Maximum, and Instant Maximum are in mg/L as per the heading at the top of the column or concentration values listed next to the parameters/chemical name in the tables far left column.

The Department's response to WHEMCO comment three:

Concentrations are typically reported in milligrams per liter (mg/L), unless a different unit is specified in the parameter column. The units for Total Copper, Total Zinc, Chloroform, and Dichlorobromethane will be converted from micrograms per liter (µg/L) to milligrams per liter (mg/L) for consistency and clarity. Consequently, the Third Draft Permit will include these updates.

Comment 4: WHEMCO kindly requests that the WQBEL's for the above listed constituents be reevaluated using the TMS model's default "low flow yield" (LFY) of 0.1 (cfs/mi^2) and the Stream Stats supplied drainage area of 9.86 and 10.0 (mi2) in order to calculate a Q7-10, instead of using the USGS Stream Stats provided Q7-10 value of 0.132 cfs. Proposed WQBEL's for Outfall 006 as provided by the TMS model using the models default LFY are presented in Attachment A. The basis of this request stems from multiple identified historical factors altering Street Runs design flow including the urbanization of residential and commercial development such as bridges, culverts, uncontrolled runoff, erosion of the stream banks, Alcosan sewage discharges, acid mine drainage and other upstream encroachments (UACE, Pittsburgh District, 2003)(PADEP, eMapPA). These factors allow for additional error in the flow regression equations used by the USGS Stream Stats program in determining the Q 7-10, which according to the USGS document published in 2006 titled "Low-Flow, Base-Flow, and Mean-Flow Regression Equations for Pennsylvania Streams" standard errors of prediction of the Q 7-10 range from 33 to 66 percent (Stuckey, M.H., 2006). The Stream Stats Low-Flow statistics provided by the department in the First Draft Permit Fact Sheet shows an Average Standard Error of Prediction of 66% and a Standard Error of 66%. Additionally, the USGS document discusses that regression equations used to calculate the Q 7-10 in the TMS are not valid in watersheds with upstream regulation, diversions, or mining activities (Stuckey, M.H., 2006). Streets Run is not currently equipped with a stream gauge to accurately represent design stream flow, therefore data from nearby streams within the Ohio River basin are used to calculate regression equations.

The Department's response to WHEMCO comment four:

The StreamStats calculated $Q_{7\text{-}10}$ flow (0.132 cfs) was adjusted to account for the standard errors of prediction from the low-flow regression equation. The calculated $Q_{7\text{-}10}$ flow for Outfall 006 was adjusted by the associated 66 percent error up to 0.219 cfs. This reevaluation confirms that new WQBELs are needed. Table 1 shows the updated Water Quality Based Effluent Limitation (WQBELs) at Outfall 006. The calculated WQBELs, and the WQBEL/monitoring recommendations are displayed in the Toxics Management Spread Sheet in Attachment B. Consequently, the Third Draft Permit will include these updates.

Table 1. Water Quality Based Effluent Limitation (WQBELs) at Outfall 006

Parameter	Mass Limits		Concentration Limits			Discharge Concentrations (µg/L)	Target QLs (µg/L)
	Average Monthly (lb/day)	Maximum Daily (lb/day)	Average Monthly (µg/L)	Maximum Daily (µg/L)	IMAX (µg/L)		
Total Copper	0.01	0.016	31.2	48.6	-	44.0	4.0
Total Zinc	0.089	0.14	275	428	-	190.0	5.0

Internal Review and Recommendations

Chloroform	Report	Report	Report	Report	-	12.0	0.5
Dichlorobromethane	Report	Report	Report	Report	-	8.1	0.5

A conference call was held to address questions regarding the permit conditions. During the call, the DEP presented the updated effluent limitations based on the revised Q_{7-10} flow. WHEMCO Steel Castings confirmed that the facility can meet the new effluent limitations and requested that the schedule of compliance be removed from the permit. As a result, the third Draft will reflect these changes.

Department Initiated Changes:

Considering that the Q_{7-10} flow for Outfall 006 was adjusted by the associated 66 percent error up to 0.219 cfs, the discharge from Outfall 006 was analyzed to determine if WQBELs are required for TRC. Based on this water quality analysis, TRC WQBELs are not required for Outfall 006. However, given that TRC is present in the discharge indicating the chlorine is added to the wastewater somewhere in the process, possibly unintentionally, the Department will impose the Technology limitations from 25 Pa. Code § 92a.48(b). A monthly average TRC limit of 0.5 mg/L and an instantaneous maximum TRC limit of 1.6 mg/L will be imposed at Outfall 006. At this time WHEMCO Steel Castings may not be able to achieve the new limits upon permit issuance, the Department is granting a one-year compliance schedule for WHEMCO to come into compliance with the new limits. During the interim period, a monitor and report requirement will be imposed for Total Residual Chloride and the final limits will become effective one year after permit issuance date. The updated TRC limits will be reflected in the Third Draft Permit.

TRC EVALUATION - Outfall 006

0.219	= Q stream (cfs)	0.5	= CV Daily
0.039	= 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 = 1.177	1.3.2.iii	WLA cfc = 1.140
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 0.439	5.1d	LTA_cfc = 0.663

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(-k*AFC_tc)) + [(AFC_Yc*Qs*.019/Qd*e(-k*AFC_tc))... ...+ Xd + (AFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)**
LTAMULT afc	EXP((0.5*LN(cvh^2+1))-2.326*LN(cvh^2+1)^0.5)
LTA_afc	wla_afc*LTAMULT_afc
WLA_cfc	**(.011/e(-k*CFC_tc) + [(CFC_Yc*Qs*.011/Qd*e(-k*CFC_tc))... ...+ Xd + (CFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)**
LTAMULT_cfc	EXP((0.5*LN(cvd^2/no_samples+1))-2.326*LN(cvd^2/no_samples+1)^0.5)
LTA_cfc	wla_cfc*LTAMULT_cfc
AML MULT	EXP(2.326*LN((cvd^2/no_samples+1)^0.5)-0.5*LN(cvd^2/no_samples+1))
AVG MON LIMIT	MIN(BAT_BPJ,MIN(LTA_afc,LTA_cfc)*AML_MULT)
INST MAX LIMIT	**1.5*((av_mon_limit/AML_MULT)/LTAMULT_afc)**

(0.011/EXP(-K*CFC_tc/1440))+(((CFC_Yc*Qs*0.011)/(1.547*Qd).... ....*EXP(-K*CFC_tc/1440)))+Xd+(CFC_Yc*Qs*Xs/1.547*Qd))*(1-FOS/100)

ATTACHMENT A
Comments on Second Draft Renewal of NPDES Permit Number: PA0218081

January 10, 2025

Submitted via email to: anrohrer@pa.gov

Angela Rohrer
Environmental Engineering Specialist
Pennsylvania Department of Environmental Protection
Southwest Regional Office, Clean Water Program
400 Waterfront Drive
Pittsburgh, PA 15222

RE: Second NPDES Permit Comment Response
NPDES Permit Renewal Application No. PA0218081
Authorization ID No. 1475907
WHEMCO Steel Castings Inc.
601 W 7th Avenue Homestead, PA 15120-1064
West Homestead Borough, Allegheny County

Dear Ms. Angela:

On behalf of WHEMCO Steel Castings Inc. – Homestead Facility (WHEMCO), this letter serves as the response to the November 27, 2024, NPDES Second Draft Permit comments email that the PADEP sent to WHEMCO.

WHEMCO can show that Outfall 006's total residual chlorine, total copper, total zinc, dichlorobromomethane, and chloroform are all from the Pittsburgh Water and Sewer Authority (PWSA) and are within PWSA's allowable Maximum Concentration Limits (MCLs). WHEMCO feels that these MCLs should be used as average daily concentrations limits in WHEMCO's renewed NPDES Permit and not the Water Quality Based Effluent Limits (WQBELs) listed in the draft permit, which are orders of magnitude lower. WHEMCO request that the PA DEP review the second draft NPDES Permit requirements under PART C, II. Scheduled of Compliance and Outfall 006's WQBELs driving this requirement that would in fact require WHEMCO to treat waters coming from PWSA. Waters intended for human consumption and residential discharge.

Synergy Rolls cast at United Rolls Inc. and Steel Rolls cast at WHEMCO Steel Castings Inc. {see attached Safety Data Sheets (SDSs)} and PWSA's water contribute to the quench discharge waters of Outfalls 106 and 006. Copper is listed in the SDSs at extremely low levels and zinc is not listed at all. Other metals such as nickel and chromium have a factor of 10 to 100 times greater percentage chemical makeup of the roll. Therefore, one would expect to see much greater concentrations of nickel and chromium in the discharge waters at Outfall 006. Much greater than copper or zinc. This in fact is not the case. Therefore,

WHEMCO Inc.

5 Hot Metal Street
Suite 300
Pittsburgh, PA 15203-2351

Phone: 412-390-2700
Fax: 412-390-2737
E-mail: whsales@whemco.com
Website: www.whemco.com

ISO 9001 Certified

the contributing factor for elevated levels of copper and zinc are coming from PWSA's water not the Synergy or steel rolls.

Total residual chlorine, dichlorobromomethane and chloroform are all constituents remaining following the water treatment by the PWSA and are within the PWSA's allowable MCL. These chemicals are not present in any other materials introduced in the quench other than from the PWSA water supply.

WHEMCO additionally respectfully request that previous permit limits be used for stormwater only outfalls, pursuant to EPA's anti-backsliding regulations and not Appendix U Fabricated Metal Products of the PAG-03 General Permit. Appendix U of the PAG-03 General Permit parameters misrepresent the care taken at the facility preventing discharge of chemical pollutants into the stormwater system and the future use of the facility. All industrial materials and activities are indoors at WHEMCO. Stormwater-only Outfalls 001, 003, 004, 005, 008, and 014 would qualify for "No Exposure Certification" should WHEMCO meet the criteria to file for a PAG-03 General Stormwater Permit.

Finally, to better understand discharge limits in Part A under the table for Outfall 006, please clarify if the concentrations for Average Monthly, Daily Maximum, and Instant Maximum are in mg/L as per the heading at the top of the column or concentration values listed next to the parameter/chemical name in the tables far left column.

Thanks for consideration regarding these issues, I look forward to your response,

Christopher J. Colcelli
Manager, Environmental and Safety

Enclosures

cc: R. Feielin
H. Zeigler
M. Fifth
T. Christy
M. Yingling

January 13, 2025

Submitted via email to: anrohrer@pa.gov

Angela Rohrer
Environmental Engineering Specialist
Pennsylvania Department of Environmental Protection
Southwest Regional Office, Clean Water Program
400 Waterfront Drive
Pittsburgh, PA 15222

RE:

Second Draft
NPDES Permit Renewal Application No. PA0218081
Authorization ID No. 1475907
WHEMCO Steel Castings Inc.
601 W 7th Avenue Homestead, PA 15120-1064
West Homestead Borough, Allegheny County

Dear Ms. Rohrer:

On behalf of WHEMCO Steel Castings Inc., Homestead Facility (WHEMCO), this letter serves as a follow-up to the water quality based effluent limitations (WQBEL's) imposed in the Second Draft NPDES Permit that was e-mailed to WHEMCO on November 27, 2024. The Pennsylvania Department of Environmental Protection (PADEP) had established WQBEL's in the second draft permit for four (4) constituents, total copper, total zinc, chloroform, and dichlorobromethane using the PADEPs Toxic Management Spreadsheet (TMS).

WHEMCO kindly requests that the WQBEL's for the above listed constituents be reevaluated using the TMS model's default "low flow yield" (LFY) of 0.1 (cfs/mi^2) and the Stream Stats supplied drainage area of 9.86 and 10.0 (mi2) in order to calculate a $Q_{7\text{-}10}$, instead of using the USGS Stream Stats provided $Q_{7\text{-}10}$ value of 0.132 cfs. Proposed WQBEL's for Outfall 006 as provided by the TMS model using the models default LFY are presented in Attachment A.

The basis of this request stems from multiple identified historical factors altering Street Runs design flow including the urbanization of residential and commercial development such as bridges, culverts, uncontrolled runoff, erosion of the stream banks, Alcosan sewage discharges, acid mine drainage and other upstream encroachments (UACE, Pittsburgh District, 2003)(PADEP, eMapPA). These factors allow for additional error in the flow regression equations used by the USGS Stream Stats program in determining the $Q_{7\text{-}10}$, which according to the USGS document published in 2006 titled "Low-Flow, Base-Flow, and Mean-Flow Regression Equations for Pennsylvania Streams" standard errors of prediction of the $Q_{7\text{-}10}$ range from 33 to 66 percent (Stuckey, M.H., 2006). The Stream Stats Low-Flow statistics provided by the department in the

SE Technologies, LLC | 500 Mosites Way, Suite 100 | Pittsburgh, PA 15205
(O) 412.221.1100 | (F) 412.257.6103
www.se-env.com

First Draft Permit Fact Sheet shows an Average Standard Error of Prediction of 66% and a Standard Error of 66%. Additionally, the USGS document discusses that regression equations used to calculate the $Q_{7\text{-}10}$ in the TMS are not valid in watersheds with upstream regulation, diversions, or mining activities (Stuckey, M.H., 2006). Streets Run is not currently equipped with a stream gauge to accurately represent design stream flow, therefore data from nearby streams within the Ohio River basin are used to calculate regression equations.

SUMMARY

Consideration of the above factors altering the design stream flow of Streets Run and the 66% margin of error provided by the Stream Stats Low-Flow Statics report provide evidence that the $Q_{7\text{-}10}$ is not accurately evaluated in the Stream Stats program. The high percent error indicates that the default LFY provided by the TMS should be used in place of the $Q_{7\text{-}10}$ stream flow values used in the TMS to update the WQBELs included in the Second Draft Permit.

We appreciate your time and input as WHEMCO progresses through the NPDES permit renewal process. If you should have any questions about this response, I can be reached at 412-221-1100 extension 2211 or tchristy@se-env.com.

Sincerely,

SE TECHNOLOGIES, LLC

Tyler Christy
Scientist II

Meghan Yingling
President

Attachments:
A – WHEMCO Homestead Facility Proposed WQBELs at Outfall-006

References:

Stuckey, M.H., 2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geo-logical Survey Scientific Investigations Report 2006-5130, 84 p.

US Army Corps of Engineers (UACE), Pittsburgh District, 2003, Streets Run Watershed, Allegheny County, PA: SECTION 905(b) (WRDA 86) Analysis Reconnaissance Report, 30 p.

PADEP, eMapPA: https://gis.dep.pa.gov/emappa/

CC: Chris Coholich, WHEMCO Steel Castings Inc.

ATTACHMENT B.
Toxics Management Spreadsheet Results for Outfall 006

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2023

Discharge Information

Instructions | Discharge | Stream

Facility: **Whemco Steel Castings, Inc** NPDES Permit No.: **PA0218081** Outfall No.: **006**

Evaluation Type: **Major Sewage / Industrial Waste** Wastewater Description: **Non-contact cooling water and contact coo**

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
0.039	89	8.33						

					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		210									
	Chloride (PWS)	mg/L		53									
	Bromide	mg/L		0.5									
	Sulfate (PWS)	mg/L		48									
	Fluoride (PWS)	mg/L		0.6									
Group 2	Total Aluminum	µg/L	<	0.12									
	Total Antimony	µg/L	<	2									
	Total Arsenic	µg/L	<	0.68									
	Total Barium	µg/L		24									
	Total Beryllium	µg/L	<	0.12									
	Total Boron	µg/L		36									
	Total Cadmium	µg/L	<	0.15									
	Total Chromium (III)	µg/L		0.69									
	Hexavalent Chromium	µg/L		0.35									
	Total Cobalt	µg/L		0.45									
	Total Copper	µg/L		44									
	Free Cyanide	µg/L											
	Total Cyanide	µg/L		8.9									
	Dissolved Iron	µg/L		51									
	Total Iron	µg/L		310									
	Total Lead	µg/L		0.19									
	Total Manganese	µg/L		25									
	Total Mercury	µg/L	<	0.13									
	Total Nickel	µg/L		8.8									
	Total Phenols (Phenolics) (PWS)	µg/L		16									
	Total Selenium	µg/L	<	0.28									
	Total Silver	µg/L	<	0.1									
	Total Thallium	µg/L	<	0.13									
	Total Zinc	µg/L		190									
	Total Molybdenum	µg/L		500									
	Acrolein	µg/L	<	1.7									
	Acrylamide	µg/L	<										
	Acrylonitrile	µg/L	<	2.4									
	Benzene	µg/L	<	0.6									
	Bromoform	µg/L	<	0.98									

Group 3	Carbon Tetrachloride	µg/L	<	0.88										
	Chlorobenzene	µg/L	<	0.5										
	Chlorodibromomethane	µg/L	<	1.7										
	Chloroethane	µg/L	<	0.9										
	2-Chloroethyl Vinyl Ether	µg/L	<	1.7										
	Chloroform	µg/L		12										
	Dichlorobromomethane	µg/L		8										
	1,1-Dichloroethane	µg/L	<	0.63										
	1,2-Dichloroethane	µg/L	<	0.57										
	1,1-Dichloroethylene	µg/L	<	0.55										
	1,2-Dichloropropane	µg/L	<	0.66										
	1,3-Dichloropropylene	µg/L	<	0.58										
	1,4-Dioxane	µg/L	<	43										
	Ethylbenzene	µg/L	<	0.51										
	Methyl Bromide	µg/L	<	0.89										
	Methyl Chloride	µg/L	<	0.9										
	Methylene Chloride	µg/L	<	0.89										
	1,1,2,2-Tetrachloroethane	µg/L	<	0.6										
	Tetrachloroethylene	µg/L	<	0.47										
	Toluene	µg/L	<	0.46										
	1,2-trans-Dichloroethylene	µg/L	<	0.67										
	1,1,1-Trichloroethane	µg/L	<	0.6										
	1,1,2-Trichloroethane	µg/L	<	0.45										
	Trichloroethylene	µg/L	<	0.69										
	Vinyl Chloride	µg/L	<	0.41										
Group 4	2-Chlorophenol	µg/L	<	0.15										
	2,4-Dichlorophenol	µg/L	<	0.06										
	2,4-Dimethylphenol	µg/L	<	0.19										
	4,6-Dinitro-o-Cresol	µg/L	<	1.4										
	2,4-Dinitrophenol	µg/L	<	1.7										
	2-Nitrophenol	µg/L	<	0.22										
	4-Nitrophenol	µg/L	<	1.1										
	p-Chloro-m-Cresol	µg/L	<	1										
	Pentachlorophenol	µg/L	<	0.96										
	Phenol	µg/L	<	0.55										
	2,4,6-Trichlorophenol	µg/L	<	0.25										
Group 5	Acenaphthene	µg/L	<	0.07										
	Acenaphthylene	µg/L	<	0.07										
	Anthracene	µg/L	<	0.06										
	Benzidine	µg/L	<	10										
	Benzo(a)Anthracene	µg/L	<	0.09										
	Benzo(a)Pyrene	µg/L	<	0.06										
	3,4-Benzofluoranthene	µg/L	<	0.11										
	Benzo(ghi)Perylene	µg/L	<	0.08										
	Benzo(k)Fluoranthene	µg/L	<	0.1										
	Bis(2-Chloroethoxy)Methane	µg/L	<	0.17										
	Bis(2-Chloroethyl)Ether	µg/L	<	0.05										
	Bis(2-Chloroisopropyl)Ether	µg/L	<	0.07										
	Bis(2-Ethylhexyl)Phthalate	µg/L	<	0.6										
	4-Bromophenyl Phenyl Ether	µg/L	<	0.36										
	Butyl Benzyl Phthalate	µg/L	<	0.53										
	2-Chloronaphthalene	µg/L	<	0.07										
	4-Chlorophenyl Phenyl Ether	µg/L	<	0.25										
	Chrysene	µg/L	<	0.09										
	Dibenzo(a,h)Anthrancene	µg/L	<	0.08										
	1,2-Dichlorobenzene	µg/L	<	0.11										
	1,3-Dichlorobenzene	µg/L	<	0.11										
	1,4-Dichlorobenzene	µg/L	<	0.07										
	3,3-Dichlorobenzidine	µg/L	<	0.66										
	Diethyl Phthalate	µg/L	<	0.64										
	Dimethyl Phthalate	µg/L	<	0.23										
	Di-n-Butyl Phthalate	µg/L		2.6										
	2,4-Dinitrotoluene	µg/L	<	0.4										

	2,6-Dinitrotoluene	µg/L	<	0.2									
	Di-n-Octyl Phthalate	µg/L	<	0.78									
	1,2-Diphenylhydrazine	µg/L	<	0.22									
	Fluoranthene	µg/L		0.07									
	Fluorene	µg/L	<	0.08									
	Hexachlorobenzene	µg/L	<	0.06									
	Hexachlorobutadiene	µg/L	<	0.08									
	Hexachlorocyclopentadiene	µg/L	<	0.56									
	Hexachloroethane	µg/L	<	0.15									
	Indeno(1,2,3-cd)Pyrene	µg/L	<	0.1									
	Isophorone	µg/L	<	0.21									
	Naphthalene	µg/L	<	0.07									
	Nitrobenzene	µg/L	<	0.57									
	n-Nitrosodimethylamine	µg/L	<	0.08									
	n-Nitrosodi-n-Propylamine	µg/L	<	0.08									
	n-Nitrosodiphenylamine	µg/L	<	0.14									
	Phenanthrene	µg/L	<	0.06									
	Pyrene	µg/L	<	0.06									
	1,2,4-Trichlorobenzene	µg/L	<	0.15									
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	µg/L	<										
	PCB-1221	µg/L	<										
	PCB-1232	µg/L	<										
	PCB-1242	µg/L	<										
	PCB-1248	µg/L	<										
	PCB-1254	µg/L	<										
	PCB-1260	µg/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											

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2023

Stream / Surface Water Information

Whemco Steel Castings, Inc, NPDES Permit No. PA0218081, Outfall 006

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **Streets Run**

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	037189	0.42	737	10	0.014		Yes
End of Reach 1	037189	0.1	713	10	0.014		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	0.42	0.022	0									69.49	7		
End of Reach 1	0.1	0.021	0												

***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	0.42														
End of Reach 1	0.1														

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2023

Model Results

Whemco Steel Castings, Inc, NPDES Permit No. PA0218081, Outfall 006

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

☐ ***Hydrodynamics***

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 2.295 PMF: 1 Analysis Hardness (mg/l): 73.704 Analysis pH: 7.10

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	3,472	
Total Antimony	0	0		0	1,100	1,100	5,093	
Total Arsenic	0	0		0	340	340	1,574	Chem Translator of 1 applied
Total Barium	0	0		0	21,000	21,000	97,227	
Total Boron	0	0		0	8,100	8,100	37,502	
Total Cadmium	0	0		0	1.497	1.56	7.24	Chem Translator of 0.957 applied
Total Chromium (III)	0	0		0	443.782	1,404	6,502	Chem Translator of 0.316 applied
Hexavalent Chromium	0	0		0	16	16.3	75.4	Chem Translator of 0.982 applied
Total Cobalt	0	0		0	95	95.0	440	
Total Copper	0	0		0	10.081	10.5	48.6	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	46.256	55.4	256	Chem Translator of 0.835 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	1.400	1.65	7.63	Chem Translator of 0.85 applied
Total Nickel	0	0		0	361.711	362	1,678	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	1.903	2.24	10.4	Chem Translator of 0.85 applied
Total Thallium	0	0		0	65	65.0	301	
Total Zinc	0	0		0	90.486	92.5	428	Chem Translator of 0.978 applied
Acrolein	0	0		0	3	3.0	13.9	

Acrylonitrile	0	0		0	650	650	3,009	
Benzene	0	0		0	640	640	2,963	
Bromoform	0	0		0	1,800	1,800	8,334	
Carbon Tetrachloride	0	0		0	2,800	2,800	12,964	
Chlorobenzene	0	0		0	1,200	1,200	5,556	
Chlorodibromomethane	0	0		0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0		0	18,000	18,000	83,337	
Chloroform	0	0		0	1,900	1,900	8,797	
Dichlorobromomethane	0	0		0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0		0	15,000	15,000	69,448	
1,1-Dichloroethylene	0	0		0	7,500	7,500	34,724	
1,2-Dichloropropane	0	0		0	11,000	11,000	50,928	
1,3-Dichloropropylene	0	0		0	310	310	1,435	
Ethylbenzene	0	0		0	2,900	2,900	13,427	
Methyl Bromide	0	0		0	550	550	2,546	
Methyl Chloride	0	0		0	28,000	28,000	129,636	
Methylene Chloride	0	0		0	12,000	12,000	55,558	
1,1,2,2-Tetrachloroethane	0	0		0	1,000	1,000	4,630	
Tetrachloroethylene	0	0		0	700	700	3,241	
Toluene	0	0		0	1,700	1,700	7,871	
1,2-trans-Dichloroethylene	0	0		0	6,800	6,800	31,483	
1,1,1-Trichloroethane	0	0		0	3,000	3,000	13,890	
1,1,2-Trichloroethane	0	0		0	3,400	3,400	15,742	
Trichloroethylene	0	0		0	2,300	2,300	10,649	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
2-Chlorophenol	0	0		0	560	560	2,593	
2,4-Dichlorophenol	0	0		0	1,700	1,700	7,871	
2,4-Dimethylphenol	0	0		0	660	660	3,056	
4,6-Dinitro-o-Cresol	0	0		0	80	80.0	370	
2,4-Dinitrophenol	0	0		0	660	660	3,056	
2-Nitrophenol	0	0		0	8,000	8,000	37,039	
4-Nitrophenol	0	0		0	2,300	2,300	10,649	
p-Chloro-m-Cresol	0	0		0	160	160	741	
Pentachlorophenol	0	0		0	9.647	9.65	44.7	
Phenol	0	0		0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0		0	460	460	2,130	
Acenaphthene	0	0		0	83	83.0	384	
Anthracene	0	0		0	N/A	N/A	N/A	
Benzidine	0	0		0	300	300	1,389	
Benzo(a)Anthracene	0	0		0	0.5	0.5	2.31	
Benzo(a)Pyrene	0	0		0	N/A	N/A	N/A	
3,4-Benzofluoranthene	0	0		0	N/A	N/A	N/A	
Benzo(k)Fluoranthene	0	0		0	N/A	N/A	N/A	
Bis(2-Chloroethyl)Ether	0	0		0	30,000	30,000	138,896	
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0		0	4,500	4,500	20,834	
4-Bromophenyl Phenyl Ether	0	0		0	270	270	1,250	
Butyl Benzyl Phthalate	0	0		0	140	140	648	

2-Chloronaphthalene	0	0		0	N/A	N/A	N/A	
Chrysene	0	0		0	N/A	N/A	N/A	
Dibenzo(a,h)Anthrancene	0	0		0	N/A	N/A	N/A	
1,2-Dichlorobenzene	0	0		0	820	820	3,796	
1,3-Dichlorobenzene	0	0		0	350	350	1,620	
1,4-Dichlorobenzene	0	0		0	730	730	3,380	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	4,000	4,000	18,519	
Dimethyl Phthalate	0	0		0	2,500	2,500	11,575	
Di-n-Butyl Phthalate	0	0		0	110	110	509	
2,4-Dinitrotoluene	0	0		0	1,600	1,600	7,408	
2,6-Dinitrotoluene	0	0		0	990	990	4,584	
1,2-Diphenylhydrazine	0	0		0	15	15.0	69.4	
Fluoranthene	0	0		0	200	200	926	
Fluorene	0	0		0	N/A	N/A	N/A	
Hexachlorobenzene	0	0		0	N/A	N/A	N/A	
Hexachlorobutadiene	0	0		0	10	10.0	46.3	
Hexachlorocyclopentadiene	0	0		0	5	5.0	23.1	
Hexachloroethane	0	0		0	60	60.0	278	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Isophorone	0	0		0	10,000	10,000	46,299	
Naphthalene	0	0		0	140	140	648	
Nitrobenzene	0	0		0	4,000	4,000	18,519	
n-Nitrosodimethylamine	0	0		0	17,000	17,000	78,708	
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodiphenylamine	0	0		0	300	300	1,389	
Phenanthrene	0	0		0	5	5.0	23.1	
Pyrene	0	0		0	N/A	N/A	N/A	
1,2,4-Trichlorobenzene	0	0		0	130	130	602	

☑ ***CFC*** CCT (min): 2.295 PMF: 1 Analysis Hardness (mg/l): 73.704 Analysis pH: 7.10

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	1,019	
Total Arsenic	0	0		0	150	150	694	Chem Translator of 1 applied
Total Barium	0	0		0	4,100	4,100	18,982	
Total Boron	0	0		0	1,600	1,600	7,408	
Total Cadmium	0	0		0	0.199	0.22	1.	Chem Translator of 0.922 applied
Total Chromium (III)	0	0		0	57.727	67.1	311	Chem Translator of 0.86 applied
Hexavalent Chromium	0	0		0	10	10.4	48.1	Chem Translator of 0.962 applied
Total Cobalt	0	0		0	19	19.0	88.0	

Total Copper	0	0		0	6.900	7.19	33.3	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	6,945	WQC = 30 day average; PMF = 1
Total Lead	0	0		0	1.803	2.16	9.99	Chem Translator of 0.835 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	0.770	0.91	4.19	Chem Translator of 0.85 applied
Total Nickel	0	0		0	40.175	40.3	187	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	23.1	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	60.2	
Total Zinc	0	0		0	91.226	92.5	428	Chem Translator of 0.986 applied
Acrolein	0	0		0	3	3.0	13.9	
Acrylonitrile	0	0		0	130	130	602	
Benzene	0	0		0	130	130	602	
Bromoform	0	0		0	370	370	1,713	
Carbon Tetrachloride	0	0		0	560	560	2,593	
Chlorobenzene	0	0		0	240	240	1,111	
Chlorodibromomethane	0	0		0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0		0	3,500	3,500	16,204	
Chloroform	0	0		0	390	390	1,806	
Dichlorobromomethane	0	0		0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0		0	3,100	3,100	14,353	
1,1-Dichloroethylene	0	0		0	1,500	1,500	6,945	
1,2-Dichloropropane	0	0		0	2,200	2,200	10,186	
1,3-Dichloropropylene	0	0		0	61	61.0	282	
Ethylbenzene	0	0		0	580	580	2,685	
Methyl Bromide	0	0		0	110	110	509	
Methyl Chloride	0	0		0	5,500	5,500	25,464	
Methylene Chloride	0	0		0	2,400	2,400	11,112	
1,1,2,2-Tetrachloroethane	0	0		0	210	210	972	
Tetrachloroethylene	0	0		0	140	140	648	
Toluene	0	0		0	330	330	1,528	
1,2-trans-Dichloroethylene	0	0		0	1,400	1,400	6,482	
1,1,1-Trichloroethane	0	0		0	610	610	2,824	
1,1,2-Trichloroethane	0	0		0	680	680	3,148	
Trichloroethylene	0	0		0	450	450	2,083	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
2-Chlorophenol	0	0		0	110	110	509	
2,4-Dichlorophenol	0	0		0	340	340	1,574	
2,4-Dimethylphenol	0	0		0	130	130	602	
4,6-Dinitro-o-Cresol	0	0		0	16	16.0	74.1	
2,4-Dinitrophenol	0	0		0	130	130	602	
2-Nitrophenol	0	0		0	1,600	1,600	7,408	
4-Nitrophenol	0	0		0	470	470	2,176	

p-Chloro-m-Cresol	0	0		0	500	500	2,315	
Pentachlorophenol	0	0		0	7.401	7.4	34.3	
Phenol	0	0		0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0		0	91	91.0	421	
Acenaphthene	0	0		0	17	17.0	78.7	
Anthracene	0	0		0	N/A	N/A	N/A	
Benzidine	0	0		0	59	59.0	273	
Benzo(a)Anthracene	0	0		0	0.1	0.1	0.46	
Benzo(a)Pyrene	0	0		0	N/A	N/A	N/A	
3,4-Benzofluoranthene	0	0		0	N/A	N/A	N/A	
Benzo(k)Fluoranthene	0	0		0	N/A	N/A	N/A	
Bis(2-Chloroethyl)Ether	0	0		0	6,000	6,000	27,779	
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0		0	910	910	4,213	
4-Bromophenyl Phenyl Ether	0	0		0	54	54.0	250	
Butyl Benzyl Phthalate	0	0		0	35	35.0	162	
2-Chloronaphthalene	0	0		0	N/A	N/A	N/A	
Chrysene	0	0		0	N/A	N/A	N/A	
Dibenzo(a,h)Anthrancene	0	0		0	N/A	N/A	N/A	
1,2-Dichlorobenzene	0	0		0	160	160	741	
1,3-Dichlorobenzene	0	0		0	69	69.0	319	
1,4-Dichlorobenzene	0	0		0	150	150	694	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	800	800	3,704	
Dimethyl Phthalate	0	0		0	500	500	2,315	
Di-n-Butyl Phthalate	0	0		0	21	21.0	97.2	
2,4-Dinitrotoluene	0	0		0	320	320	1,482	
2,6-Dinitrotoluene	0	0		0	200	200	926	
1,2-Diphenylhydrazine	0	0		0	3	3.0	13.9	
Fluoranthene	0	0		0	40	40.0	185	
Fluorene	0	0		0	N/A	N/A	N/A	
Hexachlorobenzene	0	0		0	N/A	N/A	N/A	
Hexachlorobutadiene	0	0		0	2	2.0	9.26	
Hexachlorocyclopentadiene	0	0		0	1	1.0	4.63	
Hexachloroethane	0	0		0	12	12.0	55.6	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Isophorone	0	0		0	2,100	2,100	9,723	
Naphthalene	0	0		0	43	43.0	199	
Nitrobenzene	0	0		0	810	810	3,750	
n-Nitrosodimethylamine	0	0		0	3,400	3,400	15,742	
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodiphenylamine	0	0		0	59	59.0	273	
Phenanthrene	0	0		0	1	1.0	4.63	
Pyrene	0	0		0	N/A	N/A	N/A	
1,2,4-Trichlorobenzene	0	0		0	26	26.0	120	

☑ ***THH*** CCT (min): 2.295 PMF: 1 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	25.9	
Total Arsenic	0	0		0	10	10.0	46.3	
Total Barium	0	0		0	2,400	2,400	11,112	
Total Boron	0	0		0	3,100	3,100	14,353	
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	1,389	
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	4,630	
Total Mercury	0	0		0	0.050	0.05	0.23	
Total Nickel	0	0		0	610	610	2,824	
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	1.11	
Total Zinc	0	0		0	N/A	N/A	N/A	
Acrolein	0	0		0	3	3.0	13.9	
Acrylonitrile	0	0		0	N/A	N/A	N/A	
Benzene	0	0		0	N/A	N/A	N/A	
Bromoform	0	0		0	N/A	N/A	N/A	
Carbon Tetrachloride	0	0		0	N/A	N/A	N/A	
Chlorobenzene	0	0		0	100	100.0	463	
Chlorodibromomethane	0	0		0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0		0	N/A	N/A	N/A	
Chloroform	0	0		0	5.7	5.7	26.4	
Dichlorobromomethane	0	0		0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0		0	N/A	N/A	N/A	
1,1-Dichloroethylene	0	0		0	33	33.0	153	
1,2-Dichloropropane	0	0		0	N/A	N/A	N/A	
1,3-Dichloropropylene	0	0		0	N/A	N/A	N/A	
Ethylbenzene	0	0		0	68	68.0	315	

Methyl Bromide	0	0		0	100	100.0	463	
Methyl Chloride	0	0		0	N/A	N/A	N/A	
Methylene Chloride	0	0		0	N/A	N/A	N/A	
1,1,2,2-Tetrachloroethane	0	0		0	N/A	N/A	N/A	
Tetrachloroethylene	0	0		0	N/A	N/A	N/A	
Toluene	0	0		0	57	57.0	264	
1,2-trans-Dichloroethylene	0	0		0	100	100.0	463	
1,1,1-Trichloroethane	0	0		0	10,000	10,000	46,299	
1,1,2-Trichloroethane	0	0		0	N/A	N/A	N/A	
Trichloroethylene	0	0		0	N/A	N/A	N/A	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
2-Chlorophenol	0	0		0	30	30.0	139	
2,4-Dichlorophenol	0	0		0	10	10.0	46.3	
2,4-Dimethylphenol	0	0		0	100	100.0	463	
4,6-Dinitro-o-Cresol	0	0		0	2	2.0	9.26	
2,4-Dinitrophenol	0	0		0	10	10.0	46.3	
2-Nitrophenol	0	0		0	N/A	N/A	N/A	
4-Nitrophenol	0	0		0	N/A	N/A	N/A	
p-Chloro-m-Cresol	0	0		0	N/A	N/A	N/A	
Pentachlorophenol	0	0		0	N/A	N/A	N/A	
Phenol	0	0		0	4,000	4,000	18,519	
2,4,6-Trichlorophenol	0	0		0	N/A	N/A	N/A	
Acenaphthene	0	0		0	70	70.0	324	
Anthracene	0	0		0	300	300	1,389	
Benzidine	0	0		0	N/A	N/A	N/A	
Benzo(a)Anthracene	0	0		0	N/A	N/A	N/A	
Benzo(a)Pyrene	0	0		0	N/A	N/A	N/A	
3,4-Benzofluoranthene	0	0		0	N/A	N/A	N/A	
Benzo(k)Fluoranthene	0	0		0	N/A	N/A	N/A	
Bis(2-Chloroethyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Chloroisopropyl)Ether	0	0		0	200	200	926	
Bis(2-Ethylhexyl)Phthalate	0	0		0	N/A	N/A	N/A	
4-Bromophenyl Phenyl Ether	0	0		0	N/A	N/A	N/A	
Butyl Benzyl Phthalate	0	0		0	0.1	0.1	0.46	
2-Chloronaphthalene	0	0		0	800	800	3,704	
Chrysene	0	0		0	N/A	N/A	N/A	
Dibenzo(a,h)Anthrancene	0	0		0	N/A	N/A	N/A	
1,2-Dichlorobenzene	0	0		0	1,000	1,000	4,630	
1,3-Dichlorobenzene	0	0		0	7	7.0	32.4	
1,4-Dichlorobenzene	0	0		0	300	300	1,389	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	600	600	2,778	
Dimethyl Phthalate	0	0		0	2,000	2,000	9,260	
Di-n-Butyl Phthalate	0	0		0	20	20.0	92.6	
2,4-Dinitrotoluene	0	0		0	N/A	N/A	N/A	

2,6-Dinitrotoluene	0	0		0	N/A	N/A	N/A	
1,2-Diphenylhydrazine	0	0		0	N/A	N/A	N/A	
Fluoranthene	0	0		0	20	20.0	92.6	
Fluorene	0	0		0	50	50.0	231	
Hexachlorobenzene	0	0		0	N/A	N/A	N/A	
Hexachlorobutadiene	0	0		0	N/A	N/A	N/A	
Hexachlorocyclopentadiene	0	0		0	4	4.0	18.5	
Hexachloroethane	0	0		0	N/A	N/A	N/A	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Isophorone	0	0		0	34	34.0	157	
Naphthalene	0	0		0	N/A	N/A	N/A	
Nitrobenzene	0	0		0	10	10.0	46.3	
n-Nitrosodimethylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodiphenylamine	0	0		0	N/A	N/A	N/A	
Phenanthrene	0	0		0	N/A	N/A	N/A	
Pyrene	0	0		0	20	20.0	92.6	
1,2,4-Trichlorobenzene	0	0		0	0.07	0.07	0.32	

☑ ***CRL*** CCT (min): 0.949 PMF: 1 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	
Acrolein	0	0		0	N/A	N/A	N/A	
Acrylonitrile	0	0		0	0.06	0.06	2.02	
Benzene	0	0		0	0.58	0.58	19.5	
Bromoform	0	0		0	7	7.0	236	
Carbon Tetrachloride	0	0		0	0.4	0.4	13.5	
Chlorobenzene	0	0		0	N/A	N/A	N/A	
Chlorodibromomethane	0	0		0	0.8	0.8	26.9	
2-Chloroethyl Vinyl Ether	0	0		0	N/A	N/A	N/A	
Chloroform	0	0		0	N/A	N/A	N/A	
Dichlorobromomethane	0	0		0	0.95	0.95	32.0	
1,2-Dichloroethane	0	0		0	9.9	9.9	333	
1,1-Dichloroethylene	0	0		0	N/A	N/A	N/A	
1,2-Dichloropropane	0	0		0	0.9	0.9	30.3	
1,3-Dichloropropylene	0	0		0	0.27	0.27	9.09	
Ethylbenzene	0	0		0	N/A	N/A	N/A	
Methyl Bromide	0	0		0	N/A	N/A	N/A	
Methyl Chloride	0	0		0	N/A	N/A	N/A	
Methylene Chloride	0	0		0	20	20.0	673	
1,1,2,2-Tetrachloroethane	0	0		0	0.2	0.2	6.73	
Tetrachloroethylene	0	0		0	10	10.0	337	
Toluene	0	0		0	N/A	N/A	N/A	
1,2-trans-Dichloroethylene	0	0		0	N/A	N/A	N/A	
1,1,1-Trichloroethane	0	0		0	N/A	N/A	N/A	
1,1,2-Trichloroethane	0	0		0	0.55	0.55	18.5	
Trichloroethylene	0	0		0	0.6	0.6	20.2	
Vinyl Chloride	0	0		0	0.02	0.02	0.67	
2-Chlorophenol	0	0		0	N/A	N/A	N/A	
2,4-Dichlorophenol	0	0		0	N/A	N/A	N/A	
2,4-Dimethylphenol	0	0		0	N/A	N/A	N/A	
4,6-Dinitro-o-Cresol	0	0		0	N/A	N/A	N/A	
2,4-Dinitrophenol	0	0		0	N/A	N/A	N/A	
2-Nitrophenol	0	0		0	N/A	N/A	N/A	
4-Nitrophenol	0	0		0	N/A	N/A	N/A	
p-Chloro-m-Cresol	0	0		0	N/A	N/A	N/A	
Pentachlorophenol	0	0		0	0.030	0.03	1.01	
Phenol	0	0		0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0		0	1.5	1.5	50.5	
Acenaphthene	0	0		0	N/A	N/A	N/A	
Anthracene	0	0		0	N/A	N/A	N/A	
Benzidine	0	0		0	0.0001	0.0001	0.003	
Benzo(a)Anthracene	0	0		0	0.001	0.001	0.034	
Benzo(a)Pyrene	0	0		0	0.0001	0.0001	0.003	

3,4-Benzofluoranthene	0	0		0	0.001	0.001	0.034	
Benzo(k)Fluoranthene	0	0		0	0.01	0.01	0.34	
Bis(2-Chloroethyl)Ether	0	0		0	0.03	0.03	1.01	
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0		0	0.32	0.32	10.8	
4-Bromophenyl Phenyl Ether	0	0		0	N/A	N/A	N/A	
Butyl Benzyl Phthalate	0	0		0	N/A	N/A	N/A	
2-Chloronaphthalene	0	0		0	N/A	N/A	N/A	
Chrysene	0	0		0	0.12	0.12	4.04	
Dibenzo(a,h)Anthrancene	0	0		0	0.0001	0.0001	0.003	
1,2-Dichlorobenzene	0	0		0	N/A	N/A	N/A	
1,3-Dichlorobenzene	0	0		0	N/A	N/A	N/A	
1,4-Dichlorobenzene	0	0		0	N/A	N/A	N/A	
3,3-Dichlorobenzidine	0	0		0	0.05	0.05	1.68	
Diethyl Phthalate	0	0		0	N/A	N/A	N/A	
Dimethyl Phthalate	0	0		0	N/A	N/A	N/A	
Di-n-Butyl Phthalate	0	0		0	N/A	N/A	N/A	
2,4-Dinitrotoluene	0	0		0	0.05	0.05	1.68	
2,6-Dinitrotoluene	0	0		0	0.05	0.05	1.68	
1,2-Diphenylhydrazine	0	0		0	0.03	0.03	1.01	
Fluoranthene	0	0		0	N/A	N/A	N/A	
Fluorene	0	0		0	N/A	N/A	N/A	
Hexachlorobenzene	0	0		0	0.00008	0.00008	0.003	
Hexachlorobutadiene	0	0		0	0.01	0.01	0.34	
Hexachlorocyclopentadiene	0	0		0	N/A	N/A	N/A	
Hexachloroethane	0	0		0	0.1	0.1	3.37	
Indeno(1,2,3-cd)Pyrene	0	0		0	0.001	0.001	0.034	
Isophorone	0	0		0	N/A	N/A	N/A	
Naphthalene	0	0		0	N/A	N/A	N/A	
Nitrobenzene	0	0		0	N/A	N/A	N/A	
n-Nitrosodimethylamine	0	0		0	0.0007	0.0007	0.024	
n-Nitrosodi-n-Propylamine	0	0		0	0.005	0.005	0.17	
n-Nitrosodiphenylamine	0	0		0	3.3	3.3	111	
Phenanthrene	0	0		0	N/A	N/A	N/A	
Pyrene	0	0		0	N/A	N/A	N/A	
1,2,4-Trichlorobenzene	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
Total Copper	0.01	0.016	31.2	48.6	77.9	µg/L	31.2	AFC	Discharge Conc ≥ 50% WQBEL (RP)
Total Zinc	0.089	0.14	275	428	686	µg/L	275	AFC	Discharge Conc ≥ 50% WQBEL (RP)
Chloroform	Report	Report	Report	Report	Report	µg/L	26.4	THH	Discharge Conc > 25% WQBEL (no RP)
Dichlorobromomethane	Report	Report	Report	Report	Report	µg/L	32.0	CRL	Discharge Conc > 25% WQBEL (no RP)

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	N/A	N/A	Discharge Conc < TQL
Total Antimony	N/A	N/A	Discharge Conc < TQL
Total Arsenic	N/A	N/A	Discharge Conc < TQL
Total Barium	11,112	µg/L	Discharge Conc ≤ 10% WQBEL
Total Beryllium	N/A	N/A	No WQS
Total Boron	7,408	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cadmium	1.	µg/L	Discharge Conc < TQL
Total Chromium (III)	311	µg/L	Discharge Conc ≤ 10% WQBEL
Hexavalent Chromium	48.1	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cobalt	88.0	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cyanide	N/A	N/A	No WQS
Dissolved Iron	1,389	µg/L	Discharge Conc ≤ 10% WQBEL
Total Iron	6,945	µg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	9.99	µg/L	Discharge Conc ≤ 10% WQBEL
Total Manganese	4,630	µg/L	Discharge Conc ≤ 10% WQBEL
Total Mercury	0.23	µg/L	Discharge Conc < TQL
Total Nickel	187	µg/L	Discharge Conc ≤ 10% WQBEL
Total Phenols (Phenolics) (PWS)		µg/L	PWS Not Applicable
Total Selenium	23.1	µg/L	Discharge Conc < TQL

Total Silver	6.64	µg/L	Discharge Conc < TQL
Total Thallium	1.11	µg/L	Discharge Conc < TQL
Total Molybdenum	N/A	N/A	No WQS
Acrolein	8.9	µg/L	Discharge Conc < TQL
Acrylonitrile	2.02	µg/L	Discharge Conc < TQL
Benzene	19.5	µg/L	Discharge Conc ≤ 25% WQBEL
Bromoform	236	µg/L	Discharge Conc ≤ 25% WQBEL
Carbon Tetrachloride	13.5	µg/L	Discharge Conc ≤ 25% WQBEL
Chlorobenzene	463	µg/L	Discharge Conc < TQL
Chlorodibromomethane	26.9	µg/L	Discharge Conc ≤ 25% WQBEL
Chloroethane	N/A	N/A	No WQS
2-Chloroethyl Vinyl Ether	16,204	µg/L	Discharge Conc < TQL
1,1-Dichloroethane	N/A	N/A	No WQS
1,2-Dichloroethane	333	µg/L	Discharge Conc ≤ 25% WQBEL
1,1-Dichloroethylene	153	µg/L	Discharge Conc ≤ 25% WQBEL
1,2-Dichloropropane	30.3	µg/L	Discharge Conc ≤ 25% WQBEL
1,3-Dichloropropylene	9.09	µg/L	Discharge Conc ≤ 25% WQBEL
1,4-Dioxane	N/A	N/A	No WQS
Ethylbenzene	315	µg/L	Discharge Conc ≤ 25% WQBEL
Methyl Bromide	463	µg/L	Discharge Conc ≤ 25% WQBEL
Methyl Chloride	25,464	µg/L	Discharge Conc ≤ 25% WQBEL
Methylene Chloride	673	µg/L	Discharge Conc ≤ 25% WQBEL
1,1,2,2-Tetrachloroethane	6.73	µg/L	Discharge Conc ≤ 25% WQBEL
Tetrachloroethylene	337	µg/L	Discharge Conc < TQL
Toluene	264	µg/L	Discharge Conc < TQL
1,2-trans-Dichloroethylene	463	µg/L	Discharge Conc ≤ 25% WQBEL
1,1,1-Trichloroethane	2,824	µg/L	Discharge Conc ≤ 25% WQBEL
1,1,2-Trichloroethane	18.5	µg/L	Discharge Conc < TQL
Trichloroethylene	20.2	µg/L	Discharge Conc ≤ 25% WQBEL
Vinyl Chloride	0.67	µg/L	Discharge Conc < TQL
2-Chlorophenol	139	µg/L	Discharge Conc < TQL
2,4-Dichlorophenol	46.3	µg/L	Discharge Conc < TQL
2,4-Dimethylphenol	463	µg/L	Discharge Conc < TQL
4,6-Dinitro-o-Cresol	9.26	µg/L	Discharge Conc < TQL
2,4-Dinitrophenol	46.3	µg/L	Discharge Conc < TQL
2-Nitrophenol	7,408	µg/L	Discharge Conc < TQL
4-Nitrophenol	2,176	µg/L	Discharge Conc < TQL
p-Chloro-m-Cresol	475	µg/L	Discharge Conc < TQL
Pentachlorophenol	1.01	µg/L	Discharge Conc < TQL
Phenol	18,519	µg/L	Discharge Conc < TQL
2,4,6-Trichlorophenol	50.5	µg/L	Discharge Conc < TQL
Acenaphthene	78.7	µg/L	Discharge Conc < TQL
Acenaphthylene	N/A	N/A	No WQS
Anthracene	1,389	µg/L	Discharge Conc < TQL
Benzidine	0.003	µg/L	Discharge Conc < TQL

Benzo(a)Anthracene	0.034	µg/L	Discharge Conc < TQL
Benzo(a)Pyrene	0.003	µg/L	Discharge Conc < TQL
3,4-Benzofluoranthene	0.034	µg/L	Discharge Conc < TQL
Benzo(ghi)Perylene	N/A	N/A	No WQS
Benzo(k)Fluoranthene	0.34	µg/L	Discharge Conc < TQL
Bis(2-Chloroethoxy)Methane	N/A	N/A	No WQS
Bis(2-Chloroethyl)Ether	1.01	µg/L	Discharge Conc < TQL
Bis(2-Chloroisopropyl)Ether	926	µg/L	Discharge Conc < TQL
Bis(2-Ethylhexyl)Phthalate	10.8	µg/L	Discharge Conc < TQL
4-Bromophenyl Phenyl Ether	250	µg/L	Discharge Conc < TQL
Butyl Benzyl Phthalate	0.46	µg/L	Discharge Conc < TQL
2-Chloronaphthalene	3,704	µg/L	Discharge Conc < TQL
4-Chlorophenyl Phenyl Ether	N/A	N/A	No WQS
Chrysene	4.04	µg/L	Discharge Conc < TQL
Dibenzo(a,h)Anthrancene	0.003	µg/L	Discharge Conc < TQL
1,2-Dichlorobenzene	741	µg/L	Discharge Conc < TQL
1,3-Dichlorobenzene	32.4	µg/L	Discharge Conc < TQL
1,4-Dichlorobenzene	694	µg/L	Discharge Conc < TQL
3,3-Dichlorobenzidine	1.68	µg/L	Discharge Conc < TQL
Diethyl Phthalate	2,778	µg/L	Discharge Conc < TQL
Dimethyl Phthalate	2,315	µg/L	Discharge Conc < TQL
Di-n-Butyl Phthalate	92.6	µg/L	Discharge Conc ≤ 25% WQBEL
2,4-Dinitrotoluene	1.68	µg/L	Discharge Conc < TQL
2,6-Dinitrotoluene	1.68	µg/L	Discharge Conc < TQL
Di-n-Octyl Phthalate	N/A	N/A	No WQS
1,2-Diphenylhydrazine	1.01	µg/L	Discharge Conc < TQL
Fluoranthene	92.6	µg/L	Discharge Conc ≤ 25% WQBEL
Fluorene	231	µg/L	Discharge Conc < TQL
Hexachlorobenzene	0.003	µg/L	Discharge Conc < TQL
Hexachlorobutadiene	0.34	µg/L	Discharge Conc < TQL
Hexachlorocyclopentadiene	4.63	µg/L	Discharge Conc < TQL
Hexachloroethane	3.37	µg/L	Discharge Conc < TQL
Indeno(1,2,3-cd)Pyrene	0.034	µg/L	Discharge Conc < TQL
Isophorone	157	µg/L	Discharge Conc < TQL
Naphthalene	199	µg/L	Discharge Conc < TQL
Nitrobenzene	46.3	µg/L	Discharge Conc < TQL
n-Nitrosodimethylamine	0.024	µg/L	Discharge Conc < TQL
n-Nitrosodi-n-Propylamine	0.17	µg/L	Discharge Conc < TQL
n-Nitrosodiphenylamine	111	µg/L	Discharge Conc < TQL
Phenanthrene	4.63	µg/L	Discharge Conc < TQL
Pyrene	92.6	µg/L	Discharge Conc < TQL
1,2,4-Trichlorobenzene	0.32	µg/L	Discharge Conc < TQL