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	October 20, 2024	EPA Waived?	Yes
Comment Period End Date	November 4, 2024	If No, Reason	

Purpose of Application: NPDES Permit coverage renewal

Internal Review and Recommendations

On September 21, 2024, the Department published notice of draft NPDES permit PA0218081 in the PA Bulletin. The initial comment period was set to expire on October 20, 2024.

On September 13, 2024, WHEMCO notified the Department that the Homestead facility has undergone an extreme production slow down and product ratio change at the spray quench associated with the sealus furnace. Historically, large volumes of contact cooling water had been used in the quench operation while quenching heat treated large backup steel rolls. In August of 2024 the Homestead facility ceased milling operations related to the production of the large backup steel rolls. Only Synergy Rolls (high-speed chrome rolls), will be heat treated and quenched. Synergy Rolls undergo a water and air quenching process to rapidly cool the steel. It is anticipated that the maximum flow rate will decrease from 0.057 to 0.039 MGD. The introduction of air to the quench allows significantly less water to be used.

Due to the intermittent discharge frequency, facility's extreme production slow down, and the operating schedule, the facility requested an extension to collect the three additional effluent samples for Acrolein, Acrylonitrile, and Bis(2-Ethylhexyl) Phthalate.

The Department granted a reduced sampling schedule, requiring a minimum of one additional effluent sample, based on the circumstances presented in the September 13, 2024 letter. Subsequently, the comment period was extended to November 4, 2024, following further communication.

A summary of comments received, and the Department's responses is provided on the following pages. In response to these comments, the Department is redrafting the permit to incorporate the necessary changes.

Approve	Return	Deny	Signatures	Date
X			Angela Rohrer / Environmental Engineering Specialist	November 25, 2024
X			Michael E. Fifth, P.E. / Environmental Engineer Manager	November 27, 2024

Internal Review and Recommendations

Comment 1: WHEMCO respectfully requests that the concentration limits for Outfall 006 be reevaluated and adjusted to reflect the operation changes causing a decrease in flow from the outfall.

Response: Outfall 006 discharges were reevaluated using data from the application, DMRs and additional sample data provided on October 24, 2024. The Toxics Management Spread Sheet was updated with maximum reported values and a revised discharge flow of 0.039 MGD. This reevaluation confirms that new WQBELs are needed for Total Copper, Total Zinc, Chloroform and Dichlorobromethane. 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 Second 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	0.006	0.01	18.8	29.4	47.0	44.0	4.0
Total Zinc	0.054	0.084	165.0	258	413.0	190.0	5.0
Chloroform	0.006	0.009	18.2	28.3	45.4	12.0	0.5
Dichlorobromethane	Report	Report	Report	Report	Report	8.1	0.5

Comment 2: WHEMCO proposes to remove Oil and Grease monitoring from IMP-106. The IMP-106 sampling conducted as part of the permit renewal demonstrates three non-detectable results for Oil and Grease. Monitoring for the Oil and Grease will be done at the combined discharge Outfall-006, which receives contact cooling water from quench and non-contacting cooling water from the sealus furnace bearings.

Response: The effluent limitation for Oil and Grease was initially established using Best Professional Judgment (BPJ), derived from a technical review conducted in 1999. This limitation remains in effect based on 40 CFR 122.44(l), which states:

(l) ***Reissued permits.***

(1) Except as provided in paragraph (l)(2) of this section when a permit is renewed or reissued, interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit (unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under § 122.62.)

(2) In the case of effluent limitations established on the basis of Section 402(a)(1)(B) of the CWA, a permit may not be renewed, reissued, or modified on the basis of effluent guidelines promulgated under section 304(b) subsequent to the original issuance of such permit, to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit.

(i) Exceptions—A permit with respect to which paragraph (l)(2) of this section applies may be renewed, reissued, or modified to contain a less stringent effluent limitation applicable to a pollutant, if—

(A) Material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation;

Internal Review and Recommendations

(B)

(*1*) Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance; or

(*2*) The Administrator determines that technical mistakes or mistaken interpretations of law were made in issuing the permit under section 402(a)(1)(b);

(C) A less stringent effluent limitation is necessary because of events over which the permittee has no control and for which there is no reasonably available remedy;

(D) The permittee has received a permit modification under section 301(c), 301(g), 301(h), 301(i), 301(k), 301(n), or 316(a); or

(E) The permittee has installed the treatment facilities required to meet the effluent limitations in the previous permit and has properly operated and maintained the facilities but has nevertheless been unable to achieve the previous effluent limitations, in which case the limitations in the reviewed, reissued, or modified permit may reflect the level of pollutant control actually achieved (but shall not be less stringent than required by effluent guidelines in effect at the time of permit renewal, reissuance, or modification).

A review determined that none of the conditions outlined in this section apply to the facility. Consequently, the effluent limit proposed in the Draft permit will be adopted in the final permit. There were no modifications made to the Draft permit in response to this comment.

Comment 3: Data provided in Table 2 shows the TQLs for acrolein, acrylonitrile, and bis(2ethylhexyl)phthalate have been met and represent the current operations at the WHEMCO facility. As a result, WHEMCO requests for these three constituents to be removed from the monitoring requirements at Outfall 006.

Table 2: Summary of Analytical Results (Original Submission vs. Updated Results)

Constituent	March 1, 2024 Maximum Concentrations (ug/L)[1]	October 1, 2024 Concentrations (ug/L)[2]	DEP TQL (ug/L)
Acrolein	<16	<1.7	2.0
Acrylonitrile	<7.8	<2.4	5.0
Bis(2-ethylhexyl)phthalate	<7.1	<0.6	5.0

Footnotes:
1 – Three individual sampling events where conducted. The maximum concentration is represented in Table 1. These values were used in the original NPDES application Submitted on March 1, 2024, using a maximum flow rate of 0.057 MGD.
2 – Results are provided for one additional sampling event collected on October 1, 2024, with a maximum flow rate of 0.042 MGD.

Response: Based on the additional sample provided, the WQBELs (Water Quality-Based Effluent Limits) for Acrolein, Acrylonitrile, and Bis(2-Ethylhexyl) Phthalate will be removed from the Second Draft Permit.

Comment 4: WHEMCO requests a review of the proposed Total Residual Chlorine limits.

Response: The draft permit proposed average monthly and daily maximum limits for Total Residual Chlorine (TRC) of 0.276 mg/L and 0.646 mg/L, respectively. The Total Residual Chlorine evaluation was updated with a revised discharge flow of 0.039 MGD. The results of the modeling indicate that average monthly limits of 0.358 mg/L and daily maximum limits of 0.838 mg/L are required for TRC. The updated TRC limits will be reflected in the Second Draft Permit.

Internal Review and Recommendations

TRC EVALUATION - Outfall 006

0.132	= Q stream (cfs)	0.5	= CV Daily
0.039	= Q discharge (MGD)	0.5	= CV Hourly
4	= no. samples	0.773	= 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 = 0.558	1.3.2.iii	WLA cfc = 0.691
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 0.208	5.1d	LTA_cfc = 0.402

Source		Effluent Limit Calculations	
PENTOXSD TRG	5.1f	AML MULT = 1.720	
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.358	AFC
		INST MAX LIMIT (mg/l) = 0.838	

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)**

Department Initiated Changes:

- During the review of the Second Draft permit, the Department determined that footnote 4 should have been included, for the interim reporting and final water quality-based effluent limits.
- For the purpose of confirming the maximum discharge flow rate at Outfall 006 and IMP 106, a Daily Maximum report requirement will be added to the Second Draft Permit.

ATTACHMENT A

Comments on Draft Renewal of NPDES Permit Number: PA0218081

September 13, 2024

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: Pre-Draft NPDES Permit Survey 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 Angela:

On behalf of WHEMCO Steel Castings Inc. – Homestead Facility (WHEMCO), this letter serves as the response to the NPDES Pre-Draft Permit Survey For Toxic Pollutants that the PADEP sent to WHEMCO by email on September 4, 2024. WHEMCO intends to resample for acrolein, acrylonitrile, and bis(2-ethylhexyl) phthalate and kindly requests an extended sampling schedule through December 31, 2024. Justification for this request is provided below.

WHEMCO would like to notify the Department that the Homestead facility has undergone an extreme production slow down and product ratio change at the spray quench associated with the sealus furnace. Historically, large volumes of contact cooling water had been used in the quench operation while quenching heat treated large backup steel rolls. In August of 2024 the Homestead facility ceased milling operations related to the production of the large backup steel rolls. Only Synergy Rolls (high-speed chrome rolls), will be heat treated and quenched. Synergy Rolls undergo a quenching process water and air to rapidly cool the steel. It is anticipated that the maximum flow rate will decrease from 0.057 to 0.039 MGD. The introduction of air to the quench allows significantly less water to be used.

Therefore, the new heat treat process will result in changes to the batch discharge frequency. Discharges will last for approximately eight hours and occur roughly 30 to 35 days each year. Updated discharge frequencies are presented in Table 1 below.

Table 1: Discharge Frequency Comparison

Outfall/IMP No.	Discharge Type	Frequency		Batch Discharges		
		Hours/Day	Days/Week	No. Discharge Cycles/Day	Length of Discharge Cycle (Hrs)	Batch Discharge Rate (MGD)
Previous (006)	Batch - Intermittent	4	1	1	4	0.057
Updated (006)[1]	Batch - Intermittent	8	1	1	8	0.038
Previous (106)	Batch - Intermittent	4	1	1	4	0.057
Updated (106)[1]	Batch - Intermittent	8	1	1	8	0.038

Footnotes:
[1] MGD for the updated discharge rate was based on the usage from a Synergy Roll quench conducted in August of 2024 and is expected to be representative of all Synergy Roll quenches.

OUTFALL-006

WQBELs

In response to the Draft NPDES Permit, for which the PADEP has issued WQBELs for: "Group 3" pollutants acrolein, acrylonitrile, and "Group 5" pollutant bis(2-ethylhexyl) phthalate, at Outfall-006, despite being non-detectable, WHEMCO intends to re-sample the identified pollutants to meet quantitation limits (QL) at or below the target quantitation limits (TQL) provided by the Department.

The sampling plan outlined below has been developed providing a time frame that aligns with operations at the WHEMCO facility.

IMP-106

Water Quality-Based Effluent Limitations

WHEMCO proposes to remove Oil and Grease monitoring from IMP-106. The IMP-106 sampling conducted as part of the permit renewal demonstrates three non-detectable results for Oil and Grease. Monitoring for the Oil and Grease will be done at the combined discharge Outfall-006, which receives contact cooling water from quench and non-contacting cooling water from the sealus furnace bearings.

SAMPLING PLAN

September through December 2024

As indicated above, WHEMCO plans to carry out additional sampling events for the pollutants identified in the department's draft NPDES permit not meeting the TQL. The pollutants with identified WQBEL's in this case are acrolein, acrylonitrile, bis (2-ethylhexyl) phthalate. The analyses for the initial NPDES application submittal did not meet the DEPs desired TQLs for acrolein, acrylonitrile, and bis (2-ethylhexyl) phthalate, despite being non-detectable. The goal of the follow-up sampling is to achieve the desired quantification limits.

Due to the intermittent discharge frequency, facility's extreme production slow down, and the operating schedule, WHEMCO will make every attempt to collect three samples by December 31, 2024. Therefore, WHEMCO kindly requests an extension from the 30-days provided in the PADEP correspondence.

Additionally, the Department requests that sampling events be carried out at least one week apart. While this will be taken into consideration, WHEMCO completes heat treats based on a product availability rather than a monthly schedule. Therefore, it is proposed that sampling events be carried out when an applicable heat treat resulting in a sufficient discharge is available.

We appreciate your time and input as WHEMCO progresses through the NPDES 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
Director of Operations

Attachments:
NPDES Pre-Draft Permit Survey For Toxic Pollutants

CC: Chris Coholich, WHEMCO Steel Castings Inc.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Clean Water

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PRE-DRAFT PERMIT SURVEY FOR TOXIC POLLUTANTS

Permittee Name: **Whemco Steel Castings Inc.** Permit No.: **PA0218081**

Pollutant(s) identified by DEP that may require WQBELs: Copper, zinc, acrolein, acrylonitrile, chloroform, bis(2-ethylhexyl)phthalate, Dichlorobromethane

Is the permittee aware of the source(s) of the pollutant(s)? ☐ Yes ☐ No ☒ Suspected

If Yes or Suspected, describe the known or suspected source(s) of pollutant(s) in the effluent.

Copper and zinc are suspected to be constituents within the steel roll and slag desposits.

Acrolein, acrylonitrile, bis(2-ethylhexyl)phthalate, and dichlorobromethane are suspected to be constituents contained within lubricants used at the facility.

The chloroform pollutant source is unknown.

Has the permittee completed any studies in the past to control or treat the pollutant(s)? ☐ Yes ☒ No

If Yes, describe prior studies and results:

Does the permittee believe it can achieve the proposed WQBELs now? ☒ Yes ☐ No ☐ Uncertain

If No, describe the activities, upgrades or process changes that would be necessary to achieve the WQBELs, if known.

Estimated date by which the permittee could achieve the proposed WQBELs: _____ ☐ Uncertain

Will the permittee conduct additional sampling for the pollutant(s) to supplement the application? ☒ Yes ☐ No

Check the appropriate box(es) below to indicate site-specific data that have been collected by the permittee in the past. If any of these data have not been submitted to DEP, please attach to this survey.

☐	Discharge pollutant concentration coefficient(s) of variability	Year(s) Studied:
☐	Discharge and background Total Hardness concentrations (metals)	Year(s) Studied:
☐	Background / ambient pollutant concentrations	Year(s) Studied:
☐	Chemical translator(s) (metals)	Year(s) Studied:
☐	Slope and width of receiving waters	Year(s) Studied:
☐	Velocity of receiving waters at design conditions	Year(s) Studied:
☐	Acute and/or chronic partial mix factors (mixing at design conditions)	Year(s) Studied:
☐	Volatilization rates (highly volatile organics)	Year(s) Studied:
☐	Site-specific criteria (e.g., Water Effect Ratio or related study)	Year(s) Studied:

Please submit this survey to the DEP regional office that is reviewing the permit application within 30 days of receipt.

October 24, 2024

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:

Addendum to NPDES Renewal Permit 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 limitation (WQBEL) NPDES Pre-Draft Permit Survey For Toxic Pollutants that was sent to you by email on September 13, 2024. In the September 2024 survey response, WHEMCO indicated it would resample the Outfall 006 discharge for acrolein, acrylonitrile, and bis(2-ethylhexyl)phthalate. The Pennsylvania Department of Environmental Protection (PADEP) had established WQBEL's in the draft permit for these three (3) constituents as the submitted laboratory results were not reported to PADEP's target quantitation limits (TQLs). In the September 2024 survey response, WHEMCO notified PADEP that the Homestead facility has undergone an extreme production slowdown and product ratio change at the spray quench associated with the sealus furnace. WHEMCO anticipated changes to the batch discharge frequency with discharges lasting approximately eight hours and only occurring roughly 30 to 35 days each year. Resulting in a decrease of the maximum flow rate from 0.057 to 0.042 MGD.

Follow-up samples were collected during a batch discharge event on October 1, 2024 and analyzed for acrolein, acrylonitrile, and bis(2-ethylhexyl)phthalate. The TQLs were met for each of these analyses. Analytical results are summarized in Table 1 and are presented as part of this Addendum to the NPDES Permit Application as Attachment A.

Sampling conducted on October 1, 2024 also included identified constituents in the pre-draft survey letter sent by the PADEP on September 8, 2024, for pollutant "Group 2" for copper and zinc, and "Group 3", chloroform and dichlorbromomethane. The identified constituents were resampled to provide results accurately representing the current conditions at the facility. Results of the updated process show copper and dichlorobromomethane concentrations have

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increased while chloroform and zinc concentrations have decreased. The results of these four (4) constituents are summarized in Table 1 and are presented as part of the Addendum to the NPDES Draft Permit Attachment A.

Enclosed, please find the included Addendum to the NPDES Permit Application (Attachment A), updated sections include:

- Discharge Information, Sections 4 and 5
- Laboratory Information
- Pollutant Identification and Analysis, Tables 2, 3, and 5

Included below is a summary of the additional sampling and analysis that has been conducted at Outfall 006. Analytical reports of the data are summarized in Table 1 and are provided in the pollutant group tables in Attachment A.

FOLLOW-UP SAMPLING RESULTS AND ANALYSIS

Follow-up sampling at Outfall 006 occurred on October 1, 2024 and consisted of one 8-hour composite sampling event for the seven constituents listed in the Draft NPDES Permit letter provided to WHEMCO on September 4, 2024: acrolein, acrylonitrile, bis(2-ethylhexyl)phthalate, copper, zinc, chloroform, and dichlorbromomethane.

The results of this sampling event revealed non-detect concentrations for acrolein, acrylonitrile, and bis(2ethylhexyl)phthalate, meeting the required TQL for each.

Copper, zinc, chloroform, and dichlorbromomethane were also resampled (and are included in the updated Pollutant Group tables) due to changes in operations and discharge flowrate at the facility. Concentrations of copper and dichlorobromomethane were observed to have increased in the follow-up sampling event as compared to the initial sampling events, whereas the concentrations of chloroform and zinc were observed to have decreased. Additionally, the maximum flowrate during the original submission was 0.057 MGD. The maximum flowrate during the follow-up sampling event was 0.042 MGD, which represents a 26% decrease in discharge volume to Streets Run as compared to the previous process.

Table 1: Summary of Analytical Results (Original Submission vs. Updated Results)

Constituent	March 1, 2024 Maximum Concentrations (ug/L)[1]	October 1, 2024 Concentrations (ug/L)[2]	DEP TQL (ug/L)
Acrolein	<16	<1.7	2.0
Acrylonitrile	<7.8	<2.4	5.0
Bis(2-ethylhexyl)phthalate	<7.1	<0.6	5.0
Copper, Total	8.8	44	4.0
Zinc, Total	190	170	5.0

Constituent	March 1, 2024 Maximum Concentrations (ug/L)[1]	October 1, 2024 Concentrations (ug/L)[2]	DEP TQL (ug/L)
Chloroform	12	7.3	0.5
Dichlorobromomethane	3.7	8.1	0.5

Footnotes:
1 – Three individual sampling events where conducted. The maximum concentration is represented in Table 1. These values were used in the original NPDES application Submitted on March 1, 2024, using a maximum flow rate of 0.057 MGD.
2 – Results are provided for one additional sampling event collected on October 1, 2024, with a maximum flow rate of 0.042 MGD.

SUMMARY

Data provided in Table 1 shows the TQLs for acrolein, acrylonitrile, and bis(2ethylhexyl)phthalate have been met and represent the current operations at the WHEMCO facility. As a result, WHEMCO requests for these three constituents to be removed from the monitoring requirements at Outfall 006.

The results in Table 1 also indicate an increase in copper and dichlorobromomethane, and decrease in chloroform and zinc, concentrations in the discharge. As previously noted, modifications to the process have resulted in a reduced flow in the batch discharge events at Outfall 006.

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

Joe Westrick, EIT
Engineer-in-Training, Scientist II

Attachments:

Attachment A – Discharge Characterization for NPDES Permit – October 24, 2024 Update
- Discharge Information Section 4
- Discharge Information Section 5
- Laboratory Information
- Pollutant Identification and Analysis Tables 2, 3, and 5

Attachment B – Laboratory Analytical Results – October 24, 2024 Update

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: **Pressure filter backwash**

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									
	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									

Group 3	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											

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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	0.0001		Yes
End of Reach 1	037189	0.1	736	10	0.0001		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	0.1	0									69.49	7		
End of Reach 1	0.1	0.1	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														

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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): 15 PMF: 0.773 Analysis Hardness (mg/l): 76.739 Analysis pH: 7.19

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	2,019	
Total Antimony	0	0		0	1,100	1,100	2,961	
Total Arsenic	0	0		0	340	340	915	Chem Translator of 1 applied
Total Barium	0	0		0	21,000	21,000	56,520	
Total Boron	0	0		0	8,100	8,100	21,800	
Total Cadmium	0	0		0	1.557	1.63	4.39	Chem Translator of 0.955 applied
Total Chromium (III)	0	0		0	458.694	1,452	3,907	Chem Translator of 0.316 applied
Hexavalent Chromium	0	0		0	16	16.3	43.9	Chem Translator of 0.982 applied
Total Cobalt	0	0		0	95	95.0	256	
Total Copper	0	0		0	10.472	10.9	29.4	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	48.352	58.3	157	Chem Translator of 0.83 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	1.400	1.65	4.43	Chem Translator of 0.85 applied
Total Nickel	0	0		0	374.273	375	1,009	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	2.040	2.4	6.46	Chem Translator of 0.85 applied
Total Thallium	0	0		0	65	65.0	175	
Total Zinc	0	0		0	93.633	95.7	258	Chem Translator of 0.978 applied
Acrolein	0	0		0	3	3.0	8.07	
Acrylonitrile	0	0		0	650	650	1,749	
Benzene	0	0		0	640	640	1,723	

Bromoform	0	0		0	1,800	1,800	4,845	
Carbon Tetrachloride	0	0		0	2,800	2,800	7,536	
Chlorobenzene	0	0		0	1,200	1,200	3,230	
Chlorodibromomethane	0	0		0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0		0	18,000	18,000	48,445	
Chloroform	0	0		0	1,900	1,900	5,114	
Dichlorobromomethane	0	0		0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0		0	15,000	15,000	40,371	
1,1-Dichloroethylene	0	0		0	7,500	7,500	20,186	
1,2-Dichloropropane	0	0		0	11,000	11,000	29,606	
1,3-Dichloropropylene	0	0		0	310	310	834	
Ethylbenzene	0	0		0	2,900	2,900	7,805	
Methyl Bromide	0	0		0	550	550	1,480	
Methyl Chloride	0	0		0	28,000	28,000	75,360	
Methylene Chloride	0	0		0	12,000	12,000	32,297	
1,1,2,2-Tetrachloroethane	0	0		0	1,000	1,000	2,691	
Tetrachloroethylene	0	0		0	700	700	1,884	
Toluene	0	0		0	1,700	1,700	4,575	
1,2-trans-Dichloroethylene	0	0		0	6,800	6,800	18,302	
1,1,1-Trichloroethane	0	0		0	3,000	3,000	8,074	
1,1,2-Trichloroethane	0	0		0	3,400	3,400	9,151	
Trichloroethylene	0	0		0	2,300	2,300	6,190	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
2-Chlorophenol	0	0		0	560	560	1,507	
2,4-Dichlorophenol	0	0		0	1,700	1,700	4,575	
2,4-Dimethylphenol	0	0		0	660	660	1,776	
4,6-Dinitro-o-Cresol	0	0		0	80	80.0	215	
2,4-Dinitrophenol	0	0		0	660	660	1,776	
2-Nitrophenol	0	0		0	8,000	8,000	21,531	
4-Nitrophenol	0	0		0	2,300	2,300	6,190	
p-Chloro-m-Cresol	0	0		0	160	160	431	
Pentachlorophenol	0	0		0	10.557	10.6	28.4	
Phenol	0	0		0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0		0	460	460	1,238	
Acenaphthene	0	0		0	83	83.0	223	
Anthracene	0	0		0	N/A	N/A	N/A	
Benzidine	0	0		0	300	300	807	
Benzo(a)Anthracene	0	0		0	0.5	0.5	1.35	
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	80,742	
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0		0	4,500	4,500	12,111	
4-Bromophenyl Phenyl Ether	0	0		0	270	270	727	
Butyl Benzyl Phthalate	0	0		0	140	140	377	
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	2,207	
1,3-Dichlorobenzene	0	0		0	350	350	942	
1,4-Dichlorobenzene	0	0		0	730	730	1,965	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	4,000	4,000	10,766	
Dimethyl Phthalate	0	0		0	2,500	2,500	6,729	
Di-n-Butyl Phthalate	0	0		0	110	110	296	
2,4-Dinitrotoluene	0	0		0	1,600	1,600	4,306	
2,6-Dinitrotoluene	0	0		0	990	990	2,665	
1,2-Diphenylhydrazine	0	0		0	15	15.0	40.4	
Fluoranthene	0	0		0	200	200	538	
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	26.9	
Hexachlorocyclopentadiene	0	0		0	5	5.0	13.5	
Hexachloroethane	0	0		0	60	60.0	161	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Isophorone	0	0		0	10,000	10,000	26,914	
Naphthalene	0	0		0	140	140	377	
Nitrobenzene	0	0		0	4,000	4,000	10,766	
n-Nitrosodimethylamine	0	0		0	17,000	17,000	45,754	
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodiphenylamine	0	0		0	300	300	807	
Phenanthrene	0	0		0	5	5.0	13.5	
Pyrene	0	0		0	N/A	N/A	N/A	
1,2,4-Trichlorobenzene	0	0		0	130	130	350	

☑ ***CFC*** CCT (min): 25.097 PMF: 1 Analysis Hardness (mg/l): 75.61 Analysis pH: 7.15

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	701	
Total Arsenic	0	0		0	150	150	478	Chem Translator of 1 applied
Total Barium	0	0		0	4,100	4,100	13,070	
Total Boron	0	0		0	1,600	1,600	5,101	
Total Cadmium	0	0		0	0.203	0.22	0.7	Chem Translator of 0.921 applied
Total Chromium (III)	0	0		0	58.947	68.5	219	Chem Translator of 0.86 applied
Hexavalent Chromium	0	0		0	10	10.4	33.1	Chem Translator of 0.962 applied
Total Cobalt	0	0		0	19	19.0	60.6	
Total Copper	0	0		0	7.053	7.35	23.4	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	4,782	WQC = 30 day average; PMF = 1
Total Lead	0	0		0	1.854	2.23	7.11	Chem Translator of 0.832 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	0.770	0.91	2.89	Chem Translator of 0.85 applied
Total Nickel	0	0		0	41.052	41.2	131	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	15.9	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	41.4	
Total Zinc	0	0		0	93.221	94.5	301	Chem Translator of 0.986 applied
Acrolein	0	0		0	3	3.0	9.56	
Acrylonitrile	0	0		0	130	130	414	
Benzene	0	0		0	130	130	414	
Bromoform	0	0		0	370	370	1,180	
Carbon Tetrachloride	0	0		0	560	560	1,785	
Chlorobenzene	0	0		0	240	240	765	
Chlorodibromomethane	0	0		0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0		0	3,500	3,500	11,158	
Chloroform	0	0		0	390	390	1,243	
Dichlorobromomethane	0	0		0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0		0	3,100	3,100	9,882	
1,1-Dichloroethylene	0	0		0	1,500	1,500	4,782	
1,2-Dichloropropane	0	0		0	2,200	2,200	7,013	
1,3-Dichloropropylene	0	0		0	61	61.0	194	
Ethylbenzene	0	0		0	580	580	1,849	
Methyl Bromide	0	0		0	110	110	351	
Methyl Chloride	0	0		0	5,500	5,500	17,533	
Methylene Chloride	0	0		0	2,400	2,400	7,651	
1,1,2,2-Tetrachloroethane	0	0		0	210	210	669	
Tetrachloroethylene	0	0		0	140	140	446	
Toluene	0	0		0	330	330	1,052	
1,2-trans-Dichloroethylene	0	0		0	1,400	1,400	4,463	
1,1,1-Trichloroethane	0	0		0	610	610	1,945	
1,1,2-Trichloroethane	0	0		0	680	680	2,168	
Trichloroethylene	0	0		0	450	450	1,435	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
2-Chlorophenol	0	0		0	110	110	351	
2,4-Dichlorophenol	0	0		0	340	340	1,084	
2,4-Dimethylphenol	0	0		0	130	130	414	
4,6-Dinitro-o-Cresol	0	0		0	16	16.0	51.0	
2,4-Dinitrophenol	0	0		0	130	130	414	
2-Nitrophenol	0	0		0	1,600	1,600	5,101	
4-Nitrophenol	0	0		0	470	470	1,498	
p-Chloro-m-Cresol	0	0		0	500	500	1,594	
Pentachlorophenol	0	0		0	8.100	8.1	25.8	
Phenol	0	0		0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0		0	91	91.0	290	
Acenaphthene	0	0		0	17	17.0	54.2	
Anthracene	0	0		0	N/A	N/A	N/A	

Benzidine	0	0		0	59	59.0	188	
Benzo(a)Anthracene	0	0		0	0.1	0.1	0.32	
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	19,127	
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0		0	910	910	2,901	
4-Bromophenyl Phenyl Ether	0	0		0	54	54.0	172	
Butyl Benzyl Phthalate	0	0		0	35	35.0	112	
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	510	
1,3-Dichlorobenzene	0	0		0	69	69.0	220	
1,4-Dichlorobenzene	0	0		0	150	150	478	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	800	800	2,550	
Dimethyl Phthalate	0	0		0	500	500	1,594	
Di-n-Butyl Phthalate	0	0		0	21	21.0	66.9	
2,4-Dinitrotoluene	0	0		0	320	320	1,020	
2,6-Dinitrotoluene	0	0		0	200	200	638	
1,2-Diphenylhydrazine	0	0		0	3	3.0	9.56	
Fluoranthene	0	0		0	40	40.0	128	
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	6.38	
Hexachlorocyclopentadiene	0	0		0	1	1.0	3.19	
Hexachloroethane	0	0		0	12	12.0	38.3	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Isophorone	0	0		0	2,100	2,100	6,695	
Naphthalene	0	0		0	43	43.0	137	
Nitrobenzene	0	0		0	810	810	2,582	
n-Nitrosodimethylamine	0	0		0	3,400	3,400	10,839	
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodiphenylamine	0	0		0	59	59.0	188	
Phenanthrene	0	0		0	1	1.0	3.19	
Pyrene	0	0		0	N/A	N/A	N/A	
1,2,4-Trichlorobenzene	0	0		0	26	26.0	82.9	

☑ ***THH*** CCT (min): 25.097 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	17.9	
Total Arsenic	0	0		0	10	10.0	31.9	
Total Barium	0	0		0	2,400	2,400	7,651	
Total Boron	0	0		0	3,100	3,100	9,882	
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	956	
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	3,188	
Total Mercury	0	0		0	0.050	0.05	0.16	
Total Nickel	0	0		0	610	610	1,945	
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	0.77	
Total Zinc	0	0		0	N/A	N/A	N/A	
Acrolein	0	0		0	3	3.0	9.56	
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	319	
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	18.2	
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	105	
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	217	
Methyl Bromide	0	0		0	100	100.0	319	
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	182	
1,2-trans-Dichloroethylene	0	0		0	100	100.0	319	
1,1,1-Trichloroethane	0	0		0	10,000	10,000	31,879	
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	95.6	
2,4-Dichlorophenol	0	0		0	10	10.0	31.9	
2,4-Dimethylphenol	0	0		0	100	100.0	319	

4,6-Dinitro-o-Cresol	0	0		0	2	2.0	6.38	
2,4-Dinitrophenol	0	0		0	10	10.0	31.9	
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	12,751	
2,4,6-Trichlorophenol	0	0		0	N/A	N/A	N/A	
Acenaphthene	0	0		0	70	70.0	223	
Anthracene	0	0		0	300	300	956	
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	638	
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	0.32	
2-Chloronaphthalene	0	0		0	800	800	2,550	
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	3,188	
1,3-Dichlorobenzene	0	0		0	7	7.0	22.3	
1,4-Dichlorobenzene	0	0		0	300	300	956	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	600	600	1,913	
Dimethyl Phthalate	0	0		0	2,000	2,000	6,376	
Di-n-Butyl Phthalate	0	0		0	20	20.0	63.8	
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	63.8	
Fluorene	0	0		0	50	50.0	159	
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	12.8	
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	108	
Naphthalene	0	0		0	N/A	N/A	N/A	
Nitrobenzene	0	0		0	10	10.0	31.9	
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	63.8	
1,2,4-Trichlorobenzene	0	0		0	0.07	0.07	0.22	

☑ ***CRL*** CCT (min): 13.574 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	1.32	
Benzene	0	0		0	0.58	0.58	12.7	
Bromoform	0	0		0	7	7.0	154	
Carbon Tetrachloride	0	0		0	0.4	0.4	8.79	
Chlorobenzene	0	0		0	N/A	N/A	N/A	
Chlorodibromomethane	0	0		0	0.8	0.8	17.6	
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	20.9	
1,2-Dichloroethane	0	0		0	9.9	9.9	218	
1,1-Dichloroethylene	0	0		0	N/A	N/A	N/A	
1,2-Dichloropropane	0	0		0	0.9	0.9	19.8	
1,3-Dichloropropylene	0	0		0	0.27	0.27	5.93	
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	440	
1,1,2,2-Tetrachloroethane	0	0		0	0.2	0.2	4.4	

Tetrachloroethylene	0	0		0	10	10.0	220	
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	12.1	
Trichloroethylene	0	0		0	0.6	0.6	13.2	
Vinyl Chloride	0	0		0	0.02	0.02	0.44	
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	0.66	
Phenol	0	0		0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0		0	1.5	1.5	33.0	
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	0.002	
Benzo(a)Anthracene	0	0		0	0.001	0.001	0.022	
Benzo(a)Pyrene	0	0		0	0.0001	0.0001	0.002	
3,4-Benzofluoranthene	0	0		0	0.001	0.001	0.022	
Benzo(k)Fluoranthene	0	0		0	0.01	0.01	0.22	
Bis(2-Chloroethyl)Ether	0	0		0	0.03	0.03	0.66	
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0		0	0.32	0.32	7.03	
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	2.64	
Dibenzo(a,h)Anthrancene	0	0		0	0.0001	0.0001	0.002	
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	1.1	
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	1.1	
2,6-Dinitrotoluene	0	0		0	0.05	0.05	1.1	
1,2-Diphenylhydrazine	0	0		0	0.03	0.03	0.66	
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	0.002	
Hexachlorobutadiene	0	0		0	0.01	0.01	0.22	
Hexachlorocyclopentadiene	0	0		0	N/A	N/A	N/A	
Hexachloroethane	0	0		0	0.1	0.1	2.2	

Indeno(1,2,3-cd)Pyrene	0	0		0	0.001	0.001	0.022	
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	0.015	
n-Nitrosodi-n-Propylamine	0	0		0	0.005	0.005	0.11	
n-Nitrosodiphenylamine	0	0		0	3.3	3.3	72.5	
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	0.006	0.01	18.8	29.4	47.0	µg/L	18.8	AFC	Discharge Conc ≥ 50% WQBEL (RP)
Total Zinc	0.054	0.084	165	258	413	µg/L	165	AFC	Discharge Conc ≥ 50% WQBEL (RP)
Chloroform	0.006	0.009	18.2	28.3	45.4	µg/L	18.2	THH	Discharge Conc ≥ 50% WQBEL (RP)
Dichlorobromomethane	Report	Report	Report	Report	Report	µg/L	20.9	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	7,651	µg/L	Discharge Conc ≤ 10% WQBEL
Total Beryllium	N/A	N/A	No WQS
Total Boron	5,101	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cadmium	0.7	µg/L	Discharge Conc < TQL
Total Chromium (III)	219	µg/L	Discharge Conc ≤ 10% WQBEL
Hexavalent Chromium	28.1	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cobalt	60.6	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cyanide	N/A	N/A	No WQS

Dissolved Iron	956	µg/L	Discharge Conc ≤ 10% WQBEL
Total Iron	4,782	µg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	7.11	µg/L	Discharge Conc ≤ 10% WQBEL
Total Manganese	3,188	µg/L	Discharge Conc ≤ 10% WQBEL
Total Mercury	0.16	µg/L	Discharge Conc < TQL
Total Nickel	131	µg/L	Discharge Conc ≤ 10% WQBEL
Total Phenols (Phenolics) (PWS)		µg/L	PWS Not Applicable
Total Selenium	15.9	µg/L	Discharge Conc < TQL
Total Silver	4.14	µg/L	Discharge Conc < TQL
Total Thallium	0.77	µg/L	Discharge Conc < TQL
Total Molybdenum	N/A	N/A	No WQS
Acrolein	5.18	µg/L	Discharge Conc < TQL
Acrylonitrile	1.32	µg/L	Discharge Conc < TQL
Benzene	12.7	µg/L	Discharge Conc ≤ 25% WQBEL
Bromoform	154	µg/L	Discharge Conc ≤ 25% WQBEL
Carbon Tetrachloride	8.79	µg/L	Discharge Conc ≤ 25% WQBEL
Chlorobenzene	319	µg/L	Discharge Conc < TQL
Chlorodibromomethane	17.6	µg/L	Discharge Conc ≤ 25% WQBEL
Chloroethane	N/A	N/A	No WQS
2-Chloroethyl Vinyl Ether	11,158	µg/L	Discharge Conc < TQL
1,1-Dichloroethane	N/A	N/A	No WQS
1,2-Dichloroethane	218	µg/L	Discharge Conc ≤ 25% WQBEL
1,1-Dichloroethylene	105	µg/L	Discharge Conc ≤ 25% WQBEL
1,2-Dichloropropane	19.8	µg/L	Discharge Conc ≤ 25% WQBEL
1,3-Dichloropropylene	5.93	µg/L	Discharge Conc ≤ 25% WQBEL
1,4-Dioxane	N/A	N/A	No WQS
Ethylbenzene	217	µg/L	Discharge Conc ≤ 25% WQBEL
Methyl Bromide	319	µg/L	Discharge Conc ≤ 25% WQBEL
Methyl Chloride	17,533	µg/L	Discharge Conc ≤ 25% WQBEL
Methylene Chloride	440	µg/L	Discharge Conc ≤ 25% WQBEL
1,1,2,2-Tetrachloroethane	4.4	µg/L	Discharge Conc ≤ 25% WQBEL
Tetrachloroethylene	220	µg/L	Discharge Conc < TQL
Toluene	182	µg/L	Discharge Conc < TQL
1,2-trans-Dichloroethylene	319	µg/L	Discharge Conc ≤ 25% WQBEL
1,1,1-Trichloroethane	1,945	µg/L	Discharge Conc ≤ 25% WQBEL
1,1,2-Trichloroethane	12.1	µg/L	Discharge Conc < TQL
Trichloroethylene	13.2	µg/L	Discharge Conc ≤ 25% WQBEL
Vinyl Chloride	0.44	µg/L	Discharge Conc < TQL
2-Chlorophenol	95.6	µg/L	Discharge Conc < TQL
2,4-Dichlorophenol	31.9	µg/L	Discharge Conc < TQL
2,4-Dimethylphenol	319	µg/L	Discharge Conc < TQL
4,6-Dinitro-o-Cresol	6.38	µg/L	Discharge Conc < TQL
2,4-Dinitrophenol	31.9	µg/L	Discharge Conc < TQL
2-Nitrophenol	5,101	µg/L	Discharge Conc < TQL
4-Nitrophenol	1,498	µg/L	Discharge Conc < TQL
p-Chloro-m-Cresol	276	µg/L	Discharge Conc < TQL
Pentachlorophenol	0.66	µg/L	Discharge Conc < TQL
Phenol	12,751	µg/L	Discharge Conc < TQL
2,4,6-Trichlorophenol	33.0	µg/L	Discharge Conc < TQL

Acenaphthene	54.2	µg/L	Discharge Conc < TQL
Acenaphthylene	N/A	N/A	No WQS
Anthracene	956	µg/L	Discharge Conc < TQL
Benzidine	0.002	µg/L	Discharge Conc < TQL
Benzo(a)Anthracene	0.022	µg/L	Discharge Conc < TQL
Benzo(a)Pyrene	0.002	µg/L	Discharge Conc < TQL
3,4-Benzofluoranthene	0.022	µg/L	Discharge Conc < TQL
Benzo(ghi)Perylene	N/A	N/A	No WQS
Benzo(k)Fluoranthene	0.22	µg/L	Discharge Conc < TQL
Bis(2-Chloroethoxy)Methane	N/A	N/A	No WQS
Bis(2-Chloroethyl)Ether	0.66	µg/L	Discharge Conc < TQL
Bis(2-Chloroisopropyl)Ether	638	µg/L	Discharge Conc < TQL
Bis(2-Ethylhexyl)Phthalate	7.03	µg/L	Discharge Conc < TQL
4-Bromophenyl Phenyl Ether	172	µg/L	Discharge Conc < TQL
Butyl Benzyl Phthalate	0.32	µg/L	Discharge Conc < TQL
2-Chloronaphthalene	2,550	µg/L	Discharge Conc < TQL
4-Chlorophenyl Phenyl Ether	N/A	N/A	No WQS
Chrysene	2.64	µg/L	Discharge Conc < TQL
Dibenzo(a,h)Anthrancene	0.002	µg/L	Discharge Conc < TQL
1,2-Dichlorobenzene	510	µg/L	Discharge Conc < TQL
1,3-Dichlorobenzene	22.3	µg/L	Discharge Conc < TQL
1,4-Dichlorobenzene	478	µg/L	Discharge Conc < TQL
3,3-Dichlorobenzidine	1.1	µg/L	Discharge Conc < TQL
Diethyl Phthalate	1,913	µg/L	Discharge Conc < TQL
Dimethyl Phthalate	1,594	µg/L	Discharge Conc < TQL
Di-n-Butyl Phthalate	63.8	µg/L	Discharge Conc ≤ 25% WQBEL
2,4-Dinitrotoluene	1.1	µg/L	Discharge Conc < TQL
2,6-Dinitrotoluene	1.1	µg/L	Discharge Conc < TQL
Di-n-Octyl Phthalate	N/A	N/A	No WQS
1,2-Diphenylhydrazine	0.66	µg/L	Discharge Conc < TQL
Fluoranthene	63.8	µg/L	Discharge Conc ≤ 25% WQBEL
Fluorene	159	µg/L	Discharge Conc < TQL
Hexachlorobenzene	0.002	µg/L	Discharge Conc < TQL
Hexachlorobutadiene	0.22	µg/L	Discharge Conc < TQL
Hexachlorocyclopentadiene	3.19	µg/L	Discharge Conc < TQL
Hexachloroethane	2.2	µg/L	Discharge Conc < TQL
Indeno(1,2,3-cd)Pyrene	0.022	µg/L	Discharge Conc < TQL
Isophorone	108	µg/L	Discharge Conc < TQL
Naphthalene	137	µg/L	Discharge Conc < TQL
Nitrobenzene	31.9	µg/L	Discharge Conc < TQL
n-Nitrosodimethylamine	0.015	µg/L	Discharge Conc < TQL
n-Nitrosodi-n-Propylamine	0.11	µg/L	Discharge Conc < TQL
n-Nitrosodiphenylamine	72.5	µg/L	Discharge Conc < TQL
Phenanthrene	3.19	µg/L	Discharge Conc < TQL
Pyrene	63.8	µg/L	Discharge Conc < TQL
1,2,4-Trichlorobenzene	0.22	µg/L	Discharge Conc < TQL