



Application Type
Facility Type
Major / Minor

Renewal
Industrial
Minor

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

Application No. **PA0005584**
APS ID **1102699**
Authorization ID **1465131**

Applicant and Facility Information

Applicant Name	O-I Glass Inc.	Facility Name	Owens Brockway Glass Container Plant 19
Applicant Address	3831 Route 219	Facility Address	Route 219 N
	Brockport, PA 15823-3811		Brockway, PA 15824
Applicant Contact	Denver Preston	Facility Contact	
Applicant Phone	(567) 336-3360	Facility Phone	
Client ID	78765	Site ID	457042
SIC Code	3221	Municipality	Snyder Township
SIC Description	Manufacturing - Glass Containers	County	Jefferson
Date Application Received	<u>December 1, 2023</u>	EPA Waived?	No
Date Application Accepted		If No, Reason	, DEP Discretion
Purpose of Application	NPDES permit renewal to discharge industrial waste and storm water.		

Summary of Review

1.0 General Discussion

Owens-Illinois (O-I) submitted the application for the renewal of NPDES Permit No. PA0005584 for discharge of stormwater and industrial wastewater from O-I's Brockway glass container production facility located in Brockport, Snyder Township, Jefferson County. The Facility discharges stormwater and wastewater from four regulated outfalls 001 through 004. Outfalls 001, 003, and 004 discharge exclusively stormwater. Outfall 002 flow was revised to 0.066MGD based on current discharge information. Outfall 002 consists of both stormwater and wastewater; the wastewater component comprised of boiler blowdown, condensate and non-contact cooling water. The manufacturing process wastewater, sanitary wastewater and contact cooling water is discharged to the Brockway Area Sewage Authority (BASA) wastewater treatment plant for treatment. The Facility should have been regulated under ELG 40 CFR 426 Subpart H, but the discharge associated with the ELG goes to BASA for treatment, therefore the ELG is not applicable to this discharge. The facility discharges to Little Toby Creek which is classified for cold water fishes (CWF). The existing NPDES permit was issued on May 08, 2019, with an effective date of June 1, 2019, and expiration date of May 31, 2024. The applicant submitted a timely permit renewal application to the Department and is currently operating under the terms and conditions in the existing permit pending under administrative extension provision pending Department action on the renewal application. A topographic map showing the discharge location is presented in attachment A and process flow diagram is presented in attachment C.

1.1 Public Participation

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

Approve	Deny	Signatures	Date
X		J. Pascal Kwedza J. Pascal Kwedza, P.E. / Environmental Engineer	October 3, 2025
X		Adam Olesnak Adam Olesnak, P.E. / Environmental Engineer Manager	October 3, 2025

Summary of Review

significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

1.2 Discharge, Receiving Waters and Water Supply Information

Outfall No.	002	Design Flow (MGD)	0.066
Latitude	41° 15' 7.00"	Longitude	78° 44' 24"
Quad Name	Sabula	Quad Code	0916
Wastewater Description: NCCW, boiler blowdown, condensate and stormwater.			

Receiving Waters	Little Toby Creek	Stream Code	50229
NHD Com ID	102668739	RMI	15.52
Drainage Area	59.1	Yield (cfs/mi ²)	0.07174
Q ₇₋₁₀ Flow (cfs)	4.24	Q ₇₋₁₀ Basis	Streamstats regression
Elevation (ft)	1459	Slope (ft/ft)	
Watershed No.	17-A	Chapter 93 Class.	CWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Metals, Suspended Solids, pH		
Source(s) of Impairment	Abandoned Mine Drainage, Abandoned Mine Drainage, Abandoned Mine Drainage		
TMDL Status	Final	Name	Little Toby Creek

Background/Ambient Data		Data Source	
pH (SU)	7.0	Default	
Temperature (°F)			
Hardness (mg/L)	143	Permit application	
Other:			

Nearest Downstream Public Water Supply Intake	PA American Water Company - Clarion		
PWS Waters	Clarion River	Flow at Intake (cfs)	90.7
PWS RMI	33.44	Distance from Outfall (mi)	48.7

Changes Since Last Permit Issuance: N/A

2.0 Treatment Facility Summary				
Treatment Facility Name: Owens Brockway Glass Container Plant 19				
WQM Permit No.	Issuance Date			
N/A	---			
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Industrial	Physical (Industrial Waste)	Sedimentation	No Disinfection	
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
		Not Overloaded		

Changes Since Last Permit Issuance: None

3.0 Existing Effluent Limitations and Monitoring Requirements

3.1 Stormwater Outfalls 001, 003 and 004

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

3.2 Outfall 002

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/month	Estimate
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	1/month	Grab
Temperature (°F)	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab

3.3 Compliance History

3.3.1 DMR Data for Outfall 001 (from March 1, 2024 to February 28, 2025)

Parameter	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24
pH (S.U.) Daily Maximum			8.87						6.37			
TSS (mg/L) Daily Maximum			55						14			
Total Aluminum (mg/L) Daily Maximum			0.022						0.127			
Total Iron (mg/L) Daily Maximum			< 0.02						0.233			

3.3.2 DMR Data for Outfall 002 (from March 1, 2024 to February 28, 2025)

Parameter	APR-25	MAR-25	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24
Flow (MGD) Average Monthly	0.0504	0.07776	0.04608	0.00144	0.07776	0.01296	0.0216	0.05184	0.02448	0.00864	0.01152	0.11088
pH (S.U.) Daily Minimum	6.01	6.08	6.08	6.48	6.32	6.07	6.39	6.3	6.27	6.34	6.1	6.02
pH (S.U.) Daily Maximum	6.01	6.08	6.08	6.48	6.32	6.07	6.39	6.3	6.27	6.34	6.1	6.02
Temperature (°F) Average Monthly	51.98	53.96	48.38	50.54	49.1	61.34	67.82	68.72	64.4	76.28	68.72	63.5

3.3.3 DMR Data for Outfall 003 (from March 1, 2024 to February 28, 2025)

Parameter	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24
pH (S.U.) Daily Maximum			6.86						6.89			
TSS (mg/L) Daily Maximum			54						11			
Total Aluminum (mg/L) Daily Maximum			0.427						0.180			
Total Iron (mg/L) Daily Maximum			0.807						0.211			

3.3.4 DMR Data for Outfall 004 (from March 1, 2024 to February 28, 2025)

Parameter	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24
pH (S.U.) Daily Maximum			8.04						6.87			
TSS (mg/L) Daily Maximum			96						17			
Total Aluminum (mg/L) Daily Maximum			1.02						0.329			
Total Iron (mg/L) Daily Maximum			2.83						0.606			

3.3.5 Effluent Violations for Outfall 002, from: April 1, 2024 To: February 28, 2025

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
pH	04/30/24	Daily Min	5.9	S.U.	6.0	S.U.

3.3.6 Summary of Discharge Monitoring Reports (DMRs):

DMRs reviewed for the facility for the last 12 months of operation, presented on the table above in sections 3.3.1 to 3.3.4 indicate permit limits have been most of the time. One PH effluent violation was noted on DMRs for the period reviewed.

3.3.7 Summary of Inspections:

The facility has been inspected a couple times during last permit cycle. No effluent violations were found during plant inspections.

4.0 Development of Effluent Limitations

Outfall No.	002	Design Flow (MGD)	.00912
Latitude	41° 15' 7.00"	Longitude	-78° 44' 24.00"
Wastewater Description: Other Miscellaneous Discharges, Stormwater			

4.1 Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Parameter	Limit (mg/l)	SBC	Federal Regulation	State Regulation
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)

Comments: ELGs listed in 40 CFR 426 Subpart H – Glass Container Manufacturing Subcategory are not applicable to this discharge as there is no process wastewater/contact cooling water.

4.2 Water Quality-Based Limitations

4.2.1 Stream flows

The drainage area upstream of the discharge location and the Q₇₋₁₀ at discharge point were taken from the previous permit are 59.1 sq. mi and 4.24 cfs, respectively.

4.2.2 The following input data were used for TMS model:

- Discharge pH = 7.0 (Default.)
- Stream pH = 7.0 (Default)
- Discharge Hardness = 370 mg/l (application)
- Stream Hardness = 143 mg/l (application)

4.2.3 Toxics

A reasonable potential (RP) analysis was done for pollutant Groups 1, 2 & 5 submitted with the application for outfall 002. All pollutants that were presented in the application sampling data were entered into the Toxics Management Spreadsheet (TMS) to calculate WQBELs. WQBELs recommended by the TMS are presented in attachment B. The results of the TMS indicate discharge levels for all parameters analyzed in exception of Total Copper and Total Cadmium were well below DEP's target quantitation limits (TQL) and calculated WQBELs, therefore no limitation or monitoring is required in the permit. Monitoring is recommended for Total Copper and Total Cadmium. Monitoring 2/month will be required for Total Copper and Total Cadmium.

4.3 Chemical Additives

No new Notification forms were submitted with the application. All other additives listed in the application appear to be approved previously. The permit is written with chemical additive usage and notification requirement located in Part C.II of the permit.

4.4 Best Professional Judgment (BPJ) Limitations

Temperature monitoring will be retained due to this being a thermal discharge. The thermal discharge data review did not indicate the need for temperature limits at this outfall at this time.

No additional monitoring requirements will be imposed at this outfall in order to evaluate stormwater due to inability to isolate the stormwater wastestream from the NCCW.

4.5 Stormwater Outfalls:

Outfall No.	001	Design Flow (MGD)	0
Latitude	41° 14' 51.00"	Longitude	78° 44' 32.00"
Wastewater Description: Stormwater associated with industrial activity			
Outfall No.	003	Design Flow (MGD)	0
Latitude	41° 14' 51.00"	Longitude	78° 44' 58.00"
Wastewater Description: Stormwater associated with industrial activity			
Outfall No.	004	Design Flow (MGD)	0
Latitude	41° 14' 53.00"	Longitude	78° 44' 27.00"
Wastewater Description: Stormwater associated with industrial activity			

Stormwater discharge from this facility is subject to permit requirements under 40 CFR §122.26(a)(1)(ii). The activities at the site fall under SIC Code 3221 and is covered under Appendix N of PAG 03 general permit. The existing permit has 4 stormwater outfalls 001, 002, 003, and 004. Monitoring requirements for the stormwater outfalls in the existing permit are set from Appendix N of the previous PAG-03 permit. The monitoring requirements will be revised to reflect the current PAG 03 Appendix N parameters presented on the table below. The exiting permit requires monitoring stormwater outfalls 001, 003, 004. Per the previous factsheet, outfall 002 is not monitored for stormwater since there no way to separate storm water from other miscellaneous waste stream. The current permit will require continued monitoring of outfalls 001, 003 and 004. The benchmark values listed are not effluent limitations, and exceedances do not constitute permit violations. However, if the permittee's sampling demonstrates exceedances of benchmark values for two consecutive monitoring periods, the permittee shall submit a corrective action plan within 90 days of the end of the monitoring period triggering the plan.

Parameter	Monitoring Requirements		Benchmark Values
	Minimum Measurement Frequency	Sample Type	
Total Phosphorus (mg/L)	1 / 6months	Grab	XXX
Total Nitrogen (mg/L)	1 / 6 months	Grab	XXX
Total Suspended Solids (TSS) (mg/L)	1 / 6 months	Grab	100
pH (S.U.)	1 / 6 months	Grab	9
Total Iron (mg/L)	1 / 6 months	Grab	XXX
Total Aluminum (mg/L)	1 / 6months	Grab	XXX

5.0 Other Requirements

5.1 Anti-backsliding

Not applicable to this permit

5.2 Anti-Degradation (93.4)

The effluent limits for this discharge have been developed to ensure that existing instream water uses and the level of water quality necessary to protect the existing uses are maintained and protected. No High-Quality Waters are impacted by this discharge. No Exceptional Value Waters are impacted by this discharge.

5.3 Class A Wild Trout Fisheries

No Class A Wild Trout Fisheries are impacted by this discharge.

5.4 303d Listed Streams

The discharge is located on a stream segment that is designated on the 303(d) list as impaired for aquatic life. The impairment is due Acid Mine Drainage. The finalized TMDL for the watershed was developed to address old and new mining activities and did not address non-mining discharges. This facility does not discharge acid mine drainage and the pollutants of concern (total iron, manganese, aluminum, pH), with exception of pH. Therefore, no monitoring or effluent limitation has been placed in previous permits for aluminum, total iron or manganese for Outfall 002 and will not be required during this renewal. The facility has pH limit of 6 to 9 S.U no further action is warranted at this time.

6.0 Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (386-0400-001), SOPs and/or BPJ.

Outfalls 001, 003 & 004, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Compliance Sampling Location: At Outfalls 001,003 & 004

6.1 Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (386-0400-001), SOPs and/or BPJ.

Outfall 002, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/month	Estimate
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0	XXX	1/month	Grab
Temperature (°F)	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab
Cadmium, Total	Report	Report	XXX	Report	Report	XXX	2/month	Grab
Copper, Total	Report	Report	XXX	Report	Report	XXX	2/month	Grab

Compliance Sampling Location: At Outfall 002

Attachments

A. Topographical Map



B. Toxic Management Spreadsheet (TMS)



Discharge Information

Instructions Discharge Stream

Facility: Owens - Brockway Glass NPDES Permit No.: PA0005584 Outfall No.: 001

Evaluation Type: Major Sewage / Industrial Waste Wastewater Description: Industrial Waste

Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Discharge Characteristics					
			Partial Mix Factors (PMFs)			Complete Mix Times (min)		
			AFC	CFC	THH	CRL	Q ₇₋₁₀	Q _h
0.066	370	7						

Discharge Pollutant	Units	Max Discharge Conc	0 if left blank		0.5 if left blank		0 if left blank		1 if left blank	
			Trib Conc	Stream Conc	Daily CV	Hourly CV	Stream CV	Fate Coeff	FOS	Criteri a Mod
Total Dissolved Solids (PWS)	mg/L	4850								
Chloride (PWS)	mg/L	2570								
Bromide	mg/L	3.05								
Sulfate (PWS)	mg/L	31.8								
Fluoride (PWS)	mg/L	0.79								
Group 1										
Total Aluminum	µg/L	58								
Total Antimony	µg/L	< 1.08								
Total Arsenic	µg/L	< 2.9								
Total Barium	µg/L	628								
Total Beryllium	µg/L	< 1								
Total Boron	µg/L	47.7								
Total Cadmium	µg/L	3.4								
Total Chromium (III)	µg/L	1.91								
Hexavalent Chromium	µg/L	10.5								
Total Cobalt	µg/L	< 1								
Total Copper	µg/L	80.7								
Free Cyanide	µg/L									
Total Cyanide	µg/L	< 10								
Dissolved Iron	µg/L	< 100								
Total Iron	µg/L	229								
Total Lead	µg/L	1.95								
Total Manganese	µg/L	19								
Total Mercury	µg/L	< 0.2								
Total Nickel	µg/L	12.8								
Total Phenols (Phenolics) (PWS)	µg/L	< 50								
Total Selenium	µg/L	14.7								
Total Silver	µg/L	< 1								
Total Thallium	µg/L	< 1								
Total Zinc	µg/L	82.8								
Total Molybdenum	µg/L	3010								
Group 2										
Acrolein	µg/L	<								
Acrylamide	µg/L									
Acrylonitrile	µg/L	<								
Benzene	µg/L	<								
Bromoform	µg/L	<								



Stream / Surface Water Information

Owens - Brockway Glass, NPDES Permit No. PA0005584, Outfall 001

Instructions **Discharge** Stream

Receiving Surface Water Name: **West Br Tunungwant Creek**

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	050229	15.53	1459	59.1			Yes
End of Reach 1	050229	14.8	1420	61.5			Yes

Q₇₋₁₀

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	15.53	0.1	4.24									143	7		
End of Reach 1	14.8	0.1													

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	15.53														
End of Reach 1	14.8														



Model Results

Owens - Brockway Glass, NPDES Permit No. PA0005584, Outfall 001

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

Hydrodynamics

Wasteload Allocations

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

Pollutants	Stream Conc (mg/L)	Stream CV	Trib Conc (μ g/L)	Fate Coef	WQC (μ g/L)	WQ Obj (μ g/L)	WLA (μ g/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	26,715	
Total Antimony	0	0		0	1,100	1,100	39,182	
Total Arsenic	0	0		0	340	340	12,111	Chem Translator of 1 applied
Total Barium	0	0		0	21,000	21,000	748,018	
Total Boron	0	0		0	8,100	8,100	288,521	
Total Cadmium	0	0		0	2.974	3.21	114	Chem Translator of 0.927 applied
Total Chromium (III)	0	0		0	791.449	2,505	89,213	Chem Translator of 0.316 applied
Hexavalent Chromium	0	0		0	15.730	16.0	571	Chem Translator of 0.982 applied
Total Cobalt	0	0		0	95	95.0	3,384	
Total Copper	0	0		0	19.614	20.4	728	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	99.679	136	4,847	Chem Translator of 0.733 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	1.400	1.65	58.7	Chem Translator of 0.85 applied
Total Nickel	0	0		0	657.504	659	23,467	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	6,415	7.55	269	Chem Translator of 0.85 applied
Total Thallium	0	0		0	65	65.0	2,315	
Total Zinc	0	0		0	164.632	188	5,996	Chem Translator of 0.978 applied
Acenaphthene	0	0		0	83	83.0	2,956	

CFC

CCT (min):

PMF:

Analysis Hardness (mg/l):

Analysis pH:

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	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	9,356	
Total Arsenic	0	0		0	148	148	6,294	Chem Translator of 1 applied
Total Barium	0	0		0	4,100	4,100	174,361	
Total Boron	0	0		0	1,600	1,600	68,043	
Total Cadmium	0	0		0	0.323	0.36	15.4	Chem Translator of 0.893 applied
Total Chromium (III)	0	0		0	102.367	119	5,062	Chem Translator of 0.86 applied
Hexavalent Chromium	0	0		0	10	10.4	442	Chem Translator of 0.962 applied

Total Cobalt	0	0		0	19	19.0	808	
Total Copper	0	0		0	12,544	13.1	556	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	63,791	WQC = 30 day average; PMF = 1
Total Lead	0	0		0	3,855	5.26	224	Chem Translator of 0.734 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	0.770	0.91	38.5	Chem Translator of 0.85 applied
Total Nickel	0	0		0	72,600	72.8	3,097	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	212	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	553	
Total Zinc	0	0		0	165,004	167	7,117	Chem Translator of 0.986 applied
Acenaphthene	0	0		0	17	17.0	723	
Anthracene	0	0		0	N/A	N/A	N/A	
Benzidine	0	0		0	59	59.0	2,509	
Benzo(a)Anthracene	0	0		0	0.1	0.1	4.25	
Benzo(a)Pyrene	0	0		0	N/A	N/A	N/A	
3,4-Benzofluoranthene	0	0		0	N/A	N/A	N/A	
Benz(k)Fluoranthene	0	0		0	N/A	N/A	N/A	
Bis(2-Chloroethyl)Ether	0	0		0	6,000	6,000	255,163	
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0		0	910	910	38,700	
4-Bromophenyl Phenyl Ether	0	0		0	54	54.0	2,296	
Butyl Benzyl Phthalate	0	0		0	35	35.0	1,488	
2-Chloronaphthalene	0	0		0	N/A	N/A	N/A	
Chrysene	0	0		0	N/A	N/A	N/A	
Dibenzo(a,h)Anthracene	0	0		0	N/A	N/A	N/A	
1,2-Dichlorobenzene	0	0		0	160	160	6,804	
1,3-Dichlorobenzene	0	0		0	69	69.0	2,934	
1,4-Dichlorobenzene	0	0		0	150	150	6,379	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	800	800	34,022	
Dimethyl Phthalate	0	0		0	500	500	21,264	
Di-n-Butyl Phthalate	0	0		0	21	21.0	893	
2,4-Dinitrotoluene	0	0		0	320	320	13,609	
2,6-Dinitrotoluene	0	0		0	200	200	8,505	
1,2-Diphenylhydrazine	0	0		0	3	3.0	128	
Fluoranthene	0	0		0	40	40.0	1,701	
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	85.1	
Hexachlorocyclopentadiene	0	0		0	1	1.0	42.5	
Hexachloroethane	0	0		0	12	12.0	510	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	

THH CCT (min): 21.583 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	238	
Total Arsenic	0	0		0	10	10.0	425	
Total Barium	0	0		0	2,400	2,400	102,065	
Total Boron	0	0		0	3,100	3,100	131,834	
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	12,758	
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	42,527	
Total Mercury	0	0		0	0.003	0.003	0.13	
Total Nickel	0	0		0	610	610	25,942	
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	10.2	
Total Zinc	0	0		0	N/A	N/A	N/A	
Acenaphthene	0	0		0	70	70.0	2,977	
Anthracene	0	0		0	300	300	12,758	
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	8,505	
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	4.25	
2-Chloronaphthalene	0	0		0	800	800	34,022	

✓ CRL

CCT (min):

PMF:

Analysis Hardness (mg/l):

N/A

Analysis pH:

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	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	
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	0.026	
Benzo(a)Anthracene	0	0		0	0.001	0.001	0.26	
Benzo(a)Pyrene	0	0		0	0.0001	0.0001	0.026	
3,4-Benzofluoranthene	0	0		0	0.001	0.001	0.26	
Benzo(k)Fluoranthene	0	0		0	0.01	0.01	2.58	
Bis(2-Chloroethyl)Ether	0	0		0	0.03	0.03	7.75	
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0		0	0.32	0.32	82.6	
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	31.0	
Dibenzo(a,h)Anthracene	0	0		0	0.0001	0.0001	0.026	
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	12.9	
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	12.9	
2,6-Dinitrotoluene	0	0		0	0.05	0.05	12.9	
1,2-Diphenylhydrazine	0	0		0	0.03	0.03	7.75	
Fluoranthene	0	0		0	N/A	N/A	N/A	
Fluorene	0	0		0	N/A	N/A	N/A	
Hexachlorobenzene	0	0		0	0.000045	0.00005	0.012	
Hexachlorobutadiene	0	0		0	0.01	0.01	2.58	
Hexachlorocyclopentadiene	0	0		0	N/A	N/A	N/A	
Hexachloroethane	0	0		0	0.1	0.1	25.8	
Indeno(1,2,3-cd)Pyrene	0	0		0	0.001	0.001	0.26	
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	0.18	
n-Nitrosodi-n-Propylamine	0	0		0	0.005	0.005	1.29	
n-Nitrosodiphenylamine	0	0		0	3.3	3.3	852	
Phenanthrene	0	0		0	N/A	N/A	N/A	

Recommended WQBELs & Monitoring Requirements

No. Samples/Month: 4

Model Results

9/12/2025

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C. Process Flow Diagram

