



Department of  
Environmental  
Conservation

# State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code: <b>3714</b>	NAICS Code: <b>333618</b>	SPDES Number:	<b>NY0000574</b>
Discharge Class (CL): <b>03</b>		DEC Number:	<b>9-1464-00048/00004</b>
Toxic Class (TX): <b>T</b>		Effective Date (EDP):	<b>EDP</b>
Major-Sub Drainage Basin: <b>01 - 01</b>		Expiration Date (ExDP):	<b>ExDP</b>
Water Index Number: <b>O-158</b>		Modification Dates (EDPM):	
Compact Area: <b>IJC</b>			

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act, as amended, (33 U.S.C. '1251 et.seq.)

PERMITTEE NAME AND ADDRESS			
Name:	<b>General Motors LLC</b>	Attention:	<b>Casey Essary, Environmental Engineer</b>
Street:	<b>2995 River Road</b>		
City:	<b>Buffalo</b>	State:	<b>NY</b> Zip Code: <b>14207-1099</b>
Email:	<b>casey.essary@gm.com</b>	Phone:	<b>(716) 867-2530</b>

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL			
Name:	<b>Tonawanda Engine Plant, General Motors Powertrain</b>		
Address / Location:	<b>2995 River Road</b>	County:	<b>Erie</b>
City:	<b>Tonawanda (T)</b>	State:	<b>NY</b> Zip Code: <b>14207-1099</b>
Facility Location:	Latitude: <b>42 ° 58 ' 22 " N</b>	& Longitude:	<b>78 ° 53 ' 43 " W</b>
Primary Outfall No.:	<b>001</b> Latitude: <b>42 ° 57 ' 45 " N</b>	& Longitude:	<b>78 ° 55 ' 20 " W</b>
Wastewater Description:	<b>Non-contact cooling water; Remediation system discharge; indoor garage floor drain; Stormwater and flow from DTE</b>	Receiving Water:	<b>Niagara River</b> Class: <b>A-Special</b>

and the additional outfalls listed in this permit, in accordance with: effluent limitations; monitoring and reporting requirements; other provisions and conditions set forth in this permit; and 6 NYCRR Part 750-1 and 750-2.

This permit and the authorization to discharge shall expire on midnight of the expiration date shown above and the permittee shall not discharge after the expiration date unless this permit has been renewed or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for permit renewal not less than 180 days prior to the expiration date shown above.

**DISTRIBUTION:**

CO BWP - Permit Coordinator  
BWP – Permit Writer  
CO BWC - SCIS  
RWE  
RPA  
EPA Region II

Permit Administrator:			
Address:	625 Broadway Albany, NY 12233-1750		
Signature:		Date:	//

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## SUMMARY OF ADDITIONAL OUTFALLS

Outfall	Wastewater Description	Outfall Latitude	Outfall Longitude
01B	Treated Dewatering Water	Internal via Outfall 001	
Receiving Water: Niagara River			Class: A-Special
Outfall	Wastewater Description	Outfall Latitude	Outfall Longitude
003	Stormwater runoff from GM (parking lots and adjacent paved areas) and flow from DTE (discharge from stormwater basin which also includes Cooling Tower Blowdown).	42 ° 57 ' 34 " N	78 ° 55 ' 4 " W
Receiving Water: Niagara River			Class: A-Special

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## DEFINITIONS

TERM	DEFINITION
7-Day Geo Mean	The highest allowable geometric mean of daily discharges over a calendar week.
7-Day Average	The average of all daily discharges for each 7-days in the monitoring period. The sample measurement is the highest of the 7-day averages calculated for the monitoring period.
12-Month Rolling Average (12 MRA)	The current monthly value of a parameter, plus the sum of the monthly values over the previous 11 months for that parameter, divided by the number of months for which samples were collected in the 12-month period.
30-Day Geometric Mean	The highest allowable geometric mean of daily discharges over a calendar month, calculated as the antilog of: the sum of the log of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
Action Level	Action level means a monitoring requirement characterized by a numerical value that, when exceeded, triggers additional permittee actions and department review to determine if numerical effluent limitations should be imposed.
Compliance Level / Minimum Level	A compliance level is an effluent limitation. A compliance level is given when the water quality evaluation specifies a Water Quality Based Effluent Limit (WQBEL) below the Minimum Level. The compliance level shall be set at the Minimum Level (ML) for the most sensitive analytical method as given in 40 CFR Part 136, or otherwise accepted by the Department.
Daily Discharge	The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for the purposes of sampling. For pollutants expressed in units of mass, the 'daily discharge' is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the 'daily discharge' is calculated as the average measurement of the pollutant over the day.
Daily Maximum	The highest allowable Daily Discharge.
Daily Minimum	The lowest allowable Daily Discharge.
Effective Date of Permit (EDP or EDPM)	The date this permit is in effect.
Effluent Limitations	Effluent limitation means any restriction on quantities, quality, rates and concentrations of chemical, physical, biological, and other constituents of effluents that are discharged into waters of the state.
Expiration Date of Permit (ExDP)	The date this permit is no longer in effect.
Instantaneous Maximum	The maximum level that may not be exceeded at any instant in time.
Instantaneous Minimum	The minimum level that must be maintained at all instants in time.
Monthly Average	The highest allowable average of daily discharges over a calendar month, calculated as the sum of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
Outfall	The terminus of a sewer system, or the point of emergence of any waterborne sewage, industrial waste or other wastes or the effluent therefrom, into the waters of the State.
Range	The minimum and maximum instantaneous measurements for the reporting period must remain between the two values shown.
Receiving Water	The classified waters of the state to which the listed outfall discharges.
Sample Frequency / Sample Type / Units	See NYSDEC's "DMR Manual for Completing the Discharge Monitoring Report for the SPDES" for information on sample frequency, type and units.

## PERMIT LIMITS, LEVELS AND MONITORING – 001

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
001	Non-contact cooling water; Remediation system discharge; flow from indoor garage floor drain; Stormwater and flow from DTE (discharge from stormwater basin which also includes Cooling Tower Blowdown).	Niagara River (A-Special)	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	Monitor	MGD			Continuous	Meter		X	
Flow	Daily Maximum	Monitor	MGD			Continuous	Meter		X	
pH	Daily Minimum	6.0	SU			Monthly	Grab		X	
	Daily Maximum	9.0	SU							
Temperature	Daily Maximum	90	°F			Monthly	Grab		X	
Oil and Grease	Daily Maximum	15	mg/L			Monthly	Grab		X	
Total Suspended Solids (TSS)	Daily Maximum	45	mg/L			Monthly	24-hr. Comp.		X	
Total Phenols	Monthly Average	Monitor	mg/L			Monthly	Grab		X	1
PCB-1016	Monthly Average	95	ng/L			Monthly	Grab		X	2
PCB-1221	Monthly Average	95	ng/L			Monthly	Grab		X	2
PCB-1232	Monthly Average	95	ng/L			Monthly	Grab		X	2
PCB-1242	Monthly Average	95	ng/L			Monthly	Grab		X	2
PCB-1248	Monthly Average	95	ng/L			Monthly	Grab		X	2
PCB-1254	Monthly Average	95	ng/L			Monthly	Grab		X	2
PCB-1260	Monthly Average	95	ng/L			Monthly	Grab		X	2
Total Phosphorus (as P)	Monthly Average	Monitor	mg/L			Monthly	24-hr. Comp.		X	
Total Mercury	Daily Maximum	50	ng/L			Monthly	Grab		X	
Total Aluminum	Daily Maximum	2.0	mg/L			2/Month	24-hr. Comp.		X	3
Total Copper	Daily Maximum	0.05	mg/L			2/Month	24-hr. Comp.		X	3
Total Iron	Daily Maximum	1.5	mg/L			Monthly	24-hr. Comp.		X	
Total Zinc	Daily Maximum	0.2	mg/L			Monthly	24-hr. Comp.		X	
Total Residual Chlorine	Daily Maximum	0.5	mg/L			3/Day	Grab		X	4,5
WHOLE EFFLUENT TOXICITY (WET) TESTING		Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
WET - Acute Invertebrate		See footnote		15	TUa		See footnote		X	6
WET - Acute Vertebrate		See footnote		15	TUa		See footnote		X	6
WET - Chronic Invertebrate		See footnote		100	TUc		See footnote		X	6
WET - Chronic Vertebrate		See footnote		100	TUc		See footnote		X	6

## PERMIT LIMITS, LEVELS AND MONITORING – 01B

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
01B	Internal monitoring point to Outfall 001. Batch Treatment of Dewatering Water from Construction/Renovation Onsite Projects	Flow from 01B discharging via Outfall 001.	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	Monitor	GPD			Continuous	Meter		X	
Flow	Daily Maximum	Monitor	GPD			Continuous	Meter		X	
pH	Daily Minimum	6.0	SU			Monthly	Grab		X	
	Daily Maximum	9.0	SU							
PCB-1016	Monthly Average	95	ng/L			Monthly	Grab		X	2
PCB-1221	Monthly Average	95	ng/L			Monthly	Grab		X	2
PCB-1232	Monthly Average	95	ng/L			Monthly	Grab		X	2
PCB-1242	Monthly Average	95	ng/L			Monthly	Grab		X	2
PCB-1248	Monthly Average	95	ng/L			Monthly	Grab		X	2
PCB-1254	Monthly Average	95	ng/L			Monthly	Grab		X	2
PCB-1260	Monthly Average	95	ng/L			Monthly	Grab		X	2

## PERMIT LIMITS, LEVELS AND MONITORING – 003

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
003	Stormwater runoff from GM [parking lots and adjacent paved areas] and flow from DTE (discharge from stormwater basin which also includes Cooling Tower Blowdown).	Niagara River (A-Special)	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	Monitor	GPD			Continuous	Meter		X	
Flow	Daily Maximum	Monitor	GPD			Continuous	Meter		X	
pH	Daily Minimum	6.0	SU			Monthly	Grab		X	
	Daily Maximum	9.0	SU							
Oil and Grease	Daily Maximum	15	mg/L			Monthly	Grab		X	
Total Suspended Solids (TSS)	Daily Maximum	Monitor	mg/L			Monthly	24-hr. Comp.		X	
Total Phosphorus (as P)	Monthly Average	Monitor	mg/L			Monthly	24-hr. Comp.		X	
Total Mercury	Daily Maximum	50	ng/L			Monthly	Grab		X	
Total Aluminum	Daily Maximum	Monitor	mg/L			Monthly	24-hr. Comp.		X	

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS			FN	
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.		Eff.
Total Residual Chlorine	Daily Maximum	0.5	mg/L			3/Day	Grab		X	4,5

**GENERAL:**

A. Stormwater Sampling

All stormwater sampling shall be in accordance with the New York State Department of Environmental Conservation SPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity Permit Number GP-0-17-004, which states:

A minimum of one grab sample must be taken from the *stormwater discharge associated with industrial activity* resulting from a storm event with at least 0.1 inch of precipitation (defined as a "measurable" event), providing the interval from the preceding measurable storm is at least 72 hours. The 72-hour storm interval is waived if the preceding measurable storm did not result in a stormwater *discharge* (e.g., a storm event in excess of 0.1 inches may not result in a stormwater *discharge* at some facilities), or if the *owner or operator* is able to document that less than a 72-hour interval is representative for local storm events during the sampling period.

The grab sample must be taken during the first 30 minutes (or as soon thereafter as practical, but not to exceed one [1] hour) of the *discharge*. If the sampled *discharge* commingles with non-stormwater water, the *owner or operator* must attempt to sample the stormwater *discharge* before it mixes. Additional sampling guidelines and exceptions have been detailed and authorized by the Department, within the storm water sampling plan, dated July 15, 2016.

B. Mobilized Portable Activated Carbon Treatment System:

a. The permittee may use the mobilized portable activated carbon treatment system for treatment of waters that are found to contain PCBs generated during the approved program to reduce, eliminate, and prevent the occurrence of detectable levels of PCBs in their discharge in accordance with the PCB Minimization Program page of this permit. The Regional Water Engineer shall be notified of the sources of water to be treated and the permittee shall obtain approval before treatment.

b. The permittee shall submit semi-annual (by July 31 and January 31) status reports until all projects approved by the Department are completed. The status report shall include a schedule detailing the remaining work to be done to complete the approved project (or projects), the sources of water treated, volume treated per each batch, wastewater characteristics, and starting and ending dates of treatment.

**FOOTNOTES:**

1. Total phenols shall be determined by colorimetric or spectrophotometric analysis using the most sufficiently sensitive method approved under 40 CFR Part 136 for total recoverable phenols.
2. This is a Compliance Level. The calculated WQBEL is 0.001 ng/L. See the PCB Minimization Program for more information.
3. Zebra Mussel Control Program:
  - a. The permittee has changed the Zebra Mussel Control Program from previously approved Betz Clam Trol CT 1 to the currently approved MACROTECH treatment system. This MACROTECH treatment system uses copper and aluminum anodes and operates with passive aluminum ionization.
  - b. The current MACROTECH treatment system may not be changed without the prior written approval of the Regional Water Engineer.
  - c. The permittee shall monitor Copper and Aluminum as set forth in this permit only during the facility's use of the MACROTECH treatment system.
4. Sampling and reporting for total residual chlorine is only necessary if chlorine is used for disinfection, elsewhere in the treatment process, or the facility otherwise has reasonable potential to discharge chlorine. Otherwise, the permittee shall report NODI-9 on the DMR.

5. This is a final effluent limitation. See Schedule of Compliance for any applicable interim effluent limitations.

6. **Whole Effluent Toxicity (WET) Testing:**

Testing Requirements – Chronic WET testing is required, but report both the acute and chronic results. Testing shall be performed in accordance with 40 CFR Part 136 and TOGS 1.3.2 unless prior written approval has been obtained from the Department. The test species shall be Ceriodaphnia dubia (water flea - invertebrate) and Pimephales promelas (fathead minnow - vertebrate). Receiving water collected upstream from the discharge should be used for dilution. All tests conducted should be static-renewal (two 24-hr composite samples with one renewal for Acute tests and three 24-hr composite samples with two renewals for Chronic tests). The appropriate dilution series should be used to generate a definitive test endpoint, otherwise an immediate rerun of the test may be required. WET testing shall be coordinated with the monitoring of chemical and physical parameters limited by this permit so that the resulting analyses are also representative of the sample used for WET testing. The ratio of critical receiving water flow to discharge flow (i.e. dilution ratio) is 50:1 for acute, and 100:1 for chronic. Discharges which are disinfected using chlorine should be dechlorinated prior to WET testing or samples shall be taken immediately prior to the chlorination system.

Monitoring Period - WET testing shall be performed quarterly (calendar quarters) [during calendar years ending in 5 and 0 beginning in January 2025.

Reporting - Toxicity Units shall be calculated and reported on the DMR as follows:  $TU_a = (100)/(48\text{-hr LC50})$  [note that Acute data is generated by both Acute and Chronic testing] and  $TU_c = (100)/(7\text{-day NOEC})$  or  $(100)/(7\text{-day IC25})$  when Chronic testing has been performed or  $TU_c = (TU_a) \times (10)$  when only Acute testing has been performed and is used to predict Chronic test results, where the 48-hr LC50, 7-day NOEC and/or IC25 are all expressed in % effluent. This must be done, including the Chronic prediction from the Acute data, for both species unless otherwise directed. For Chronic results, report the most sensitive endpoint (i.e., survival, growth and/or reproduction) corresponding to the lowest 7-day NOEC or IC25 and resulting highest  $TU_c$ . For Acute results, report a  $TU_a$  of 0.3 if there is no statistically significant mortality in 100% effluent as compared to the control. Report a  $TU_a$  of 1.0 if there is statistically significant mortality in 100% effluent as compared to the control, but insufficient mortality to generate a 48-hr LC50. Also, in the absence of a 48-hr LC50, use 1.0  $TU_a$  for the Chronic prediction from the Acute data, and report a  $TU_c$  of 10.0.

The complete test report including all bench sheets, statistical analyses, reference toxicity data, daily average flow at the time of sampling and other appropriate supporting documentation, shall be submitted within 60 days following the end of each test period with your WET DMR and to the [WET@dec.ny.gov](mailto:WET@dec.ny.gov) email address. A summary page of the test results for the invertebrate and vertebrate species indicating  $TU_a$ , 48-hr LC50 for Acute tests and/or  $TU_c$ , NOEC, IC25, and most sensitive endpoints for Chronic tests, should also be included at the beginning of the test report.

WET Testing Action Level Exceedances - If an action level is exceeded then the Department may require the permittee to conduct additional WET testing including Acute and/or Chronic tests. Additionally, the permittee may be required to perform a Toxicity Identification/Reduction Evaluation (TI/RE) in accordance with Department guidance. Enforceable WET limits may also apply. The permittee shall be notified in writing by their Regional DEC office of additional requirements. The written notification shall include the reason(s) why such testing, TI/RE and/or limits are required.



## BIOLOGICAL MONITORING REQUIREMENTS

All submissions under this section should provide:

- An electronic copy to the Energy Unit Leader, FW.EcoHealth@dec.ny.gov
- One (1) copy of the cover letter to the Division of Water State Pollution Discharge Elimination System (SPDES) Compliance Information Section;
- One (1) copy of the cover letter to the Region 9 Regional Water Engineer.

### **Best Technology Available (BTA)**

1. The Department has determined that BTA for the GM Tonawanda facility's cooling water intake structure is a closed-cycle cooling system utilizing potable water from the Town of Tonawanda.

### **Complete Installation of BTA**

2. By 12/31/24, the permittee must complete installation and commence operation of the closed-cycle cooling system.

### **Reductions in Impingement and Entrainment**

3. The operation of the closed-loop cooling system will eliminate impingement and entrainment at the GM facility.

### **General Requirement**

4. Modification of the facility cooling water intake structure must not occur without prior Department approval. The permittee must submit written notification, including detailed descriptions and plans, to the NYS DEC Energy Unit; the Director of the Bureau of Water Compliance Program; and both the Regional Permit Administrator and the Regional Water Engineer, Region 9, at least 60 days prior to any proposed change which would result in the alteration of the permitted operation, location, design, construction or capacity of the cooling water intake structure. The permittee must submit with the written notification a demonstration that the change reflects the best technology available for minimizing adverse environmental impacts pursuant to 6 NYCRR § 704.5 and § 316(b) of the Clean Water Act. As determined by the Department, a permit modification application in accordance with 6 NYCRR § 621 may be required.

## STORMWATER POLLUTION PREVENTION REQUIREMENTS

Stormwater discharges at this facility cannot obtain coverage under the current Multi-Sector General Permit (MSGP) (GP-0-17-004). However, the permit includes select requirements consistent with the MSGP.

## BEST MANAGEMENT PRACTICES (BMPs) FOR INDUSTRIAL FACILITIES

Note that for some facilities, especially those with few employees or limited industrial activities, some of the below BMPs may not be applicable. It is acceptable in these cases to indicate "Not Applicable" for the portion(s) of the BMP Plan that do not apply to your facility, along with an explanation.

- General** - The permittee shall develop, maintain, and implement a Best Management Practices (BMP) plan to prevent releases of significant amounts of pollutants to the waters of the State through plant site runoff; spillage and leaks; sludge or waste disposal; and stormwater discharges including, but not limited to, drainage from raw material storage. The BMP plan shall be documented in narrative form and shall include the 13 minimum BMPs and any necessary plot plans, drawings, or maps. Other documents already prepared for the facility such as a Safety Manual or a Spill Prevention, Control and Countermeasure (SPCC) plan may be used as part of the plan and may be incorporated by reference. A copy of the current BMP plan shall be submitted to the Department as required in item (2.) below and a copy must be maintained at the facility and shall be available to authorized Department representatives upon request.
- Compliance Deadlines** –The initial BMP plan was received by the Department on 8/25/2021. The BMP plan **shall be reviewed annually** and shall be modified whenever (a) changes at the facility materially increase the potential for releases of pollutants; (b) actual releases indicate the plan is inadequate, or (c) a letter from the Department identifies inadequacies in the plan. The permittee shall certify in writing, as an attachment to the December Discharge Monitoring Report (DMR), that the annual review has been completed. Subsequent modifications to or renewal of this permit does not reset or revise these deadlines unless a new deadline is set explicitly by such permit modification or renewal.
- Facility Review** - The permittee shall review all facility components or systems (including but not limited to material storage areas; in-plant transfer, process, and material handling areas; loading and unloading operations; storm water, erosion, and sediment control measures; process emergency control systems; and sludge and waste disposal areas) where materials or pollutants are used, manufactured, stored or handled to evaluate the potential for the release of pollutants to the waters of the State. In performing such an evaluation, the permittee shall consider such factors as the probability of equipment failure or improper operation, cross-contamination of storm water by process materials, settlement of facility air emissions, the effects of natural phenomena such as freezing temperatures and precipitation, fires, and the facility's history of spills and leaks. The relative toxicity of the pollutant shall be considered in determining the significance of potential releases. The review shall address all substances present at the facility that are identified in the SPDES application Form NY-2C (available at [https://www.dec.ny.gov/docs/permits\\_ej\\_operations\\_pdf/form2c.pdf](https://www.dec.ny.gov/docs/permits_ej_operations_pdf/form2c.pdf)) or that are required to be monitored for by the SPDES permit. **13 Minimum BMPs:** Whenever the potential for a release of pollutants to State waters is determined to be present, the permittee shall identify BMPs that have been established to prevent or minimize such potential releases. Where BMPs are inadequate or absent, appropriate BMPs shall be established. In selecting appropriate BMPs, the permittee shall consider good industry practices and, where appropriate, structural measures such as secondary containment and erosion/sediment control devices and practices. USEPA guidance for development of stormwater elements of the BMP is available in *Developing Your Stormwater Pollution Prevention Plan A Guide for Industrial Operators*, February 2009, EPA 833-B-09-002. As a minimum, the plan shall include the following BMPs:

- |                                     |                                                       |                                 |
|-------------------------------------|-------------------------------------------------------|---------------------------------|
| 1. BMP Pollution Prevention Team    | 6. Security                                           | 10. Spill Prevention & Response |
| 2. Reporting of BMP Incidents       | 7. Preventive Maintenance                             | 11. Erosion & Sediment Control  |
| 3. Risk Identification & Assessment | 8. Good Housekeeping                                  | 12. Management of Runoff        |
| 4. Employee Training                | 9. Materials/Waste Handling, Storage, & Compatibility | 13. Street Sweeping             |
| 5. Inspections and Records          |                                                       |                                 |

## BMPs FOR INDUSTRIAL FACILITIES (continued)

4. **Stormwater Pollution Prevention Plans (SWPPPs) Required for Discharges of Stormwater from Construction Activity to Surface Waters** - A SWPPP shall be developed prior to commencing any construction activity that will result in soil disturbance of one or more acres of uncontaminated area<sup>1</sup>. (Note: the disturbance threshold is 5000 SF in the New York City East of Hudson Watershed). The SWPPP shall conform to the current version of the SPDES General Permit for Stormwater Discharges from Construction Activity (CGP), including the *New York Standards and Specifications for Erosion and Sediment Control* and *New York State Stormwater Management Design Manual*. The permittee shall submit a copy of the SWPPP and any amendments thereto to the local governing body and any other authorized agency having jurisdiction or regulatory control over the construction activity **at least 30 days prior to soil disturbance**. The SWPPP shall be maintained on-site and submitted to the Department only upon request. When a SWPPP is required, a properly completed *Notice of Intent* (NOI) form shall be submitted (available at [www.dec.ny.gov/chemical/43133.html](http://www.dec.ny.gov/chemical/43133.html)) prior to soil disturbance. Note that submission of the NOI is required for informational purposes; the permittee is not eligible for and will not obtain coverage under any SPDES general permit for stormwater discharges. SWPPPs must be developed for subsequent site disturbances in accordance with the above requirements. The permittee is responsible for ensuring that the provisions of each SWPPP are properly implemented.
5. **Required Sampling For "Hot Spot" Identification** - Development of the BMP plan shall include sampling of waste stream segments for the purpose of pollutant "hot spot" identification. The economic achievability of effluent limits will not be considered until plant site "hot spot" sources have been identified, contained, removed or minimized through the imposition of site specific BMPs or application of internal facility treatment technology. For the purposes of this permit condition a "hot spot" is a segment of an industrial facility (including but not limited to soil, equipment, material storage areas, sewer lines etc.) which contributes elevated levels of problem pollutants to the wastewater and/or stormwater collection system of that facility. For the purposes of this definition, problem pollutants are substances for which treatment to meet a water quality or technology requirement may, considering the results of waste stream segment sampling, be deemed unreasonable. For the purposes of this definition, an elevated level is a concentration or mass loading of the pollutant in question which is sufficiently higher than the concentration of that same pollutant at the compliance monitoring location so as to allow for an economically justifiable removal and/or isolation of the segment and/or B.A.T. treatment of wastewaters emanating from the segment.

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<sup>1</sup> Uncontaminated area means soils which are free of contamination by any toxic or non-conventional pollutants identified in the tables of SPDES Application Form NY-2C. Disturbance of any size contaminated area(s) and the resulting discharge of contaminated stormwater is not authorized by this permit unless the discharge is under State or Federal oversight as part of a remedial program or after review by the Regional Water Engineer; nor is such discharge authorized by any SPDES general permit for stormwater discharges.

## MERCURY MINIMIZATION PROGRAM (MMP) - Type III

1. General - The permittee must develop, implement, and maintain a mercury minimization program (MMP), containing the elements set forth below, to reduce mercury effluent levels with the goal of achieving the WQBEL of 0.7 ng/L.
2. MMP Elements - The MMP must be a written document and must include any necessary drawings or maps of the facility and/or collection system. Other related documents already prepared for the facility may be used as part of the MMP and may be incorporated by reference. At a minimum, the MMP must include the following elements as described in detail below:
  - a. Monitoring - Monitoring at Outfall(s) 001 and 003, influent and other locations tributary to compliance points shall be performed using either USEPA Method 1631 or another sufficiently sensitive method, as approved under 40 CFR Part 136<sup>2</sup>. Monitoring of raw materials, equipment, treatment residuals, and other non-wastewater/non-stormwater substances may be performed using other methods as appropriate. Monitoring must be coordinated so that the results can be effectively compared between locations.

Minimum required monitoring is as follows:

- i. Plant Influent and/or Effluent – The permittee must collect samples at the location(s) and frequency as specified in the SPDES permit limitations table.
- ii. Key Locations and Potential Mercury Sources – The permittee must sample *key locations*, chosen to identify *potential mercury sources*, at least annually.
- iii. Decreased Monitoring Requirements - Facilities with EEQ at or below 12 ng/L are eligible for the following:
  - 1) Reduced requirements, through a permittee-initiated permit modification
    - a) Conduct influent monitoring, sampling semi-annually, in lieu of monitoring within the collection system, such as at *key locations*; and
    - b) Conduct effluent compliance sampling semi-annually.
  - 2) If a facility with reduced requirements reports discharges above 12 ng/L for two of four consecutive effluent samples, the Department may undertake a Department-initiated modification to remove the allowance of reduced requirements.
  - 3) Under the decreased permit requirements, the facility must continue to conduct an annual status report, as applicable in accordance with 2.c of this MMP, to determine if any waste streams have changed.
- iv. Additional monitoring must be completed as required elsewhere in this permit (e.g., locations tributary to compliance points).

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<sup>2</sup> Outfall monitoring must be conducted using the methods specified in Table 8 of *DOW 1.3.10*.

## MERCURY MINIMIZATION PROGRAM (MMP) – Type III (Continued)

- b. **Control Strategy** - The control strategy must contain the following minimum elements:
- i. **Monitoring and Inventory/Inspections for Outfall(s)** - 001 and 003
    - 1) Monitoring shall be performed as described in 2.a above. As mercury sources are found, the permittee must track down and minimize these sources.
    - 2) The permittee must inventory and/or inspect users of its system as necessary to support the MMP.
      - a) **Potential mercury sources**
        1. The permittee must maintain an inventory of *potential mercury sources*.
        2. The permittee must inspect *potential mercury sources* once every five years. Alternatively, the permittee may develop and implement an outreach program<sup>3</sup> which informs users of their responsibilities as *potential mercury sources*. The permittee must conduct the outreach program at least once every five years. The outreach program should be supported by a subset of site inspections.
        3. A file shall be maintained containing documentation demonstrating compliance with 2.b.i.2)a) above. This file shall be available for review by the Department representatives and copies shall be provided upon request.
  - ii. **Equipment and Materials** – Equipment and materials (e.g., thermometers, thermostats) used by the permittee, which may contain mercury, must be evaluated by the permittee. As equipment and materials containing mercury are updated/replaced, the permittee must use mercury-free alternatives, if possible.
  - iii. **Bulk Chemical Evaluation** – For chemicals, used at a rate which exceeds 1,000 gallons/year or 10,000 pounds/year, the permittee must obtain a manufacturer's certificate of analysis, a chemical analysis performed by a certified laboratory, and/or a notarized affidavit which describes the substances' mercury concentration and the detection limit achieved. If possible, the permittee must only use bulk chemicals utilized in the wastewater treatment process which contain <10 ppb mercury.
- c. **Status Report** - An **annual** status report must be developed and maintained on site, in accordance with the **Schedule of Additional Submittals**, summarizing:
- i. All MMP monitoring results for Outfall(s) 001 and 003 for the previous reporting period;
  - ii. A list of known and *potential mercury sources* for Outfall(s) 001 and 003
    - 1) If the permittee meets the criteria for MMP Type IV, the permittee must notify the Department for a permittee-initiated modification;
  - iii. All actions undertaken, pursuant to the control strategy, during the previous reporting period;
  - iv. Actions planned, pursuant to the control strategy, for the upcoming reporting period; and
  - v. Progress towards achieving a dissolved mercury concentration of 0.70 ng/L in the effluent (e.g., summarizing reductions in effluent concentrations as a result of the control strategy implementation and/or installation/modification of a treatment system).
- The permittee must maintain a file with all MMP documentation. The file must be available for review by Department representatives and copies must be provided upon request in accordance with 6 NYCRR 750-2.1(i) and 750-2.5(c)(4).
3. **MMP Modification** - The MMP must be modified whenever:
- a. Changes at the facility increase the potential for mercury discharges;
  - b. Effluent discharges exceed the current permit limitation(s); or
  - c. A letter from the Department identifies inadequacies in the MMP.

The Department may use information in the status reports, as applicable in accordance with 2.c of this MMP, to determine if the permit limitations and MMP Type is appropriate for the facility.

### DEFINITIONS:

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<sup>3</sup> For example, the outreach program could include education about sources of mercury and what to do if a mercury source is found.

Key location – a location within the collection/wastewater system (e.g. including but not limited to a specific manhole/access point, tributary sewer/wastewater connection, or user discharge point) identified by the permittee as a potential mercury source. The permittee may adjust key locations based upon sampling and/or best professional judgement.

Potential mercury source – a source identified by the permittee that may reasonably be expected to have total mercury contained in the discharge. Some potential mercury sources include switches, fluorescent lightbulbs, cleaners, degreasers, thermometers, batteries, hauled wastes, universities, hospitals, laboratories, landfills, Brownfield sites, or raw material storage.

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## PCB MINIMIZATION PROGRAM – INDUSTRIAL FACILITIES

1. **General** - The permittee shall develop, implement, and maintain a Polychlorinated Biphenyl Minimization Program (PCBMP) for those outfalls which have effluent limits for PCBs (including Aroclors). The PCBMP is required because the 95 nanograms/liter (ng/L) permit limit per PCB Aroclor exceeds the water quality based effluent limit (WQBEL) of 0.001 ng/L for Total PCBs. The goal of the PCBMP is to reduce PCB effluent levels in pursuit of the WQBEL. The basis for the 95 ng/L per Aroclor limit is the EPA Method 608.3 analytical Minimum Level for Aroclors.
2. **PCBMP Elements** - The PCBMP shall be documented in narrative form and shall include any necessary drawings or maps. Other related documents already prepared for the facility may be used as part of the PCBMP and may be incorporated by reference. As a minimum, the PMP plan shall include an on-going program consisting of: periodic monitoring; an acceptable control strategy which will become enforceable under this permit; and, submission of annual status reports.

A. **Monitoring** - The permittee shall conduct periodic monitoring designed to quantify and, over time, track the reduction of PCBs. Wastewater treatment plant influents and effluents, and other outfalls shall be monitored using a congener specific analysis method\* at a minimum frequency of quarterly. Key locations in the wastewater and/or stormwater collection systems, and known or potential PCB sources, including raw materials as appropriate, shall be monitored using a congener specific analysis method\* at a minimum frequency of semi-annually. Additional monitoring must be completed as may be required elsewhere in this permit or upon Department request.

SPDES permit limit compliance monitoring shall be performed at the frequency specified on the permit limits page(s) using Method 608.3. Results from congener analysis required under this PCBMP shall not be used for determining compliance with the 95 ng/L Aroclor permit limits. Additional monitoring must be completed as may be required elsewhere in this permit or upon Department request. Monitoring shall be coordinated so that the results can be effectively: compared between locations; compared between analytical methods; used to identify PCB sources; and, used to gauge the effectiveness of PCB reduction and control efforts.

\* The permittee shall use a congener specific analysis method to measure and quantify Total PCBs. The congener specific analysis method shall be approved by the New York State Department of Health under its Environmental Laboratory Approval Program and shall be sufficiently sensitive. As of 2019, the only method meeting these requirements is EPA Method 1668C. It is recognized that in the future this method may be supplanted by more sensitive ELAP-approved methods in which case the newer sufficiently sensitive method(s) shall be utilized. "Total PCBs" shall be calculated as the sum of all detections at or above the Minimum Level. A separate sum of "Estimated PCBs" detected at or above the Method Detection Limit and below the Minimum Level shall also be determined.

The permittee may request, and the Department may optionally approve, alternate methods for congener specific PCB analyses provided the alternate method is demonstrated to be equivalent or superior to one of the above methods.

B. **Control Strategy** - An acceptable control strategy is required for reducing PCB discharges via cost-effective measures, including but not limited to source identification and more stringent control of industrial processes. The control strategy will become enforceable under this permit and shall contain the following minimum elements:

- i. **Periodic Inspection** - The permittee must inspect users as necessary to support the PCBMP.
- ii. **Records** - A file shall be maintained containing all PCBMP documentation which shall be available for review by DEC representatives.

C. **Annual Status Report** - An annual status report shall be submitted to the Regional Water Engineer summarizing: (a) all PCBMP monitoring results for the previous year; (b) a list of known and potential PCB sources; (c) all action undertaken pursuant to the strategy during the previous year; (d) actions planned for the upcoming year; and, (e) progress toward the goal. The first annual status report is due in accordance with the Schedule of Submittals. A file shall be maintained containing all PCBMP documentation which shall be available for review by NYSDEC representatives. Copies shall be provided upon request.

3. **PCBMP Modification** - The PCBMP shall be reviewed, and if necessary modified, whenever: (a) changes at the facility or within the collection system(s) increase the potential for PCB discharges; (b) new information is discovered concerning the source, nature, or extent of any PCB source(s) and/or discharges from the facility; (c) actual discharges contain detectable Aroclors as measured with EPA Method 608.3. The PCBMP shall be modified whenever a letter from the Department identifies inadequacies in the PCBMP or pursuant to a permit modification.

## DISCHARGE NOTIFICATION REQUIREMENTS

- (a) The permittee shall install and maintain identification signs at all outfalls to surface waters listed in this permit, unless the Permittee has obtained a waiver in accordance with the Discharge Notification Act (DNA). Such signs shall be installed before initiation of any new discharge location.
- (b) Subsequent modifications to or renewal of this permit does not reset or revise the deadline set forth in (a) above, unless a new deadline is set explicitly by such permit modification or renewal.
- (c) The Discharge Notification Requirements described herein do not apply to outfalls from which the discharge is composed exclusively of storm water, or discharges to ground water.
- (d) The sign(s) shall be conspicuous, legible and in as close proximity to the point of discharge as is reasonably possible while ensuring the maximum visibility from the surface water and shore. The signs shall be installed in such a manner to pose minimal hazard to navigation, bathing or other water related activities. If the public has access to the water from the land in the vicinity of the outfall, an identical sign shall be posted to be visible from the direction approaching the surface water.

The signs shall have **minimum** dimensions of eighteen inches by twenty-four inches (18" x 24") and shall have white letters on a green background and contain the following information:

<p><b>N.Y.S. PERMITTED DISCHARGE POINT</b></p> <p><b>SPDES PERMIT No.: NY _____</b></p> <p><b>OUTFALL No. : _____</b></p> <p>For information about this permitted discharge contact:</p> <p>Permittee Name: _____</p> <p>Permittee Contact: _____</p> <p>Permittee Phone: ( ) - ### - #####</p> <p>OR:</p> <p>NYSDEC Division of Water Regional Office Address:</p> <p>NYSDEC Division of Water Regional Phone: ( ) - ### - #####</p>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

- (e) Upon request, the permittee shall make available electronic or hard copies of the sampling data to the public. In accordance with the RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS page of your permit, each DMR shall be maintained (either electronically or as a hard copy) on record for a period of five years.
- (f) The permittee shall periodically inspect the outfall identification sign(s) in order to ensure they are maintained, are still visible, and contain information that is current and factually correct. Signs that are damaged or incorrect shall be replaced within 3 months of inspection.



## SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule:

Outfall	Compliance Action	Compliance Date <sup>4</sup>
	INTERIM PROGRESS REPORT <sup>5</sup> The permittee shall provide a status update on the installation of the Cooling Tower Structure.	EDP + 9 Months, and every 9 months thereafter until 12/31/2024
	BIOLOGICAL MONITORING REQUIREMENTS The permittee shall complete installation of the Cooling Tower Structure and cease pumping operations at the GM CWIS (River Pump House).	12/31/2024
001, 003	INTERIM PROGRESS REPORT The permittee shall provide a status update for the <i>Design Documents</i> .	EDP + 21 Months
001, 003	DESIGN DOCUMENTS The permittee shall submit approvable <sup>2</sup> Design Documents including a Basis of Design Report (BODR), Plans, Specifications, and Construction Schedule for the selected alternative that will ensure compliance with final effluent limitation(s) for Total Residual Chlorine.	EDP + 24 Months
001, 003	INTERIM PROGRESS REPORT The permittee shall provide a status update for <i>Complete Construction</i> .	EDP + 33 Months EDP + 42 Months EDP + 51 Months
001, 003	COMPLETE CONSTRUCTION The permittee shall provide a Construction Completion Certification <sup>6</sup> to the Department that the disposal system has been fully completed in accordance with the approved Design Documents.	EDP + 54 Months
001, 003	COMMENCE OPERATION Following receipt of Department acceptance of the Construction Completion Certification, the permittee shall comply with the final effluent limitation(s) described in this permit for Total Residual Chlorine.	Upon Department Acceptance

**Unless noted otherwise, the above actions are one-time requirements.**

OUTFALL	PARAMETER	INTERIM EFFLUENT LIMIT					MONITORING REQUIREMENTS				Notes
		Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.		
001	Total Residual Chlorine	Daily Maximum	2.0	mg/L	-	-	3/Day	Grab	-	X	1,2
003	Total Residual Chlorine	Daily Maximum	2.0	mg/L	-	-	3/Day	Grab	-	X	1,2
Notes:	1. Sampling and reporting for total residual chlorine is only necessary if chlorine is used for disinfection, elsewhere in the treatment process, or the facility otherwise has reasonable potential to discharge chlorine. Otherwise, the permittee shall report NODI-9 on the DMR. 2. Interim limits expire <b>EDP + 54 Months</b> .										

<sup>4</sup> 6 NYCRR 750-1.14 (a)

<sup>5</sup> 6 NYCRR 750-1.14 (b)

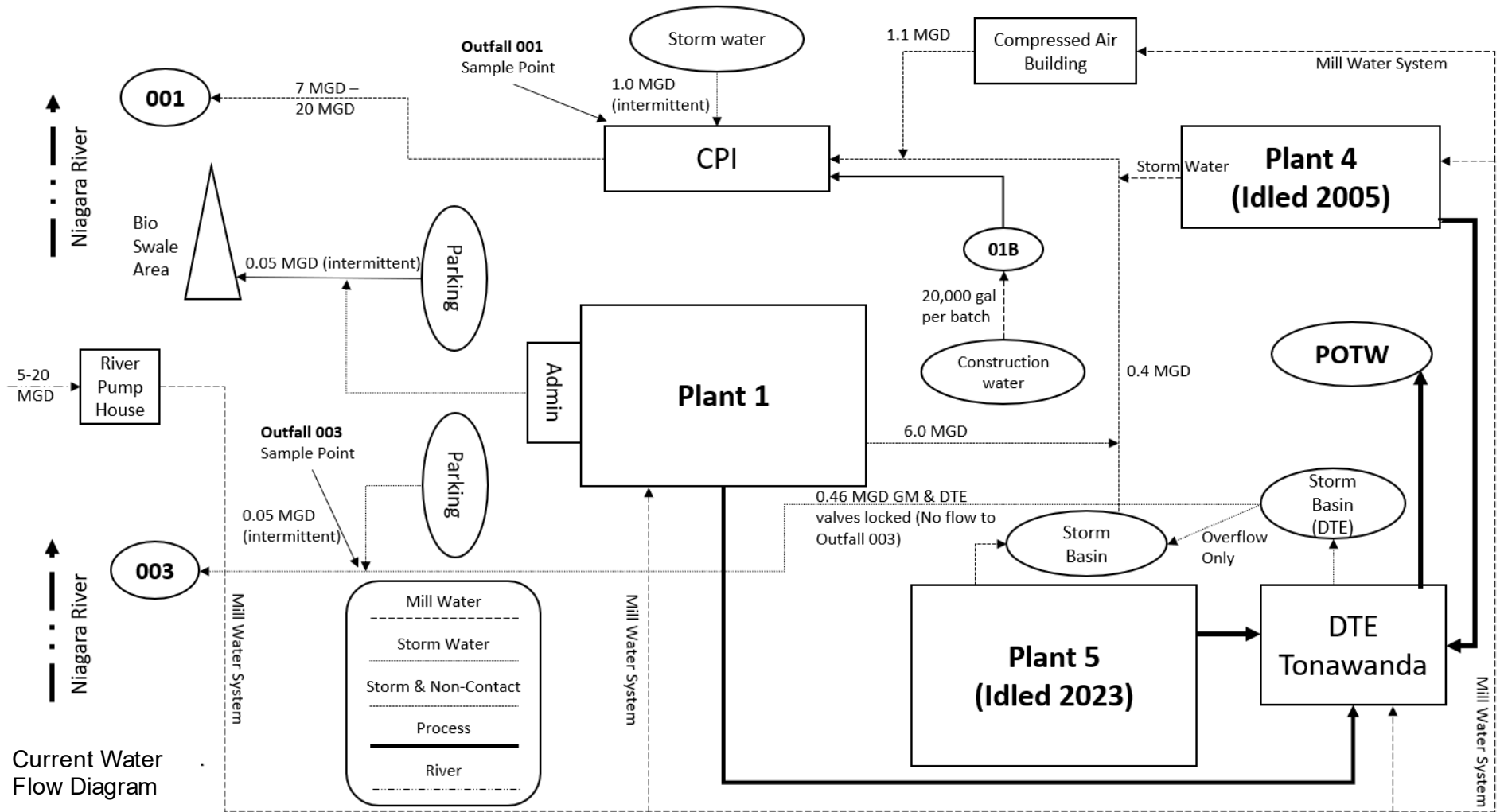
<sup>6</sup> 6 NYCRR 750-2.10 (c)

- b) The permittee shall submit a written notice of compliance or non-compliance with each of the above schedule dates no later than 14 days following each elapsed date, unless conditions require more immediate notice as prescribed in 6 NYCRR Part 750-1.2(a) and 750-2. All such compliance or non-compliance notification shall be sent to the locations listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS. Each notice of non-compliance shall include the following information:
1. A short description of the non-compliance;
  2. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirements without further delay and to limit environmental impact associated with the non-compliance;
  3. Any details which tend to explain or mitigate an instance of non-compliance; and
  4. An estimate of the date the permittee will comply with the elapsed schedule requirement and an assessment of the probability that the permittee will meet the next scheduled requirement on time.
- c) The permittee shall submit copies of any document required by the above schedule of compliance to the NYSDEC Regional Water Engineer and to the Bureau of Water Permits.

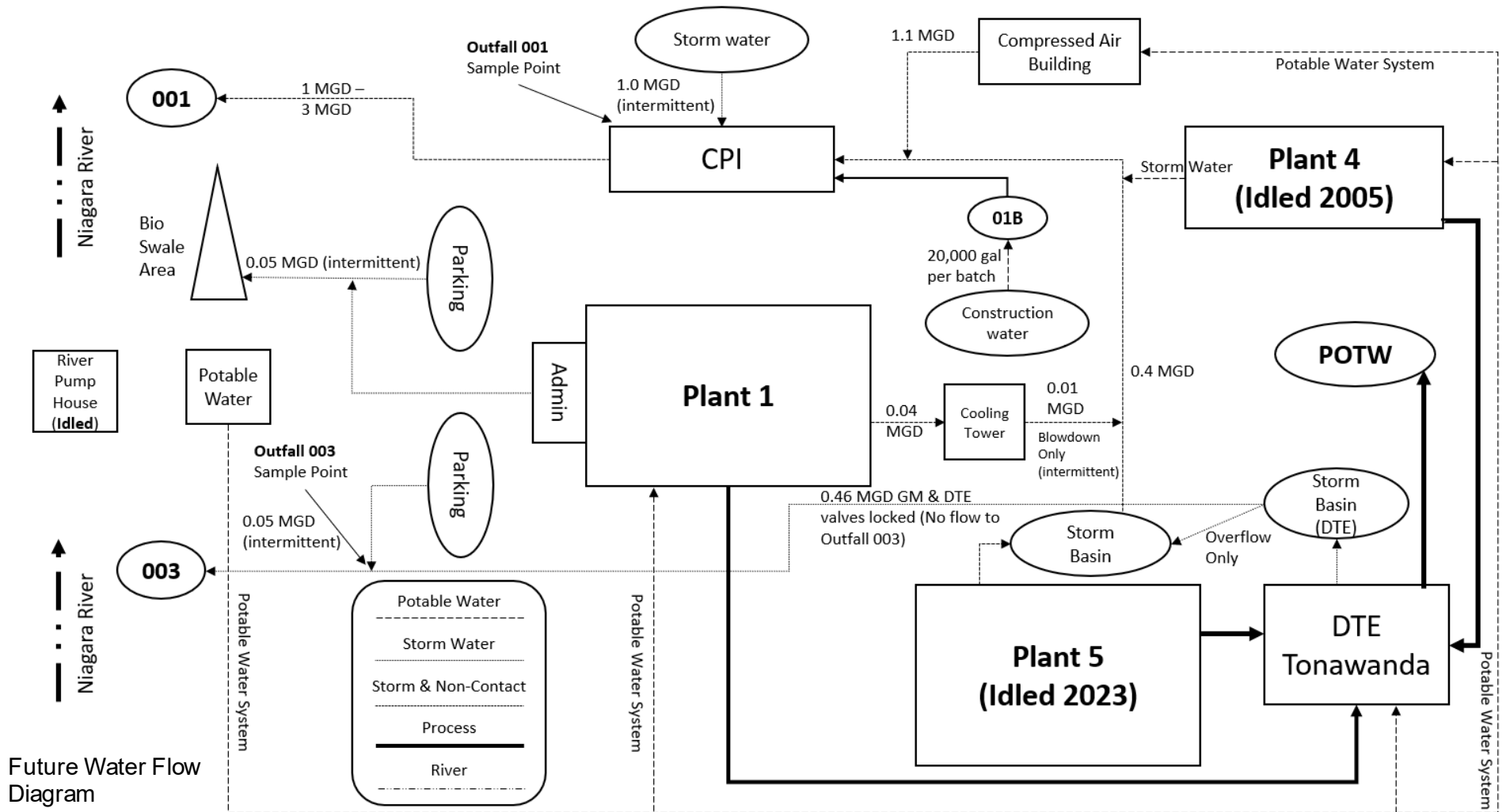
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# MONITORING LOCATIONS

The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the location(s) specified below:



Current Water Flow Diagram



## GENERAL REQUIREMENTS

- A. The regulations in 6 NYCRR Part 750 are hereby incorporated by reference and the conditions are enforceable requirements under this permit. The permittee shall comply with all requirements set forth in this permit and with all the applicable requirements of 6 NYCRR Part 750 incorporated into this permit by reference, including but not limited to the regulations in paragraphs B through H as follows:
- B. General Conditions
1. Duty to comply 6 NYCRR 750-2.1(e) & 2.4
  2. Duty to reapply 6 NYCRR 750-1.16(a)
  3. Need to halt or reduce activity not a defense 6 NYCRR 750-2.1(g)
  4. Duty to mitigate 6 NYCRR 750-2.7(f)
  5. Permit actions 6 NYCRR 750-1.1(c), 1.18, 1.20 & 2.1(h)
  6. Property rights 6 NYCRR 750-2.2(b)
  7. Duty to provide information 6 NYCRR 750-2.1(i)
  8. Inspection and entry 6 NYCRR 750-2.1(a) & 2.3
- C. Operation and Maintenance
1. Proper Operation & Maintenance 6 NYCRR 750-2.8
  2. Bypass 6 NYCRR 750-1.2(a)(17), 2.8(b) & 2.7
  3. Upset 6 NYCRR 750-1.2(a)(94) & 2.8(c)
- D. Monitoring and Records
1. Monitoring and records 6 NYCRR 750-2.5(a)(2), 2.5(a)(6), 2.5(c)(1), 2.5(c)(2), & 2.5(d)
  2. Signatory requirements 6 NYCRR 750-1.8 & 2.5(b)
- E. Reporting Requirements
1. Reporting requirements for non-POTWs 6 NYCRR 750-2.5, 2.6, 2.7, & 1.17
  2. Anticipated noncompliance 6 NYCRR 750-2.7(a)
  3. Transfers 6 NYCRR 750-1.17
  4. Monitoring reports 6 NYCRR 750-2.5(e)
  5. Compliance schedules 6 NYCRR 750-1.14(d)
  6. 24-hour reporting 6 NYCRR 750-2.7(c) & (d)
  7. Other noncompliance 6 NYCRR 750-2.7(e)
  8. Other information 6 NYCRR 750-2.1(f)
- F. Sludge Management
- The permittee shall comply with all applicable requirements of 6 NYCRR Part 360.
- G. SPDES Permit Program Fee
- The permittee shall pay to the Department an annual SPDES permit program fee within 30 days of the date of the first invoice, unless otherwise directed by the Department, and shall comply with all applicable requirements of ECL 72-0602 and 6 NYCRR Parts 480, 481 and 485. Note that if there is inconsistency between the fees specified in ECL 72-0602 and 6 NYCRR Part 485, the ECL 72-0602 fees govern.
- H. Water Treatment Chemicals (WTCs)
- New or increased use and discharge of a WTC requires prior Department review and authorization. At a minimum, the permittee must notify the Department in writing of its intent to change WTC use by submitting a completed *WTC Notification Form* for each proposed WTC. The Department will review that submittal and determine if a SPDES permit modification is necessary or whether WTC review and authorization may proceed outside of the formal permit administrative process. The majority of WTC authorizations do not require SPDES permit modification. In any event, use and discharge of a WTC shall not proceed without prior authorization from the Department. Examples of WTCs include biocides, coagulants, conditioners, corrosion inhibitors, defoamers, deposit control agents, flocculants, scale inhibitors, sequestrants, and settling aids.
1. WTC use shall not exceed the rate explicitly authorized by this permit or otherwise authorized by the Department.
  2. The permittee shall maintain a logbook of all WTC use, noting for each WTC the date, time, exact location, and amount of each dosage, and, the name of the individual applying or measuring the chemical. The logbook must also document that adequate process controls are in place to ensure excessive levels of WTCs are not used.
  3. The permittee shall submit a completed WTC Annual Report Form each year that they use and discharge WTCs. This form shall be submitted in electronic format and attached to either the December DMR or the annual monitoring report required below. The *WTC Notification Form and WTC Annual Report Form* are available from the Department's website at: <http://www.dec.ny.gov/permits/93245.html>

## RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

- A. The monitoring information required by this permit shall be retained for a period of at least five years from the date of the sampling for subsequent inspection by the Department or its designated agent.
- B. Discharge Monitoring Reports (DMRs): Completed DMR forms shall be submitted for each 1-month reporting period in accordance with the DMR Manual available on Department's website.

DMRs must be submitted electronically using the electronic reporting tool (NetDMR) specified by NYSDEC. Instructions on the use of NetDMR can be found at <https://www.dec.ny.gov/chemical/103774.html>. **Hardcopy paper DMRs will only be received at the address listed below, directed to the Bureau of Water Compliance, if a waiver from the electronic submittal requirements has been granted by DEC to the facility.**

The first monitoring period begins on the effective date of this permit, and, unless otherwise required, the reports are due no later than the 28th day of the month following the end of each monitoring period.

- C. Additional information required to be submitted by this permit shall be summarized and reported to the RWE and Bureau of Water Permits at the following addresses:

Department of Environmental Conservation  
Division of Water, Bureau of Water Permits  
625 Broadway, Albany, New York 12233-3505 Phone: (518) 402-8111

Department of Environmental Conservation  
Regional Water Engineer, Region 9  
700 Delaware Avenue, Buffalo, NY 14209

Department of Environmental Conservation  
Energy Unit Leader  
625 Broadway, Albany, New York 12233-4756 Phone: (518) 402-8920

- D. Schedule of Additional Submittals:

The permittee shall submit the following information to the Regional Water Engineer and to the Bureau of Water Permits, unless otherwise instructed:

Outfall(s)	SCHEDULE OF ADDITIONAL SUBMITTALS - Required Action	Due Date
	<p><u>BMP PLAN</u>  The permittee shall annually review the completed BMP plan, submitted to this Department on 8/25/2021, on an annual basis. The BMP plan shall be modified whenever: (a) changes at the facility materially increase the potential for releases of pollutants, (b) actual releases indicate the plan is inadequate, or (c) a letter from the Department identifies inadequacies in the plan. The permittee shall certify in writing, as an attachment to the December Discharge Monitoring Report (DMR), that the annual review has been completed. All BMP plan revisions must be submitted to the Regional Water Engineer within 30 days.</p>	<p>EDP + 6 Months, Annually thereafter on January 28<sup>th</sup></p>
003	<p><u>SHORT-TERM HIGH-INTENSITY MONITORING PROGRAM</u>  The permittee shall collect 10 samples representative of normal discharge conditions and treatment operations over a 4-week period for the identified parameters. The permittee shall use approved EPA analytical method with the lowest possible detection limit as promulgated under 40CFR Part 136 for the determination of the concentrations of parameters listed. The permittee shall submit a summary of the results.</p> <p><b>Outfall 003 – Formaldehyde, Chlorides</b></p>	<p>EDP + 2 months</p>

Outfall(s)	SCHEDULE OF ADDITIONAL SUBMITTALS - Required Action	Due Date
001	<p><u>WHOLE EFFLUENT TOXICITY (WET) TESTING</u>  WET testing shall be performed as required in the footnote of the permit limits table. The toxicity test report including all information requested of this permit shall be attached to your WET DMRs and sent to the <a href="mailto:WET@dec.ny.gov">WET@dec.ny.gov</a> email address.</p>	<p>Within 60 days following the end of each monitoring period</p>
	<p><u>WATER TREATMENT CHEMICAL (WTC) ANNUAL REPORT FORM</u>  The permittee shall submit a completed WTC Annual Report Form each year that Water Treatment Chemicals are used. The form shall be attached to the December DMR.</p>	<p>December 31<sup>st</sup>, Annually</p>
	<p><u>MERCURY MINIMIZATION PLAN</u>  The permittee must complete and maintain onsite an annual mercury minimization status report in accordance with the requirements of this permit.</p>	<p><b>Maintained Onsite</b>  EDP + 12 months, annually thereafter</p>
	<p><u>PCB MINIMIZATION PROGRAM – STATUS REPORT</u>  The permittee shall submit an annual PCB minimization program status report. The report shall follow the guidelines of this permit, summarizing:  (a) all PCBMP monitoring results for the previous year;  (b) a list of known and potential PCB sources;  (c) all action undertaken pursuant to the strategy during the previous year;  (d) actions planned for the upcoming year; and,  (e) progress toward the goal.</p> <p>A file shall be maintained containing all PCBMP documentation which shall be available for review by NYSDEC representatives. Copies shall be provided upon request.</p>	<p>EDP + 12 months, annually thereafter</p>

**Unless noted otherwise, the above actions are one-time requirements.**

- E. Monitoring and analysis shall be conducted using sufficiently sensitive test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
- F. More frequent monitoring of the discharge(s), monitoring point(s), or waters of the State than required by the permit, where analysis is performed by a certified laboratory or where such analysis is not required to be performed by a certified laboratory, shall be included in the calculations and recording of the data on the corresponding DMRs.
- G. Calculations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- H. Unless otherwise specified, all information recorded on the DMRs shall be based upon measurements and sampling carried out during the most recently completed reporting period.
- I. Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section 502 of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be directed to the New York State Department of Health, Environmental Laboratory Accreditation Program.

Permittee: General Motors LLC  
Facility: General Motors Tonawanda Engine Plant  
SPDES Number: NY0000574  
USEPA Major/Class 03 Industrial

Date: February 2, 2024 v.1.13  
Permit Writer: Danyel King  
Water Quality Reviewer: Danyel King  
Full Technical Review

# **SPDES Permit Fact Sheet**

## **General Motors LLC**

### **General Motors Tonawanda**

#### **Engine Plant**

##### **NY0000574**





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## Summary of Permit Changes

A State Pollutant Discharge Elimination System (SPDES) EBPS permit renewal with changes requested by the permittee has been drafted for the General Motors Tonawanda Engine Plant (GM Tonawanda). The changes to the permit are summarized below:

- Updated the permit to account for the facility transitioning to a closed-loop cooling water system, thereby eliminating the withdrawal and subsequent discharge, of approximately 7 MGD from/to the Niagara River.
- Updated the Biological Monitoring section of the permit to reflect a new closed loop cooling system.
- Updated permit format, definitions, and general conditions.
- Updated PCB Minimization Program and compliance levels at Outfall 001 and 01B to 95 ng/L per Method 608.3 for PCBs.
- Added daily maximum effluent limitation of 50 ng/L for Mercury and a Mercury Minimization Program at Outfall 001 and 003.
- Added effluent limitations for Total Residual Chlorine at Outfall 001 and 003.
- Added a Schedule of Compliance for Total Residual Chlorine at Outfall 001 and 003 and construction of the closed-loop cooling water system.
- Added a Short-Term, High-intensity Monitoring Program for Formaldehyde and Chlorides at Outfall 003.
- Added acute and chronic WET action levels of 15 TUa and 100 TUc, respectively, at Outfall 001.

**This factsheet summarizes the information used to determine the effluent limitations (limits) and other conditions contained in the permit. General background information including the regulatory basis for the effluent limitations and other conditions are in the [Appendix](#) linked throughout this factsheet.**

## Administrative History

- 3/1/2018 The last full technical review was performed and the SPDES permit became effective with a new five-year term and expiration date of 2/28/2023. The 2018 permit, along with all subsequent modifications, has formed the basis of this permit.
- 3/1/2019 The permit was modified to require the submission of electronic Discharge Monitoring Reports (DMRs) and posting requirements in accordance with the Discharge Notification Act.
- 7/28/2022 The current permit was extended pursuant to SAPA<sup>1</sup>.
- 7/28/2022 General Motors LLC submitted a timely permit renewal application and request to modify the permit to remove Best Technology Available requirements at the GM Tonawanda site. General Motors has proposed ceasing operations of GM Tonawanda's Cooling Water Intake Structure and will implement closed loop cooling by 12/31/2024.
- 8/19/2022 The Department issued a Notice of Incomplete Application to General Motors, which identified the following missing information: clarification on the source of cooling water, additional information needed for a water treatment chemical,

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<sup>1</sup> State Administrative Procedures Act Section 401(2) and 6 NYCRR 621.11(I)

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mercury sampling at Outfall 001 and 003, and a description of the cooling tower structure.

8/29/2022 General Motors provided the missing information identified in the Notice of Incomplete Application. The application was deemed technically complete.

The Notice of Complete Application, published in the [Environmental Notice Bulletin](#) and newspapers, contains information on the public notice process.

## Facility Information

General Motors Tonawanda Engine Plant (GM Tonawanda) is an industrial facility (SIC code 3714) in Buffalo, NY that opened in 1938. The facility produces motor vehicle parts and accessories for a variety of GM powertrain trucks and SUVs as well as the Chevrolet Corvette. GM Tonawanda manufactures and assembles automotive engines. Manufacturing processes include machining, grinding, honing, polishing, drilling, tapping, boring, of engine components (block, heads, and cranks) to be assembled into automotive engines. At the time of permit development, the facility is not subject to any federal effluent limitation guidelines. Process waste waters from GM Tonawanda (Plant 1) are directed to the DTE Facility for processing and treatment. The DTE Facility uses a membrane ultra-filtration system for treatment. Effluent from the DTE Facility and GM Tonawanda's sanitary wastewater is directed to the Town of Tonawanda (NY0026395) before discharge to the Niagara River. At this time, the DTE Facility (Plant 5) is idle and generates no process waste waters. When Plant 5 was operational, industrial wastes were characteristically similar to Plant 1 wastewater.

The remaining effluent from Plant 1 consists of stormwater, non-contact cooling water, and remediated wastewater, and discharges through Outfall 001 to the Niagara River.

Treatment consists of corrugated plate interceptors (CPI) for removal of floating oils and solids and a Mobilized Portable Activated Carbon Treatment Unit for PCB treatment from Outfall 01B (remediation system discharge) as needed.

Stormwater runoff from GM Tonawanda parking lots and adjacent paved areas and non-process flow from the DTE facility is discharged through Outfall 003. The water flow diagram below depicts the current processes and water balance of industrial activities:

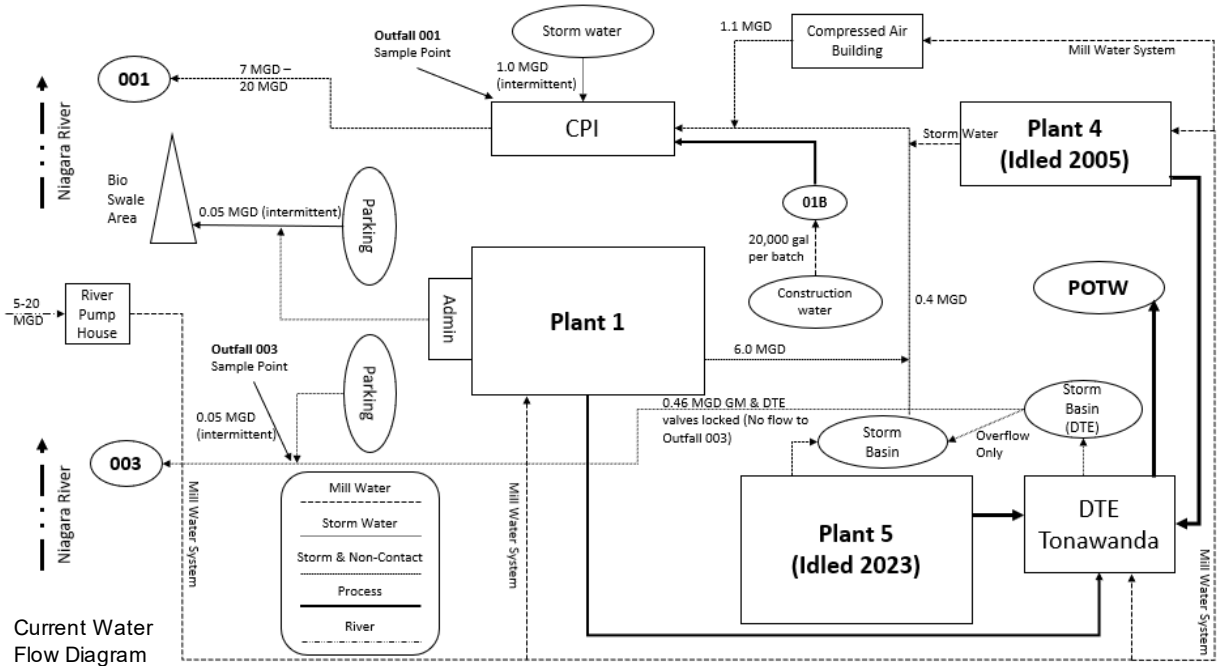


Figure 1: Current water flow diagram. Process and sanitary wastewaters are sent to the Town of Tonawanda Wastewater Facilities.

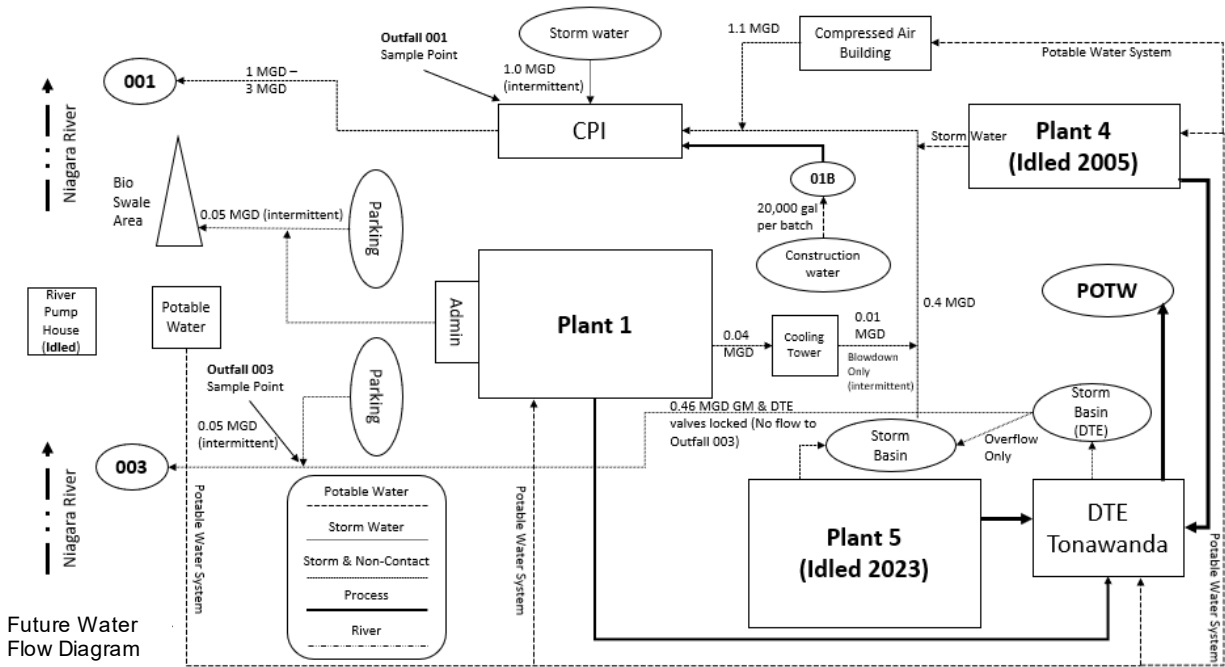


Figure 2: Future water flow diagram. Process and sanitary wastewaters are sent to the Town of Tonawanda Wastewater Facilities.



Figure 3: Aerial image of General Motors Tonawanda Engine Plant

### ***Cooling Water Intake Structure (CWIS) Biological Monitoring***

The facility currently uses a once-through cooling system to withdraw water from the Niagara River. This system consists of a cooling water intake structure and is subject to the performance goals of Commissioner's Policy 52 (CP-52). The previous permit contained a Biological Fact Sheet with details on the permit requirements related to the CWIS.

General Motors is proposing to install a cooling tower structure that will use potable water from the Town of Tonawanda. The cooling tower structure is a basin-less elevated cooling tower with six cooling cells. The cooling tower structure is sized to support GM Tonawanda's cooling needs for manufacturing with two spare cells. This will allow the site to take cells down for maintenance without impacting the cooling load. Information on Best Technology Available (BTA) and requirements are included in the permit. An image of the cooling tower structure is depicted below:



Figure 4: Elevated Cooling Tower Structure

The cooling tower structure is a basin-less elevated cooling tower with six cooling cells. The cooling tower structure is sized to support the facility's cooling needs for manufacturing with two spare cells. This will allow the site to take cells down for maintenance without impacting the cooling load. See the [Biological Fact Sheet](#) in the Appendix for more information.

### Enforcement History

The facility's compliance history from 10/31/2019 to 10/31/2022 was reviewed during development of the proposed permit. No effluent violations occurred during this time period that impacted permit development. There were no active Consent Orders during this time period.

Compliance and enforcement information can be found on the EPA's [Enforcement and Compliance History Online \(ECHO\)](#) website.

### Existing Effluent Quality

The [Pollutant Summary Table](#) presents the existing effluent quality and effluent limitations. The existing effluent quality was determined from the Discharge Monitoring Reports and the application submitted by the permittee for the period 10/31/2019 to 10/31/2022. [Appendix Link](#)

### Interstate Water Pollution Control Agencies

The facility and outfall are located within the Great Lakes watershed and International Joint Commission (IJC) compact area which places additional requirements in the SPDES permit. The IJC was responsible for the development of the Great Lakes Water Quality Initiative (GLI). This permit is subject to requirements of the GLI under 40 CFR 132. [Appendix Link](#)

### Receiving Water Information

The facility discharges via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001	-	Stormwater and Non-Contact Cooling Water Non-contact cooling water; Remediation system discharge; flow from indoor garage floor drain; Stormwater and flow from DTE (discharge from stormwater basin which also includes Cooling Tower Blowdown).	Niagara River, Class A-S
01B	-	Internal monitoring point to Outfall 001. Batch treatment of dewatered construction/ renovation onsite projects.	Internal
003	-	Stormwater Runoff Stormwater runoff from GM (parking lots and adjacent paved areas) and flow from DTE (discharge from stormwater basin which also includes Cooling Tower Blowdown).	Niagara River, Class A-S

**Reach Description:** The Niagara River (Ont 158 (portion 2)) is a tributary of Lake Ontario. The segment at the point of discharge is classified as A-Special (6 NYCRR 837.4 – Table I Item 1.

See the [Outfall and Receiving Water Summary Table](#) and [Appendix](#) for additional information.

### Impaired Waterbody Information

The Niagara River segment (PWL No. 0101-0006) was first listed on the 1998 [New York State Section 303\(d\) List](#) of Impaired/TMDL Waters as impaired due to PCBs from contaminated sediment. There are detections for PCBs present in the effluent. The permit includes a PCB Minimization Program. The segment continues to be listed as of the 2018 NYS Section 303(d) List. A TMDL has not been developed to address the impairment, and therefore, there are no applicable wasteload allocations (WLAs) for this facility.

### Critical Receiving Water Data

The low flow condition for the Niagara River was obtained from a drainage basin ratio analysis with USGS gage station 04216000, Niagara River at Buffalo located at Buffalo. The 7Q10 flow

and drainage area at the gage are described in the USGS/NYSDEC Bulletin 74, 1979. The 1Q10 flow was estimated as half the 7Q10 and the 30Q10 flow was estimated as 1.2 x 7Q10.

Gage Name: Niagara River at Buffalo  
 Gage ID: 04216000  
 Drainage Area at Gage (mi<sup>2</sup>): 263,700  
 7Q10 Flow at Gage (CFS): 145,000 Source: Bulletin 74  
 Estimated 1Q10 (CFS): 73,000  
 Estimated 30Q10 (CFS): 174,000

Consistent with TOGS 1.3.1 for large rivers, the acute and chronic dilution ratios are limited to a max of 50:1 and 100:1, respectively.

The 1Q10, 7Q10, and 30Q10 flows were used to calculate the acute, chronic, and human, aesthetic, wildlife (HEW) dilution ratios, respectively.

$$\text{Dilution Ratio} = (\text{Facility Flow} + \text{Low Flow}) / \text{Facility Flow}$$

Outfall No.	Acute Dilution Ratio A(A)	Chronic Dilution Ratio A(C)	Human, Aesthetic, Wildlife Dilution Ratio (HEW)	Basis
001	50:1	100:1	100:1	TOGS 1.3.1

Critical receiving water data are listed in the [Pollutant Summary Table](#) at the end of this fact sheet. [Appendix Link](#)

## Permit Requirements

The technology based effluent limitations ([TBELs](#)), water quality-based effluent limitations ([WQBELs](#)), [Existing Effluent Quality](#) and a discussion of the selected effluent limitation for each pollutant present in the discharge are provided in the [Pollutant Summary Table](#).

### Whole Effluent Toxicity (WET) Testing

An evaluation of the discharge indicates the potential for toxicity based on the following criteria: [Appendix Link](#)

- There is the presence of substances for which WQBELs are below analytical detectability. (#3)
- There is the possibility of complex synergistic or additive effects of chemicals, typically when the number of metals or organic compounds discharged by the permittee equals or exceeds five. (#4)
- Treatment plants which equal or exceed a discharge of 1MGD. (#7)

The requirement for WET testing is new. No previous WET data was available to perform a reasonable potential analysis. Consistent with TOGS 1.3.2, given the dilution available and location within the Great Lakes basin, the permit requires chronic WET testing. WET testing action levels of 15 TUa and 100 TUC have been included in the permit for each species. The acute action level for each species represent the acute dilution ratio times a factor of 0.3. The chronic action levels represent the chronic dilution ratio. Samples will be collected quarterly every five years beginning January 2025.

### Anti-backsliding

The limitations contained in the permit are at least as stringent as the previous permit limits and there are no instances of backsliding. [Appendix Link](#)



### Antidegradation

The permit contains effluent limitations which ensure that the best usages of the receiving waters will be maintained. The Notice of Complete Application published in the Environmental Notice Bulletin contains information on the State Environmental Quality Review (SEQR)<sup>2</sup> determination.

### [Appendix Link](#)

### Discharge Notification Act Requirements

In accordance with the Discharge Notification Act (ECL 17-0815-a), the permittee is required to post a sign at each point of wastewater discharge to surface waters, unless a waiver is obtained. This requirement is being continued from the previous permit.

Additionally, the permit includes a requirement that the permittee must make the DMR sampling data available to the public upon request. This requirement is being continued from the previous permit.

### Best Management Practices (BMPs) for Industrial Facilities

In accordance with 6 NYCRR 750-1.14(f) and 40 CFR 122.44(k), the permittee is required to continue implementation of a BMP plan that prevents, or minimizes the potential for, the release of toxic or hazardous pollutants to state waters. The BMP plan requires annual review by the permittee.

The facility discharges stormwater associated with industrial activity that would require SPDES permit coverage under 40 CFR 122.26. BMPs consistent with requirements contained in the NYS MSGP (GP-0-23-000) Sector [AA], have been included in the permit and pollutants associated with the industrial activity are to be controlled through implementation of source controls developed and implemented under this BMP plan. This requirement is new.

### Stormwater Pollution Prevention Requirements

The facility discharges stormwater associated with industrial activity and requires SPDES permit coverage under 40 CFR 122.26(a)(6).

Stormwater discharges at this facility cannot obtain coverage under the current Multi-Sector General Permit (MSGP) (GP-0-23-001). However, the permit includes select requirements consistent with the MSGP Sector AA: Fabricated Metal Products. This requirement is new.

### Mercury<sup>3</sup>

The multiple discharge variance (MDV) for mercury provides the framework for NYSDEC to require mercury monitoring and mercury minimization programs (MMPs), through SPDES permitting. [Appendix Link](#)

#### MMP Type III

The facility is located within the Great Lakes Basin and is a USEPA Major Class 03 facility. Therefore, the permit includes requirements for the implementation of MMP Type III.

Based on one data point of 14 ng/L collected at Outfall 001 and one data point of 15 ng/L at Outfall 003 as part of the application the facility is expected to meet the new daily max permit limit of 50 ng/L (with monthly sampling frequency). The limit represents the general level currently achievable (GLCA). The data collected will be used to establish an additional 12-month rolling average effluent limit during the next permit review.

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<sup>2</sup> As prescribed by 6 NYCRR Part 617

<sup>3</sup> In accordance with DOW 1.3.10 Mercury – SPDES Permitting & Multiple Discharge Variance (MDV), December 30, 2020.

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A mercury minimization program consisting of the following is also required:

- Additional monitoring
- Control strategy for implementation of the MMP
- Annual status report (maintained onsite)

### PCB Minimization Program

The permittee is required to continue implementation of a PCB Minimization Program (PCBMP) because the total PCB WQBEL of 0.001 ng/L is lower than the compliance limitation of 95 ng/L per PCB Aroclor<sup>4</sup>. PCBMP details are specified in the permit.

- Daily maximum effluent limitation equal to 95 ng/L per Aroclor
- PCB minimization program
- Routine monitoring using EPA Method 1668C

### Schedule(s) of Compliance

A Schedule of Compliance is being included<sup>5</sup> for the following items ([Appendix Link](#)).

- Installation of the Cooling Tower Structure and to cease pumping operations at the GM CWIS (River Pump House)
- Submittal of approvable engineering design documents, including a basis of design report, with the details of the upgrades needed to comply with the final effluent limitations. The effluent limitation for total residual chlorine at Outfall 001 is a new requirement.

### Schedule(s) of Additional Submittals

A schedule of additional submittals has been included for the following ([Appendix Link](#)):

- Updated BMP Plan
- PCB Minimization Program
- Mercury Minimization Program Annual Status Report (maintained onsite)
- Short-term, High-intensity Monitoring Program for Formaldehyde and Chlorides at Outfall 003

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<sup>4</sup> PCBMP requirements are based on 40 CFR Part 132 Appendix F Procedure 8, 6 NYCRR 750-1.13(a) and 750-1.14(f), and TOGS 1.2.1

<sup>5</sup> Pursuant to 6 NYCRR 750-1.14

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## OUTFALL AND RECEIVING WATER SUMMARY TABLE

Outfall	Latitude	Longitude	Receiving Water Name	Water Class	Water Index No. / Priority Waterbody Listing (PWL) No.	Major / Sub Basin	Hardness (mg/l)	1Q10 (MGD)	7Q10 (MGD)	30Q10 (MGD)	Critical Effluent Flow (MGD)	Dilution Ratio		
												A(A)	A(C)	HEW
001	42° 57' 45" N	78° 55' 20" W	Niagara River	A-S	Ont 158 (portion 2) PWL: 0101-0006	01 / 01	100 <sup>6</sup>	47,000	94,000	110,000	6.8	50:1	100:1	100:1
01B	Internal Discharge via 001										-	-	-	
003	42° 57' 34" N	78° 55' 4" W									0.14	50:1	100:1	100:1

## POLLUTANT SUMMARY TABLE

### Outfall 001

Outfall #	001	Description of Wastewater: Stormwater and Non-Contact Cooling Water														
		Type of Treatment: Corrugated plate interceptors – Oil-water separator														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL			
<b>General Notes:</b> Existing discharge data from 10/31/2019 to 10/31/2022 was obtained from Discharge Monitoring Reports provided by the permittee. All applicable water quality standards (WQS) were reviewed for development of the WQBELs. The standard and WQBEL shown below represent the most stringent. Existing effluent quality is representative of the maximum observed value unless otherwise specified.																
Flow Rate	MGD	Monthly Avg	Monitor	6.8 Actual Average	36/0	Monitor	6 NYCRR 750-1.13	Narrative						6 NYCRR 703.2	-	TBEL
		Daily Max	Monitor	7.3 Actual Average	36/0	Monitor	6 NYCRR 750-1.13									
Flow will continue to be monitored for informational purposes and to calculate pollutant loadings.																
pH	SU	Minimum	6.0	6.1 Min	36/0	6.0	TOGS 1.2.1 Anti-backsliding	7.8 <sup>7</sup>	7.8	6.5 – 8.5	Range	-	6 NYCRR 703.3	-	TBEL	
		Maximum	9.0	8.4 Max	36/0	9.0		8.1 <sup>8</sup>	8.1							
Consistent with TOGS 1.2.1, TBELs reflect the available treatment technology listed in Attachment C. Given the available dilution an effluent limitation equal to the TBEL is protective of the WQS.																

<sup>6</sup> Ambient hardness value assumed. No hardness data was available from Town of Tonawanda or Niagara River monitoring sources.

<sup>7</sup> Ambient pH obtained from minimum of four sampling events from monitoring station 01-NIAG-32.6 on the Niagara River just upstream of the discharge location.

<sup>8</sup> Ambient pH obtained from maximum of four sampling events from monitoring station 01-NIAG-32.6 on the Niagara River just upstream of the discharge location.

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Outfall #	Description of Wastewater: Stormwater and Non-Contact Cooling Water															
	Type of Treatment: Corrugated plate interceptors – Oil-water separator															
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL			
Temperature	°F	Daily Max	90	84	36/0	90	Antibacksliding	70	-	Narrative			6 NYCRR 704.2	-	TBEL	
	The ambient background temperature was calculated as an average of 25 samples from RIBs monitoring station 01-NIAG-33.4. Consistent with 6 NYCRR 704.2 and the effective permit, a daily maximum temperature limitation of 90 degrees F is required to remain protective of water quality. This requirement is continued from the previous permit.															
Total Suspended Solids (TSS)	mg/L	Daily Max	45	94	18/0	45	Antibacksliding	-	Narrative			6 NYCRR 703.2	-	TBEL		
	Consistent with TOGS 1.2.1, TBELs reflect the available treatment technology listed in Attachment C. Given that adequate dilution is available, an effluent limitation equal to the TBEL is protective of water quality standards.															
Total Phenols	ug/L	Monthly Average	-	18	36/0	Monitor	6 NYCRR 750-1.13	-	0.2	1.0	E(WS)	No Reasonable Potential	6 NYCRR 703.5	-	TBEL	
		Daily Max	-	-	-	-	-	-	-	-	-	-	-	-	No Limitation	
	lbs/d	Monthly Average	4.0	0.4	36/0	-	-	-	-	-	-	-	-	-	-	Discontinued
		Daily Max	8.0	1.0	36/0	-	-	-	-	-	-	-	-	-	-	Discontinued
The existing effluent quality concentration was calculated using the maximum load value and the long-term average flow rate. The projected instream concentration was calculated using the maximum calculated effluent concentration and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.1 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, no WQBEL is specified. Monitoring for concentration is proposed for future analysis. Load limitations are proposed to be discontinued as concentration data can be more accurately compared to the WQS.																
Oil & Grease	mg/L	Daily Max	15	11	8/28	15	Antibacksliding	-	0.12	Narrative			6 NYCRR 703.2	-	TBEL	
	lbs/d	Daily Max	-	-	-	-	-	-	-	Narrative			6 NYCRR 703.2	-	No Limitation	
	The projected instream concentration was calculated using the maximum reported effluent concentration and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.1 was applied to the projected effluent to account for the number of samples. There is no existing numeric WQS for Oil & Grease. There are no reported instances of residues or oils in the receiving stream. Therefore, the TBEL is protective of the narrative water quality standard.															
PCB-1016	ng/L	Monthly Average	-	-	-	-	-	-	0.66	0.001	H(FC)	0.001	6 NYCRR 703.5	95	PCBMP	
		Daily Max	0.001 200-CL	60	2/34	0.001 200-CL	Antibacksliding	-	-	-	-	-	-	95	ML	

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Outfall #	001	Description of Wastewater: Stormwater and Non-Contact Cooling Water														
		Type of Treatment: Corrugated plate interceptors – Oil-water separator														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL			
<p>The Compliance Level (CL), which is equal to the ML of Method 608.3 for PCBs, is 95 ng/L.</p> <p>The projected instream concentration was calculated using the maximum reported effluent concentration and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.1 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is specified. As the water quality standard is below detection and the pollutant bioaccumulates, it is appropriate to apply the compliance level equal to the ML at the effluent limitation to ensure pollutant discharges are minimized.</p>																
PCB-1221	ng/L	Monthly Average	-	-	-	-	-	-	0.66	0.001	H(FC)	0.001	6 NYCRR 703.5	95	PCBMP	
		Daily Max	0.001 200-CL	60	2/34	0.001 200-CL	Antibacksliding	-	-	-	-	-	-	95	ML	
<p>The Compliance Level (CL), which is equal to the ML of Method 608.3 for PCBs, is 95 ng/L.</p> <p>The projected instream concentration was calculated using the maximum reported effluent concentration and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.1 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is specified. As the water quality standard is below detection and the pollutant bioaccumulates, it is appropriate to apply the compliance level equal to the ML at the effluent limitation to ensure pollutant discharges are minimized.</p>																
PCB-1232	ng/L	Monthly Average	-	-	-	-	-	-	0.66	0.001	H(FC)	0.001	6 NYCRR 703.5	95	PCBMP	
		Daily Max	0.001 200-CL	60	2/34	0.001 200-CL	Antibacksliding	-	-	-	-	-	-	95	ML	
<p>The Compliance Level (CL), which is equal to the ML of Method 608.3 for PCBs, is 95 ng/L.</p> <p>The projected instream concentration was calculated using the maximum reported effluent concentration and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.1 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is specified. As the water quality standard is below detection and the pollutant bioaccumulates, it is appropriate to apply the compliance level equal to the ML at the effluent limitation to ensure pollutant discharges are minimized.</p>																
PCB-1242	ng/L	Monthly Average	-	-	-	-	-	-	0.66	0.001	H(FC)	0.001	6 NYCRR 703.5	95	PCBMP	
		Daily Max	0.001 200-CL	60	2/34	0.001 200-CL	Antibacksliding	-	-	-	-	-	-	95	ML	

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Outfall #	001	Description of Wastewater: Stormwater and Non-Contact Cooling Water														
		Type of Treatment: Corrugated plate interceptors – Oil-water separator														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL			
<p>The Compliance Level (CL), which is equal to the ML of Method 608.3 for PCBs, is 95 ng/L.</p> <p>The projected instream concentration was calculated using the maximum reported effluent concentration and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.1 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is specified. As the water quality standard is below detection and the pollutant bioaccumulates, it is appropriate to apply the compliance level equal to the ML at the effluent limitation to ensure pollutant discharges are minimized.</p>																
PCB-1248	ng/L	Monthly Average	-	-	-	-	-	-	0.66	0.001	H(FC)	0.001	6 NYCRR 703.5	95	PCBMP	
		Daily Max	0.001 200-CL	60	2/34	0.001 200-CL	Antibacksliding	-	-	-	-	-	-	95	ML	
<p>The Compliance Level (CL), which is equal to the ML of Method 608.3 for PCBs, is 95 ng/L.</p> <p>The projected instream concentration was calculated using the maximum reported effluent concentration and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.1 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is specified. As the water quality standard is below detection and the pollutant bioaccumulates, it is appropriate to apply the compliance level equal to the ML at the effluent limitation to ensure pollutant discharges are minimized.</p>																
PCB-1254	ng/L	Monthly Average	-	-	-	-	-	-	-	0.001	H(FC)	0.001	6 NYCRR 703.5	95	PCBMP	
		Daily Max	0.001 200-CL	60	2/34	0.001 200-CL	Antibacksliding	-	-	-	-	-	-	95	ML	
<p>The Compliance Level (CL), which is equal to the ML of Method 608.3 for PCBs, is 95 ng/L.</p> <p>The projected instream concentration was calculated using the maximum reported effluent concentration and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.1 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is specified. As the water quality standard is below detection and the pollutant bioaccumulates, it is appropriate to apply the compliance level equal to the ML at the effluent limitation to ensure pollutant discharges are minimized.</p>																
PCB-1260	ng/L	Monthly Average	-	-	-	-	-	-	-	0.001	H(FC)	0.001	6 NYCRR 703.5	95	PCBMP	
		Daily Max	0.001 200-CL	60	2/34	0.001 200-CL	Antibacksliding	-	-	-	-	-	-	95	ML	

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 Water Quality Reviewer: Danyel King  
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Outfall #	Description of Wastewater: Stormwater and Non-Contact Cooling Water														
	Type of Treatment: Corrugated plate interceptors – Oil-water separator														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
<p>The Compliance Level (CL), which is equal to the ML of Method 608.3 for PCBs, is 95 ng/L.</p> <p>The projected instream concentration was calculated using the maximum reported effluent concentration and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.1 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is specified. As the water quality standard is below detection and the pollutant bioaccumulates, it is appropriate to apply the compliance level equal to the ML at the effluent limitation to ensure pollutant discharges are minimized.</p>															
Total Aluminum	mg/L	Daily Max	2.0	1.7	19/17	2.0	Antibacksliding	-	0.02	100 - ionic	A(C)	No Reasonable Potential	6 NYCRR 703.5	-	TBEL
	lbs/d	Daily Max	-	-	-	-	-	-	-	-	-	-	-	-	No Limitation
<p>In accordance with TOGS 1.3.1E, when receiving water pH is 6.5 or greater, technology-based limits for total Aluminum are adequate to meet water quality standards. Ambient pH obtained from minimum of four sampling events from monitoring station 01-NIAG-32.6 on the Niagara River just upstream of the discharge location is greater than 6.5 SU. Therefore, the TBEL is proposed.</p> <p>The projected instream concentration was calculated using the maximum reported effluent concentration of 1.7 mg/L and an ambient upstream concentration of 0 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.1 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified. The TBEL is protective of water quality.</p>															
Total Copper	mg/L	Monthly Average	-	-	-	-	-	-	0.0006 Dissolved	0.2 Dissolved	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
		Daily Max	0.05 Total	0.03	4/32	0.05 Total	Antibacksliding	-	0.0003	0.01 0.009	A(A) A(C)	No Reasonable Potential	6 NYCRR 703.5	-	TBEL
<p>The projected instream concentration was calculated using the maximum reported effluent concentration of 0.03 mg/L and an ambient upstream concentration of 0 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.1 was applied to the projected effluent to account for the number of samples. A metals translator of 1.042 (acute and chronic) and 1.0 (HEW) was applied to convert between the total and dissolved form in accordance with EPA Document 823-B-96-007. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified. The projected in-stream concentration using the TBEL of 0.05 mg/L is 0.005 mg/L which is less than the WQS. Therefore, the TBEL is protective of water quality.</p>															
Total Iron	mg/L	Monthly Average	-	-	-	-	-	-	0.04	0.3	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
		Daily Max	1.5	1.9	29/7	1.5	Antibacksliding	-	-	-	-	-	-	-	TBEL

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Outfall #	001	Description of Wastewater: Stormwater and Non-Contact Cooling Water													
		Type of Treatment: Corrugated plate interceptors – Oil-water separator													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
The projected instream concentration was calculated using the maximum reported effluent concentration of 1.9 mg/L and an ambient upstream concentration of 0 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.1 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified. The TBEL will remain due to antibracksliding and is protective of water quality.															
Total Zinc	mg/L	Monthly Average	-	-	-	-	-	-	0.008 Dissolved	0.2 Dissolved	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
		Daily Max	0.2 Total	0.07 Total	6/36	0.2	Antibracksliding	-	0.001 0.0008	0.08 0.12	A(A) A(C)	No Reasonable Potential	6 NYCRR 703.5	-	TBEL
The projected instream concentration was calculated using the maximum reported effluent concentration of 0.07 mg/L and an ambient upstream concentration of 0 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.1 was applied to the projected effluent to account for the number of samples. A metals translator of 1.022 (acute), 1.014 (chronic), and 1.0 (HEW) was applied to convert between the total and dissolved form in accordance with EPA Document 823-B-96-007. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified. The TBEL will remain due to antibracksliding and is protective of water quality.															
<b>Additional Pollutants Detected in NY-2C Sampling</b>															
Total Mercury	ng/L	Daily Max	-	14	1/0	-	-	-	-	0.7	H(FC)	50	GLCA	-	DOW 1.3.10
	See <a href="#">Mercury section of this factsheet</a> .														
Total Phosphorus	mg/L	Monthly Avg	-	0.051	1/0	Monitor	6 NYCRR 750-1.13	-	0.003	Narrative		6 NYCRR 703.2	-	TBEL	
	Phosphorus is present at Outfall 001 with a maximum detection of 0.051 mg/L. The permittee discharges to the Great Lakes Basin. In accordance with the Great Lakes Water Quality Agreement, Annex 4(D)(2), control of the P load from industrial discharges is necessary. TOGS 1.2.1 section I.E.5 recommends that the incidental discharge of P tributary to the Great Lakes Basin resulting from chemical use be eliminated, if feasible. If there is a need to discharge P via process wastewaters, then the guidance recommends the permit be modified to limit and monitor the amount of P. Monitoring for phosphorus is proposed to inform future permit limits if necessary.														
Total Boron	mg/L	Daily Max	-	0.025	1/0	-	-	-	0.002	10	A(C)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
	The projected instream concentration was calculated using the maximum reported effluent concentration of 0.025 mg/L and an ambient upstream concentration of 0 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.														
Total Magnesium	mg/L	Monthly Average	-	8.0	1/0	-	-	-	0.50	3.5	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation



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Outfall #	001	Description of Wastewater: Stormwater and Non-Contact Cooling Water													
		Type of Treatment: Corrugated plate interceptors – Oil-water separator													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
The projected instream concentration was calculated using the maximum reported effluent concentration of 8.0 mg/L and an ambient upstream concentration of 0 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.															
Total Titanium	ug/L	Monthly Average	-	6.1	1/0	-	-	-	0.76	Narrative			6 NYCRR 703.2	-	No Limitation
The projected instream concentration was calculated using the maximum reported effluent concentration of 6.1 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. There is no existing numeric WQS for Titanium for Class A-S. Therefore, a WQBEL is not specified.															
Total Arsenic	ug/L	Monthly Average	-	1.3	1/0	-	-	-	0.08	50	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
		Daily Max	-	-	-	-	-	-	0.08	150	A(C)				
The projected instream concentration was calculated using the maximum reported effluent concentration of 1.3 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A metals translator of 1.0 for acute, chronic, and HEW was applied to convert between the total and dissolved form in accordance with EPA Document 823-B-96-007. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.															
Total Uranium	ug/L	Monthly Average	-	0.41	1/0	-	-	-	0.05	Narrative			6 NYCRR 703.2	-	No Limitation
		The projected instream concentration was calculated using the maximum reported effluent concentration of 0.41 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. There is no existing numeric WQS for Uranium for Class A-S. Therefore, a WQBEL is not specified.													
Total Barium	ug/L	Monthly Average	-	26	1/0	-	-	-	3.2	1,000	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
		The projected instream concentration was calculated using the maximum reported effluent concentration of 26 ug/L mg/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.													
Total Cobalt	ug/L	Daily Max	-	0.29	1/0	-	-	-	0.02	5	A(C)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
		The projected instream concentration was calculated using the maximum reported effluent concentration of 0.29 ug/L mg/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.													
Total Chromium	ug/L	Monthly Average	-	1.2	1/0	-	-	-	0.08	50	H(WS)		6 NYCRR 703.5	-	No Limitation

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Outfall #	001	Description of Wastewater: Stormwater and Non-Contact Cooling Water													
		Type of Treatment: Corrugated plate interceptors – Oil-water separator													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
		Daily Max	-			-	-	-	0.05 0.06	570 74	A(A) A(C)	No Reasonable Potential			
The projected instream concentration was calculated using the maximum reported effluent concentration of 1.2 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A metals translator of 3.165 (acute), 1.163 (chronic), 1.0 (HEW) was applied to convert between the total and dissolved form in accordance with EPA Document 823-B-96-007. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.															
Total Manganese	ug/L	Monthly Average	-	15	1/0	-	-	-	0.93	300	E(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
The projected instream concentration was calculated using the maximum reported effluent concentration of 15 ug/L mg/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.															
Total Molybdenum	ug/L	Monthly Average	-	1.4	1/0	-	-	-	0.17	Narrative			6 NYCRR 703.2	-	No Limitation
The projected instream concentration was calculated using the maximum reported effluent concentration of 1.4 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. There is no existing numeric WQS for Molybdenum for Class A-S. Therefore, a WQBEL is not specified.															
Total Nickel	ug/L	Monthly Average	-	1.3	1/0	-	-	-	0.08	100	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
		Daily Max	-			-	-	-	0.16 0.08	470 52	A(A) A(C)				
The projected instream concentration was calculated using the maximum reported effluent concentration of 1.3 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A metals translator of 1.002 (acute), 1.003 (chronic), 1.0 (HEW) was applied to convert between the total and dissolved form in accordance with EPA Document 823-B-96-007. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.															
Total Lead	ug/L	Monthly Average	-	0.39	1/0	-	-	-	0.02	50	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
		Daily Max	-			-	-	-	0.04 0.02	97 3.8	A(A) A(C)				

Outfall #	Description of Wastewater: Stormwater and Non-Contact Cooling Water														
	Type of Treatment: Corrugated plate interceptors – Oil-water separator														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
	The projected instream concentration was calculated using the maximum reported effluent concentration of 0.39 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A metals translator of 1.264 (acute and chronic), 1.0 (HEW) was applied to convert between the total and dissolved form in accordance with EPA Document 823-B-96-007. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.														
Chloride	mg/L	Monthly Average	-	61	1/0	-	-	-	3.8	250	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
	The projected instream concentration was calculated using the maximum reported effluent concentration of 61 mg/L and an ambient upstream concentration of 0 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.														
Fluoride	mg/L	Monthly Average	-	0.086	1/0	-	-	-	1.0E-5	1.5	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
	The projected instream concentration was calculated using the maximum reported effluent concentration of 0.086 mg/L and an ambient upstream concentration of 0 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.														
Sulfate	mg/L	Monthly Average	-	21	1/0	-	-	-	1.3	250	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
	The projected instream concentration was calculated using the maximum reported effluent concentration of 21 mg/L and an ambient upstream concentration of 0 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.														
Total Ammonia (as N)	mg/L	Monthly Average	-	0.03	1/0	-	-	0.082	0.083	0.62	A(C)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
	The WQS for Ammonia was determined from TOGS 1.1.1 from a critical pH of 8.1 SU and a temperature of 25 degrees C. The pH of the receiving waterbody was obtained from the maximum value of four sampling events from monitoring station 01-NIAG-32.6 on the Niagara River just upstream of the discharge location. The temperature of 25 degrees C was assumed from TOGS 1.3.1E. The projected instream concentration was calculated using the maximum reported effluent concentration of 0.03 mg/L and an ambient upstream concentration of 0.082 mg/L assumed from TOGS 1.3.1D. A multiplier <sup>9</sup> of 6.2 was applied to the maximum effluent concentration to account for the number of samples. In accordance with TOGS 1.3.1E, the HEW dilution ratio was applied to calculate the projected instream concentration. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, no limitation is specified.														

<sup>9</sup> As recommended from EPA's Technical Support Document, Chapter 3.3

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Outfall #	001	Description of Wastewater: Stormwater and Non-Contact Cooling Water													
		Type of Treatment: Corrugated plate interceptors – Oil-water separator													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Total Kjeldahl Nitrogen (TKN)	mg/L	Monthly Average	-	0.41	1/0	-	-	-	0.051	Narrative			6 NYCRR 703.2	-	No Limitation
The projected instream concentration was calculated using the maximum reported effluent concentration of 0.41 mg/L and an ambient upstream concentration of 0 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. There is no existing numeric WQS for TKN for Class A-S. Therefore, a WQBEL is not specified.															
Nitrate (as N)	mg/L	Monthly Average	-	0.16	1/0	-	-	-	0.01	10	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
The projected instream concentration was calculated using the maximum reported effluent concentration of 0.16 mg/L and an ambient upstream concentration of 0 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.															
Chemical Oxygen Demand	mg/L	Monthly Average	-	23	1/0	-	-	See BOD5 section of the factsheet.						-	No Limitation
See the BOD5 section of this factsheet for oxygen demanding parameters.															
Total Nitrogen	mg/L	Monthly Average	-	0.38	1/0	-	-	-	0.05	Narrative			6 NYCRR 703.2	-	No Limitation
The projected instream concentration was calculated using the maximum reported effluent concentration of 0.38 mg/L and an ambient upstream concentration of 0 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. There is no existing numeric WQS for Nitrogen for Class A-S. Therefore, a WQBEL is not specified.															
Color	PCU	Monthly Average	-	10	1/0	-	-	-	10	Narrative			6 NYCRR 703.2	-	No Limitation
The projected instream concentration was calculated using the maximum reported effluent 10 PCU and an ambient upstream concentration of 0 PCU. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. There is no existing numeric WQS for Color for Class A-S, but generally, color greater than 30 PCU is very apparent and will influence measured water clarity. Therefore, a WQBEL is not specified.															
Coliform, Fecal	#/100 ml	30d Geo Mean	-	112	1/0	-	-	-	Narrative: The monthly geometric mean, from a minimum of five examinations, shall not exceed 200.			703.4	-	No Limitation	
		7d Geo Mean	-			-	-	No Limitation							
The projected instream concentration was calculated using the maximum reported effluent 112/100 ml and an ambient upstream concentration of 0/100 ml. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates reasonable potential to cause or contribute to a WQS violation. The waste stream does not contain a source of fecal coliform. Therefore, a WQBEL is not specified.															
Total Residual Chlorine	mg/L	Daily Max	-	0.09	1/0	Monitor	6 NYCRR 750-1.13	-	0.006	0.005	A(C)	0.5	6 NYCRR 703.5	-	WQBEL

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Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
<b>Description of Wastewater:</b> Stormwater and Non-Contact Cooling Water <b>Type of Treatment:</b> Corrugated plate interceptors – Oil-water separator															
The projected instream concentration was calculated using the maximum reported effluent concentration of 0.09 mg/L and an ambient upstream concentration of 0 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is specified. See the <a href="#">Schedule of Compliance</a> section of the factsheet for more information.															
Biochemical Oxygen Demand (BOD <sub>5</sub> )	mg/L	Daily Max	-	160	1/0	-	-	-	Critical DO – 6.3	Narrative		6 NYCRR 703.2	-	No Limitation	
The downstream DO concentration was modeled using the Streeter-Phelps equations and the following assumptions: Effluent DO = 0 mg/l (assumed value consistent with TOGS 1.3.1D)), Effluent UOD = 230 mg/L (Calculated from effluent BOD <sub>5</sub> and effluent NOD), Effluent BOD <sub>5</sub> = 160 mg/L (effluent concentration value), Effluent NOD = 1.9 mg/L (calculated from effluent TKN).The model showed that DO standards are maintained and consequently WQBELs for DO, UOD, BOD/CBOD, and NOD are unnecessary.															
Total Organic Carbon	mg/L	Monthly Average	-	2.2	1/0	-	-	See BOD <sub>5</sub> section for oxygen demanding parameters.			-	No Limitation			
TOC is a measure of both oxidizable and non-oxidizable compounds. The wastewater is assumed to be primarily organic and biodegradable. BOD is a better indicator of potential oxygen demand in the receiving waterbody because microorganisms in the environment can readily consume organic and biodegradable compounds.															

### Outfall 01B

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>10</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
<b>Description of Wastewater:</b> Internal monitoring point to Outfall 001. Batch treatment of dewatered construction/ renovation onsite projects. <b>Type of Treatment:</b> Corrugated plate interceptors															
<b>General Notes:</b> Existing discharge data from 10/31/2019 to 10/31/2022 was obtained from Discharge Monitoring Reports provided by the permittee. Within this time period, no reported flow was reported and therefore no existing effluent equality data was reported. All applicable water quality standards were reviewed for development of the WQBELs. The standard and WQBEL shown below represent the most stringent.															
Flow Rate	MGD	Monthly Avg	Monitor	No Flow	0	<b>Monitor</b>	6 NYCRR 750-1.13	Narrative		6 NYCRR 703.2	-	TBEL			

<sup>10</sup> Existing Effluent Quality: Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)

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 Water Quality Reviewer: Danyel King  
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Outfall #	01B	Description of Wastewater: Internal monitoring point to Outfall 001. Batch treatment of dewatered construction/ renovation onsite projects.													
		Type of Treatment: Corrugated plate interceptors													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>10</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
		Daily Max	Monitor	No Flow	0	Monitor	6 NYCRR 750-1.13								
Flow will continue to be monitored for informational purposes and to calculate pollutant loadings.															
pH	SU	Minimum	6.0	No Flow	0	6.0	TOGS 1.2.1	7.8 <sup>11</sup>	No Flow	6.5 – 8.5	Range	-	6 NYCRR 703.3	-	TBEL
		Maximum	9.0	No Flow	0	9.0		8.1 <sup>12</sup>							
Consistent with TOGS 1.2.1, TBELs reflect the available treatment technology listed in Attachment C. Given the available dilution an effluent limitation equal to the TBEL is protective of the WQS.															
PCB-1016	ng/L	Monthly Average	-	-	-	-	-	-	No Flow	0.001	H(FC)	0.001	6 NYCRR 703.5	95	PCBMP
		Daily Max	0.001 200-CL	No Flow	0	0.001 200-CL	Antibacksliding	-	-	-	-	-	-	95	ML
The Compliance Level (CL), which is equal to the ML of Method 608.3 for PCBs, is 95 ng/L. As the water quality standard is below detection and the pollutant bioaccumulates, it is appropriate to apply the compliance level equal to the ML at the effluent limitation to ensure pollutant discharges are minimized.															
PCB-1221	ng/L	Monthly Average	-	-	-	-	-	-	No Flow	0.001	H(FC)	0.001	6 NYCRR 703.5	95	PCBMP
		Daily Max	0.001 200-CL	No Flow	0	0.001 200-CL	Antibacksliding	-	-	-	-	-	-	95	ML
The Compliance Level (CL), which is equal to the ML of Method 608.3 for PCBs, is 95 ng/L. As the water quality standard is below detection and the pollutant bioaccumulates, it is appropriate to apply the compliance level equal to the ML at the effluent limitation to ensure pollutant discharges are minimized.															
PCB-1232	ng/L	Monthly Average	-	-	-	-	-	-	No Flow	0.001	H(FC)	0.001	6 NYCRR 703.5	95	PCBMP
		Daily Max	0.001 200-CL	No Flow	0	0.001 200-CL	Antibacksliding	-	-	-	-	-	-	95	ML
The Compliance Level (CL), which is equal to the ML of Method 608.3 for PCBs, is 95 ng/L. As the water quality standard is below detection and the pollutant bioaccumulates, it is appropriate to apply the compliance level equal to the ML at the effluent limitation to ensure pollutant discharges are minimized.															
PCB-1242	ng/L	Monthly Average	-	-	-	-	-	-	No Flow	0.001	H(FC)	0.001	6 NYCRR 703.5	95	PCBMP
		Daily Max	0.001 200-CL	No Flow	0	0.001 200-CL	Antibacksliding	-	-	-	-	-	-	95	ML
The Compliance Level (CL), which is equal to the ML of Method 608.3 for PCBs, is 95 ng/L. As the water quality standard is below detection and the pollutant bioaccumulates, it is appropriate to apply the compliance level equal to the ML at the effluent limitation to ensure pollutant discharges are minimized.															
PCB-1248	ng/L	Monthly Average	-	-	-	-	-	-	No Flow	0.001	H(FC)	0.001	6 NYCRR 703.5	95	PCBMP

<sup>11</sup> Ambient pH obtained from minimum of four sampling events from monitoring station 01-NIAG-32.6 on the Niagara River just upstream of the discharge location.

<sup>12</sup> Ambient pH obtained from maximum of four sampling events from monitoring station 01-NIAG-32.6 on the Niagara River just upstream of the discharge location.

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 Water Quality Reviewer: Danyel King  
 Full Technical Review

Outfall #	01B	Description of Wastewater: Internal monitoring point to Outfall 001. Batch treatment of dewatered construction/ renovation onsite projects.													
		Type of Treatment: Corrugated plate interceptors													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>10</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
		Daily Max	0.001 200-CL	No Flow	0	0.001 200-CL	Antibacksliding	-	-	-	-	-	-	95	ML
The Compliance Level (CL), which is equal to the ML of Method 608.3 for PCBs, is 95 ng/L. As the water quality standard is below detection and the pollutant bioaccumulates, it is appropriate to apply the compliance level equal to the ML at the effluent limitation to ensure pollutant discharges are minimized.															
PCB-1254	ng/L	Monthly Average	-	-	-	-	-	-	No Flow	0.001	H(FC)	0.001	6 NYCRR 703.5	95	PCBMP
		Daily Max	0.001 200-CL	No Flow	0	0.001 200-CL	Antibacksliding	-	-	-	-	-	-	95	ML
The Compliance Level (CL), which is equal to the ML of Method 608.3 for PCBs, is 95 ng/L. As the water quality standard is below detection and the pollutant bioaccumulates, it is appropriate to apply the compliance level equal to the ML at the effluent limitation to ensure pollutant discharges are minimized.															
PCB-1260	ng/L	Monthly Average	-	-	-	-	-	-	No Flow	0.001	H(FC)	0.001	6 NYCRR 703.5	95	PCBMP
		Daily Max	0.001 200-CL	No Flow	0	0.001 200-CL	Antibacksliding	-	-	-	-	-	-	95	ML
The Compliance Level (CL), which is equal to the ML of Method 608.3 for PCBs, is 95 ng/L. As the water quality standard is below detection and the pollutant bioaccumulates, it is appropriate to apply the compliance level equal to the ML at the effluent limitation to ensure pollutant discharges are minimized.															

Outfall 003

Outfall #	003		Description of Wastewater: Stormwater and Non-Contact Cooling Water															
	Type of Treatment: Corrugated plate interceptors																	
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement			
			Permit Limit	Existing Effluent Quality <sup>13</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL					
<b>General Notes:</b> Existing discharge data from 10/31/2019 to 10/31/2022 was obtained from Discharge Monitoring Reports provided by the permittee. All applicable water quality standards were reviewed for development of the WQBELs. The standard and WQBEL shown below represent the most stringent.																		
Flow Rate	GPD	Monthly Avg	-	-	-	-	-	Narrative						6 NYCRR 703.2	-	TBEL		
	GPD	Daily Max	Monitor	140,000 Actual Average	36/0	Monitor	6 NYCRR 750-1.13											
Flow will continue to be monitored for informational purposes and to calculate pollutant loadings.																		
pH	SU	Minimum	6.0	6.6 Min	36/0	6.0	TOGS 1.2.1	7.8 <sup>14</sup>	7.8	6.5 – 8.5	Range	-	6 NYCRR 703.3	-	TBEL			
		Maximum	9.0	8.2 Max	36/0	9.0		8.1 <sup>15</sup>	8.1									
Consistent with TOGS 1.2.1, TBELs reflect the available treatment technology listed in Attachment C. Given the available dilution an effluent limitation equal to the TBEL is reasonably protective of the WQS.																		
Total Suspended Solids (TSS)	mg/L	Daily Max	Monitor	110	30/6	Monitor	6 NYCRR 750-1.13	Narrative						6 NYCRR 703.2	-	Monitor		
	lbs/d	Daily Max	-	-	-	-	-									No Limitation		
Consistent with TOGS 1.2.1, TBELs reflect the available treatment technology listed in Attachment C. The TBEL is sufficiently protective of the WQS.																		
Oil & Grease	mg/L	Daily Max	15	11	9/27	15	Antibacksliding	-	0.17	Narrative						6 NYCRR 703.2	-	TBEL
	lbs/d	Daily Max	-	-	-	-	-	-	-									No Limitation
The projected in stream concentration was calculated using the maximum reported effluent concentration and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.1 was applied to the projected effluent to account for the number of samples. There is no existing numeric WQS for Oil & Grease. There are no observed residues or oils in the receiving waterbody. Therefore, the TBEL is protective of the narrative water quality standard.																		
<b>Additional Pollutants Detected in NY-2C Sampling</b>																		

<sup>13</sup> Existing Effluent Quality: Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)

<sup>14</sup> Ambient pH obtained from minimum of four sampling events from monitoring station 01-NIAG-32.6 on the Niagara River just upstream of the discharge location.

<sup>15</sup> Ambient pH obtained from maximum of four sampling events from monitoring station 01-NIAG-32.6 on the Niagara River just upstream of the discharge location.



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 Water Quality Reviewer: Danyel King  
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Outfall #	003	Description of Wastewater: Stormwater and Non-Contact Cooling Water													
		Type of Treatment: Corrugated plate interceptors													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>13</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Coliform, Fecal	#/100 ml	30d Geo Mean	-	44	1/0	-	-	-	Narrative: The monthly geometric mean, from a minimum of five examinations, shall not exceed 200.				6 NYCRR 703.4	-	No Limitation
		7d Geo Mean				-	-	-						No Limitation	
The projected instream concentration was calculated using the maximum reported effluent 44/100 ml and an ambient upstream concentration of 0/100 ml. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates reasonable potential to cause or contribute to a WQS violation. The waste stream does not contain a source of fecal coliform. Therefore, a WQBEL is not specified.															
Total Mercury	ng/L	Daily Max	-	15	1/0	-	-	-	-	0.7	H(FC)	50	GLCA	-	DOW 1.3.10
See <a href="#">Mercury section of this factsheet</a> .															
Formaldehyde	ug/L	Monthly Average	-	400	1/0	-	-	-	25	8.0	H(WS)	800	6 NYCRR 703.5	-	STHIM
	The projected instream concentration was calculated using the maximum reported effluent concentration of 400 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is specified. Additional monitoring through a Short-Term High Intensity Monitoring Program (STHIM) is proposed in order to address statistical variability in the effluent data. No limitation is proposed at this time.														
Total Aluminum	ug/L	Daily Max	-	210	1/0	Monitor	6 NYCRR 750-1.13	-	13	100 - ionic	A(C)	No Reasonable Potential	6 NYCRR 703.5	-	TBEL
	In accordance with TOGS 1.3.1E, when receiving water pH is 6.5 or greater, technology-based limits for total Aluminum are adequate to meet water quality standards. Ambient pH obtained from minimum of four sampling events from monitoring station 01-NIAG-32.6 on the Niagara River just upstream of the discharge location is greater than 6.5 SU.  The projected instream concentration was calculated using the maximum reported effluent concentration of 210 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.														
Total Copper	ug/L	Monthly Average	-	6.1	1/0	-	-	-	0.38	200	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
		Daily Max	-	6.1	1/0	-	-	-	0.73 0.36	13 9.0	A(A) A(C)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation

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Outfall #	003	Description of Wastewater: Stormwater and Non-Contact Cooling Water													
		Type of Treatment: Corrugated plate interceptors													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>13</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
The projected instream concentration was calculated using the maximum reported effluent concentration of 6.1 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A metals translator of 1.042 (acute and chronic) and 1.0 (HEW) was applied to convert between the total and dissolved form in accordance with EPA Document 823-B-96-007. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.															
Total Iron	ug/L	Monthly Average	-	340	1/0	-	-	-	21	300	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
The projected instream concentration was calculated using the maximum reported effluent concentration of 340 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.															
Total Zinc	ug/L	Monthly Average	-	25	1/0	-	-	-	1.6	2,000	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
		Daily Max	-	25	1/0	-	-	-	3.0 1.5	120 83	A(A) A(C)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
The projected instream concentration was calculated using the maximum reported effluent concentration of 25 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.1 was applied to the projected effluent to account for the number of samples. A metals translator of 1.022 (acute), 1.014 (chronic), and 1.0 (HEW) was applied to convert between the total and dissolved form in accordance with EPA Document 823-B-96-007. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.															
Total Phosphorus	mg/L	Monthly Avg	-	0.057	1/0	Monitor	6 NYCRR 750-1.13	-	0.004	Narrative		6 NYCRR 703.2	-	TBEL	
	Ib/d	Monthly Avg	-			-	-	-	No Limitation						
Phosphorus is present at Outfall 003 with a maximum detection of 0.057 mg/L. The permittee discharges to the Great Lakes Basin. In accordance with the Great Lakes Water Quality Agreement, Annex 4(C)(2), control of the TP load from industrial discharges is necessary. TOGS 1.2.1 section I.E.5 recommends that the incidental discharge of P tributary to the Great Lakes Basin resulting from chemical use be eliminated, if feasible. If there is a need to discharge TP via process wastewaters, then the guidance recommends the permit be modified to limit and monitor the amount of TP. Monitoring for phosphorus is proposed to inform future permit limits if necessary.															
Total Boron	mg/L	Daily Max	-	0.10	1/0	-	-	-	0.006	10	A(C)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
The projected instream concentration was calculated using the maximum reported effluent concentration of 0.10 mg/L and an ambient upstream concentration of 0 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.															

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Outfall #	003	Description of Wastewater: Stormwater and Non-Contact Cooling Water													
		Type of Treatment: Corrugated plate interceptors													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>13</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Total Magnesium	mg/L	Monthly Average	-	49	1/0	-	-	-	3.0	35	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
The projected instream concentration was calculated using the maximum reported effluent concentration of 49 mg/L and an ambient upstream concentration of 0 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.															
Total Titanium	ug/L	Monthly Average	-	3.1	1/0	-	-	-	0.38	Narrative		6 NYCRR 703.2	-	No Limitation	
The projected instream concentration was calculated using the maximum reported effluent concentration of 3.1 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. There is no existing numeric WQS for Titanium for Class A-S. Therefore, a WQBEL is not specified.															
Total Arsenic	ug/L	Monthly Average	-	4.3	1/0	-	-	-	0.27	50	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
		Daily Max	-			-	-	-	0.27	150	A(C)			0.53	
The projected instream concentration was calculated using the maximum reported effluent concentration of 4.3 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A metals translator of 1.0 for acute, chronic, and HEW was applied to convert between the total and dissolved form in accordance with EPA Document 823-B-96-007. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.															
Total Uranium	ug/L	Monthly Average	-	2.5	1/0	-	-	-	0.31	Narrative		6 NYCRR 703.2	-	No Limitation	
The projected instream concentration was calculated using the maximum reported effluent concentration of 2.5 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. There is no existing numeric WQS for Uranium for Class A-S. Therefore, a WQBEL is not specified.															
Total Vanadium	ug/L	Monthly Average	-	10	1/0	-	-	-	0.62	14	A(C)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
The projected instream concentration was calculated using the maximum reported effluent concentration of 10 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.															
Total Barium	ug/L	Monthly Average	-	190	1/0	-	-	-	12	1,000	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation

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Outfall #	003	Description of Wastewater: Stormwater and Non-Contact Cooling Water													
		Type of Treatment: Corrugated plate interceptors													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>13</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
The projected instream concentration was calculated using the maximum reported effluent concentration of 190 ug/L mg/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.															
Total Cobalt	ug/L	Daily Max	-	0.64	1/0	-	-	-	0.04	5.0	A(C)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
The projected instream concentration was calculated using the maximum reported effluent concentration of 0.64 ug/L mg/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.															
Total Cadmium	ug/L	Monthly Average	-	0.3	1/0	-	-	-	0.02	5.0	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
		Daily Max	-			-	-	-	0.04	3.8	A(A) A(C)				
The projected instream concentration was calculated using the maximum reported effluent concentration of 0.3 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A metals translator of 1.059 (acute), 1.100 (chronic), 1.0 (HEW) was applied to convert between the total and dissolved form in accordance with EPA Document 823-B-96-007. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.															
Total Cyanide	ug/L	Monthly Average	-	61	1/0	-	-	-	3.8	200	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
		Daily Max	-			-	-	-	7.6 3.8	22 5.2 (as free)	A(A) A(C)				
The projected instream concentration was calculated using the maximum reported effluent concentration of 61 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.															
Total Chromium	ug/L	Monthly Average	-	4.8	1/0	-	-	-	0.3	50	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
		Daily Max	-			-	-	-	0.19 0.26	570 74	A(A) A(C)				
The projected instream concentration was calculated using the maximum reported effluent concentration of 4.8 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A metals translator of 3.165 (acute), 1.163 (chronic), 1.0 (HEW) was applied to convert between the total and dissolved form in accordance with EPA Document 823-B-96-007. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.															

Permittee: General Motors LLC  
 Facility: General Motors Tonawanda Engine Plant  
 SPDES Number: NY0000574  
 USEPA Major/Class 03 Industrial

Date: February 2, 2024 v.1.13  
 Permit Writer: Danyel King  
 Water Quality Reviewer: Danyel King  
 Full Technical Review

Outfall #	003	Description of Wastewater: Stormwater and Non-Contact Cooling Water													
		Type of Treatment: Corrugated plate interceptors													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>13</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Total Manganese	ug/L	Monthly Average	-	47	1/0	-	-	-	2.9	300	E(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
		The projected in stream concentration was calculated using the maximum reported effluent concentration of 47 ug/L mg/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected in stream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.													
Total Molybdenum	ug/L	Monthly Average	-	5.1	1/0	-	-	-	0.63	Narrative		6 NYCRR 703.2	-	No Limitation	
		The projected in stream concentration was calculated using the maximum reported effluent concentration of 5.1 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. There is no existing numeric WQS for Molybdenum for Class A-S. Therefore, a WQBEL is not specified.													
Total Nickel	ug/L	Monthly Average	-	1.9	1/0	-	-	-	0.12	100	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
		Daily Max	-			-	-	-	0.24	470	A(A)				
		The projected in stream concentration was calculated using the maximum reported effluent concentration of 1.9 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A metals translator of 1.002 (acute), 1.003 (chronic), 1.0 (HEW) was applied to convert between the total and dissolved form in accordance with EPA Document 823-B-96-007. A comparison of the projected in stream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.													
Total Lead	ug/L	Monthly Average	-	0.68	1/0	-	-	-	0.04	50	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
		Daily Max	-			-	-	-	0.07	97	A(A)				
		The projected in stream concentration was calculated using the maximum reported effluent concentration of 0.68 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A metals translator of 1.264 (acute and chronic), 1.0 (HEW) was applied to convert between the total and dissolved form in accordance with EPA Document 823-B-96-007. A comparison of the projected in stream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.													
Total Antimony	ug/L	Monthly Average	-	0.76	1/0	-	-	-	0.05	3.0	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
		The projected in stream concentration was calculated using the maximum reported effluent concentration of 0.76 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected in stream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.													

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Outfall #	003	Description of Wastewater: Stormwater and Non-Contact Cooling Water													
		Type of Treatment: Corrugated plate interceptors													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>13</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Total Tin	ug/L	Monthly Average	-	0.32	1/0	-	-	-	0.04	Narrative			6 NYCRR 703.2	-	No Limitation
The projected instream concentration was calculated using the maximum reported effluent concentration of 0.32 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. There is no existing numeric WQS for TKN for Class A-S. Therefore, a WQBEL is not specified.															
Total Thallium	ug/L	Daily Max	-	0.042	1/0	-	-	-	0.003	8.0	A(C)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
The projected instream concentration was calculated using the maximum reported effluent concentration of 0.042 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.															
Total Silver	ug/L	Monthly Average	-	0.044	1/0	-	-	-	0.003	50	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
		Daily Max	-			-	-	-	0.005	4.1	A(A) A(C)				
The projected instream concentration was calculated using the maximum reported effluent concentration of 0.044 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A metals translator of 1.176 (acute), and 1.0 (chronic and HEW) was applied to convert between the total and dissolved form in accordance with EPA Document 823-B-96-007. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.															
Total Strontium	ug/L	Monthly Average	-	1,700	1/0	-	-	-	210	Narrative			6 NYCRR 703.2	-	No Limitation
The projected instream concentration was calculated using the maximum reported effluent concentration of 1,700 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. There is no existing numeric WQS for TKN for Class A-S. Therefore, a WQBEL is not specified.															
Total Selenium	ug/L	Monthly Average	-	4.0	1/0	-	-	-	0.25	10	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
		Daily Max	-			-	-	-		4.6	A(C)				
The projected instream concentration was calculated using the maximum reported effluent concentration of 4.0 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.															
Chloride	mg/L	Monthly Average	-	7,100	1/0	-	-	-	440	250	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	STHIM

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Outfall #	003	Description of Wastewater: Stormwater and Non-Contact Cooling Water														
		Type of Treatment: Corrugated plate interceptors														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality <sup>13</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL			
			The projected instream concentration was calculated using the maximum reported effluent concentration of 7,100 mg/L and an ambient upstream concentration of 0 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates reasonable potential to cause or contribute to a WQS violation. Additional monitoring through a Short-Term High Intensity Monitoring Program (STHIM) is proposed in order to address statistical variability in the effluent data.													
Phenolics	ug/L	Monthly Average	-	11	1/0	-	-	-	0.68	1.0	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation	
			The projected instream concentration was calculated using the maximum reported effluent concentration of 11 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.													
Methylene Blue Active Substances	ug/L	Monthly Average	-	240	1/0	-	-	-	30	Narrative			6 NYCRR 703.2	-	No Limitation	
			This parameter is also known as Surfactants. The projected instream concentration was calculated using the maximum reported effluent concentration of 240 ug/L and an ambient upstream concentration of 0 ug/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. There is no existing numeric WQS for TKN for Class A-S. Therefore, a WQBEL is not specified.													
Sulfate	mg/L	Monthly Average	-	17	1/0	-	-	-	1.1	250	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation	
			The projected instream concentration was calculated using the maximum reported effluent concentration of 17 mg/L and an ambient upstream concentration of 0 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.													
Total Ammonia (as N)	mg/L	Monthly Average	-	0.044	1/0	-	-	0.082	0.084	0.62	A(C)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation	
			The WQS for Ammonia was determined from TOGS 1.1.1 from a critical pH of 8.1 SU and a temperature of 25 degrees C. The pH of the receiving waterbody was pH obtained from maximum of four sampling events from monitoring station 01-NIAG-32.6 on the Niagara River just upstream of the discharge location. The temperature of 25 degrees C was assumed from TOGS 1.3.1E. The projected instream concentration was calculated using the maximum reported effluent concentration of 0.044 mg/L and an ambient upstream concentration of 0.082 mg/L assumed from TOGS 1.3.1D. A multiplier <sup>16</sup> of 6.2 was applied to the maximum effluent concentration to account for the number of samples. In accordance with TOGS 1.3.1E, the HEW dilution ratio was applied to calculate the projected instream concentration. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, no limitation is specified.													
Total Kjeldahl Nitrogen (TKN)	mg/L	Monthly Average	-	0.45	1/0	-	-	-	0.056	Narrative			6 NYCRR 703.2	-	No Limitation	

<sup>16</sup> As recommended from EPA's Technical Support Document, Chapter 3.3

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Outfall #	003	Description of Wastewater: Stormwater and Non-Contact Cooling Water													
		Type of Treatment: Corrugated plate interceptors													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>13</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
The projected instream concentration was calculated using the maximum reported effluent concentration of 0.45 mg/L and an ambient upstream concentration of 0 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. There is no existing numeric WQS for TKN for Class A-S. Therefore, a WQBEL is not specified.															
Nitrate (as N)	mg/L	Monthly Average	-	0.87	1/0	-	-	-	0.054	10	H(WS)	No Reasonable Potential	6 NYCRR 703.5	-	No Limitation
The projected instream concentration was calculated using the maximum reported effluent concentration of 0.87 mg/L and an ambient upstream concentration of 0 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is not specified.															
Chemical Oxygen Demand	mg/L	Monthly Average	-	310	1/0	-	-	See BOD5 section of the factsheet.						-	No Limitation
See the BOD5 section of this factsheet for oxygen demanding parameters.															
Total Nitrogen	mg/L	Monthly Average	-	0.41	1/0	-	-	-	0.028	Narrative			6 NYCRR 703.2	-	No Limitation
The projected instream concentration was calculated using the maximum reported effluent concentration of 0.41 mg/L and an ambient upstream concentration of 0 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. There is no existing numeric WQS for Nitrogen for Class A-S. Therefore, a WQBEL is not specified.															
Color	PCU	Monthly Average		10	1/0	-	-	-	10	Narrative			6 NYCRR 703.2	-	No Limitation
The projected instream concentration was calculated using the maximum reported effluent 10 PCU and an ambient upstream concentration of 0 PCU. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. There is no existing numeric WQS for Color for Class A-S. Generally, color greater than 30 PCU is very apparent and will influence measured water clarity. Therefore, a WQBEL is not specified.															
Coliform, Fecal	#/100 ml	30d Geo Mean	-	44	1/0	-	-	-	Narrative: The monthly geometric mean, from a minimum of five examinations, shall not exceed 200.			6 NYCRR 703.4	-	No Limitation	
		7d Geo Mean	-			-	-	No Limitation							
The projected instream concentration was calculated using the maximum reported effluent 44/100 ml and an ambient upstream concentration of 0/100 ml. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates reasonable potential to cause or contribute to a WQS violation. The waste stream does not contain a source of fecal coliform. Therefore, a WQBEL is not specified.															
Total Residual Chlorine	mg/L	Daily Max	-	0.18	1/0	Monitor	6 NYCRR 750-1.13		0.011	0.005	A(C)	0.5	6 NYCRR 703.5	-	WQBEL
The projected instream concentration was calculated using the maximum reported effluent concentration of 0.18 mg/L and an ambient upstream concentration of 0 mg/L. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 6.2 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates reasonable potential to cause or contribute to a WQS violation. Therefore, a WQBEL is specified. See the <a href="#">Schedule of Compliance</a> section of the factsheet for more information.															



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Outfall #	003	Description of Wastewater: Stormwater and Non-Contact Cooling Water														
		Type of Treatment: Corrugated plate interceptors														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality <sup>13</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL			
Biochemical Oxygen Demand	mg/L	Monthly Average	-	< 2.0	1/0	-	-	Narrative						6 NYCRR 703.2	-	No Limitation
	No detections for BOD5 were present. Therefore, DO standards are maintained and consequently WQBELs for DO, UOD, BOD/CBOD, and Ammonia are unnecessary.															
Total Organic Carbon	mg/L	Monthly Average	-	3.0	1/0	-	-	See BOD5 section for oxygen demanding parameters.						-	No Limitation	
	TOC is a measure of both oxidizable and non-oxidizable compounds. The wastewater is assumed to be primarily organic and biodegradable. BOD is a better indicator of potential oxygen demand in the receiving waterbody because microorganisms in the environment can readily consume organic and biodegradable compounds.															

## Appendix: Regulatory and Technical Basis of Permit Authorizations

The Appendix is meant to supplement the factsheet for multiple types of SPDES permits. Portions of this Appendix may not be applicable to this specific permit.

### Regulatory References

The provisions of the permit are based largely upon 40 CFR 122 subpart C and 6 NYCRR Part 750 and include monitoring, recording, reporting, and compliance requirements, as well as general conditions applicable to all SPDES permits. Below are the most common citations for the requirements included in SPDES permits:

- Clean Water Act (CWA) 33 section USC 1251 to 1387
- Environmental Conservation Law (ECL) Articles 17 and 70
- Federal Regulations
  - 40 CFR, Chapter I, subchapters D, N, and O
- State environmental regulations
  - 6 NYCRR Part 621
  - 6 NYCRR Part 750
  - 6 NYCRR Parts 700 - 704 – Best use and other requirements applicable to water classes
  - 6 NYCRR Parts 800 – 941 - Classification of individual surface waters
- NYSDEC water program policy, referred to as Technical and Operational Guidance Series (TOGS)
- USEPA Office of Water Technical Support Document for Water Quality-based Toxics Control, March 1991, Appendix E

The following is a quick guide to the references used within the factsheet:

SPDES Permit Requirements	Regulatory Reference
Anti-backsliding	6 NYCRR 750-1.10(c)
Best Management Practices (BMPS) for CSOs	6 NYCRR 750-2.8(a)(2)
Environmental Benefits Permit Strategy (EBPS)	6 NYCRR 750-1.18, NYS ECL 17-0817(4), TOGS 1.2.2 (revised January 25,2012)
Exceptions for Type I SSO Outfalls (bypass)	6 NYCRR 750-2.8(b)(2), 40 CFR 122.41
Mercury Multiple Discharge Variance	Division of Water Program Policy 1.3.10 (DOW 1.3.10)
Mixing Zone and Critical Water Information	TOGS 1.3.1 & Amendments
PCB Minimization Program	40 CFR Part 132 Appendix F Procedure 8, 6 NYCRR 750-1.13(a) and 750-1.14(f), and TOGS 1.2.1
Pollutant Minimization Program (PMP)	6 NYCRR 750-1.13(a), 750-1.14(f), TOGS 1.2.1
Schedules of Compliance	6 NYCRR 750-1.14
Sewage Pollution Right to Know (SPRTK)	NYS ECL 17-0826-a, 6 NYCRR 750-2.7
State Administrative Procedure Act (SAPA)	State Administrative Procedure Act Section 401(2), 6 NYCRR 621.11(l)
State Environmental Quality Review (SEQR)	6 NYCRR Part 617
USEPA Effluent Limitation Guidelines (ELGs)	40 CFR Parts 405-471
USEPA National CSO Policy	33 USC Section 1342(q)
Whole Effluent Toxicity (WET) Testing	TOGS 1.3.2
General Provisions of a SPDES Permit Department Request for Additional Information	NYCRR 750-2.1(i)

### Outfall and Receiving Water Information

#### Impaired Waters

The [NYS 303\(d\) List of Impaired/TMDL Waters](#) identifies waters where specific best usages are not fully supported. The state must consider the development of a Total Maximum Daily Load (TMDL) or other strategy to reduce the input of the specific pollutant(s) that restrict waterbody uses, in order to restore and protect such uses. SPDES permits must include effluent limitations necessary to implement a WLA of an EPA-approved TMDL (6 NYCRR 750-1.11(a)(5)(ii)), if applicable. In accordance with 6 NYCRR 750-1.13(a), permittees discharging to waters which are on the list but do not yet have a TMDL developed may be required to perform additional monitoring for the parameters causing the impairment. Accurate monitoring data is needed to

determine the existing capabilities of the wastewater treatment plants and to assure that wasteload allocations (WLAs) are allocated equitably.

### Interstate Water Pollution Control Agencies

Some POTWs may be subject to regulations of interstate basin/compact agencies including: Interstate Sanitation Commission (ISC), International Joint Commission (IJC), Delaware River Basin Commission (DRBC), Ohio River Valley Water Sanitation Commission (ORSANCO), and the Susquehanna River Basin Commission (SRBC). Generally, basin commission requirements focus principally on water quality and not treatment technology. However, interstate/compact agency regulations for the ISC, IJC, DRBC and NYC Watershed contain explicit effluent limits which must be addressed during permit drafting. 6 NYCRR 750-2.1(d) requires SPDES permits for discharges that originate within the jurisdiction of an interstate water pollution control agency, to include any applicable effluent standards or water quality standards (WQS) promulgated by that interstate agency.

### Existing Effluent Quality

The existing effluent quality is determined from a statistical evaluation of effluent data in accordance with TOGS 1.2.1 and the USEPA Office of Water, Technical Support Document for Water Quality-based Toxics Control, March 1991, Appendix E (TSD). The existing effluent quality is equal to the 95<sup>th</sup> (monthly average) and 99<sup>th</sup> (daily maximum) percentiles of the lognormal distribution of existing effluent data. When there are greater than three non-detects, a delta-lognormal distribution is assumed, and delta-lognormal calculations are used to determine the monthly average and daily maximum pollutant concentrations. Statistical calculations are not performed for parameters where there are less than ten data points. If additional data is needed, a monitoring requirement may be specified either through routine monitoring or a short-term high intensity monitoring program. The [Pollutant Summary Table](#) identifies the number of sample data points available.

### Permit Requirements

#### Basis for Effluent Limitations

Sections 101, 301, 304, 308, 401, 402, and 405 of the CWA and Titles 5, 7, and 8 of Article 17 ECL, as well as their implementing federal and state regulations, and related guidance, provide the basis for the effluent limitations and other conditions in the permit.

When conducting a full technical review of an existing permit, the previous effluent limitations form the basis for the next permit. Existing effluent quality is evaluated against the existing effluent limitations to determine if these should be continued, revised, or deleted. Generally, existing limitations are continued unless there are changed conditions at the facility, the facility demonstrates an ability to meet more stringent limitations, and/or in response to updated regulatory requirements. Pollutant monitoring data is also reviewed to determine the presence of additional contaminants that should be included in the permit based on a reasonable potential analysis to cause or contribute to a water quality standards violation.

#### Anti-backsliding

Anti-backsliding requirements are specified in the CWA sections 402(o) and 303(d)(4), ECL 17-0809, and regulations at 40 CFR 122.44(l) and 6 NYCRR 750-1.10(c) and (d). Generally, the relaxation of effluent limitations in permits is prohibited unless one of the specified exceptions applies, which will be cited on a case-by-case basis in this factsheet. Consistent with current case law<sup>17</sup> and USEPA interpretation<sup>18</sup> anti-backsliding requirements do not apply should a revision to the final effluent limitation take effect before the scheduled date of compliance for that final effluent limitation.

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<sup>17</sup> American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)

<sup>18</sup> U.S. EPA, Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California; 65 Fed. Reg. 31682, 31704 (May 18, 2000); Proposed Water Quality Guidance for the Great Lakes System, 58 Fed. Reg. 20802, 20837 & 20981 (April 16, 1993)

### **Antidegradation Policy**

New York State implements the antidegradation portion of the CWA based upon two documents: (1) Organization and Delegation Memorandum #85-40, "Water Quality Antidegradation Policy" (September 9, 1985); and, (2) TOGS 1.3.9, "Implementation of the NYSDEC Antidegradation Policy – Great Lakes Basin (Supplement to Antidegradation Policy dated September 9, 1985) (undated)." The permit for the facility contains effluent limitations which ensure that the existing best usage of the receiving waters will be maintained. To further support the antidegradation policy, SPDES applications have been reviewed in accordance with the State Environmental Quality Review Act (SEQR) as prescribed by 6 NYCRR Part 617.

### **Effluent Limitations**

In developing a permit, the Department determines the technology-based effluent limitations (TBELs) and then evaluates the water quality expected to result from technology controls to determine if any exceedances of water quality criteria in the receiving water might result. If there is a reasonable potential for exceedances of water quality criteria to occur, water quality-based effluent limitations (WQBELs) are developed. A WQBEL is designed to ensure that the water quality standards of receiving waters are met. In general, the CWA requires that the effluent limitations for a particular pollutant are the more stringent of either the TBEL or WQBEL.

#### ***Technology-based Effluent Limitations (TBELs) for Industrial Facilities***

A TBEL requires a minimum level of treatment for industrial point sources based on currently available treatment technologies and/or Best Management Practices (BMPs). CWA sections 301(b) and 402, ECL sections 17-0509, 17-0809 and 17-0811, and 6 NYCRR 750-1.11 require technology-based controls on effluents. TBELs are set based upon an evaluation of New Source Performance Standards (NSPS), Best Available Technology Economically Achievable (BAT), Best Conventional Pollutant Control Technology (BCT), Best Practicable Technology Currently Available (BPT), and/or Best Professional Judgment (BPJ).

#### ***Best Professional Judgement (BPJ)***

For substances that are not explicitly limited by regulations, the permit writer is authorized to use BPJ in developing TBELs. Consistent with section 402(a)(1) of the CWA, and NYS ECL section 17-0811, the Department is authorized to issue a permit containing "any further limitations necessary to ensure compliance with water quality standards adopted pursuant to state law". BPJ limitations may be set on a case-by-case basis using any reasonable method that takes into consideration the criteria set forth in 40 CFR 125.3. Applicable state regulations include 6 NYCRR 750-1.11. The BPJ limitation considers the existing technology present at the facility, the statistically calculated existing effluent quality for that parameter, and any unique or site-specific factors relating to the facility. Technology limitations generally achievable for various treatment technologies are included in TOGS 1.2.1, Attachment C. These limitations may be used for the listed parameters when the technology employed at the facility is listed.

#### ***Water Quality-Based Effluent Limitations (WQBELs)***

In addition to the TBELs, permits must include additional or more stringent effluent limitations and conditions, including those necessary to protect water quality. CWA sections 101 and 301(b)(1)(C), 40 CFR 122.44(d)(1), and 6 NYCRR Parts 750-1.11 require that permits include limitations for all pollutants or parameters which are or may be discharged at a level which may cause or contribute to an exceedance of any State water quality standard adopted pursuant to NYS ECL 17-0301. Water quality standards can be found under 6 NYCRR Parts 700-704. The limitations must be stringent enough to ensure that water quality standards are met and must be consistent with any applicable WLA which may be in effect through a TMDL for the receiving water. These and other requirements are summarized in TOGS 1.1.1, 1.3.1, 1.3.2, 1.3.5 and 1.3.6. The Department considers a mixing zone analysis, critical flows, and reasonable potential analysis when developing a WQBEL.

#### ***Critical Flows***

In accordance with TOGS 1.2.1 and 1.3.1, WQBELs are developed using dilution ratios that relate the critical low flow condition of the receiving waterbody to the critical effluent flow. The critical low flow condition used in the dilution ratio will be different depending on whether the limitations

are for aquatic or human health protection. For chronic aquatic protection, the critical low flow condition of the waterbody is typically represented by the 7Q10 flow and is calculated as the lowest average flow over a 7-day consecutive period within 10 years. For acute aquatic protection, the critical low flow condition is typically represented by the 1Q10 and is calculated as the lowest 1-day flow within 10 years. However, NYSDEC considers using 50% of the 7Q10 to be equivalent to the 1Q10 flow. For the protection of human health, the critical low flow condition is typically represented by the 30Q10 flow and is calculated as the lowest average flow over a 30-day consecutive period within 10 years. However, NYSDEC considers using  $1.2 \times 7Q10$  to be equivalent to the 30Q10. The 7Q10 or 30Q10 flow is used with the critical effluent flow to calculate the dilution ratio. The critical effluent flow can be the maximum daily flow reported on the permit application, the maximum of the monthly average flows from discharge monitoring reports for the past three years, or the facility design flow. When more than one applicable standard exists for aquatic or human health protection for a specific pollutant, a reasonable potential analysis is conducted for each applicable standard and corresponding critical flow to ensure effluent limitations are sufficiently stringent to ensure all applicable water quality standards are met as required by 40 CFR 122.44(d)(1)(i). For brevity, the pollutant summary table reports the results of the most conservative scenario.

#### Reasonable Potential Analysis (RPA)

The Reasonable Potential Analysis (RPA) is a statistical estimation process, outlined in the 1991 USEPA Technical Support Document for Water Quality-based Toxics Control (TSD), Appendix E. This process uses existing effluent quality data and statistical variation methodology to project the maximum amounts of pollutants that could be discharged by the facility. This projected instream concentration (PIC) is calculated using the appropriate ratio and compared to the water quality standard (WQS). When the RPA process determines the WQS may be exceeded, a WQBEL is required. The procedure for developing WQBELs includes the following steps:

- 1) identify the pollutants present in the discharge(s) based upon existing data, sampling data collected by the permittee as part of the permit application or a short-term high intensity monitoring program, or data gathered by the Department;
- 2) identify water quality criteria applicable to these pollutants;
- 3) determine if WQBELs are necessary (i.e. reasonable potential analysis (RPA)). The RPA will utilize the procedure outlined in Chapter 3.3.2 of EPA's Technical Support Document (TSD). As outlined in the TSD, for parameters with limited effluent data the RPA may include multipliers to account for effluent variability; and,
- 4) calculate WQBELs (if necessary). Factors considered in calculating WQBELs include available dilution of effluent in the receiving water, receiving water chemistry, and other pollutant sources.

The Department uses modeling tools to estimate the expected concentrations of the pollutant in the receiving water and develop WQBELs. These tools were developed in part using the methodology referenced above. If the estimated concentration of the pollutant in the receiving water is expected to exceed the ambient water quality standard or guidance value (i.e. numeric interpretation of a narrative water quality standard), then there is a reasonable potential that the discharge may cause or contribute to an exceedance of any State water quality standard adopted pursuant to NYS ECL 17-0301. If a TMDL is in place, the facility's WLA for that pollutant is applied as the WQBEL.

For carbonaceous and nitrogenous oxygen demanding pollutants, the Department uses a model which incorporates the Streeter-Phelps equation. The equation relates the decomposition of inorganic and organic materials along with oxygen reaeration rates to compute the downstream dissolved oxygen concentration for comparison to water quality standards.

A Watershed Maximum Daily Load (WMDL) may be developed by the Department to account for the cumulative effect of multiple discharges of conservative toxic pollutants to ensure water quality

standards are met in downstream segments. The WMDL uses a simple dilution model, assuming full mix in the receiving stream, to calculate the maximum allowable pollutant load that can be discharged and still meet water quality standards during critical low flow in downstream segments such as those with sensitive receptors (e.g. public water supply) or higher water classification. WQBELs are established to ensure that the cumulative mass load from point source discharges does not exceed the maximum allowable load to ensure permit limits are protective of water quality.

#### *Whole Effluent Toxicity (WET) Testing:*

WET tests use small vertebrate and invertebrate species to measure the aggregate toxicity of an effluent. There are two different durations of toxicity tests: acute and chronic. Acute toxicity tests measure survival over a 96-hour test exposure period. Chronic toxicity tests measure reductions in survival, growth, and reproduction over a 7-day exposure. TOGS 1.3.1 includes guidance for determining when aquatic toxicity testing should be included in SPDES permits. The authority to require toxicity testing is in 6NYCRR 702.9. TOGS 1.3.2 describes the procedures which should be followed when determining whether to include toxicity testing in a SPDES permit and how to implement a toxicity testing program. Per TOGS 1.3.2, WET testing may be required when any one of the following seven criteria are applicable:

1. There is the presence of substances in the effluent for which ambient water quality criteria do not exist.
2. There are uncertainties in the development of TMDLs, WLAs, and WQBELs, caused by inadequate ambient and/or discharge data, high natural background concentrations of pollutants, available treatment technology, and other such factors.
3. There is the presence of substances for which WQBELs are below analytical detectability.
4. There is the possibility of complex synergistic or additive effects of chemicals, typically when the number of metals or organic compounds discharged by the permittee equals or exceeds five.
5. There are observed detrimental effects on the receiving water biota.
6. Previous WET testing indicated a problem.
7. POTWs which exceed a discharge of 1 MGD. Facilities of less than 1 MGD may be required to test, e.g., POTWs <1 MGD which are managing industrial pretreatment programs.

#### *Minimum Level of Detection*

Pursuant to 40 CFR 122.44(i)(1)(iv) and 6 NYCRR 750-2.5(d), SPDES permits must contain monitoring requirements using sufficiently sensitive test procedures approved under 40 CFR Part 136. A method is "sufficiently sensitive" when the method's minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant parameter; or the lowest ML of the analytical methods approved under 40 CFR Part 136. The ML represents the lowest level that can be measured within specified limitations of precision and accuracy during routine laboratory operations on most effluent matrices. When establishing effluent limitations for a specific parameter (based on technology or water quality requirements), it is possible that the calculated limitation will fall below the ML established by the approved analytical method(s). In these instances, the calculated limitation is included in the permit with a compliance level set equal to the ML of the most sensitive method.

#### *Monitoring Requirements*

CWA section 308, 40 CFR 122.44(i), 6 NYCRR 750-1.13, and 750-2.5 require that monitoring be included in permits to determine compliance with effluent limitations. Additional effluent monitoring may also be required to gather data to determine if effluent limitations may be required. The permittee is responsible for conducting the monitoring and reporting results on Discharge Monitoring Reports (DMRs). The permit contains the monitoring requirements for the facility. Monitoring frequency is based on the minimum sampling necessary to adequately monitor the facility's performance and characterize the nature of the discharge of the monitored flow or pollutant. Variable effluent flows and pollutant levels may be required to be monitored at more frequent intervals than relatively constant effluent flow and pollutant levels (6 NYCRR 750-1.13). For industrial facilities, sampling frequency is based on guidance provided in TOGS 1.2.1. For municipal facilities, sampling frequency is based on guidance provided in TOGS 1.3.3.

Permittee: General Motors LLC  
Facility: General Motors Tonawanda Engine Plant  
SPDES Number: NY0000574  
USEPA Major/Class 03 Industrial

Date: February 2, 2024 v.1.13  
Permit Writer: Danyel King  
Water Quality Reviewer: Danyel King  
Full Technical Review

## Other Conditions

### Mercury

The multiple discharge variance (MDV) for mercury was developed in accordance with 6 NYCRR 702.17(h) “to address widespread standard or guidance value attainment issues including the presence of a ubiquitous pollutant or naturally high levels of a pollutant in a watershed.” The first MDV was issued in October 2010, and subsequently revised and reissued in 2015; each subsequent iteration of the MDV is designed to build off the previous version, to make reasonable progress towards the water quality standard (WQS) of 0.7 ng/L dissolved mercury. The MDV is necessary because human-caused conditions or sources of mercury prevent attainment of the WQS and cannot be remedied (i.e., mercury is ubiquitous in New York waters at levels above the WQS and compliance with a water quality based effluent limitation (WQBEL) for mercury cannot be achieved with demonstrated effluent treatment technologies). The Department has determined that the MDV is consistent with the protection of public health, safety, and welfare. During the effective period of this MDV, any increased risks to human health are mitigated by fish consumption advisories issued periodically by the NYSDOH.

All surface water SPDES permittees are eligible for authorization by the MDV provided they meet the requirements specified in DOW 1.3.10.

### Schedules of Compliance

Schedules of compliance are included in accordance with 40 CFR Part 132 Attachment F, Procedure 9, 40 CFR 122.47 and 6 NYCRR 750-1.14. Schedules of compliance are intended to, in the shortest reasonable time, achieve compliance with applicable effluent standards and limitations, water quality standards, and other applicable requirements. Where the time for compliance is more than nine months, the schedule of compliance must include interim requirements and dates for their achievement. If the time necessary to complete the interim milestones is more than nine months, and not readily divisible into stages for completion, progress reports must be required.

### Schedule(s) of Additional Submittals

Schedules of Additional Submittals are used to summarize the deliverables required by the permit not identified in a separate Schedule of Compliance.

### Best Management Practices (BMP) for Industrial Facilities

BMP plans are authorized for inclusion in NPDES permits pursuant to Sections 304(e) and 402 (a)(1) of the Clean Water Act, and 6 NYCRR 750-1.14(f). The regulations pertaining to BMPs are promulgated under 40 CFR Part 125, Subpart K. These regulations specifically address surface water discharges.

## Biological Fact Sheet - Cooling Water Intake Structure Bureau of Ecosystem Health, Energy Unit

**Name of Facility:** Tonawanda Engine Plant, General Motors Powertrain  
**Owner/Operator:** General Motors Powertrain  
**SPDES #:** NY0000574  
**Location:** Erie County, New York  
Buffalo  
Niagara River

### **1. Description of Facility**

The Tonawanda Engine Plant (“TEP”) is located along the upper Niagara River approximately 1.25 miles downstream of the head of Grand Island, New York. TEP is a manufacturing facility that is permitted to withdrawal up to 57 million gallons of water per day (“MGD”) from the Niagara River with most of the water (*i.e.*, 97%) being used for non-contact cooling. Typically, the facility withdraws less than 10 MGD. The cooling water intake structure (“CWIS”) was constructed in the 1937 and has been in service for approximately 75 years. The CWIS consists of a 72-inch intake pipe leading to a pump house. The pump house contains conventional traveling screens with ¼ inch mesh screens, three constant speed electric pumps (8,000 gpm) and two variable speed natural gas pumps (8,000 gpm each).

### **2. Ecological Resource**

TEP withdraws water from the upper section of the 37 mile long Niagara River. Carrying water from Lake Erie to Lake Ontario, the river is divided into an upper and lower section by the Niagara Falls. Warm, cool and cold water fish species typical of the lower Great Lakes are commonly found in the Niagara River. Biological information collected at the Huntley Generating Station (Shaw 2007) defines the fish community in the section of the river near the TEP. Game species include muskellunge, northern pike, rainbow trout, smallmouth bass and yellow perch. Forage species such as rainbow smelt, emerald shiner, gizzard shad and alewife are common. Lake sturgeon, listed as a threatened species in New York State under 6NYCRR Part 182, is known to inhabit the upper Niagara River. Other state listed species of fish that could be in the vicinity of TEP include the silver chub, mooneye, black redhorse sucker and redbfin shiner.

### **3. Discussion of Best Technology Available**

According to 6 NYCRR §704.5 - *Intake structures* and §316(b) of the federal Clean Water Act, the location, design, construction, and capacity of cooling water intake structures must reflect the best technology available (“BTA”) for minimizing adverse environmental impact. For existing facilities with cooling water intake structures, the Department expects that the performance goals of Commissioner Policy CP-#52 will be achieved from the implementation of these permit conditions. The identification of BTA is a technology driven determination, however, the final decision may also consider cost.

### **4. Determination of Best Technology Available**

In 2017 the Department made a Best Technology Available (BTA) determination for this facility.

The Department has determined that the BTA for the TEP cooling water intake structure was the combined use of cylindrical wedge-wire intake screens with a slot-size of 0.75 mm (operated at no more than 0.5 fps), variable speed drive pumps, and flow reduction.

In August 2018, General Electric (GE) submitted a water reduction Plan for the TEP which included a schedule for installing the VSPs. In November 2018, GE submitted the Technology Installation and Operation Plan which included the process and schedule to install the cylindrical wedge-wire screens.

In July of 2022, GE submitted a SPDES permit modification application that included a change to the CWIS. GE proposed the installation of a closed-cycle cooling system and retirement of the current intake structure and pumphouse. The closed-cycle system would no longer use Niagara River water for cooling needs.



In keeping with the Department's established, environmentally protective BTA requirements, impingement and entrainment at the TEP will be eliminated as a result of implementation of the closed-cycle system.

**5. Legal Requirements**

The requirements for the cooling water intake structure in this State Pollutant Discharge Elimination System permit are consistent with the policies and requirements embodied in the New York State Environmental Conservation Law, in particular - Sec.1-0101.1.; 1-0101.2.; 1-0101.3.b., c.; 1-0303.19.; 3-0301.1.b., c., i., s. and t.; 11-0107.1; 11-0303.; 11-0535.2; 11-1301.; 11-1321.1.; 17-0105.17.; 17-0303.2., 4.g.; 17-0701.2., the performance goals of Commissioner Policy CP-#52, 6 NYCRR §704.5 §316(b) CWA, and the rules thereunder, specifically 40 CFR §122 and §125.

**6. Summary of Changes**

Condition	Addition/Deletion
Biological Monitoring Requirement No. 1	Added- New Determination of Best Technology Available
Biological Monitoring Requirement No. 2	Added - Complete installation of Best Technology Available by 12/31/24
Biological Monitoring Requirement No. 3	Added - Requires elimination of impingement and entrainment
Biological Monitoring Requirement No. 4	Renumbered - General Requirement to notify Department of modifications to intake
Biological Monitoring Requirement No. 5	deleted
Biological Monitoring Requirement No. 6	deleted
Biological Monitoring Requirement No. 7	deleted
Biological Monitoring Requirement No. 8	deleted

**References**

2007. Impingement and Entrainment Study, 2006-2007. NRG Huntley Power, LLC, Huntley Steam Station. Prepared by Shaw Environmental, Inc. June 2007.

2014. Engineering Report, Water Withdrawal Permit, General Motors CET-Tonawanda Engine Facility Tonawanda, New York. Prepared by CHA. January 2014.

2022 NYSDEC NY-2C General Motors Part 1 SPDES modification

Commissioner Policy CP-52. Best Technology Available (BTA) for Cooling Water Intake Structures

Document prepared by Colleen E. Kimble, and last revised on November 29, 2022.

## **Biological Fact Sheet - Cooling Water Intake Structure**

### **Bureau of Ecosystem Health, Energy Unit**

**Name of Facility:** Tonawanda Engine Plant, General Motors Powertrain  
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