



Department of  
Environmental  
Conservation

# State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	<b>2621, 3053</b>	NAICS Code:	<b>322121, 339991</b>	SPDES Number:	<b>NY0003344</b>
Discharge Class (CL):	<b>03</b>	DEC Number:	<b>7-3558-00001/00001</b>		
Toxic Class (TX):	<b>T</b>	Effective Date (EDP):	<b>EDP</b>		
Major-Sub Drainage Basin:	<b>07 - 01</b>	Expiration Date (ExDP):	<b>ExDP</b>		
Water Index Number:	<b>Ont-66 (portion 2)</b>	Item No.:	<b>897 - 3</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>Lydall Performance Materials (US), Inc. (dba Alkegen)</b>			Attention:	<b>Greg Velez</b>	
Street:	<b>216 Wohlsen Way</b>					
City:	<b>Lancaster</b>			State:	<b>PA</b>	Zip Code: <b>17603</b>
Email:				Phone:	<b>(315) 612-8857</b>	

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL											
Name:	<b>Alkegen – Fulton Plant</b>										
Address / Location:	<b>2885 State Route 481</b>						County:	<b>Oswego</b>			
City:	<b>Fulton</b>				State:	<b>NY</b>		Zip Code:	<b>13069</b>		
Facility Location:	Latitude:	<b>43</b> °	<b>21</b> '	<b>13</b> " N	& Longitude:	<b>76</b> °	<b>25</b> '	<b>33</b> " W			
Primary Outfall No.:	<b>003</b>	Latitude:	<b>43</b> °	<b>21</b> '	<b>28</b> " N	& Longitude:	<b>76</b> °	<b>25</b> '	<b>44</b> " W		
Wastewater Description:	<b>Process wastewater, Non-contact cooling water</b>	Receiving Water:	<b>Oswego River</b>			NAICS:	<b>322121, 339991</b>	Class:	<b>B</b>	Standard:	<b>B</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:**

BWP Permit Coordinator ([permit.coordinator@dec.ny.gov](mailto:permit.coordinator@dec.ny.gov))  
 BWP Permit Writer  
 RWE  
 RPA  
 EPA Region II ([Region2\\_NPDES@epa.gov](mailto:Region2_NPDES@epa.gov))

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

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## SUMMARY OF ADDITIONAL OUTFALLS

Outfall	Wastewater Description	NAICS Code	Outfall Latitude			Outfall Longitude		
<b>001</b>	Stormwater and Incidental steam condensate	<b>322121, 339991</b>	<b>43</b> °	<b>21</b> '	<b>11</b> " N	<b>76</b> °	<b>25</b> '	<b>37</b> " W
Receiving Water:	<b>Oswego River</b>					Class:	<b>B</b>	

## 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

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
001	Stormwater roof drain and incidental steam condensate	Oswego River, Class B	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Temperature	Monthly Average	Monitor	°F			Weekly	Grab		X	
Temperature	Daily Maximum	95	°F			Weekly	Grab		X	
Total Mercury	Daily Maximum	50	ng/L			Monthly	Grab		X	5
ACTION LEVEL PARAMETERS	Type	Action Level	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Chemical Oxygen Demand (COD)	Daily Maximum	120	mg/L			Monthly	Grab		X	6
Total Zinc	Daily Maximum	110	µg/L			Monthly	Grab		X	6

**FOOTNOTES ON PAGE 6**



## PERMIT LIMITS, LEVELS AND MONITORING (continued)

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
003	Process wastewater and non-contact cooling water	Oswego River, Class B	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	Recorder		X	
Flow	Daily Maximum	Monitor	MGD			Continuous	Recorder		X	
pH	Daily Minimum	6.0	SU			1/day	Grab		X	1
	Daily Maximum	9.0	SU							
Temperature	Monthly Average	Monitor	°F			Weekly	Grab		X	
Temperature	Daily Maximum	95	°F			Weekly	Grab		X	
5-day Biochemical Oxygen Demand (BOD <sub>5</sub> )	Monthly Average	Monitor	mg/L	740	lbs/d	Weekly	24-hr. Comp.	X	X	4
5-day Biochemical Oxygen Demand (BOD <sub>5</sub> )	Daily Maximum	Monitor	mg/L	1,300	lbs/d	Weekly	24-hr. Comp.		X	4
Total Suspended Solids (TSS)	Monthly Average	Monitor	mg/L	590	lbs/d	Weekly	24-hr. Comp.	X	X	4
Total Suspended Solids (TSS)	Daily Maximum	Monitor	mg/L	1,200	lbs/d	Weekly	24-hr. Comp.		X	4
Settleable Solids	Monthly Average	Monitor	mL/L			Weekly	Grab		X	
Settleable Solids	Daily Maximum	0.3	mL/L			Weekly	Grab		X	
Ammonia (as N)	Monthly Average	Monitor	mg/L	300	lbs/d	Quarterly	24-hr. Comp.		X	3,4
Ammonia (as N)	Daily Maximum	Monitor	mg/L	590	lbs/d	Quarterly	24-hr. Comp.		X	3,4
Turbidity	Monthly Average	Monitor	NTU			Quarterly	Grab		X	3
Turbidity	Daily Max	Monitor	NTU			Quarterly	Grab		X	3
Total Residual Chlorine (TRC)	Monthly Average	Monitor	mg/L			Weekly	Grab		X	2
Total Residual Chlorine (TRC)	Daily Maximum	2.0	mg/L			Weekly	Grab		X	2
Aluminum, Total	Monthly Average	4.0	mg/L			Monthly	24-hr. Comp.	X		4
Aluminum, Total	Daily Maximum	2.0	mg/L			Monthly	24-hr. Comp.	X		4
Mercury, Total	Daily Maximum	50	ng/L			Monthly	Grab	X	X	5
Zinc, Total	Monthly Average	Monitor	µg/L	4.0	lbs/d	Semi-annually	24-hr. Comp.		X	4
Zinc, Total	Daily Maximum	Monitor	µg/L	8.0	lbs/d	Semi-annually	24-hr. Comp.		X	4

FOOTNOTES ON PAGE 6

## PERMIT LIMITS, LEVELS AND MONITORING (continued)

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	7
WET - Acute Vertebrate	See footnote			15	TUa		See footnote		X	7
WET - Chronic Invertebrate	See footnote			100	TUc		See footnote		X	7
WET - Chronic Vertebrate	See footnote			100	TUc		See footnote		X	7

### FOOTNOTES:

- Daily grab sampling for pH shall be taken each day that the treatment facility is in operation and discharge occurs from Outfall 003.
- 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 an appropriate NODI code on the DMR.
- Quarterly samples shall be collected in calendar quarters (Q1 – January 1<sup>st</sup> to March 31<sup>st</sup>; Q2 – April 1<sup>st</sup> to June 30<sup>th</sup>; Q3 – July 1<sup>st</sup> to September 30<sup>th</sup>; Q4 – October 1<sup>st</sup> to December 31<sup>st</sup>).
- All 24-hour composite samples must be flow proportional. All 4-hour composite samples must be time proportional.
- This is a Compliance Level. The calculated WQBEL for total mercury is 0.7 ng/L.
- Action Levels: If the action level is exceeded, the additional monitoring requirement is triggered, and the permittee shall undertake a short-term, high-intensity, monitoring program for COD or zinc, whichever exceed. Samples identical to those required for routine monitoring purposes shall be taken on each of at least three consecutive days and analyzed. Results shall be expressed in both mass and concentration. If levels higher than the action levels are confirmed, the permittee shall evaluate the treatment system operation and identify and employ actions to reduce concentrations present in the discharge. The permit may also be reopened by the Department for consideration of revised action levels or effluent limits. Action level monitoring results and the effectiveness of the actions taken shall be summarized and submitted with the monthly operating report [or DMR] data
- 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 15:1 for acute, and 100:1 for chronic.

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

Reporting - Toxicity Units shall be calculated and reported on the DMR as follows:  $TUa = (100)/(48\text{-hr LC50})$  [note that Acute data is generated by both Acute and Chronic testing] and  $TUc = (100)/(7\text{-day NOEC})$  or  $(100)/(7\text{-day IC25})$  when Chronic testing has been performed or  $TUc = (TUa) \times (10)$  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 TUc. For Acute results, report a TUa of 0.3 if there is no statistically significant mortality in 100% effluent as compared to the control. Report a TUa 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 TUa for the Chronic prediction from the Acute data, and report a TUC 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 TUa, 48-hr LC50 for Acute tests and/or TUC, 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.

## SPECIAL CONDITIONS – BIOLOGICAL MONITORING REQUIREMENTS

All submissions under this section should provide:

- One (1) paper and one (1) electronic copy to the Energy Unit Leader<sup>1</sup>;
- One (1) copy of the cover letter to the Division of Water State Pollution Discharge Elimination System (SPDES) Compliance Information Section; and
- One (1) copy of the cover letter to the Regional Water Engineer; unless otherwise noted.

### Alternative Cooling Water Source

1. At **EDP**, the facility shall continue to use a public water supply to meet its cooling needs.
2. The permittee must notify the Regional Water Engineer and the Energy Unit Leader<sup>1</sup> within 1 month prior to reactivation of the cooling water intake structure (CWIS).

If the existing CWIS is required to supply cooling water, Biological Monitoring conditions 3-9 will apply.

### Impingement Mortality and Entrainment Characterization Study

3. Within three (3) months of DEC notification of the reactivation of the cooling water intake structure, the permittee must submit an approvable plan for an *Impingement Mortality and Entrainment Study* at the facility. The study plan must include a schedule for implementation, standard operating procedures for data collection, and a final report. At a minimum, the final report must include:
  - a. A taxonomic identification of all fish documented to frequent the Oswego River in the vicinity of the intake and natural life history information on each of these species.
  - b. An overall estimate of the number of fish impinged and entrained at current operating conditions, and at calculation baseline conditions. For each flow scenario, estimates shall be presented in total numbers of organisms, identified to species, or lowest practical taxon. Estimates for each taxonomic group shall also be subdivided by life stage.

In addition, the *Impingement Mortality and Entrainment Characterization Study* must be generally consistent with the following guidelines:

- c. Impingement Abundance Monitoring
  - i. Duration - 1 calendar year.
  - ii. Intensity - At a minimum, one continuous 24-hour collection will be made in every, seven-day calendar period for a continuous 12-month period. The collections will be scheduled to take place within the first two days of each period so that the remainder of the period is available for an alternate collection, should plant operation or equipment malfunction and prevent impingement collection on the day initially scheduled. If for any reasons, a collection cannot be made within a given seven-day period, the subsequent collection shall proceed as scheduled. If more than 1,000 fish are collected in 24-hours of sampling, an additional 24-hour collection will be initiated within 72 hours.
  - iii. Any existing traveling screens shall be washed until they are clean prior to the start of the 24-hour collection period.
  - iv. Average intake temperature before sampling, average discharge temperature and total facility flows shall be recorded on a daily basis, tabulated and included as an appendix in the final report.
  - v. Collection efficiency shall be determined quarterly for each major species. Major species are defined as those occurring at greater than 10% abundance, and species of important recreational or commercial fishing interest.

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<sup>1</sup> Energy Unit Leader, NYSDEC, Bureau of Ecosystem Health, 625 Broadway 5<sup>th</sup> Floor, Albany, NY 12233-4756



## SPECIAL CONDITIONS – BIOLOGICAL MONITORING REQUIREMENTS (continued)

- vi. The final report shall include a chapter on the facility and site description. In the description of the facility's operation, there will be a completed description of the condenser cooling water system including the number of traveling screens, dimensions, type, mesh size, standard operating procedures, screen washwater sluice configuration and disposition of the screen washings, and the nature and estimated quantities of debris collected at this facility.
  - vii. Water quality measurements will be taken in conjunction with the impingement sampling program. Measurements will include salinity, pH, and dissolved oxygen.
  - viii. At 6 months the permittee shall submit a status report describing the sampling activities that took place during the prior 6 months, and any events that affected sampling efforts.
  - viii. The final report shall include impingement data collected and a summary table that includes estimates of the total numbers of fishes impinged, by species, for the study period based upon (1) continuous operation of all pumps at full rated flow and (2) actual operational and flow data for the study period. The information must be submitted in tabular, graphic, and electronic (Excel or similar) formats.
- d. Entrainment Abundance Monitoring
- i. Duration - 1 calendar year.
  - ii. Intensity - At a minimum, one continuous 24-hour collection will be made in every, seven-day calendar period during March 1 to August 31 for a 1-year period. The collections will be scheduled to take place within the first two days of each period so that the remainder of the period is available for an alternate collection, should plant operation or equipment malfunction and prevent entrainment collection on the day initially scheduled. If for any reasons, a collection cannot be made within a given seven-day period, the subsequent collection shall proceed as scheduled.
  - iii. All samples will be analyzed for ichthyoplankton and juvenile fish.
  - iv. Proposed methods for sample processing, quality control, quality assurance, and splitting will be described in the scope of work submitted for DEC approval.
  - v. At 6 months the permittee shall submit a status report describing the sampling activities that took place during the prior 6 months, and any events that affected sampling efforts.
  - vi. The final report shall include entrainment data collected and a summary table that includes estimates of the total numbers of fish entrained by species and life stage, for the study period based upon (1) continuous operation of all pumps at full rated flow and (2) actual operational and flow data for the study period. The information must be submitted in tabular, graphic, and electronic (Excel or similar) formats.

Once approved by the Department, the permittee must conduct the *Impingement Mortality and Entrainment Characterization Study* according to the approved schedule. The *Impingement Mortality and Entrainment Characterization Study* and approved schedule will become an enforceable condition of this SPDES permit.

### Design and Construction Technology Review

4. Within six (6) months after the Department's approval of the *Impingement Mortality and Entrainment Study* final report, the permittee must submit an approvable *Design and Construction Technology Review* that includes:
  - a. An analysis of all feasible technologies and/or operational measures capable of being installed and implemented at the facility. For each feasible alternative include:
    - i. A detailed description of the alternative (including preliminary drawings and site maps, if appropriate);
    - ii. A discussion of the engineering feasibility of the alternative;
    - iii. An assessment of the mitigative benefits in reducing impingement mortality and entrainment abundance for all life stages of, through utilization of the alternative;
    - iv. A breakdown of all applicable costs including costs associated with capital improvements, operation and maintenance, and construction downtime;
    - v. An estimate of the time required to implement the alternative; and
    - vi. An evaluation of any adverse environmental impacts to aquatic biota, habitat, or water quality that may result from construction, installation, and use of the alternative.

## SPECIAL CONDITIONS – BIOLOGICAL MONITORING REQUIREMENTS (continued)

5. Within 1 month of the Department's approval of the *Design and Construction Technology Review*, the permittee must submit, for Department review and consideration, a proposed suite of technologies or operational measures that meets the requirements of 6 NYCRR Part 704.5, Section 316(b) CWA and the performance goals of Commissioner Policy #52:
  - a. Alone, or in combination, these technologies or operational measures *minimize* impingement mortality and entrainment of fish at Alkegen.
  - b. The reductions in entrainment and impingement mortality resulting from the proposed technologies and/or operational measures can be no less stringent, and if possible, should be substantially greater than the following performance requirements:
    - i. Entrainment must be reduced by at least 60 percent from the calculation baseline;
    - ii. Impingement mortality must be reduced by at least 80 percent from the calculation baseline.

NOTE: Based on this and other relevant information, the Department will select technologies and/or operational measures that meet the requirements of 6 NYCRR Part 704.5, Section 316(b) CWA, 40 CFR 125 Subpart J and will modify this SPDES permit to require the use of these selected technologies and/or operational measures.

### Technology Installation and Operation Plan

6. Within 3 months of the effective date of the permit modification (EDPM + 3 months) requiring technologies and/or operational measures to meet requirements of 6 NYCRR Part 704.5, Section 316(b) CWA , and the performance goals of Commissioner Policy #52, the permittee must submit an approvable *Technology Installation and Operation Plan*. This plan must include:
  - a. a schedule for installing and implementing the technologies and/or operational measures selected to meet requirements of 6 NYCRR Part 704.5, Section 316(b) CWA; and
  - b. the methodology for assessing the efficacy of these technologies and operational measures.

### Verification Monitoring Study- Plan and Report

7. Within 3 months of Department approval of the *Technology Installation and Operation Plan*, the permittee must submit an approvable *Verification Monitoring Study Plan*. This plan must include details of procedures to confirm that the necessary reductions in impingement and entrainment required by this permit are being achieved, and must include the following:
  - a. At a minimum, two years of in-plant impingement and entrainment monitoring to verify the full-scale performance of BTA measures.
  - b. A description of the frequency and duration of monitoring, the parameters to be monitored, and the basis for determining the parameters and the frequency and duration for monitoring.
  - c. A schedule of implementation.
  - d. A draft proposed Standard Operation Procedure (SOP) that describes the sampling protocols for these monitoring studies.

The plan and SOP must be updated as required by the Department. Upon receipt of Department approval the permittee must complete the *Verification Monitoring Study* in accordance with the approved schedule. The *Verification Monitoring Study Plan* and approved schedule will become an enforceable condition of this SPDES permit.

## SPECIAL CONDITIONS – BIOLOGICAL MONITORING REQUIREMENTS (continued)

8. Within 6 months of the completion of the *Verification Monitoring Study* the permittee must submit an approvable *Verification Monitoring Report* to the Energy Unit Leader<sup>1</sup> that demonstrates compliance with 6 NYCRR Part 704.5 and Section 316(b) CWA.

### Contingency Plan to Meet BTA Requirements

9. If the BTA measures do not meet the required reductions in impingement and entrainment mortality, within 6 months of the Department's notice, a Contingency Plan to meet the BTA requirements of 6 NYCRR Part 704.5 and Section 316(b) of the CWA, must be submitted for the Department's review and approval. Upon Department approval, the Contingency Plan shall become part of the TIOP and an enforceable condition of this permit. Any contingency proposed must result in a reduction in impingement mortality and entrainment equivalent to the reductions that would be achieved if the facility operated a wet closed-cycle cooling system.

### Additional Reporting Requirements

10. The permittee must maintain records of all data, reports and analysis pertaining to compliance with 6 NYCRR Part 704.5, and Section 316(b) CWA for a period no less than 10 years from the Effective Date of the Permit.

### General Requirement

11. Modification of the facility cooling water intake must not occur without prior Department approval. The permittee must submit written notification, including detailed descriptions and plans, to the NYSDEC Energy Unit<sup>1</sup>; the Director of the Bureau of Water Compliance Program; and both the Regional Permit Administrator and the Regional Water Engineer, Region 7, 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 Part 704.5 and Section 316(b) CWA. As determined by NYSDEC, a permit modification application in accordance with 6 NYCRR Part 621 may be required.

## STORMWATER POLLUTION PREVENTION REQUIREMENTS

Stormwater discharges at this facility are required to obtain coverage under the current Multi-Sector General Permit (MSGP) Sector [B and Y] (GP-0-23-001).

### 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 12/21/2001. 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; stormwater, 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 stormwater 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>2</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>2</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 of 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>3</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. See section 2.a.iii below.
  - 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).
- b. Control Strategy - The control strategy must contain the following minimum elements:
    - i. Monitoring and Inventory/Inspections-
      - 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>4</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.

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

<sup>3</sup> Outfall monitoring must be conducted using the methods specified in Table 8 of *DOW 1.3.10*.

<sup>4</sup> For example, the outreach program could include education about sources of mercury and what to do if a mercury source is found.

- 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 the previous reporting period;
  - ii. A list of known and *potential mercury sources*
    - 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:

**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.

## 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.

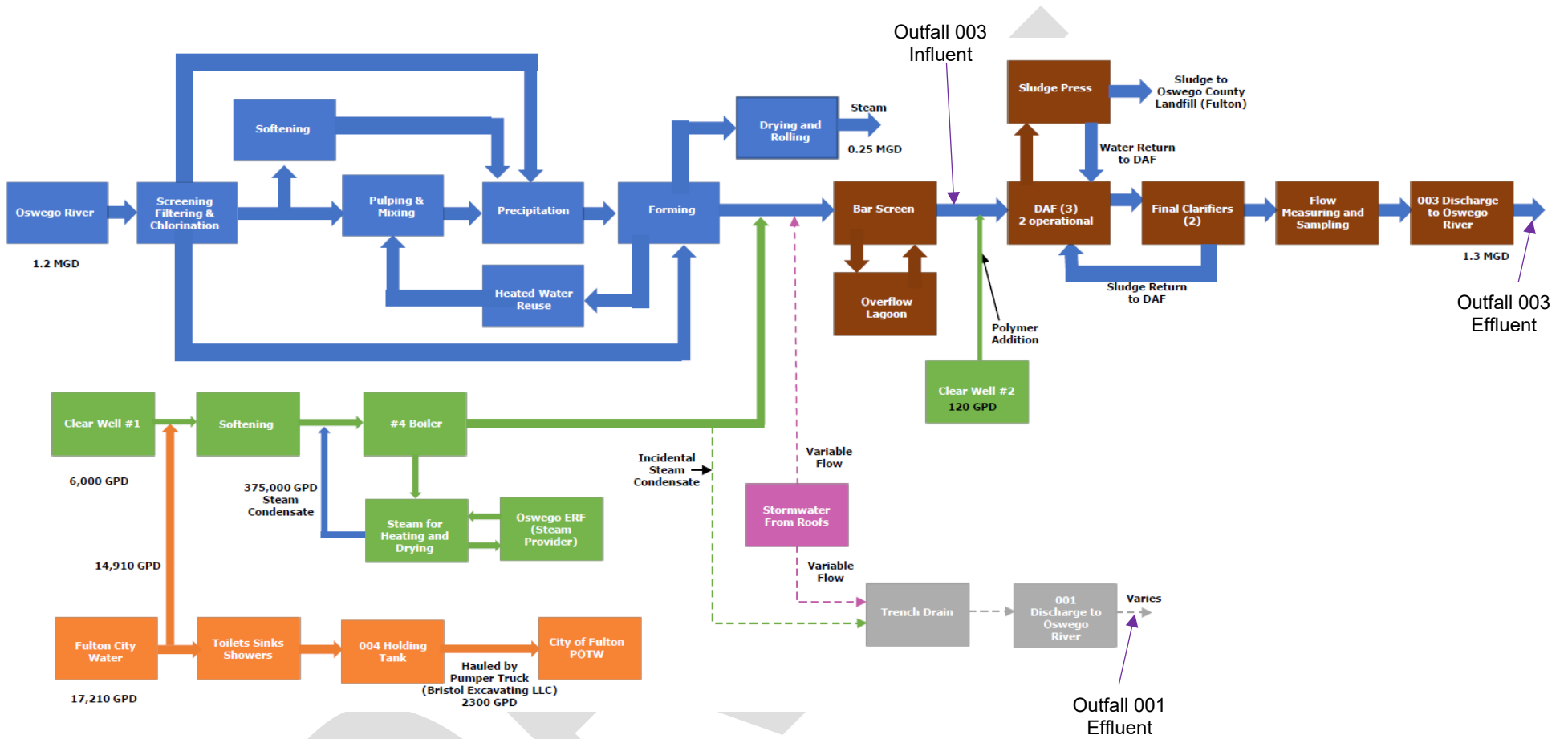
The signs shall have **minimum** dimensions of eighteen inches by twenty-four inches (18" x 24") and shall have white letters on a green background and contain the following information:

<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>
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- (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.



# MONITORING LOCATIONS



## 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 one-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 accepted 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 Regional Water Engineer 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 7  
 State Office Building, Watertown, New York, 13601-3787 Phone: (315) 785-2513

- 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
001, 003	<p><u>EMERGING CONTAMINANT SHORT-TERM MONITORING</u>                      The permittee shall collect grab samples of both the influent and effluent from the facility’s treatment system(s) associated with the identified outfall for Per-and Polyfluoroalkyl Substances (PFAS) utilizing EPA analytical method 1633 and 1,4-Dioxane (1,4-D) utilizing EPA Method 8270D SIM or 8270E SIM. The samples must represent normal discharge conditions and treatment operations and shall be obtained on a monthly basis for at least 3 consecutive months. The results shall be reported through the “Emerging Contaminants Survey for Industrial Facilities” found at: <a href="#">Emerging Contaminants In NY’s Waters - NYSDEC</a>.</p> <p>The permittee shall initiate track down of potential sources by completing the “Emerging Contaminants Investigation Checklist for Industrial Facilities” available at the above link.                      The DEC may periodically request updates or additional monitoring to check progress on track down investigations. Elements of the checklist may be used as permit conditions in future permit modifications.</p>	<p>EDP + 6 months</p> <p>Within 90 days of DEC written notification</p>

Outfall(s)	SCHEDULE OF ADDITIONAL SUBMITTALS - Required Action	Due Date
N/A	<p><u>BIOLOGICAL MONITORING REQUIREMENTS</u></p> <p>(Item numbers correspond to those in the <a href="#">SPECIAL CONDITIONS – BIOLOGICAL MONITORING REQUIREMENTS</a> section.)</p> <p>2. Notify DEC if CWIS will be reactivated...</p> <p>3. Submit an approvable <i>Impingement and Entrainment Study Plan</i> (IM&amp;E)</p> <p>4. Submit an approvable <i>Design and Construction Technology Review</i> (DCTR)</p> <p>5. Submit a proposed suite of technologies or operational measures for Department review and consideration.<sup>5</sup></p> <p>6. Submit an approvable <i>Technology Installation and Operation Plan</i> (TIOP).</p> <p>7. Submit an approvable <i>Verification Monitoring Study Plan</i> (VMP).</p> <p>8. Submit an approvable report to the Energy Unit Leader<sup>1</sup> that demonstrates compliance with 6 NYCRR Part 704.5 and 316(b) of the Clean Water Act.</p>	<p>Within 1 month prior to reactivation</p> <p>Within 3 months of CWIS reactivation</p> <p>IM&amp;E approval + 6 months</p> <p>DCTR approval + 1 month</p> <p>EDPM + 3 months</p> <p>TIOP approval + 3 months</p> <p>VMP approval +6 months</p>
001,003	<p><u>BMP PLAN</u></p> <p>The permittee shall annually review the completed BMP plan, submitted to this Department on 12/21/2001, 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><b>EDP + 6 Months,</b>  Annually thereafter on January 28<sup>th</sup></p>
003	<p><u>WHOLE EFFLUENT TOXICITY (WET) TESTING</u></p> <p>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>
001, 003	<p><u>WATER TREATMENT CHEMICAL (WTC) ANNUAL REPORT FORM</u></p> <p>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>Annually on January 28<sup>th</sup></p>

<sup>5</sup> From the suite of technologies and/or operational measures submitted for review, the Department will select technologies and/or operational measures that meet the requirements of 6NYCRR Part 704, section 704.5 and Section 316(b) of the Clean Water Act. Subsequent to these selections the Department will modify this permit.

Outfall(s)	SCHEDULE OF ADDITIONAL SUBMITTALS - Required Action	Due Date
001, 003	<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.	<b>Maintained Onsite</b> EDP + 12 months, annually thereafter
001	<u>SHORT-TERM AMMONIA MONITORING</u> The permittee shall submit the results of 6 months of monthly monitoring for ammonia (as N). Grab samples shall be taken. The monitoring results will be provided in mg/L along with the recorded flow for the day each sample was collected.	EDP + 7 months

**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.

# **SPDES Permit Fact Sheet Lydall Performance Materials (US), Inc (DBA Alkegen)**

## **Alkegen-Fulton Plant NY0003344**

DRAFT



Department of  
Environmental  
Conservation

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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 Alkegen-Fulton Plant. The changes to the permit are summarized below:

- Updated permit format, definitions, and general conditions
- Updated facility name from Lydall Performance Materials to Alkegen
- Corrected the lat/long coordinates for primary Outfall 003
- Outfall 001
  - Updated outfall description
  - Changed temperature daily average monitoring to monthly average monitoring
  - Added a daily max limit for total mercury
  - Added action levels for chemical oxygen demand (COD) and total zinc
  - Updated footnotes
- Outfall 003
  - Updated outfall description
  - Increased pH sampling frequency from weekly to 1/day
  - Decreased 5-day biochemical oxygen demand (BOD<sub>5</sub>) monthly average load limit from 900 to 740 lbs/day
  - Increased the BOD<sub>5</sub> daily max load limit from 1,200 to 1,300 lbs/day
  - Decreased the total suspended solids (TSS) monthly average load limit from 1,200 lbs/day to 590 lbs/day
  - Decreased the TSS daily max load limit from 2,500 lbs/day to 1,200 lbs/day
  - Added a daily max limit of 0.3 mL/L for settleable solids
  - Decreased the ammonia (as N) monthly average load limit from 360 lbs/day to 300 lbs/day
  - Decreased the ammonia (as N) daily max load limit from 720 lbs/day to 590 lbs/day
  - Added monthly average and daily max limits for total aluminum
  - Added a daily max limit for total mercury
  - Added whole effluent toxicity (WET) testing
  - Removed the cadmium action level
  - Updated footnotes
- Removed Outfall 004 from permit
- Removed the water treatment chemical (WTC) requirements page
- Added Emerging Contaminant Short-term Monitoring
- Added biological monitoring requirements
- Added the mercury minimization program (type III)
- Updated discharge notification requirements
- Updated the monitoring locations flow diagram



- Added schedule of additional submittals

**This fact sheet 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 fact sheet.**

## Administrative History

6/1/2012	The last full technical review was performed and the SPDES permit became effective with a new five-year term and expiration date of 5/31/2017. The 2012 permit, along with all subsequent modifications, has formed the basis of this permit.
6/8/2012	Permit was modified to remove flow monitoring requirement for Outfall 001 and the Wastewater Facility Operation Report requirement.
5/31/2017	The current permit was allowed to stay in effect pursuant to SAPA <sup>1</sup> .
4/24/2019	The permit was transferred from Interface Performance Materials, Inc. to Lydall Performance Materials (US), Inc.
10/8/2021	Unifrax acquired Lydall. <sup>2</sup>
1/24/2022	Unifrax renamed to Alkegen. <sup>3</sup>
11/17/2022	DEC issued a Request for Information (RFI) to modify and renew the SPDES permit due to the facility's EBPS score <sup>4</sup> . At the time of the RFI, the facility had an EBPS score of 275.
1/18/2023	Lydall Performance Materials (US), Inc (DBA Alkegen) requested a 90-day extension on the deadline for the NY-2C application (from 2/16/2023 to 5/17/2023), due to staffing shortages. DEC granted this request.
5/17/2023	Lydall Performance Materials (US), Inc (DBA Alkegen) submitted a NY-2C permit application.
5/26/2023	DEC requested additional materials to complete the permit application by 7/14/2023.
7/14/2023	Alkegen submitted the remaining materials required for a complete application, including a closure plan for Outfall 004.

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

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

<sup>2</sup> [Unifrax Completes Acquisition of Lydall \(alkegen.com\)](#)

<sup>3</sup> [Clearlake Capital-backed Unifrax Renames to Alkegen \(alkegen.com\)](#)

<sup>4</sup> Pursuant to 6 NYCRR 750-1.18 and NYS Environmental Benefit Permit Strategy (EBPS)

## Facility Information

This is an industrial facility (SIC codes 2621 and 3053) that produces paper gaskets and specialty paperboard from purchased cellulose and synthetic fibers, with fillers such as talc and clay, and binders such as latex, and additives. The facility is subject to categorical effluent limit guidelines (ELG) under 40 CFR 430, Subpart L (see summary table at the end of this factsheet). Effluent consists of stormwater, noncontact cooling water, and process wastewater. The current treatment system was constructed in 1964 and includes the following treatment units:

- Bar screen and polymer addition
- Flotation Tanks
- Final Clarifiers

Sludge is pressed and hauled to a landfill, typically Bristol Hill Landfill. Outfall 003, the primary outfall with effluent comprised of process wastewater and noncontact cooling water, is a concrete pipe extending approximately 110 feet into the Oswego River with no diffuser.

Effluent from Outfall 001 primarily consists of stormwater, with small amounts of incidental steam condensate. The facility has other stormwater outfalls currently authorized under the Multi-Sector General Permit (MSGP) GP-0-23-001 (NYR00B038).

Outfall 004 previously consisted of the facility's sanitary wastewater. A preliminary closure plan was submitted to DEC on Friday, July 7, 2023. Final closure was accepted by DEC on July 31, 2024. The sanitary wastewater is now hauled to City of Fulton Water Pollution Control Plant. Therefore, Outfall 004 is being removed from the permit.

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

The facility has a CWIS capable of withdrawing up to 1.2 million gallons per day of water from the Oswego River to be used for cooling purposes, however the CWIS is no longer operational. The facility obtains water from municipal sources to meet the cooling and manufacturing needs. The facility is subject to the criteria governing thermal charges under 6 NYCRR 704.5. [Appendix A](#) contains the Biological Fact Sheet with details on the permit requirements related to the CWIS.

### Site Overview

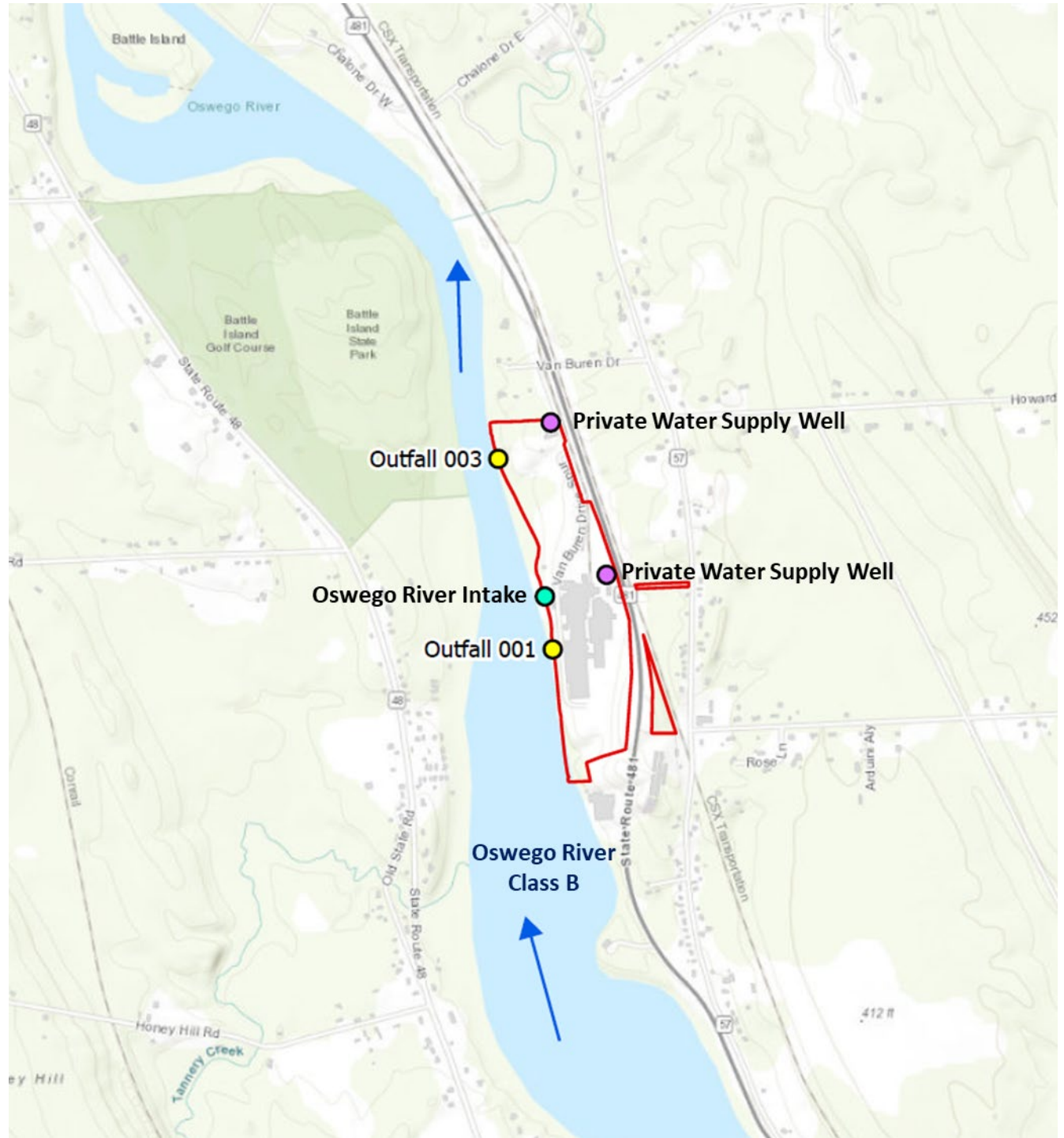


Figure 1: Map showing the location of the facility with site tax parcel boundaries in red, including outfall, well, and intake locations.

### Enforcement History

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 Discharge Monitoring Reports and the application submitted by the permittee for the period June 2018 to June 2023. [Appendix Link](#)

### Interstate Water Pollution Control Agencies

Outfalls 003 and 001 are located within the Great Lakes watershed and International Joint Commission (IJC) compact area. [Appendix Link](#)

### Receiving Water Information

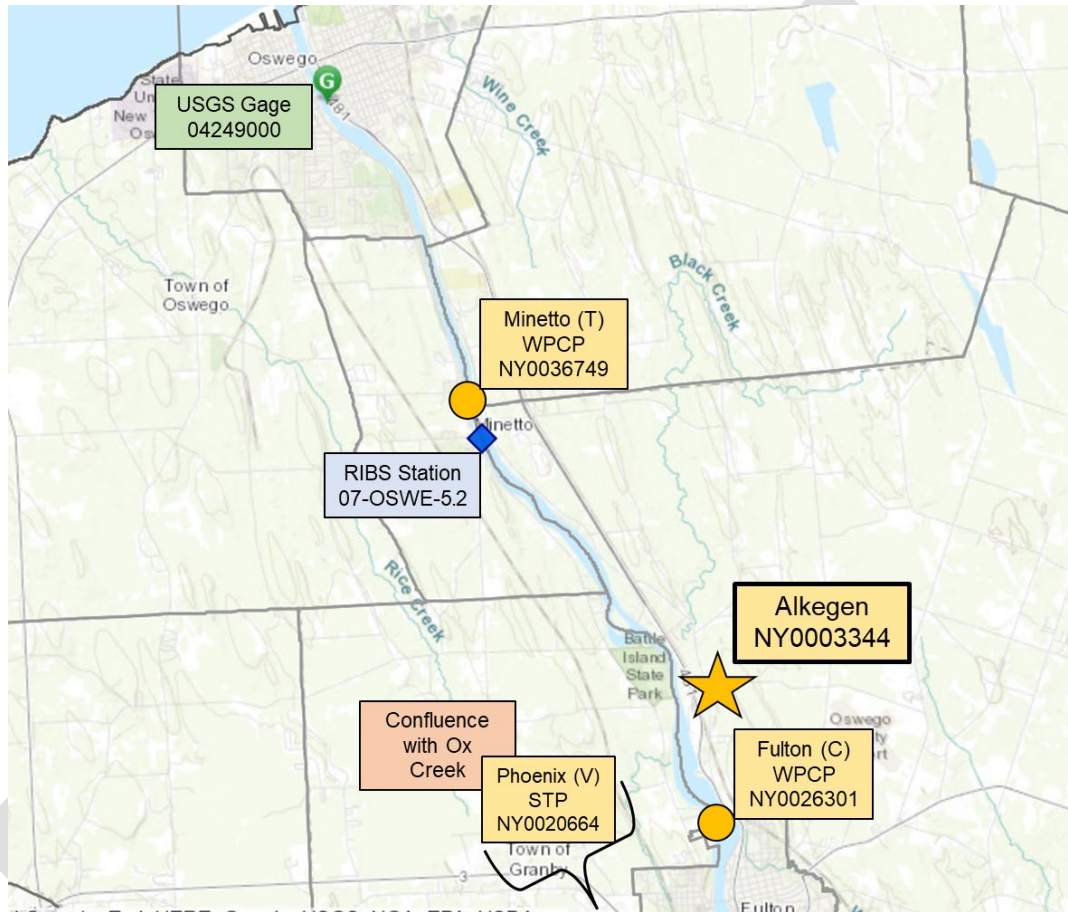
The facility discharges via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
003	2621	Process wastewater and non-contact cooling water	Oswego River, Class B
001	3053	Stormwater and incidental steam condensate	Oswego River, Class B
004	Former Outfall 004 – Removing from Permit		
Authorized under MSGP NYR00B038:			
0S1, 0S2	2621 3053	Stormwater, Sectors B & Y	Oswego River, Class B
0S3, 0S7, 0S8, 0S9	2621	Stormwater, Sector B	Oswego River, Class B



**Reach Description:** The Oswego River (Ont.-66) is a direct tributary to Lake Ontario and part of the Great Lakes watershed basin. The segment of the Oswego River at the point of discharge is classified as B (6 NYCRR 897.4 – Table I – Item 3). The river receives discharges from multiple wastewater treatment facilities, including the Village of Phoenix Sewage Treatment Plant (STP) and the City of Fulton Water Pollution Control Plant (WPCP) located upstream of Alkegen, and the Town of Minetto WPCP located downstream of Alkegen.

In-stream hardness was calculated to be 206 mg/L (as CaCO<sub>3</sub>), as the average of 105 samples taken from RIBS station site 07-OSWE-5.2 from 1989 to 2020. The station is approximately 5 miles downstream of Alkegen.



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

### Impaired Waterbody Information

The Oswego River, Lower, Main Stem segment (PWL No. 0701-0022) is not listed on the 2018 [New York State Section 303\(d\) List](#) of Impaired/TMDL Waters, and therefore, there are no applicable wasteload allocations (WLAs) for this discharge.

### Critical Receiving Water Data & Mixing Zone

The low flow condition for the Oswego River was obtained from a drainage basin ratio analysis with USGS gage station 04249000, Oswego River at Lock 7, located approximately 8 miles downstream of Alkegen. The dilution ratios were calculated using a design flow of 4.3 MGD. Consistent with TOGS 1.3.1 for discharges to large rivers, the acute and chronic dilution ratios are limited to a max of 50:1 and 100:1, respectively. The HEW dilution ratio is also limited to a max of 100:1.

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

Outfall No.	Acute Dilution Ratio A(A)	Chronic Dilution Ratio A(C)	Human, Aesthetic, Wildlife Dilution Ratio (HEW)	Basis
003	50:1	100:1	100:1	TOGS 1.3.1
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](#).

#### USEPA Effluent Limitation Guidelines (ELGs) Applicable to Facility

Best Practicable Control Technology Currently Available (BPT), Best Conventional Pollutant Control Technology (BCT), Best Available Technology Economically Achievable (BAT), and New Source Performance Standards (NSPS) limitations are based on [Effluent Limitation Guidelines](#) developed by USEPA for specific industries<sup>5</sup>. The applicable effluent guidelines and limits are listed at the end of the Pollutant Summary Table in the [USEPA ELG Calculation Table](#). [Appendix Link](#)

#### Whole Effluent Toxicity (WET) Testing

An evaluation of the discharge indicates the potential for toxicity based on the following criteria:

- Treatment plants which equal or exceed a discharge of 1MGD. (#7)
- There is the presence of substances in the effluent for which ambient water quality criteria do not exist. (#1)
- 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)

Consistent with TOGS 1.3.2, given the dilution available and location within the Great Lakes basin, a new requirement to perform chronic WET testing was added to the permit. WET testing action levels of 15 TUa and 100 TUC have been included in the permit for each species. The acute action levels 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 in years ending in 0 and 5. [Appendix Link](#)

<sup>5</sup> As promulgated under 40 CFR Parts 405 - 471

### Anti-backsliding

Consistent with 40 CFR 430.122, TBELs for 5-day biochemical oxygen demand (BOD<sub>5</sub>) reflect the best practicable control technology currently available (BPT), calculated with current production data. The dissolved oxygen (DO) model showed that DO standards are maintained and consequently WQBELs for DO and BOD<sub>5</sub> are unnecessary and the TBELs are protective of water quality (see [Outfall 003 Pollutant Summary Table](#)). Outfall 003 is not expected to have any water quality concerns for DO and BOD<sub>5</sub>. Consistent with 6 NYCRR 750-1.10(c)(1), backsliding for the daily maximum BOD<sub>5</sub> limit is justifiable due to material and substantial alterations that have occurred to the permitted facility since the last full technical review of the permit. [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>6</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 contains a requirement to 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.

### Stormwater Pollution Prevention Requirements

The facility discharges stormwater associated with industrial activity and requires SPDES permit coverage under 40 CFR 122.26(a)(6). With the exception of Outfall 001, stormwater discharges at this facility are covered under the current MSGP Sectors [B] and [Y] (GP-0-23-001, NYR00B038). This requirement is being continued from the previous permit.

### Mercury<sup>7</sup>

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

The facility is located within the Great Lakes watershed and is an EPA Major, Class 03, industrial facility. The permit includes new requirements for the implementation of MMP Type III.

Based on 1 data point of 1.8 ng/L collected 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) at Outfall 003. The limit represents the general level currently achievable (GLCA). The data collected will be

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

<sup>7</sup> In accordance with DOW 1.3.10 Mercury – SPDES Permitting & Multiple Discharge Variance (MDV), December 30, 2020.

used to establish an additional 12-month rolling average effluent limit during the next permit review.

Based on 1 data point of 3.9 ng/L collected 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) at Outfall 001. 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.

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

- Additional monitoring of key locations, as defined in the MMP
- Control strategy for implementation of the MMP
- Annual status report (maintained onsite)

### Emerging Contaminant Monitoring

Emerging Contaminants, such as Perfluorooctanoic acid (PFOA), Perfluorooctanesulfonic acid (PFOS), and 1,4-Dioxane (1,4-D), have been used in a wide variety of consumer and industrial products as well as in manufacturing processes for decades. These contaminants do not break down easily, therefore their presence in wastewater can remain a concern for years following their discontinued use. As the science surrounding these contaminants is still evolving, additional monitoring is needed to better understand potential sources and background levels. For more information on emerging contaminants, please see the DEC Division of Water web page: [Emerging Contaminants In NY's Waters - NYSDEC](#).

Pursuant to 6 NYCRR 750-1.13(b), the permit includes a short-term monitoring program listed in the Schedule of Additional Submittals to evaluate the influent and effluent discharge levels of Per- and Polyfluoroalkyl Substances (PFAS) and 1,4-Dioxane. This monitoring program is consistent with guidance released in EPA guidance memos dated April 28, 2022, and December 5, 2022.

DEC will review the monitoring results and pursuant to 6 NYCRR 750-2.1(i) may notify the permittee of the need for further monitoring to identify potential sources as specified in the Emerging Contaminants Investigation Checklist for Industrial Facilities to determine whether cause exists to modify the permit to incorporate a pollutant minimization program per 6 NYCRR 750-1.14(f).

DEC will consider this information and progress made to track down and reduce or eliminate the source of the identified pollutants in determining if a permit modification is needed.

### Schedule(s) of Additional Submittals

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

- Emerging Contaminant Short-Term Monitoring
- Short-Term Ammonia Monitoring
- Biological Monitoring Requirement submissions
- BMP Plan
- WET Testing
- Water Treatment Chemical (WTC) Annual Report Form
- Mercury Minimization Plan



## 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	43° 21' 11" N	76° 25' 37" W	Oswego River	B	Ont-66 (portion 2) PWL: 0701-0006	07 / 01	206 <sup>8</sup>	415	870	1018	0.05	50:1	100:1	100:1
003	43° 21' 10" N	76° 25' 39" W	Oswego River	B	Ont-66 (portion 2) PWL: 0701-0006	07 / 01	206	415	870	1018	4.3	50:1	100:1	100:1

## POLLUTANT SUMMARY TABLES

### Outfall 003

Outfall #	003	Description of Wastewater: Process wastewater and non-contact cooling water (NCCW)														
		Type of Treatment: Bar screen, floatation tanks, clarification, water treatment chemical addition, sludge press														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality <sup>9</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			
<p><b>General Notes:</b> Existing discharge data from 6/2018 to 6/2023 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.</p> <p>Where listed, TBELs were developed from TOGS 1.2.1 Attachment C and 40 CFR 430.122.</p>																
Flow Rate	MGD	Monthly Avg	<b>Monitor</b>	0.88* Actual Avg	60 / 0	-	-	Narrative: No alterations that will impair the waters for their best usages.						6 NYCRR 703.2	-	Monitor
		Daily Max	<b>Monitor</b>	3.8 Actual Max	60 / 0	-	-									
	<p>Flow will continue to be monitored for informational purposes and to calculate pollutant loadings. Monitoring is consistent with both 6 NYCRR 750-1.13 and TOGS 1.2.1. The treatment system for Outfall 003 has a design flow of 4.3 MGD per a previous NY-2C application dated February 8, 1990.</p> <p>*The 2023 NY-2C application indicated an average flow of 1.3 MGD from April 2022-March 2023. The actual average of 0.88 MGD was calculated as the average of monthly averages from 2018–2023 DMR data.</p>															

<sup>8</sup> Ambient hardness data obtained from RIBS Data of Oswego River in Minetto, NY, Site ID 07-OSWE-5.2 (105 samples).

<sup>9</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)

Outfall #	003	Description of Wastewater: Process wastewater and non-contact cooling water (NCCW)													
		Type of Treatment: Bar screen, floatation tanks, clarification, water treatment chemical addition, sludge press													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>9</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		
pH	SU	Minimum	6.0	6.8 Actual Avg Min	60 / 0	5.0	40 CFR 430.122	7.8 <sup>10</sup>	-	6.5 – 8.5	Range	-	<a href="#">6 NYCRR 703.3</a>	-	Antibacksliding
		Maximum	9.0	8.2 Actual Avg Max	60 / 0	9.0									
Consistent with the previous permit, a pH limit range of 6.0 to 9.0 SU is specified. The existing limit is more protective than the TBEL. Given the available dilution, the existing permit limits are protective of the WQS.															
Temperature	°F	Monthly Avg	Monitor	66 Actual Avg	60 / 0	-	-	81 <sup>11</sup>	Narrative (Non-Trout): The water temperature at the surface of a stream shall not be raised to more than 90°F at any point and... shall not be raised or lowered to more than 5°F over the temperature that existed before the addition			<a href="#">6 NYCRR 704.2</a>	-	Monitor	
		Daily Max	95	105 Actual Max	60 / 0	-	-							Antibacksliding	
The discharge is a thermal discharge containing process wastewater and NCCW. Given the dilution available, the existing temperature limit is expected to achieve the criteria specified in 6 NYCRR 704.2. Consistent with 6 NYCRR 750-1.13, monthly average monitoring is being continued. These requirements are continued from the previous permit.															
Dissolved Oxygen (DO)	mg/L	Daily Min	-	-	-	-	-	-	7.3 Critical Point	(Non-Trout) 4.0 mg/L	Narrative	No Reasonable Potential	<a href="#">6 NYCRR 703.3</a>	-	No Limitation or Monitoring
		The downstream DO concentration was modeled using the Streeter-Phelps equations and the following assumptions: Effluent DO = 2.0 mg/l (assumed value consistent with TOGS 1.3.1D), Effluent BOD <sub>5</sub> = 42 mg/L (corresponding to the proposed daily max BOD <sub>5</sub> limit of 1300 lbs/day), Effluent NOD = 73 mg/L (assumed value consistent with TOGS 1.3.1D). The model included the Village of Phoenix STP located approximately 12 miles upstream, the confluence with Ox Creek approximately 6.8 miles upstream, City of Fulton WPCP approximately 1.5 miles upstream, and the Town of Minetto WPCP approximately 4.3 miles downstream. The model showed that DO standards are maintained and consequently WQBELs for DO and BOD are unnecessary and the TBELs are protective.													

<sup>10</sup> Ambient pH of 7.8 was obtained from RIBS Station 07-OSWE-5.2 in Minetto, NY as the 75<sup>th</sup> percentile (also equal to the 80<sup>th</sup> percentile) of 64 samples taken from 1995-2016.

<sup>11</sup> Ambient temperature of 81°F was obtained from RIBS Station 07-OSWE-5.2 in Minetto, NY as the maximum of 24 measurements taken from 1989-2019.

Outfall #	003	Description of Wastewater: Process wastewater and non-contact cooling water (NCCW)													
		Type of Treatment: Bar screen, floatation tanks, clarification, water treatment chemical addition, sludge press													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>9</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		
5-day Biochemical Oxygen Demand (BOD <sub>5</sub> )	mg/L	Monthly Avg	-	8.4	46	<b>Monitor</b>	TOGS 1.2.1	-	See Dissolved Oxygen	No Reasonable Potential	<a href="#">6 NYCRR 703.3</a>	-	Monitor		
		Daily Max	-	21	46	<b>Monitor</b>	TOGS 1.2.1						Monitor		
	lbs/d	Monthly Avg	900	120	60 / 0	<b>740</b>	40 CFR 430.122						TBEL		
		Daily Max	1200	490	60 / 0	<b>1,300</b>	40 CFR 430.122						TBEL		
Consistent with 40 CFR 430.122, TBELs reflect the best practicable control technology currently available (BPT). See justification for dissolved oxygen. Outfall 003 is not expected to have any water quality concerns for dissolved oxygen or BOD <sub>5</sub> . Backsliding for the daily maximum limit is explained in the <a href="#">Anti-backsliding</a> section above. Consistent with 6 NYCRR 750-1.13 and TOGS 1.2.1, concentration monitoring has been added to provide information for future permit reviews.															
Total Suspended Solids (TSS)	mg/L	Monthly Avg	None	38	46	<b>Monitor</b>	TOGS 1.2.1	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.	<a href="#">6 NYCRR 703.2</a>	-	Monitor			
		Daily Max	None	200	46	<b>Monitor</b>	TOGS 1.2.1					Monitor			
	lbs/d	Monthly Avg	1200	440	60 / 0	<b>590</b>	40 CFR 430.122					TBEL			
		Daily Max	2500	3100	60 / 0	<b>1,200</b>	40 CFR 430.122					TBEL			
Consistent with 40 CFR 430.122, TBELs reflect the best practicable control technology currently available (BPT) based on revised production information provided to DEC in the 2023 NY-2C application. Consistent with 6 NYCRR 750-1.13 and TOGS 1.2.1, concentration monitoring has been added to provide information for future permit reviews.															
Settleable Solids	mL/L	Monthly Avg	<b>Monitor</b>	5.3 Max 0.15 Avg	55 / 5	Monitor	TOGS 1.2.1	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages	<a href="#">6 NYCRR 703.2</a>	-	Monitor			
	mL/L	Daily Max	Monitor	5.3 Max 0.19 Avg	57 / 3	<b>0.3</b>	TOGS 1.2.1					TBEL			
Consistent with TOGS 1.2.1 Attachment C, the TBEL is reflective of the treatment technology and is protective of the WQS. Consistent with 6 NYCRR 750-1.13 and TOGS 1.2.1, monthly average monitoring is being continued.															

Outfall #	003	Description of Wastewater: Process wastewater and non-contact cooling water (NCCW)													
		Type of Treatment: Bar screen, floatation tanks, clarification, water treatment chemical addition, sludge press													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>9</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 Residual Chlorine (TRC)	mg/L	Monthly Avg	<b>Monitor</b>	0.060	60 / 0	Monitor	TOGS 1.2.1	-	-	0.0050	A(C)	No Reasonable Potential	<a href="#">6 NYCRR 703.5</a>	-	Monitor
	mg/L	Daily Max	<b>2.0</b>	0.51	60 / 0	2.0	TOGS 1.2.1	-	-	-	-	-	-	-	TBEL
<p>Consistent with TOGS 1.3.1E, for discharge situations with dilution greater than 80:1, water quality based effluent limits will not be specified. Consistent with TOGS 1.2.1, the daily max limit equal to the TBEL will continue. Monthly average monitoring is being continued in accordance with 6 NYCRR 750-1.13.</p>															
Ammonia, Nitrogen (as N)	mg/L	Monthly Avg	-	-	-	<b>Monitor</b>	TOGS 1.2.1	-	0.007	1.1	A(C)	No Reasonable Potential	<a href="#">6 NYCRR 703.5</a>	-	Monitor
	mg/L	Daily Max	-	<0.1	0 / 1	<b>Monitor</b>	TOGS 1.2.1	-	-	-	-	-	-	-	Monitor
	lbs/d	Monthly Avg	360*	3.2*	16 / 0	<b>300</b>	Antibacksliding	-	-	-	-	-	-	-	Antibacksliding
	lbs/d	Daily Max	720*	15*	16 / 0	<b>590</b>	Antibacksliding	-	-	-	-	-	-	-	Antibacksliding
<p>The projected instream concentration was calculated using the reporting limit of 0.1 mg/L, a multiplier of 6.2, the HEW dilution ratio, and an assumed ambient upstream concentration of 0.082 mg/L (consistent with TOGS 1.3.1D). The multiplier was selected from EPA's Technical Support Document Chapter 3.3 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.</p> <p>Consistent with 6 NYCRR 750-1.13 and TOGS 1.2.1, concentration monitoring is being added to the permit. The existing load limitations are being continued pursuant to 6 NYCRR 750-1.10(c). Reporting for ammonia is being changed from (as NH<sub>3</sub>) to (as N) for simpler data reporting, as this is consistent with the laboratory reporting units. Values can be converted using the equation: Ammonia (as N) = Ammonia (as NH<sub>3</sub>) x 0.8224.</p> <p>*Values are (as NH<sub>3</sub>).</p>															
Turbidity	NTU	Monthly Avg	<b>Monitor</b>	64	18 / 0	Monitor	TOGS 1.2.1	-	Narrative: No increase that will cause a substantial visible contrast to natural conditions.			<a href="#">6 NYCRR 703.2</a>	-	Monitor	
		Daily Max	<b>Monitor</b>	320	18 / 0	Monitor	TOGS 1.2.1	-				-			
<p>Due to the available dilution, there is no reasonable potential to exceed the water quality standard and WQBELs are not necessary. Consistent with 6 NYCRR 750-1.13 and TOGS 1.2.1, monitoring is being continued.</p>															

Outfall #	003	Description of Wastewater: Process wastewater and non-contact cooling water (NCCW)													
		Type of Treatment: Bar screen, floatation tanks, clarification, water treatment chemical addition, sludge press													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>9</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		
Cadmium, Total	µg/L	Daily Max	-	<2.5	0 / 3	-	-	-	0.07 Dissolved	3.69 Dissolved	A(C)	No Reasonable Potential	<a href="#">6 NYCRR 703.5</a>	-	No Limitation or Monitoring
	lbs/d	Daily Max	0.1 AL	0.12	8 / 1	-	-	-	-	-	-	-	-	-	Discontinued
<p>The projected instream concentration was calculated using the reporting limit of 2.5 µg/L, a multiplier of 3.0, the chronic dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 to account for the number of samples. A metals translator of 1.138 was also applied to convert between the total and dissolved form in accordance with the 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, no WQBEL is specified, and the action level is being removed.</p>															
Mercury, Total	ng/L	Daily Max	-	1.8	1 / 0	-	-	-	-	0.7	H(FC)	50	GLCA	-	DOW 1.3.10
	lbs/d	Daily Max	-	0.000021	1 / 0	-	-	-	-	-	-	-	-	-	-
See <a href="#">Mercury</a> section of the fact sheet.															
Zinc, Total	µg/L	Monthly Avg	-	-	-	Monitor	TOGS 1.2.1	-	-	-	-	-	-	-	Monitor
	µg/L	Daily Max	-	63	3 / 0	Monitor	TOGS 1.2.1	-	1.86	153	A(C)	No Reasonable Potential	<a href="#">6 NYCRR 703.5</a>	-	Monitor
	lbs/d	Monthly Avg	4.0	2.8 Max	8 / 1	-	-	-	-	-	-	-	-	-	Antibacksliding
	lbs/d	Daily Max	8.0	5.9 Max	8 / 1	-	-	-	-	-	-	-	-	-	Antibacksliding
<p>The projected instream concentration was calculated using the maximum reported effluent concentration of 63 µg/L, a multiplier of 3.0, the chronic dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 to account for the number of samples. A metals translator of 1.014 was also applied to convert between the total and dissolved form in accordance with the 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, no WQBEL is specified. The existing load limitations are being continued pursuant to 6 NYCRR 750-1.10(c). Consistent with 6 NYCRR 750-1.13 and TOGS 1.2.1, concentration monitoring has been added to provide information for future permit reviews.</p>															

Outfall #	003	Description of Wastewater: Process wastewater and non-contact cooling water (NCCW)													
		Type of Treatment: Bar screen, floatation tanks, clarification, water treatment chemical addition, sludge press													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>9</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>Additional Pollutants Detected</b>															
Chemical Oxygen Demand (COD)	mg/L	Daily Max	-	42	1 / 0	-	-	-	-	See Dissolved Oxygen	No Reasonable Potential	<a href="#">6 NYCRR 703.3</a>	-	No Limitation or Monitoring	
	Consistent with 40 CFR 430.122, TBELs for BOD <sub>5</sub> reflect the best practicable control technology currently available (BPT). TBELs for BOD <sub>5</sub> will be protective of water quality, see justification for dissolved oxygen. Therefore, no limitation or monitoring is necessary for COD.														
Total Organic Carbon (TOC)	mg/L	Daily Max	-	15	1 / 0	-	-	-	-	See Dissolved Oxygen	No Reasonable Potential	<a href="#">6 NYCRR 703.3</a>	-	No Limitation or Monitoring	
	Consistent with 40 CFR 430.122, TBELs for BOD <sub>5</sub> reflect the best practicable control technology currently available (BPT). TBELs for BOD <sub>5</sub> will be protective of water quality, see justification for dissolved oxygen. Therefore, no limitation or monitoring is necessary for TOC.														
Nitrate-Nitrite	mg/L	Daily Max	-	0.76	1 / 0	-	-	-	-	Narrative: None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.	<a href="#">6 NYCRR 703.2</a>	-	No Limitation or Monitoring		
	There is no applicable numeric water quality standard for nitrate-nitrite to a Class B waterbody. This facility is not expected to be a significant source of nitrogen. Existing ammonia limitations will be protective of water quality.														
Nitrogen, Total Organic	mg/L	Daily Max	-	2.1	1 / 0	-	-	-	-	Narrative: None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.	<a href="#">6 NYCRR 703.2</a>	-	No Limitation or Monitoring		
	There is no applicable numeric water quality standard for total organic nitrogen to a Class B waterbody. This facility is not expected to be a significant source of nitrogen. Existing ammonia limitations will be protective of water quality.														
Phosphorus, Total (as P)	mg/L	Daily Max	-	0.058	1 / 0	-	-	-	-	Narrative: None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.	TOGS 1.3.6	-	No Limitation or Monitoring		
	This facility is not expected to be a significant source of phosphorus; therefore, no monitoring is necessary.														



Outfall #	003	Description of Wastewater: Process wastewater and non-contact cooling water (NCCW)													
		Type of Treatment: Bar screen, floatation tanks, clarification, water treatment chemical addition, sludge press													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>9</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		
Sulfate (as SO <sub>4</sub> )	mg/L	Daily Max	-	95	1 / 0	-	-	-	-	-	-	-	-	-	No Limitation or Monitoring
	There is no applicable numeric water quality standard for sulfate to a Class B waterbody. No limitation or monitoring is specified.														
Sulfite (as SO <sub>3</sub> )	mg/L	Daily Max	-	1.0	1 / 0	-	-	-	0.06	0.2	A(C)	No Reasonable Potential	<a href="#">6 NYCRR 703.5</a>	-	No Limitation or Monitoring
	The projected instream concentration was calculated using the maximum reported effluent concentration of 1.0 mg/L, a multiplier of 6.2, the chronic dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 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.														
Surfactants	mg/L	Daily Max	-	0.14	1 / 0	-	-	-	-	-	-	-	-	-	No Limitation or Monitoring
	There is no applicable numeric water quality standard for surfactants to a Class B waterbody. No limitation or monitoring is specified.														
Aluminum, Total	µg/L	Monthly Average	-	-	-	<b>4000</b>	TOGS 1.2.1	-	21 total	100 ionic	A(C)	No Reasonable Potential	<a href="#">6 NYCRR 703.5</a>	-	TBEL
	µg/L	Daily Max	-	340	1 / 0	<b>2000</b>	TOGS 1.2.1	-							
	Alum is used in the facility's production process. There is no numeric WQS for <u>total</u> aluminum. There is a WQS of 100 µg/L for <u>ionic</u> aluminum; however, consistent with TOGS 1.3.1E, when the pH of the receiving waterbody is >6.5, TBELs for aluminum are protective of water quality. Ambient pH of 7.5 was obtained from RIBS Station 07-OSWE-5.2 in Minetto, NY as the average of 64 samples taken from 1995-2016.														
Boron, Total	µg/L	Daily Max	-	46	1 / 0	-	-	-	2.85	10,000	A(C)	No Reasonable Potential	<a href="#">6 NYCRR 703.5</a>	-	No Limitation or Monitoring
	The projected instream concentration was calculated using the maximum reported effluent concentration of 46 µg/L, a multiplier of 6.2, the chronic dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 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.														

Outfall #	003	Description of Wastewater: Process wastewater and non-contact cooling water (NCCW)													
		Type of Treatment: Bar screen, floatation tanks, clarification, water treatment chemical addition, sludge press													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>9</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		
Magnesium, Total	mg/L	Daily Max	-	14	1 / 0	-	-	-	-	-	-	-	-	-	No Limitation or Monitoring
	There is no applicable numeric water quality standard for total magnesium to a Class B waterbody. No limitation or monitoring is specified.														
Manganese, Total	µg/L	Daily Max	-	22	1 / 0	-	-	-	-	-	-	-	-	-	No Limitation or Monitoring
	There is no applicable numeric water quality standard for total manganese to a Class B waterbody. No limitation or monitoring is specified.														
Titanium, Total	µg/L	Daily Max	-	2.5	1 / 0	-	-	-	-	-	-	-	-	-	No Limitation or Monitoring
	There is no applicable numeric water quality standard for total titanium to a Class B waterbody. No limitation or monitoring is specified.														
Bromide	mg/L	Daily Max	-	0.16	1 / 0	-	-	-	-	-	-	-	-	-	No Limitation or Monitoring
	There is no applicable numeric water quality standard for bromide to a Class B waterbody. No limitation or monitoring is specified.														
Fluoride	mg/L	Daily Max	-	0.28	1 / 0	-	-	-	0.017	4.08	A(C)	No Reasonable Potential	<a href="#">6 NYCRR 703.5</a>	-	No Limitation or Monitoring
	The projected instream concentration was calculated using the maximum reported effluent concentration of 0.28 mg/L, a multiplier of 6.2, the chronic dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 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.														
N-nitrosodiphenyl amine	µg/L	Daily Max	-	1.3	2 / 0	-	-	-	-	-	-	-	-	-	No Limitation or Monitoring
	There is no applicable numeric water quality standard for n-nitrosodiphenylamine to a Class B waterbody. No limitation or monitoring is specified.														
Toluene	µg/L	Daily Max	-	1.0	1 / 0	-	-	-	0.06	6,000	H(FC)	No Reasonable Potential	<a href="#">6 NYCRR 703.5</a>	-	No Limitation or Monitoring
	The projected instream concentration was calculated using the maximum reported effluent concentration of 1.0 µg/L, a multiplier of 6.2, the HEW dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 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.														

Outfall #	003	Description of Wastewater: Process wastewater and non-contact cooling water (NCCW)													
		Type of Treatment: Bar screen, floatation tanks, clarification, water treatment chemical addition, sludge press													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>9</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		
α-BHC	µg/L	Daily Max	-	0.010	1 / 0	-	-	-	-	-	-	-	-	-	No Limitation or Monitoring
	There is no applicable numeric water quality standard for α-BHC to a Class B waterbody. No limitation or monitoring is specified.														
δ-BHC	µg/L	Daily Max	-	0.012	1 / 0	-	-	-	-	-	-	-	-	-	No Limitation or Monitoring
	There is no applicable numeric water quality standard for δ-BHC to a Class B waterbody. No limitation or monitoring is specified.														

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Outfall #	001	Description of Wastewater: Stormwater roof drain, incidental steam condensate													
		Type of Treatment: None													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>12</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 6/2018 to 6/2023 was obtained from Discharge Monitoring Reports and the 2023 NY-2C application 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.															
Temperature	°F	Monthly Avg	Monitor	69* Actual Avg	60 / 0	Monitor	TOGS 1.2.1	-	Narrative (Non-Trout): The water temperature at the surface of a stream shall not be raised to more than 90°F at any point and... shall not be raised or lowered to more than 5°F over the temperature that existed before the addition				6 NYCRR 704.2	-	Monitor
		Daily Max	95	92 Actual Max	60 / 0	Monitor	TOGS 1.2.1								Antibacksliding
To achieve standards specified in 6 NYCRR Part 704, the daily max effluent temperature limit of 90°F is continued from the previous permit. Consistent with 6 NYCRR 750-1.13 and TOGS 1.2.1, daily average monitoring is being changed to monthly average and may be used to inform future permitting decisions. *EEQ as the actual average of the daily average monitoring results.															
<b>Additional Pollutants Detected</b>															
pH	SU	Daily Max	-	7.4	1 / 0	6.0-9.0	TOGS 1.2.1	7.8 <sup>13</sup>	-	6.5 – 8.5	Range	No Reasonable Potential	6 NYCRR 703.3	-	No Limitation or Monitoring
		Stormwater and incidental steam condensate are not expected to have pH outside the WQS. Therefore, there is no reasonable potential to cause or contribute to an exceedance of the WQS, and no limitation or monitoring is specified.													
5-day Biochemical Oxygen Demand (BOD <sub>5</sub> )	mg/L	Daily Max	-	17	1 / 0	-	-	-	Dissolved Oxygen: For nontrout waters, the minimum daily average shall not be less than 5.0 mg/L, and at no time shall the DO concentration be less than 4.0 mg/ L.			No Reasonable Potential	6 NYCRR 703.3	-	No Limitation or Monitoring
		Stormwater and incidental steam condensate are not expected to have an oxygen-demanding component, therefore a limit for BOD <sub>5</sub> at this outfall is not required for the protection of water quality.													

<sup>12</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>13</sup> Ambient pH of 7.8 was obtained from RIBS Station 07-OSWE-5.2 in Minetto, NY as the 75<sup>th</sup> percentile (equal to the 80<sup>th</sup> percentile) of 64 samples taken from 1995-2016.

Outfall #	001	Description of Wastewater: Stormwater roof drain, incidental steam condensate													
		Type of Treatment: None													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>12</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		
Chemical Oxygen Demand (COD)	mg/L	Daily Max	-	53	1 / 0	120	MSGP GP-0-23-001 Sector B	-	Dissolved Oxygen: For nontrout waters, the minimum daily average shall not be less than 5.0 mg/L, and at no time shall the DO concentration be less than 4.0 mg/L.			No Reasonable Potential	<a href="#">6 NYCRR 703.3</a>	-	Action Level
	MSGP (GP-0-23-001) Sector B includes benchmarks for COD for stormwater discharges. Therefore, an action level is being added equal to the MSGP benchmark for COD.														
Total Organic Carbon (TOC)	mg/L	Daily Max	-	3.2	1 / 0	-	-	-	Dissolved Oxygen: For nontrout waters, the minimum daily average shall not be less than 5.0 mg/L, and at no time shall the DO concentration be less than 4.0 mg/L.			No Reasonable Potential	<a href="#">6 NYCRR 703.3</a>	-	No Limitation or Monitoring
	Stormwater is not expected to have an oxygen-demanding component, therefore a limit for TOC at this outfall is not required for the protection of water quality.														
Ammonia, Nitrogen (as N)	mg/L	Daily Max	-	28	1 / 0	-	-	-	-	1.1	A(C)	-	<a href="#">6 NYCRR 703.5</a>	-	Short-Term Monitoring
	Very limited data is available to confirm the presence or absence of this parameter and evaluate reasonable potential to cause or contribute to a WQS violation. Consistent with TOGS 1.2.1, short-term monitoring is being required for ammonia (as N) to generate the data necessary to perform a future reasonable potential analysis.														
Fecal Coliform	CFU/100mL	Daily Max	-	2420	2 / 0	-	-	-	-	Narrative: The monthly geometric mean, from a minimum of five examinations, shall not exceed 200.			<a href="#">6 NYCRR 703.4</a>	-	No Limitation or Monitoring
	Stormwater is not expected to be a source of fecal coliform, therefore a limit for fecal coliform at this outfall is not required for the protection of water quality.														
Nitrate-Nitrite	mg/L	Daily Max	-	0.61	1 / 0	-	-	-	-	Narrative: None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.			<a href="#">6 NYCRR 703.2</a>	-	No Limitation or Monitoring
	There is no applicable numeric water quality standard for nitrate-nitrite to a Class B waterbody. Stormwater is not expected to be a significant source of nitrogen; therefore, no limitation or monitoring is specified.														

Outfall #	001	Description of Wastewater: Stormwater roof drain, incidental steam condensate													
		Type of Treatment: None													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>12</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		
Nitrogen, Total Organic	mg/L	Daily Max	-	2.6	1 / 0	-	-	-	-	Narrative: None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.		6 NYCRR 703.2	-	No Limitation or Monitoring	
	There is no applicable numeric water quality standard for total organic nitrogen to a Class B waterbody. Stormwater is not expected to be a significant source of nitrogen; therefore, no limitation or monitoring is specified.														
Phosphorus, Total (as P)	mg/L	Daily Max	-	2.3	1 / 0	-	-	-	-	Narrative: None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.		TOGS 1.3.6	-	No Limitation or Monitoring	
	Stormwater is not expected to be a significant source of phosphorus; therefore, no limitation or monitoring is specified.														
Sulfate (as SO <sub>4</sub> )	mg/L	Daily Max	-	1.3	1 / 0	-	-	-	-	-	-	-	-	No Limitation or Monitoring	
	There is no applicable numeric water quality standard for sulfate to a Class B waterbody. No limitation or monitoring is specified.														
Sulfite (as SO <sub>3</sub> )	mg/L	Daily Max	-	1.0	1 / 0	-	-	-	0.06	0.2	A(C)	No Reasonable Potential	6 NYCRR 703.5	No Limitation or Monitoring	
	The projected instream concentration was calculated using the maximum reported effluent concentration of 1.0 mg/L, a multiplier of 6.2, the acute dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 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.														
Surfactants	mg/L	Daily Max	-	0.027	1 / 0	-	-	-	-	-	-	-	-	No Limitation or Monitoring	
	There is no applicable numeric water quality standard for surfactants to a Class B waterbody. No limitation or monitoring is specified.														
Aluminum, Total	µg/L	Daily Max	-	330	1 / 0	-	-	-	-	100 ionic	A(C)	No Reasonable Potential	6 NYCRR 703.2	No Limitation or Monitoring	
	There is no numeric WQS for total aluminum. There is a WQS of 100 µg/L for ionic aluminum; however, consistent with TOGS 1.3.1E, when the pH of the receiving waterbody is > 6.5, TBELs for aluminum are protective of water quality. Ambient pH of 7.8 was obtained from RIBS Station 07-OSWE-5.2 in Minetto, NY as the average of 64 samples taken from 1995-2016. Given available dilution, there is no reasonable potential to exceed the water quality standard.														



Outfall #	001	Description of Wastewater: Stormwater roof drain, incidental steam condensate													
		Type of Treatment: None													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>12</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		
Boron, Total	µg/L	Daily Max	-	8.3	1 / 0	-	-	-	0.51	10,000	A(C)	No Reasonable Potential	<a href="#">6 NYCRR 703.5</a>	-	No Limitation or Monitoring
	The projected instream concentration was calculated using the maximum reported effluent concentration of 8.3 µg/L, a multiplier of 6.2, the chronic dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 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.														
Copper, Total	µg/L	Daily Max	-	193 Max	3 / 0	-	-	-	5.6	17	A(C)	No Reasonable Potential	<a href="#">6 NYCRR 703.5</a>	-	No Limitation or Monitoring
	The projected instream concentration was calculated using the maximum reported effluent concentration of 193 µg/L and a negligible ambient upstream concentration. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 3.0 was applied to the projected effluent to account for the number of samples. A metals translator of 1.042 was applied to convert between the total and dissolved form in accordance with the 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.														
Iron, Total	µg/L	Daily Max	-	590	1 / 0	-	-	-	-	-	-	-	-	-	No Limitation or Monitoring
	There is no applicable numeric water quality standard for total iron to a Class B waterbody. No limitation or monitoring is specified.														
Lead, Total	µg/L	Daily Max	-	20	3 / 0	-	-	-	0.4	8.2	A(C)	No Reasonable Potential	<a href="#">6 NYCRR 703.5</a>	-	No Limitation or Monitoring
	The projected instream concentration was calculated using the maximum reported effluent concentration of 20 µg/L and a negligible ambient upstream concentration. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 3.0 was applied to the projected effluent to account for the number of samples. A metals translator of 1.458 was applied to convert between the total and dissolved form in accordance with the 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.														
Mercury, Total	ng/L	Daily Max	-	3.9	1 / 0	-	-	-	-	0.7	H(FC)	50	GLCA	-	DOW 1.3.10
	See <a href="#">Mercury</a> section of the fact sheet.														
Magnesium, Total	mg/L	Daily Max	-	4.9	1 / 0	-	-	-	-	-	-	-	-	-	No Limitation or Monitoring
	There is no applicable numeric water quality standard for total magnesium to a Class B waterbody. No limitation or monitoring is specified.														
Manganese, Total	µg/L	Daily Max	-	35	1 / 0	-	-	-	-	-	-	-	-	-	No Limitation or Monitoring
	There is no applicable numeric water quality standard for total manganese to a Class B waterbody. No limitation or monitoring is specified.														

Outfall #	001	Description of Wastewater: Stormwater roof drain, incidental steam condensate													
		Type of Treatment: None													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>12</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		
Zinc, Total	µg/L	Daily Max	-	261 Max	3	110	MSGP GP-0-23-001 Sector Y	-	7.7	153	A(C)	No Reasonable Potential	<a href="#">6 NYCRR 703.5</a>	-	Action Level
	<p>The projected instream concentration was calculated using the maximum reported effluent concentration of 261 µg/L, a multiplier of 3.0, the chronic dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 to account for the number of samples. A metals translator of 1.014 was also applied to convert between the total and dissolved form in accordance with the 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, no WQBEL is specified.</p> <p>MSGP (GP-0-23-001) Sector B includes benchmarks for total zinc for stormwater discharges. Therefore, an action level is being added equal to the MSGP benchmark for total zinc.</p>														
Phenols, Total	mg/L	Daily Max	-	0.037 Max	2 / 0	-	-	-	-	-	-	-	-	-	No Limitation or Monitoring
	There is no applicable numeric water quality standard for total phenols to a Class B waterbody. No limitation or monitoring is specified.														
δ-BHC	µg/L	Daily Max	-	0.0096	1 / 0	-	-	-	-	-	-	-	-	-	No Limitation or Monitoring
	There is no applicable numeric water quality standard for δ-BHC to a Class B waterbody. No limitation or monitoring is specified.														

## USEPA EFFLUENT LIMITATION GUIDELINE (ELG) CALCULATIONS

[Appendix Link](#)

For the applicable categorical limitations under 40 CFR 430, Subpart L, the following basis was used to determine the TBEL:

<b>Outfall</b>	Outfall 003
<b>40 CFR Part/Subpart</b>	40 CFR 430, Subpart L
<b>Subpart Name</b>	Tissue, Filter, Non-Woven, and Paperboard from Purchased Pulp Subcategory

ELG Pollutant	Daily Max Multiplier (lbs/klbs)	Monthly Avg Multiplier (lbs/klbs)	Production Rate (klbs/day)	Daily Max TBEL (lbs/d)	Monthly Avg TBEL (lbs/d)
<b>40 CFR 430 Subpart L – ELGs for Best Practicable Control Technology Currently Available (BPT)</b>					
BOD <sub>5</sub>	29.6	16.3	45.24	1,339	737
TSS	26.6	13.0	45.24	1,203	588
pH	5.0 – 9.0 S.U.				
<p><b>Note:</b> In a Supplement M form submitted with the NY-2C application, the permittee provided an average production value of 22.63 tons/day across 305 days of operation in 2022.</p> <p>The permittee certified that the facility does not use any chlorophenolic biocides in their 2023 NY-2C application. BAT limits for pentachlorophenol and trichlorophenol are not required under <a href="#">40 CFR 430.124</a>. WQBELs for these parameters are not necessary to protect water quality because they are not expected to be present in the discharge.</p>					

## Appendix A: Biological Fact Sheet - Cooling Water Intake Structure

### Bureau of Ecosystem Health, Energy Unit

**Name of Facility:** Alkegen  
**Owner/Operator:** Lydall Performance Materials Inc.  
**SPDES #:** NY-0003344  
**Location:** Oswego County, Town of Fulton  
**Waterbody:** Oswego River

#### 1. Description of Facility

The Alkegen facility (Alkegen) is located on the East side of the Oswego River in the town of Fulton. Alkegen manufactures specialty paperboard and paper gaskets. The facility has a cooling water intake structure (CWIS) capable of withdrawing up to 1.2 million gallons per day of water from the Oswego River to be used for cooling purposes, however the CWIS is no longer operational. The facility obtains water from municipal sources to meet the cooling and manufacturing needs.

#### 2. Ecological Resource

The Oswego River in the vicinity of the Alkegen intake is a Class B water. The best usages of Class B waters include “primary and secondary contact recreation and fishing. These waters shall be suitable for fish, shellfish and wildlife propagation and survival.”

Although no site specific biological studies have been conducted at Alkegen’s CWIS, fish species that can be expected in the river near the facility intake include walleye, yellow perch, northern pike, smallmouth and largemouth bass, Chinook salmon, coho salmon, rainbow trout, brown trout, pumpkinseed, bluegill, white perch, black crappie, brown bullhead, channel catfish, freshwater drum, bowfin, common carp, alewife, round goby, and gizzard shad.

#### 3. Discussion of Best Technology Available

According to 6NYCRR Part 704.5 - *Intake structures* and Section 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. The identification of BTA is a technology driven determination, however, the final decision may also consider cost.

In keeping with the New York State Department of Environmental Conservation (NYSDEC) established, environmentally protective BTA requirements, impingement and entrainment of fish by the Alkegen CWIS will be eliminated from implementation of these permit conditions.

#### 4. Determination of Best Technology Available

The NYSDEC has determined that inactivation of the current CWIS and the use of a public water supply represent BTA for minimizing adverse environmental impacts at the Alkegen facility.

#### 5. Monitoring Requirements

Alkegen will be required to notify the NYSDEC if the existing CWIS will be brought back into service. The BTA determination will be revisited at that time.

#### 6. 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., 6 NYCRR Part 704.5 Section 316(b) CWA, and the rules thereunder, specifically 40 CFR Parts 122 and 125.

## 8. Summary of Proposed Permit Changes

### Additions

Biological Monitoring Condition 1	Requires use of public water supply for cooling
Biological Monitoring Condition 2	Requires notification to NYSDEC if intake will be reactivated
Biological Monitoring Condition 3*	Requires an Impingement and Entrainment characterization study
Biological Monitoring Condition 4*	Requires submission of a Design and Construction Technology Review
Biological Monitoring Condition 5*	Requires submission of a Proposed Suite of Technologies and Operational Measure
Biological Monitoring Condition 6*	Requires submission of a Technology Installation and Operation Plan
Biological Monitoring Condition 7*	Requires submission of a Verification Monitoring Study Plan
Biological Monitoring Condition 8*	Requires submission of a Verification Monitoring Report
Biological Monitoring Condition 9*	Requires submission of a contingency plan if reductions in impingement and entrainment are not met
Biological Monitoring Condition 10	Requires maintenance of records
Biological Monitoring Condition 11	Modification of the intake is not permitted without prior NYSDEC approval

\*Condition only applies if CWIS is reactivated

## 9. References

40 CFR 125 Subpart J

6 NYCRR §701 Classifications- Surface Waters and Groundwaters

6 NYCRR § 704.5 Intake Structures

Commissioner Policy # 52. Best Technology Available (BTA) for Cooling Water Intake Structures.  
 Issued July 10, 2011.

Form NY-2C Part I SPDES permit application

NYSDEC [www.dec.ny.gov/places/oswego-river](http://www.dec.ny.gov/places/oswego-river). Accessed May 15,2024.

## Appendix B: Regulatory and Technical Basis of Permit Authorizations

The Appendix is meant to supplement the fact sheet 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
- DEC 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 fact sheet:

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 fact sheet. Consistent with current case law<sup>14</sup> and USEPA interpretation<sup>15</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>14</sup> American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)

<sup>15</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, DEC 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).

### *USEPA Effluent Limitation Guidelines (ELGs) Applicable to Facility*

In many cases, BPT, BCT, BAT and NSPS limitations are based on effluent guidelines developed by USEPA for specific industries, as promulgated under 40 CFR Parts 405-471. Applicable guidelines, pollutants regulated by these guidelines, and the effluent limitation derivation for facilities subject to these guidelines is in the [USEPA Effluent Limitation Guideline Calculations Table](#).

### *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, DEC 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. Additionally, 6 NYCRR Part 701.1 prohibits the discharge of pollutants that will cause impairment of the best usages of the receiving water as specified by the water classifications at the location of discharge and at other locations that may be affected by such discharge. 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 at the point of discharge and in downstream waters 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. DEC considers a mixing zone analysis, critical flows, and reasonable potential analysis when developing a WQBEL.

#### Mixing Zone Analyses

In accordance with TOGS 1.3.1., DEC may perform additional analysis of the mixing condition between the effluent and the receiving waterbody. Mixing zone analyses using plume dispersion modeling are conducted in accordance with the following:

“EPA Technical Support Document for Water Quality-Based Toxics Control” (March 1991); EPA Region VIII’s “Mixing Zones and Dilution Policy” (December 1994); DEC TOGS 1.3.1, “Total Maximum Daily Loads and Water Quality-Based Effluent Limitations” (July 1996); “CORMIX v11.0” (2019).

#### 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, DEC 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, DEC considers using 1.2 x 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 DEC;
- 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.

DEC 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, DEC 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.

The Division of Water has been using the TMDL approach in permit limit development for the control of toxic substances. Since the early 1980's, the loading capacity for specific pollutants has been determined for each drainage basin. Water quality-limiting segments and pollutants have been identified, TMDLs, wasteload allocations and load allocations have been developed, and permits with water quality-based effluent limits have been issued. In accordance with TOGS 1.3.1, the Division of Water implements a Toxics Reduction Strategy which is committed to the application of the TMDL process using numeric, pollutant-specific water quality standards through the Watershed Approach. The Watershed Approach accounts for the cumulative effect of multiple discharges of conservative toxic pollutants to ensure water quality standards are met in downstream segments.

A Watershed Maximum Daily Load (WMDL) may be developed by DEC 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.

### *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). DEC 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.

DRAFT