



Department of
Environmental
Conservation

State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	3674	NAICS Code:	334413	SPDES Number:	NY0005096
Discharge Class (CL):	03	DEC Number:	3-1328-00535/00001		
Toxic Class (TX):	T	Effective Date (EDP):	TBD		
Major-Sub Drainage Basin:	13 - 04	Expiration Date (ExDP):	TBD		
Water Index Number:	H-95-9	Item No.:	862 - 277	Modification Dates (EDPM):	-
Compact Area:	-				

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:	Hudson Valley Research Park Sewage Works Corporation			Attention:	Amelia Rettmann, Vice-President	
Street:	2070 Route 52, B/325					
City:	Hopewell Junction		State:	NY	Zip Code:	12533
Email:	amelia.rettmann@onsemi.com			Phone:	585-750-7303	

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL															
Name:	Onsemi East Fishkill Facility														
Address / Location:	2070 Route 52, B/325						County:	Dutchess							
City:	Hopewell Junction			State:	NY		Zip Code:	12533							
Facility Location:	Latitude:	41	°	32	'	19	" N	& Longitude:	73	°	49	'	30	" W	
Primary Outfall No.:	001	Latitude:	41	°	32	'	29	" N	& Longitude:	73	°	49	'	53	" W
Wastewater Description:	Treated industrial and sanitary	Receiving Water:	Gildersleeve Brook			NAICS:	334413	Class:	C		Standard:	C(T)			

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:

Permit Administrator:	Rebecca S. Crist		
Address:	21 South Putt Corners Road New Paltz NY, 12477		
Signature:		Date:	

SUMMARY OF ADDITIONAL OUTFALLS

Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
002	Stormwater	-	41 ° 32 ' 21 " N	73 ° 49 ' 20 " W
Receiving Water: Trib. To Gildersleeve Brook				Class: C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
004	Stormwater	-	41 ° 32 ' 23 " N	73 ° 49 ' 8 " W
Receiving Water: Trib. To Gildersleeve Brook				Class: C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
005	Stormwater	-	41 ° 32 ' 18 " N	73 ° 49 ' 16 " W
Receiving Water: Trib. To Gildersleeve Brook				Class: C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
006	Stormwater	-	41 ° 32 ' 10 " N	73 ° 49 ' 24 " W
Receiving Water: Trib. To Gildersleeve Brook				Class: C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
009	Stormwater	-	41 ° 32 ' 16 " N	73 ° 49 ' 45 " W
Receiving Water: Gildersleeve Brook				Class: C(T)
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
011	Stormwater	-	41 ° 32 ' 20 " N	73 ° 49 ' 46 " W
Receiving Water: Gildersleeve Brook				Class: C(T)
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
012	Stormwater	-	41 ° 32 ' 15 " N	73 ° 49 ' 17 " W
Receiving Water: Trib. To Gildersleeve Brook				Class: C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
022	Stormwater	-	41 ° 32 ' 21 " N	73 ° 49 ' 9 " W
Receiving Water: Trib. To Gildersleeve Brook				Class: C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
023	Stormwater	-	41 ° 32 ' 14 " N	73 ° 49 ' 12 " W
Receiving Water: Trib. To Gildersleeve Brook				Class: C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
024	Stormwater	-	41 ° 32 ' 19 " N	73 ° 49 ' 11 " W
Receiving Water: Trib. To Gildersleeve Brook				Class: C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
025	Stormwater	-	41 ° 32 ' 14 " N	73 ° 49 ' 18 " W
Receiving Water: Trib. To Gildersleeve Brook				Class: C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
027	Stormwater	-	41 ° 32 ' 12 " N	73 ° 49 ' 21 " W
Receiving Water: Trib. To Gildersleeve Brook				Class: C

Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
028	Stormwater	-	41 ° 32 ' 13 " N	73 ° 49 ' 21 " W
Receiving Water: Trib. To Gildersleeve Brook				Class: C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
029	Stormwater	-	41 ° 32 ' 5 " N	73 ° 49 ' 34 " W
Receiving Water: Trib. To Gildersleeve Brook				Class: C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
031	Stormwater	-	41 ° 32 ' 8 " N	73 ° 49 ' 26 " W
Receiving Water: Trib. To Gildersleeve Brook				Class: C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
033	Stormwater	-	41 ° 32 ' 6 " N	73 ° 49 ' 29 " W
Receiving Water: Trib. To Gildersleeve Brook				Class: C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
039	Stormwater	-	41 ° 32 ' 9 " N	73 ° 49 ' 40 " W
Receiving Water: Gildersleeve Brook				Class: C(T)
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
040	Stormwater	-	41 ° 32 ' 12 " N	73 ° 49 ' 42 " W
Receiving Water: Gildersleeve Brook				Class: C(T)
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
041	Stormwater	-	41 ° 32 ' 18 " N	73 ° 49 ' 45 " W
Receiving Water: Gildersleeve Brook				Class: C(T)
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
042	Stormwater	-	41 ° 32 ' 23 " N	73 ° 49 ' 47 " W
Receiving Water: Gildersleeve Brook				Class: C(T)
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
043	Stormwater	-	41 ° 32 ' 26 " N	73 ° 49 ' 51 " W
Receiving Water: Gildersleeve Brook				Class: C(T)

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	Process, Sanitary & Treated Groundwater	Gildersleeve Brook	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	6.0	MGD	-	-	Continuous	Recorder		X	
	Daily Maximum	Monitor	MGD	-	-	Continuous	Recorder		X	
pH	Daily Minimum	6.5	SU	-	-	1/week	Grab		X	
	Daily Maximum	8.5	SU	-	-	1/week	Grab		X	
Dissolved Oxygen	Daily Minimum	5.0	mg/L	-	-	1/week	Grab		X	
CBOD ₅	Daily Maximum	8.0	mg/L	400	lbs/d	1/week	24-hr. Comp.		X	2
Total Suspended Solids (TSS)	Monthly Average	25	mg/L	Monitor	lbs/d	1/week	24-hr. Comp.		X	2
	Daily Maximum	40	mg/L	2,000	lbs/d	1/week	24-hr. Comp.		X	2
Settleable Solids	Daily Maximum	0.1	mL/L	-	-	1/week	Grab		X	
Total Dissolved Solids	Daily Maximum	500	mg/L	-	-	1/week	24-hr. Comp.		X	1,2
Ammonia (as N) (Nov-Mar)	Monthly Average	1.4	mg/L	-	-	1/week	24-hr. Comp.		X	2
Ammonia (as N) (Apr-Oct)	Monthly Average	0.88	mg/L	-	-	1/week	24-hr. Comp.		X	2
Hardness (as CaCO ₃)	Daily Maximum	Monitor	mg/L	-	-	1/quarter	Grab		X	3
Aluminum, Total	Daily Maximum	1.0	mg/L	-	-	1/week	24-hr. Comp.		X	2
Arsenic, Total	Daily Maximum	0.10	mg/L	-	-	1/week	24-hr. Comp.		X	2
Chromium, Total	Daily Maximum	0.22	mg/L	-	-	1/week	24-hr. Comp.		X	2
Chromium, Hexavalent	Daily Maximum	0.012	mg/L	-	-	1/week	24-hr. Comp.		X	2
Cobalt, Total	Daily Maximum	0.005	mg/L	-	-	1/week	24-hr. Comp.		X	2
Copper, Total	Daily Maximum	0.043	mg/L	-	-	1/week	24-hr. Comp.		X	1,2
Cyanide, Total	Daily Maximum	0.060	mg/L	-	-	1/week	24-hr. Comp.		X	2
Fluoride, Total	Daily Maximum	6.0	mg/L	-	-	1/week	24-hr. Comp.		X	1,2
Iron, Total	Daily Maximum	1.2	mg/L	-	-	1/quarter	24-hr. Comp.		X	2,3
Lead, Total	Daily Maximum	0.032	mg/L	-	-	1/week	24-hr. Comp.		X	1,2
Mercury, Total	Daily Maximum	35	ng/L	-	-	1/month	Grab		X	
Molybdenum, Total	Daily Maximum	3.7	mg/L	-	-	1/week	24-hr. Comp.		X	2
Phosphorus, Total	Daily Maximum	Monitor	mg/L	-	-	1/week	24-hr. Comp.		X	2
Tin, Total	Daily Maximum	0.38	mg/L	-	-	1/week	24-hr. Comp.		X	2
Tungsten, Total	Daily Maximum	3.7	mg/L	-	-	1/week	24-hr. Comp.		X	2
Zinc, Total	Daily Maximum	0.36	mg/L	-	-	1/week	24-hr. Comp.		X	2
Chloroform	Daily Maximum	200	µg/L	-	-	1/month	Grab		X	5
cis-1,2-Dichloroethylene	Daily Maximum	10	µg/L	-	-	1/month	Grab		X	

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Dichlorodifluoromethane	Daily Maximum	10	µg/L	-	-	1/month	Grab		X	
Methyl tert-butyl ether	Daily Maximum	10	µg/L	-	-	1/month	Grab		X	
N-Methyl-2-pyrrolidone	Daily Maximum	20	µg/L	-	-	1/month	Grab		X	
Methylene Chloride	Daily Maximum	Monitor	µg/L	-	-	1/month	Grab		X	5
Tetrachloroethylene	Monthly Average	1.0	µg/L	-	-	1/month	Grab		X	
	Daily Maximum	1.2	µg/L	-	-	1/month	Grab		X	5
Total Toxic Organics (TTO)	Daily Maximum	1,370	µg/L	-	-	1/month	Grab		X	5,6

ACTION LEVEL PARAMETERS	Type	Action Level	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Nickel, Total	Daily Maximum	0.15	mg/L	-	-	1/quarter	24-hr. Comp.		X	2,3,4
Silver, Total	Daily Maximum	0.10	mg/L	-	-	1/quarter	24-hr. Comp		X	2,3,4
Ethylbenzene	Daily Maximum	5	µg/L	-	-	1/month	Grab		X	4,5
Toluene	Daily Maximum	5	µg/L	-	-	1/month	Grab		X	4,5
Trichloroethylene	Daily Maximum	5	µg/L	-	-	1/month	Grab		X	4,5
Vinyl chloride	Daily Maximum	5	µg/L	-	-	1/quarter	Grab		X	3,4
Xylenes, Total	Daily Maximum	5	µg/L	-	-	1/quarter	Grab		X	3,4

EFFLUENT DISINFECTION		Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Required Seasonal from May 15th - October 15th										
Coliform, Fecal	30-Day Geometric Mean	200	No./100 mL	-	-	1/week	Grab		X	
	7-Day Geometric Mean	400	No./100 mL	-	-	1/week	Grab		X	
Chlorine, Total Residual	Daily Maximum	0.030	mg/L	-	-	1/week	Grab		X	1,7

WHOLE EFFLUENT TOXICITY (WET) TESTING		Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
WET - Acute Invertebrate	See footnote	0.3	TUa	NA	TUa	1/quarter	See footnote		X	3,8
WET - Acute Vertebrate	See footnote	0.3	TUa	NA	TUa	1/quarter	See footnote		X	3,8
WET - Chronic Invertebrate	See footnote	1.0	TUc	NA	TUc	1/quarter	See footnote		X	3,8
WET - Chronic Vertebrate	See footnote	1.0	TUc	NA	TUc	1/quarter	See footnote		X	3,8

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
002, 004-006, 009, 011-012, 022-025, 027-029, 031, 033, 039-043	Stormwater Runoff and authorized water from fuel oil containment areas	Gildersleeve Brook/ Tributary to Gildersleeve Brook	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Daily Maximum	Monitor	GPD	-	-	1/quarter	Estimate		X	3,9
Oil & Grease	Daily Maximum	15	mg/L	-	-	1/quarter	Grab		X	3,9

FOOTNOTES:

1. This is a final limit with an Effective Date of EDP + 4 years and 11 months. See the "Schedule of Compliance" section of this permit for the interim limit and further requirements.
2. All 24-hour composite samples must be flow proportional. All 4-hour composite samples must be time proportional.
3. Quarterly samples shall be collected in calendar quarters (Q1 – January 1st to March 31st; Q2 – April 1st to June 30th; Q3 – July 1st to September 30th; Q4 – October 1st to December 31st).
4. 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. Samples identical to those required for routine monitoring purposes shall be taken on each of at least three consecutive days and analyzed. 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.
5. This parameter is a component of TTO (Total Toxic Organics), as defined by 40 CFR Part 469.12(a).
6. **Total Toxic Organics**
 - a. The term "total toxic organics (TTO)" means the sum of the concentrations for each of the toxic organic listed in 40 CFR Part 469.12(a) which is found in the discharge at a concentration greater than ten (10) micrograms per liter.
 - b. Upon approval of a Solvent Management Plan, the permittee may, in lieu of required monitoring for TTO, certify with each DMR that the facility is implementing the approved Solvent Management Plan and that no dumping of concentrated toxic organics has occurred during the reporting period. In lieu of monitoring for Total Toxic Organics, the permittee may make the following certification as a comment on the DMR: *Based on my inquiry of the person or persons directly responsible for managing compliance with the permit limitation for total toxic organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing of the last discharge monitoring report. I further certify that this facility is implementing the toxic organic management plan submitted to the permitting authority.*
If certifying instead of sampling, enter NOD1 9 on the DMR for the parameter.
7. This is a Compliance Level. The calculated WQBEL for Total Residual Chlorine is 0.005 mg/L.

8. Whole Effluent Toxicity (WET) Testing:

Testing Requirements - WET testing shall consist of **Chronic (also reporting only for acute results)**. WET 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 in years ending in 2-5 and 7-0 shall be *Ceriodaphnia dubia* (water flea - invertebrate). The test species in years ending in 6 and 1 shall be *Ceriodaphnia dubia* (water flea - invertebrate) and *Pimephales promelas* (fathead minnow - vertebrate). Receiving water collected upstream from the discharge or an appropriate synthetic water 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 bracketing the IWC and including one exposure group of 100% effluent should be used to generate a definitive test endpoint, otherwise an immediate rerun of the test is 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 1:1 for acute and 1:1 for chronic. Discharges which are disinfected using chlorine should be dechlorinated prior to WET testing or samples shall be taken immediately prior to the chlorination system.

Monitoring Period - WET testing shall be performed at the specified sample frequency. Continuous testing for the duration of the permit is required for the invertebrate. Testing for the vertebrate species is required during calendar years ending in 6 and 1.

Reporting - Toxicity Units shall be calculated and reported on the DMR as follows: $TU_a = (100)/(48 \text{ hr. LC50})$ or $(100)/(48 \text{ hr. EC50})$ (note that Acute data is generated by both Acute and Chronic testing) and $TU_c = (100)/(NOEC)$ or $TU_c = (100)/(IC25)$ when Chronic testing has been performed or $TU_c = (TU_a) \times (10)$ when only Acute testing has been performed and is used to predict Chronic test results, where the 48 hr. LC50 or 48 hr. EC50 and NOEC are expressed in % effluent. This must be done for both species and using the Most Sensitive Endpoint (MSE) or the lowest NOEC and corresponding highest TU_c . Report a TU_a of 0.3 if there is no statistically significant toxicity in 100% effluent as compared to control.

The complete test report including all corresponding results, 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 to the Toxicity Testing Unit, Bureau of Watershed Assessment and Management, 625 Broadway, Fourth Floor, Albany, NY 12233-3502. A summary page of the test results for the invertebrate and vertebrate species indicating TU_a , 48 hr. LC50 or 48 hr. EC50 for Acute tests and/or TU_c , NOEC, IC25, and most sensitive endpoints for Chronic tests, should also be included at the beginning of the test report.

WET Testing Action Level Exceedances - If an action level is exceeded then the Department may require the permittee to conduct additional WET testing including Acute and/or Chronic tests. Additionally, the permittee may be required to perform a Toxicity Reduction Evaluation (TRE) in accordance with Department guidance. If such additional testing or performance of a TRE is necessary, the permittee shall be notified in writing by the Regional Water Engineer. The written notification shall include the reason(s) why such testing or a TRE is required.

9. Stormwater Sampling

All stormwater sampling shall be in accordance with the New York State Department of Environmental Conservation SPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity Permit Number GP-0-23-001, which states:

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

The grab sample must be taken during the first 30 minutes (or as soon thereafter as practical, but not to exceed one [1] hour) of the *discharge*. If the sampled *discharge* commingles with non-stormwater water, the *owner or operator* must attempt to sample the *stormwater discharge* before it mixes.

SPECIAL CONDITIONS

1. Requirement to Notify – New Discharges or Facility Expansion

The permittee shall notify the regional water engineer as soon as the permittee has reason to believe the treatment facility will be accepting any new discharge as defined in 6 NYCRR 750-2.6(b) or will experience a facility expansion as defined in 6 NYCRR 750-1.2. Notification shall include information on the nature of the change, including adequate waste characterization. Adequate characterization for existing, continuous discharges may be obtained from three daily composite samples analyzed for conventional pollutants, oil and grease, pH, and toxics. Adequate characterization for proposed discharges, for which no wastewater has been generated for sampling and analysis, an engineering projection of the proposed discharge based on discharges from similar facilities may be provided. The Department may require a permit modification based on review of this data.

STORMWATER POLLUTION PREVENTION REQUIREMENTS

Stormwater discharges at this facility cannot obtain coverage under the current Multi-Sector General Permit (MSGP) (GP-0-23-001). However, the permit includes select requirements consistent with the MSGP.

DRAFT

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.

1. **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.
2. **Compliance Deadlines** –The permittee shall develop, maintain, and implement a Best Management Practices (BMP) plan to prevent releases of significant 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 aw material storage. 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.
3. **Facility Review** - The permittee shall review all facility components or systems (including but not limited to material storage areas; in-plant transfer, process, and material handling areas; loading and unloading operations; storm water, erosion, and sediment control measures; process emergency control systems; and sludge and waste disposal areas) where materials or pollutants are used, manufactured, stored or handled to evaluate the potential for the release of pollutants to the waters of the State. In performing such an evaluation, the permittee shall consider such factors as the probability of equipment failure or improper operation, cross-contamination of storm water by process materials, settlement of facility air emissions, the effects of natural phenomena such as freezing temperatures and precipitation, fires, and the facility's history of spills and leaks. The relative toxicity of the pollutant shall be considered in determining the significance of potential releases. The review shall address all substances present at the facility that are identified in the SPDES application Form NY-2C (available at https://www.dec.ny.gov/docs/permits_ej_operations_pdf/form2c.pdf) or that are required to be monitored for by the SPDES permit.
4. **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)

5. **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 area¹. (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) 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.

6. **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.

7. **Facilities with Petroleum and/or Chemical Bulk Storage (PBS and CBS) Areas** - Compliance must be maintained with all applicable regulations including those involving releases, registration, handling and storage (6 NYCRR 595-599 and 612-614). Stormwater discharges from handling and storage areas should be eliminated where practical.

A. **Spill Cleanup** - All spilled or leaked substances must be removed from secondary containment systems as soon as practical and for CBS storage areas within 24 hours, unless written authorization is received from the Department. The containment system must be thoroughly cleaned to remove any residual contamination which could cause contamination of stormwater and the resulting discharge of pollutants to waters of the State. Following spill cleanup the affected area must be completely flushed with clean water three times and the water removed after each flushing for proper disposal in an on-site or off-site wastewater treatment plant designed to treat such water and permitted to discharge such wastewater. Alternately, the permittee may test the first batch of stormwater following the spill cleanup to determine discharge acceptability. If the water contains no pollutants at concentrations above the applicable effluent limits or Action Levels it may be discharged. Otherwise it must be disposed of as noted above. See *Discharge Monitoring* below for the list of parameters to be sampled for.

B. **Discharge Operation** - Stormwater must be removed before it compromises the required containment system capacity. Each discharge may only proceed with the prior approval of the permittee staff person responsible for ensuring SPDES permit compliance. Bulk storage secondary containment drainage systems must be locked in a closed position except when the operator is in the process of draining accumulated stormwater. Transfer area secondary containment drainage systems must be locked in a closed position during all transfers to or from these systems and must not be reopened unless the transfer area is clean of contaminants. Stormwater discharges from secondary containment systems should be avoided during periods of precipitation. A logbook shall be maintained on site noting the date, time and personnel supervising each discharge.

¹ 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.

BMPs FOR INDUSTRIAL FACILITIES (continued)

C. Discharge Screening - Prior to each discharge from a secondary containment system the stormwater must be screened for contamination*. All stormwater must be inspected for visible evidence of contamination. Additional screening methods shall be developed by the permittee as part of the overall BMP Plan, e.g. the use of volatile gas meters to detect the presence of gross levels of gasoline or volatile organic compounds. If the screening indicates contamination, the permittee must collect and analyze a representative sample** of the stormwater. If the water contains no pollutants at concentrations above the applicable effluent limits or Action Levels it may be discharged. Otherwise it must either be disposed of in an onsite or off site wastewater treatment plant designed to treat and permitted to discharge such wastewater or the Regional Water Engineer can be contacted to determine if it may be discharged without treatment.

D. Discharge Monitoring - Unless the discharge from any bulk storage containment system outlet is identified in the SPDES permit as an outfall with explicit effluent and monitoring requirements, the permittee shall monitor the outlet as follows:

(i) *Bulk Storage Secondary Containment Systems:*

(a) The volume of each discharge from each outlet must be monitored. Discharge volume may be calculated by measuring the depth of water within the containment area times the wetted area converted to gallons or by other suitable methods. A representative sample shall be collected of the first discharge* following any cleaned up spill or leak. The sample must be analyzed for pH, the substance(s) stored within the containment area and any other pollutants the permittee knows or has reason to believe are present**.

(b) Every fourth discharge* from each outlet must be sampled for pH, the substance(s) stored within the containment area and any other pollutants the permittee knows or has reason to believe are present**.

(ii) *Transfer Area Secondary Containment Systems:*

The first discharge* following any spill or leak must be sampled for flow, pH, the substance(s) transferred in that area and any other pollutants the permittee knows or has reason to believe are present**.

E. Discharge Reporting - Any results of monitoring required above, excluding screening data, must be submitted to the Department by appending them to the corresponding DMR. Failure to perform the required discharge monitoring and reporting shall constitute a violation of the terms of the SPDES permit.

F. Prohibited Discharges - **In all cases, any discharge which contains a visible sheen, foam, or odor, or may cause or contribute to a violation of water quality is prohibited.** The following discharges are prohibited unless specifically authorized elsewhere in this SPDES permit: spills or leaks, tank bottoms, maintenance wastewaters, wash waters where detergents or other chemicals have been used, tank hydrotest and ballast waters, contained firefighting runoff, fire training water contaminated by contact with pollutants or containing foam or fire retardant additives, and unnecessary discharges of water or wastewater into secondary containment systems.

* Discharge includes stormwater discharges and snow and ice removal. If applicable, a representative sample of snow and/or ice should be collected and allowed to melt prior to assessment.

** If the stored substance is gasoline or aviation fuel then sample for oil & grease, benzene, ethylbenzene, naphthalene, toluene and total xylenes. If the stored substance is kerosene, diesel fuel, fuel oil, or lubricating oil then sample for oil & grease and polynuclear aromatic hydrocarbons (PAHs). The analytical methods selected for monitoring the stored substances are to be the most sensitive in detecting and quantifying the target analytes as approved under 40 CFR Part 136 and in compliance with NYSDOH ELAP certified methods or as directed by the Department. If the substance(s) are listed in the tables of SPDES Application Form NY-2C then sampling is required. Contact the facility inspector for further guidance. In all cases flow and pH monitoring is required.

MERCURY MINIMIZATION PROGRAM (MMP) - Type III

1. General – To reduce mercury effluent levels with the goal of achieving the water quality standard of 0.7 ng/L, the permittee must develop, implement, and maintain a written MMP plan, which includes the elements set forth below.
2. Relevant Documents – incorporate by reference documents already prepared, if any, for the wastewater treatment facility.
3. Drawings or Maps – for the facility and collection system identifying key locations and other areas identified in the MMP Plan.
4. Monitoring Plan – All mercury outfall monitoring must be conducted using the methods specified in Table 8 of DOW 1.3.10. Monitoring at influent and other locations tributary to compliance points may be performed using either USEPA Method 1631 or another sufficiently sensitive method, as approved under 40 CFR Part 136. 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 and conducted with the following frequencies:
 - a. Influent/Effluent – sampled in accordance with the SPDES permit limitations table for Outfall 001; and,
 - b. For permittees with an EEQ at or below 12 ng/L, influent monitoring will be required in lieu of monitoring at key locations within the collection system. If the facility reports discharges above 12 ng/L for 2 of 4 consecutive effluent samples, DEC may undertake a Department-initiated permit modification to remove the allowance of reduced requirements.
5. Control Strategy –
 - a. Inventory – develop and maintain an inventory of known and potential mercury sources.
 - b. Equipment and Materials – evaluate equipment and materials (e.g., thermometers, thermostats) used by the permittee for potential mercury contribution to the discharge. As equipment and materials containing mercury are updated/replaced, the permittee must use mercury-free alternatives, if possible.
 - c. Bulk Chemical Evaluation – for chemicals used at a rate which exceeds 1,000 gallons/year or 10,000 pounds/year, the permittee must obtain:
 - i. A manufacturer's certificate of analysis;
 - ii. A chemical analysis performed by a certified laboratory; OR,
 - iii. A notarized affidavit that describes the substance's mercury concentration and the detection limit achieved.Where practicable, the permittee must only use bulk chemicals in the wastewater treatment process which contain <10 parts per billion (ppb) of mercury.
 - d. Inspections – once every five years, conduct and document with the MMP Plan an inspection at each identified location with potential mercury source(s).
 - e. Treatment Considerations – document considerations for installation of treatment technology to reduce mercury contributions in the discharge.
6. Status Report – The permittee must develop **an annual** report, in accordance with the [Schedule of Additional Submittals](#), summarizing:
 - a. All MMP monitoring results for Outfall 001 since the previous report;
 - b. A list of known mercury sources and potential mercury sources for Outfall 001;
 - c. All actions undertaken by the permittee, pursuant to the control strategy, since the previous report;
 - d. Actions planned by the permittee, pursuant to the control strategy, for the upcoming reporting period; and,
 - e. Progress toward achieving a dissolved mercury concentration of 0.7 ng/L in the effluent (e.g., summarizing reductions in effluent concentrations as a result of the control strategy implementation or installation/modification of a treatment system).

The first status report is due in accordance with the Schedule of Additional Submittals. The permittee must maintain a file on-site with all MMP documentation.

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

7. MMP Modification – The permittee must submit a permittee-initiated modification request to DEC whenever:
- The permittee meets the criteria for another MMP type;
 - Changes at the facility, or within the collection system, increase the potential for mercury discharges; OR,
 - Effluent discharges exceed the current permit limitation(s).

The permittee may use information in the status reports, as applicable in accordance with item 6, as a basis for the permittee-initiated modification.

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 judgment.

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:

N.Y.S. PERMITTED DISCHARGE POINT

SPDES PERMIT No.: NY _____

OUTFALL No. : _____

For information about this permitted discharge contact:

Permittee Name: _____

Permittee Contact: _____

Permittee Phone: () - ### - #####

OR:

NYSDEC Division of Water Regional Office Address: _____

NYSDEC Division of Water Regional Phone: () - ### - #####

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

SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule:

Outfall(s)	Compliance Action	Compliance Date ²
001	<p>ENGINEERING REPORT The permittee shall submit an approvable³ Engineering Report detailing pollutant sources, evaluating the effectiveness and cost of practical measures which may achieve final effluent limits, and propose improvements to achieve compliance with final effluent limits for the following pollutants:</p> <ul style="list-style-type: none"> • Total Dissolved Solids • Total Residual Chlorine • Total Copper • Total Fluoride • Total Lead • Total Tin <p>The report shall include an approvable schedule that shall become an enforceable part of this SPDES permit upon Department approval.</p>	EDP + 24 Months
001	<p>COMPLETE CONSTRUCTION Complete construction/implementation of the improvements and comply with final effluent limitations in accordance with the approved schedule in the Engineering Report approved by the Department. The schedule becomes enforceable upon acceptance by the Department. Interim limits expire on this date.</p>	EDP + 59 Months
001	<p>WET LIMITS The permittee shall complete actions that reduce whole effluent toxicity to meet the final WET effluent limits.</p>	EDP + 59 Months
001	<p>INTERIM LIMITS STATUS REPORTS Submit interim status reports on the progress related to meeting the specified final limits.</p>	EDP + 9 months, and every 9 months thereafter
Unless noted otherwise, the above actions are one-time requirements.		

OUTFALL	PARAMETER	INTERIM EFFLUENT LIMIT					MONITORING REQUIREMENTS				Notes
		Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
									Inf.	Eff.	
001	Total Dissolved Solids	Daily Maximum	1,500	mg/L	-	-	1/Week	24-hr. Composite	-	X	
001	Total Copper	Daily Maximum	-	-	3.0	lbs/d	1/Week	24-hr. Composite	-	X	
001	Total Fluoride	Daily Maximum	7.3	mg/L	-	-	1/Week	24-hr. Composite	-	X	
001	Total Lead	Daily Maximum	0.08	mg/L	-	-	1/Week	24-hr. Composite	-	X	
001	Total Tin	Daily Maximum	0.5	mg/L	-	-	1/Week	24-hr. Composite	-	X	
001	Total Residual Chlorine	Daily Maximum	0.10	mg/L	-	-	1/Week	Grab		X	

Notes: Interim limits expire EDP + 59 months.

² 6 NYCRR 750-1.14 (a)

³ 6 NYCRR 750 1.2 (a)(8)

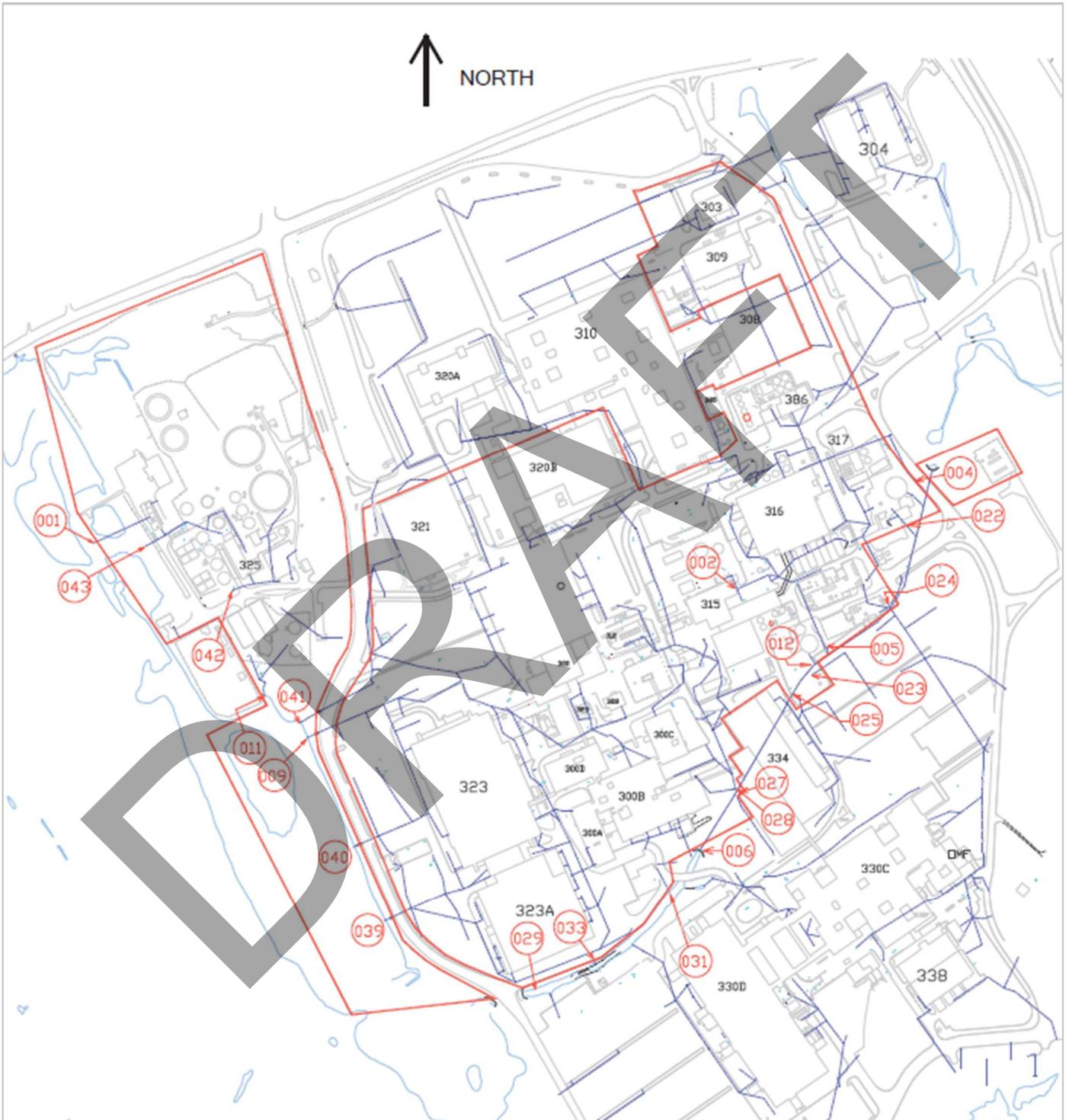
WHOLE EFFLUENT TOXICITY (WET) TESTING		Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
WET - Acute Invertebrate	See footnote on page 8	-	-	0.3	TUa	1/Month	See footnote on page 8		X	8
WET - Acute Vertebrate	See footnote on page 8	-	-	0.3	TUa	1/month	See footnote on page 8		X	8
WET - Chronic Invertebrate	See footnote on page 8	-	-	1.0	TUc	1/month	See footnote on page 8		X	8
WET - Chronic Vertebrate	See footnote on page 8	-	-	1.0	TUc	1/month	See footnote on page 8		X	8

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

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MONITORING LOCATIONS

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



GENERAL REQUIREMENTS

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

RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

A. The monitoring information required by this permit shall be retained for a period of at least five years from the date of the sampling for subsequent inspection by the Department or its designated agent.

B. Discharge Monitoring Reports (DMRs): Completed DMR forms shall be submitted for each 1 month reporting period in accordance with the DMR Manual available on Department's website.

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

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

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

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

Department of Environmental Conservation
Regional Water Engineer, Region 3
21 South Putt Corners Road, New Paltz, NY 12561-1696 Phone: (914) 803-8157
DOW.r3@dec.ny.gov

D. Annual SPDES Monitoring Reports: An annual report shall be submitted to the Department by February 1st each year. The report shall summarize information for January to December of the previous year and shall be submitted electronically, or in hardcopy format, utilizing the SPDES Annual Report Form available on the Department's website.

Electronic copy submission of the Annual Report shall be emailed to the Regional Water Engineer at the address below:

DOW.r3@dec.ny.gov
and
SPDESApp@dec.ny.gov

E. 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	<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 draft analytical method 1633. 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: https://www.dec.ny.gov/chemical/127939.html.</p> <p>The permittee shall initiate track down of potential sources by completing the "<u>Emerging Contaminants Investigation Checklist for Industrial Facilities</u>" available at the above link.</p> <p><u>The Department may periodically request updates and/or additional monitoring to check progress on track down investigations. Elements of the checklist may be used as permit conditions in future permit modifications.</u></p>	<p>EDP + 6 months</p> <p>Within 90 days of DEC written notification</p>
001	<p><u>SHORT-TERM HIGH-INTENSITY MONITORING PROGRAM – FREE CYANIDE</u> The permittee shall collect 10 samples representative of normal discharge conditions and treatment operations over a 5-week period for the identified parameters. The permittee shall use approved EPA analytical method with the lowest possible detection limit as promulgated under 40 CFR Part 136 for the determination of the concentrations of parameters listed. The permittee shall submit a summary of the results.</p>	EDP +3 months
002, 005, 009, 011, 042 & 043	<p><u>SHORT-TERM HIGH-INTENSITY MONITORING PROGRAM – TOTAL RESIDUAL CHLORINE</u> The permittee shall collect 4 samples representative of normal discharge conditions and treatment operations from qualifying storm events for the identified parameters. (See footnote 9) The permittee shall use approved EPA analytical method with the lowest possible detection limit as promulgated under 40CFR Part 136 for the determination of the concentrations of parameters listed. The permittee shall submit a summary of the results.</p>	EDP +18 months
002	<p><u>SHORT-TERM HIGH-INTENSITY MONITORING PROGRAM – pH</u> The permittee shall collect 4 samples representative of normal discharge conditions and treatment operations from qualifying storm events for the identified parameters. (See footnote 9) The permittee shall use approved EPA analytical method with the lowest possible detection limit as promulgated under 40CFR Part 136 for the determination of the concentrations of parameters listed. The permittee shall submit a summary of the results.</p>	EDP +18 months
004	<p><u>SHORT-TERM HIGH-INTENSITY MONITORING PROGRAM – TOTAL ZINC</u> The permittee shall collect a minimum of 4 samples representative of normal discharge conditions and treatment operations from qualifying storm events for the identified parameters. (See footnote 9) The permittee shall use approved EPA analytical method with the lowest possible detection limit as promulgated under 40CFR Part 136 for the determination of the concentrations of parameters listed. The permittee shall submit a summary of the results.</p>	EDP +18 months

Outfall(s)	SCHEDULE OF ADDITIONAL SUBMITTALS - Required Action	Due Date
	<p><u>BMP PLAN</u> The permittee shall annually review the completed BMP plan, that was submitted to this Department 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>Maintained Onsite Annually on January 28th</p>
001	<p><u>WHOLE EFFLUENT TOXICITY (WET) TESTING</u> WET testing shall be performed as required in the footnote of the permit limits table. The toxicity test report including all information requested of this permit shall be attached to your WET DMRs and sent to the WET@dec.ny.gov email address.</p>	<p>Within 60 days following the end of each monitoring period</p>
	<p><u>WATER TREATMENT CHEMICAL (WTC) ANNUAL REPORT FORM</u> The permittee shall submit a completed WTC Annual Report Form each year that Water Treatment Chemicals are used. The form shall be attached to the December DMR.</p>	<p>Annually on January 28th</p>
001	<p><u>MERCURY MINIMIZATION PLAN</u> The permittee must complete and maintain onsite an annual mercury minimization status report in accordance with the requirements of this permit.</p>	<p>Maintained Onsite EDP + 12 months, annually thereafter</p>

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

- F. 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.
- G. 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.
- H. Calculations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- I. 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.
- J. 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

Hudson Valley Research Park

Sewage Works Corp.

Onsemi East Fishkill

NY0005096



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 Onsemi East Fishkill. The changes to the permit are summarized below:

- Updated permit format, definitions, and general conditions
- Updated permittee and facility names and contact information
- Updated monitoring location map
- SIC Code changed from 3471 (Electroplating, Plating, polishing, Anodizing, and Coloring) to 3674 (Semiconductors and Related Devices)
- Updated Whole Effluent Toxicity (WET) testing procedures
- Removal of the toxicity reduction evaluation compliance schedule.
- Addition of a new toxicity reduction evaluation compliance schedule
- Added mercury minimization plan type III
- Added special condition: Requirement to Notify for new discharges or facility expansion

Outfall 001

- Added parameters:
 - Dissolved oxygen, total dissolved solids, total mercury, total phosphorus, methylene chloride, total toxic organics, WET, and hardness
- Modified parameters:
 - Ammonia, total chromium, hexavalent chromium, total cobalt, total copper, total fluoride, total iron, total lead, total molybdenum, total silver, total tin, total tungsten, chloroform, tetrachloroethylene, and total residual chlorine
- Removed parameters:
 - Dissolved copper, dissolved zinc, residual chlorine (in contact tank), total palladium, total titanium, total germanium, total hafnium, total rhenium, total ruthenium, total tantalum, acetone, bromobenzene, bromoform, dichlorobromomethane

Outfall 004

- The following parameters are removed from this permit since they are associated with the treated groundwater provided from, and permitted by, IBM's East Fishkill Groundwater Remediation SPDES permit, NY0281646.
 - cis-1,2-dichloroethylene, methyl tert-butyl ether (MTBE), dichlorodifluoromethane, tetrachloroethylene, acetone, bromobenzene, ethylbenzene, methylene chloride, toluene, trichloroethylene, trichlorofluoromethane, 1,1,1-trichloroethane, 1,1,2,2-tetrachloroethane, vinyl chloride, xylene, and total iron. (See [Additional Site-Specific Concerns](#))

Additional Outfalls

- Removal of the following stormwater outfalls:
 - 003, 007, 008, 017, 035, 048, 020, 021, 026, 030, 032, 034, 036-038, 044-047 are no longer owned by Onsemi
 - 010, 014, 016, 018, 019, 049, 050: decommissioned
- Outfalls added:
 - 027, 029, 031: new stormwater outfalls

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

- 7/1/2008 The last full technical review was performed and the SPDES permit became effective with a new five-year term and expiration date of 6/30/2013. The 2008 permit, along with all subsequent modifications, has formed the basis of this permit.
- 4/19/2011 The permit was modified to remove Outfall 013.
- 08/29/2011 The permit was modified to update Attachment A.
- 8/15/2012 Department issued a Request for Information (RFI) to modify and renew the SPDES permit due to the facility's EBPS score.¹
- 12/20/2012 Submission of a completed SPDES permit renewal application (NY-2C) and supplemental information.
- 6/30/2013 The current permit was extended pursuant to SAPA².
- 5/13/2015 The Department published a notice of complete application in the Environmental Notice Bulletin (ENB).
- 6/19/2015 Comment period closed.
- 08/04/2015 The Department suspended the application by mutual agreement.
- 9/26/2023 Additional information regarding facility operations and additional wastewater sources from municipality and new tenants.
- 12/22/2023 Further additional information regarding facility operations and additional wastewater sources from municipality and new tenants.
- 1/15/2025 Submission of updated outfall map.

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

Facility Information

This is an industrial facility (SIC code 3674) that develops and manufactures semiconductors for the computer and electronic industries. The facility began operation in the early 1960s, owned by IBM. Ownership of the facility changed since then. The facility is currently owned by Onsemi. However, IBM still maintains onsite treatment for contaminated groundwater remediation. Under an agreement between Onsemi and IBM, Onsemi accepts IBM's treated groundwater and uses it as a source of Onsemi's process water. The water used for Onsemi's processes is not discharged by IBM. Effluent discharge through Outfall 001, under this permit, consists of Onsemi's treated

¹ Pursuant to 6 NYCRR 750-1.18 and 750-1.19 NYS Environmental Benefit Permit Strategy (EBPS)

² State Administrative Procedures Act Section 401(2) and 6 NYCRR 621.11(f)

process wastewater and treated sanitary wastewater. The process wastewater undergoes industrial treatment from the processes below prior to sanitary treatment and, finally, discharge:

- Fluoride treatment
 - Peroxide destruction
 - pH adjustment
 - Clarification
 - Filter press
- Ammonia treatment
 - pH adjustment
 - Distillation
- Slurry treatment
 - pH adjustment
 - Clarification
 - Filter press
- Neutralization

The sanitary treatment consists of:

- Preliminary treatment: Screening and grit removal
- Secondary treatment: Activated sludge and final clarification
- Disinfection: Chlorination and dechlorination

Sludge is gravity thickened and sent to an offsite facility.

The facility also houses tenants that contribute wastewater to the treatment systems that discharge to Outfall 001. The tenants' wastewater contributions are:

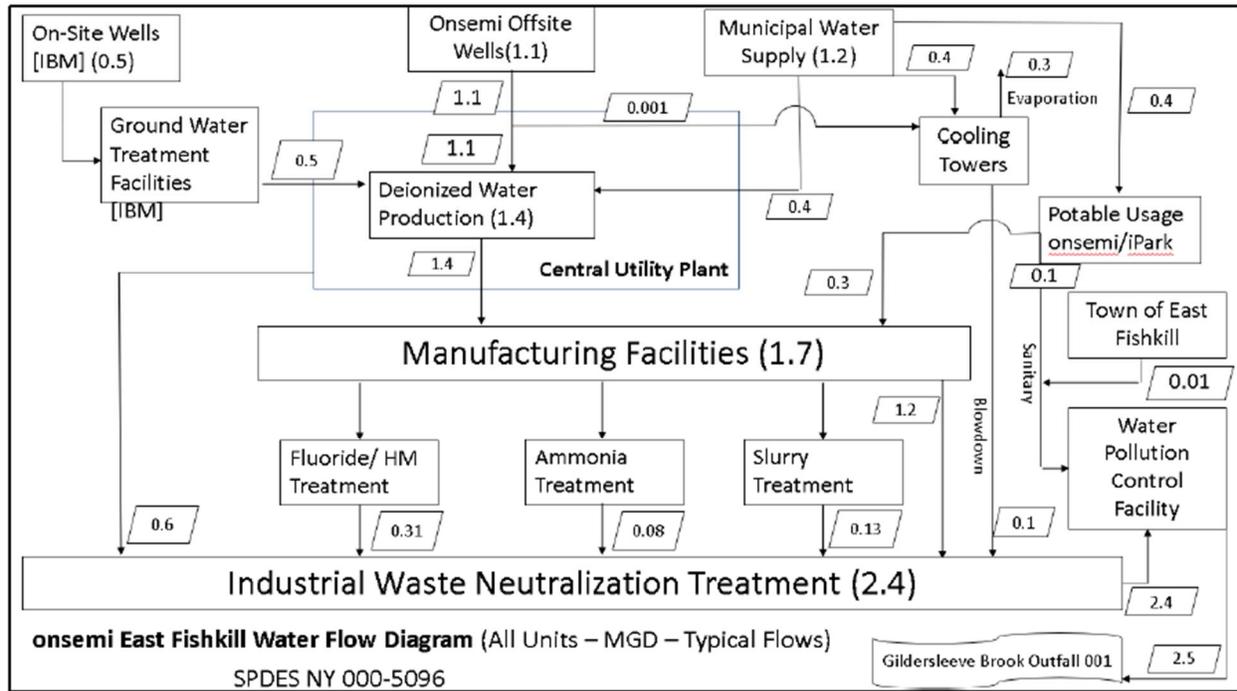
SIC Code	Nature and strength of waste stream	Treatment processes receiving tenant waste streams
2082	Residual beverage/syrup into sanitary system. Low strength and low flow	Water Pollution Control Facility
7384	Industrial waste from micro display packaging/assembly. Medium industrial strength, low flow.	Industrial Waste Neutralization Facility & Water Pollution Control Facility
8734	Test lab and failure analysis waste. Low strength and low flow.	Industrial Waste Neutralization Facility & Water Pollution Control Facility
3421	Fine metal particles from knife sharpening/manufacturing operations. Low strength and low flow.	Industrial Waste Neutralization Facility & Water Pollution Control Facility
2082	Residual beer into the sanitary drain from canning operations. A keg washer with low grade cleaning products connecting into IW drain. Medium strength and variable flow depending on canning operation days.	Industrial Waste Neutralization Facility & Water Pollution Control Facility
2041	Residual dairy/bakery waste from manufacturing and floor cleanings. Low strength and low flow.	Water Pollution Control Facility
2051	Residual dairy/bakery waste from manufacturing and floor cleanings. Low strength and low flow.	Water Pollution Control Facility
2051	Residual dairy/bakery waste from manufacturing and floor cleanings. Low strength and low flow.	Water Pollution Control Facility
2099	Residual tortilla/bakery waste from manufacturing and floor cleanings. Low strength and low flow.	Water Pollution Control Facility
2091	Fish smoking/curing operations. Medium strength and low flow.	Industrial Waste Neutralization Facility & Water Pollution Control Facility

Effluent discharge through the remaining outfalls, under this permit (002, 004-006, 009, 011-012, 022-025, 027-029, 031, 033, 039-043) consists of stormwater, and does not undergo treatment prior to discharge.

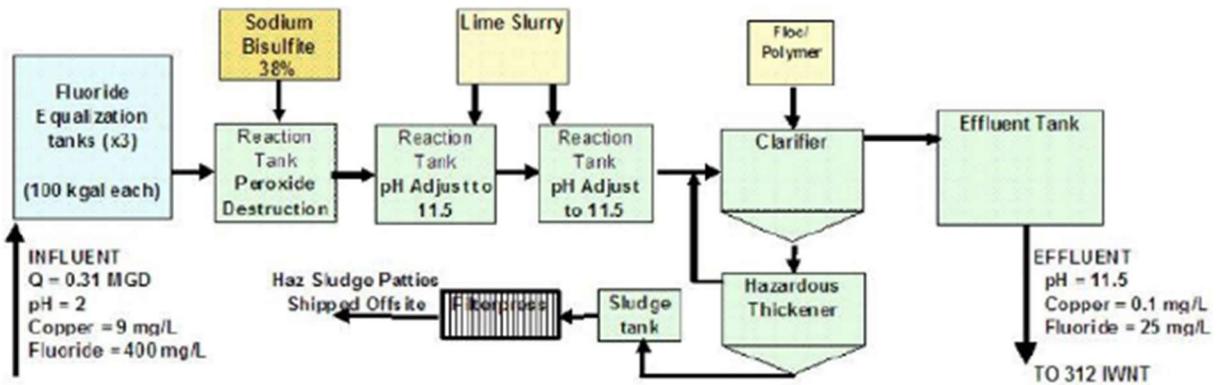
Site Overview



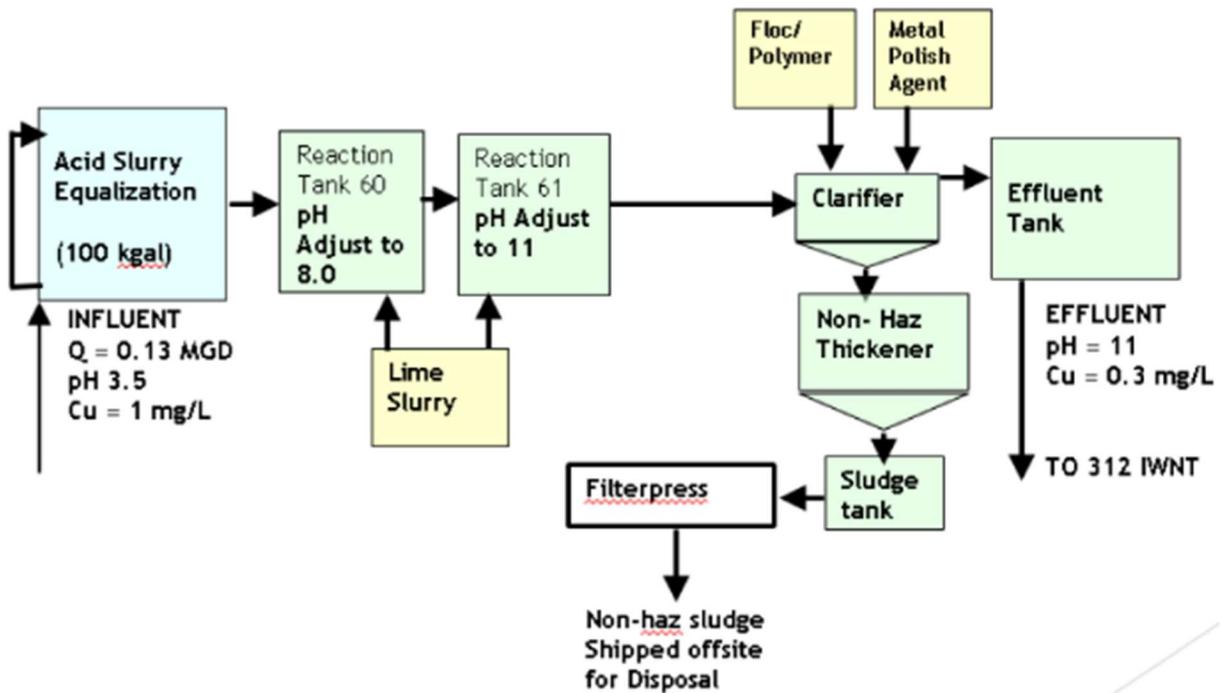
Water Line Balance Drawing



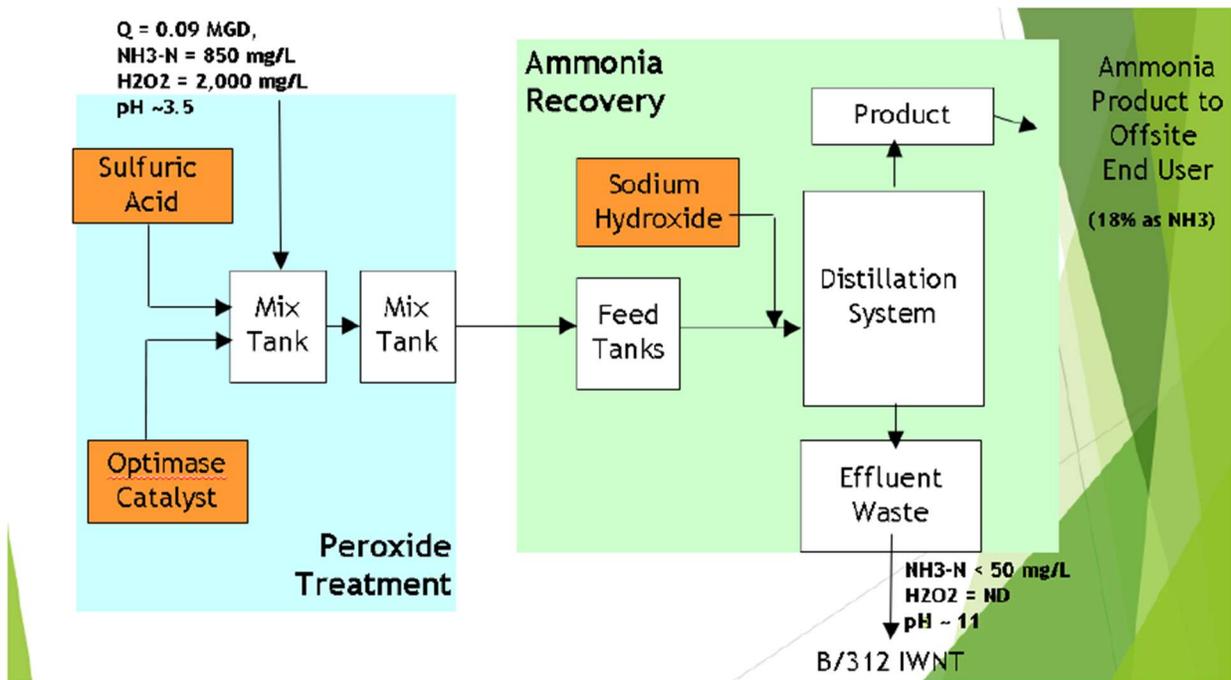
Fluoride Treatment Plant



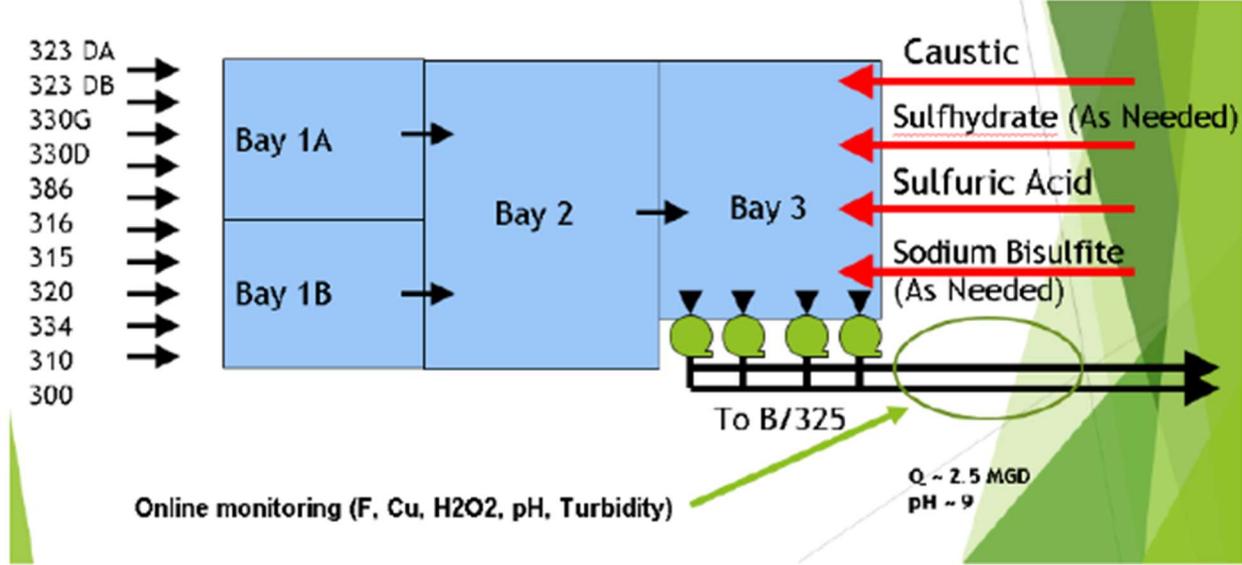
Slurry Treatment Plant



Ammonia Treatment Plant



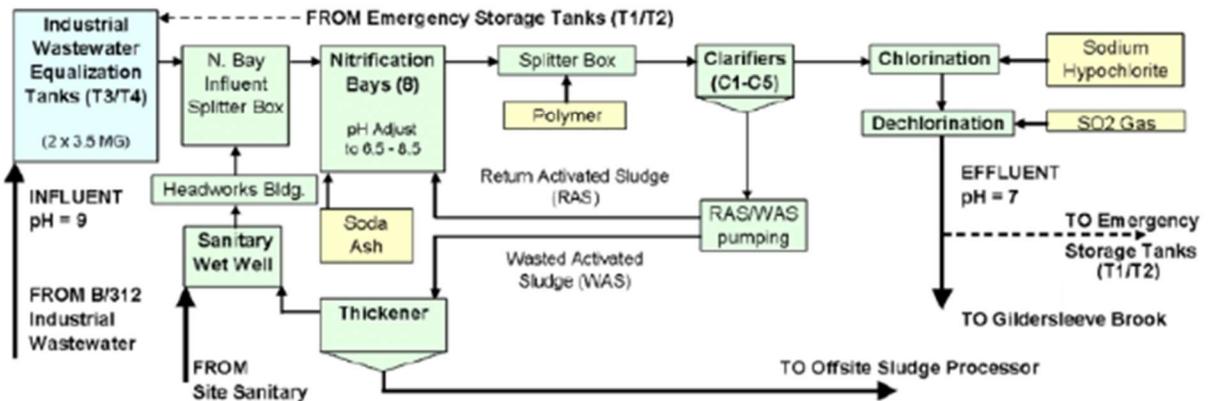
Industrial Waste Neutralization Treatment Facility



Water Pollution Control Facility

Treatment Unit Codes

- 1-M : Grit Removal
- 1-T : Screening
- 2-E : Dechlorination
- 2-F : Disinfection (chlorine)
- 3-A : Activated Sludge
- 3-D : Nitrification-Denitrification
- 4-A : Discharge to surface water
- 5-L : Gravity Thickening



Outfall Locations

The facility discharges wastewater and stormwater to waters of the state via the following outfalls:

Outfall 001 – Treated process³, sanitary, and up to 0.25 MGD of domestic wastewater from the Town of East Fishkill.

Outfall 004 – Stormwater runoff.

Outfalls 002, 005-006, 009, 011-012, 022-025, 027-029, 031, 033, and 039-043 – Stormwater outfalls discharging to Gildersleeve Brook and tributary of Gildersleeve Brook. No treatment is provided to these outfalls.



Outfall details are provided in the outfall table in the Receiving Water section below.

³ Process water includes treated remediation groundwater from IBM (NY0281646)

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 Department determined the existing effluent quality from Discharge Monitoring Reports and the application submitted by the permittee for the period 11/1/2018 to 10/31/2023.

Additional Site-Specific Concerns

In the 2008 permit, Outfall 004 includes stormwater runoff from the Onsemi facility, as well as treated groundwater from contaminated areas at the Onsemi facility, but managed by the former site owner, IBM. Under a RCRA corrective action program, IBM is responsible for the treated groundwater. SPDES permit (NY0281646), issued to IBM, includes an internal outfall to monitor IBM's treated groundwater discharge, prior to mixing with Onsemi stormwater. The permits will be issued concurrently to ensure continuous SPDES coverage of the discharges. Onsemi will only be responsible for their stormwater contribution to the discharge from Outfall 004. When Onsemi accepts IBM's treated groundwater and uses it as a source of Onsemi's process water, the water used for Onsemi's processes is not discharged by IBM. [See link Facility Information],

Receiving Water Information

The table below identifies provides information on the outfall location, discharge type and receiving water for the outfalls in this permit.

Outfall	Lat	Long	Receiving Water WIN	Rec Water Name and Class	Discharge Type
001	41 32 29	73 49 53	H-95-9	Gildersleeve Brook, Class C(T)	Treated industrial and sanitary wastewater
002	41 32 21	73 49 20	H-95-9-A	Trib. To Gildersleeve Brook, Class C	Stormwater
004	41 32 23	73 49 8	H-95-9-A	Trib. To Gildersleeve Brook, Class C	Stormwater
005	41 32 18	73 49 16	H-95-9-A	Trib. To Gildersleeve Brook, Class C	Stormwater
006	41 32 10	73 49 24	H-95-9-A	Trib. To Gildersleeve Brook, Class C	Stormwater
009	41 32 16	73 49 45	H-95-9	Gildersleeve Brook, Class C(T)	Stormwater
011	41 32 20	73 49 46	H-95-9	Gildersleeve Brook, Class C(T)	Stormwater
012	41 32 15	73 49 17	H-95-9-A	Trib. To Gildersleeve Brook, Class C	Stormwater
022	41 32 21	73 49 9	H-95-9-A	Trib. To Gildersleeve Brook, Class C	Stormwater
023	41 32 14	73 49 12	H-95-9-A	Trib. To Gildersleeve Brook, Class C	Stormwater
024	41 32 19	73 49 11	H-95-9-A	Trib. To Gildersleeve Brook, Class C	Stormwater
025	41 32 14	73 49 18	H-95-9-A	Trib. To Gildersleeve Brook, Class C	Stormwater
027	41 32 12	73 49 21	H-95-9-A	Trib. To Gildersleeve Brook, Class C	Stormwater
028	41 32 13	73 49 21	H-95-9-A	Trib. To Gildersleeve Brook, Class C	Stormwater
029	41 32 5	73 49 34	H-95-9-A	Trib. To Gildersleeve Brook, Class C	Stormwater
031	41 32 8	73 49 26	H-95-9-A	Trib. To Gildersleeve Brook, Class C	Stormwater
033	41 32 6	73 49 29	H-95-9-A	Trib. To Gildersleeve Brook, Class C	Stormwater
039	41 32 9	73 49 40	H-95-9	Gildersleeve Brook, Class C(T)	Stormwater

Outfall	Lat	Long	Receiving Water WIN	Rec Water Name and Class	Discharge Type
040	41 32 12	73 49 42	H-95-9	Gildersleeve Brook, Class C(T)	Stormwater
041	41 32 18	73 49 45	H-95-9	Gildersleeve Brook, Class C(T)	Stormwater
042	41 32 23	73 49 47	H-95-9	Gildersleeve Brook, Class C(T)	Stormwater
043	41 32 26	73 49 51	H-95-9	Gildersleeve Brook, Class C(T)	Stormwater

Reach Description: The Gildersleeve Brook (H-95-9), and its tributary (H-95-9-A), are headwaters to the Fishkill Creek (0.9 mi downstream) and part of the Lower Hudson watershed. This segment (H-95-9) of the Gildersleeve Brook is a Class C(T) waterbody and the tributaries of the Gildersleeve Brook are Class C waterbodies at the point of discharge.

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

Impaired Waterbody Information

The Gildersleeve Brook segment (PWL No. 1304-0010) is not listed on the 2020/2022 [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

A 7Q10 flow of 0.17 cfs derived for the 2003 SPDES permit continues to act as the basis for dilution. The Department also applied this value for the 1Q10 or acute critical low flow. A 30Q10 or Human, Aesthetic, and Wildlife (HEW) critical low flow value of 0.30 cfs (0.19 MGD) was also carried over from the 2003 permit to this permit. The Department used zero background flow for the upstream tributaries of Gildersleeve Brook. There is no new information that would indicate changes to the low flow of the receiving water. The Department did not perform a mixing zone modeling on any outfall of the permit.

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

Outfall No.	Acute Dilution Ratio A(A)	Chronic Dilution Ratio A(C)	Human, Aesthetic, Wildlife Dilution Ratio (HEW)	Basis
001	1.02 : 1	1.02 : 1	1.03 : 1	TOGS 1.3.1
004	1 : 1	1 : 1	1 : 1	TOGS 1.3.1
Stormwater	1 : 1	1 : 1	1 : 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 industries⁴. 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: [Appendix Link](#)

- 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)
- Treatment plants which equal or exceed a discharge of 1MGD. (#7)

Consistent with TOGS 1.3.2, the Department performed a reasonable potential analysis using the existing WET data for this facility (see data below). The Department determined that, while the analysis indicated no potential for toxicity in the effluent, WET testing is required based on the criteria listed above and WET limits are being added to the permit. Given the dilution available, and location outside of the Great Lakes basin, the permit requires chronic only WET testing. The permittee must collect samples quarterly, every year. The permittee may perform WET testing, in years ending with 1-4 and 6-9, on appropriate invertebrate species only. The permittee must perform WET testing in years ending in 5 and 0 on both appropriate vertebrate and invertebrate species. The permit includes WET testing limits of 0.3 TUa and 1.0 TUc for each species. The acute dilution ratio is less than 3.3 and the acute action level has been set equal to the default value of 0.3 TUa. The chronic action levels represent the chronic dilution ratio.

Table 1: WET RPD for Onsemi (NY0005096) Outfall 001 limited to the most recent 2024-25 datasets given the significant change in effluent quality. While the 2024 dataset used only the more sensitive invertebrate species, the 2025 dataset is assessing both species as required by the Department's February 6, 2015 letter. A TI/RE was technically re-triggered by the 2024 dataset given the $\geq 50\%$ WET test failure rate. However, the 1Q2025 test was an even more significant WET failure with both Acute & Chronic effects observed, officially triggering the TI/RE consistent with the Departments July 9, 2025 letter. While datasets have been complicated by atypical dose response curves for one or both species, notably, the August 2025 results were much improved with 100% effluent outperforming the test control.

Test Date	¹ MSS LC50 (% Effluent)	² MS S TUa	³ TUa Action Level	⁴ MSS Survival 100% Effluent	⁵ Acute Test Result	⁶ MSS RPD TUa	⁷ Acute WET Limit Required	⁸ MSS 7D NOEC/ IC25 (% Effluent)	⁹ MSS NOEC/ IC25 TUc	¹⁰ TUc Action Level	¹¹ Chronic Test Result NOEC/ IC25	¹² MSS RPD IC25 TUc	¹³ Chronic WET Limit Required
02/24	>100% (I)	<0.3 (I)	0.3	100% (I)	Pass	<0.6	**No	>100% (I)/>100% (I)	<1.0 (I)/<1.0 (I)	1.0	Pass/Pass	<2.0	***No
05/24	>100% (I)	<0.3 (I)	0.3	100% (I)	Pass	<0.6	**No	25% (I)/30.4% (I)	4.0 (I)/3.3 (I)	1.0	Fail/Fail	6.6	Yes
^A 08/24	>100% (I)	<0.3 (I)	0.3	100% (I)	Pass	<0.6	**No	<6.25% (I)/5.7% (I)	>16.0 (I)/17.5 (I)	1.0	Fail/Fail	35.0	Yes
^B 11/24	>100% (I)	<0.3 (I)	0.3	100% (I)	Pass	<0.6	**No	50% (I)/100% (I)	2.0 (I)/1.0 (I)	1.0	Fail/Pass	2.0	Yes

⁴ As promulgated under 40 CFR Parts 405 - 471

Test Date	¹ MSS 48H LC50 (% Effluent)	² MS S TUa	³ TUa Action Level	⁴ MSS Survival 100% Effluent	⁵ Acute Test Result	⁶ MSS RPD TUa	⁷ Acute WET Limit Required	⁸ MSS 7D NOEC/ IC25 (% Effluent)	⁹ MSS NOEC/ IC25 TUc	¹⁰ TUc Action Level	¹¹ Chronic Test Result NOEC/ IC25	¹² MSS RPD IC25 TUc	¹³ Chronic WET Limit Required
^c 03/25	100% (I)	1.0 (I)	0.3	*60% (I)	Fail	2.0	Yes	<6.25% (I)/3.6% (I)	>16.0 (I)/27.8 (I)	1.0	Fail/Fail	55.6	Yes
^d 05/25	>100% (FI)	<0.3 (FI)	0.3	98% (F)	Pass	<0.6	**No	50% (I)/97.2% (I)	2.0 (I)/1.03 (I)	1.0	Fail/Fail	2.1	Yes
08/25	>100% (FI)	<0.3 (FI)	0.3	100% (FI)	Pass	<0.6	**No	>100% (FI)/>100% (FI)	<1.0 (FI)/<1.0 (FI)	1.0	Pass/Pass	<2.0	***No

^aThe reported 08/24 invertebrate NOEC reproductive result of 6.25% or 16.0 TUc may be underestimated given the somewhat atypical dose response curve, although the Percent Minimum Significant Difference (PMSD) of 30% is within bounds. Comparing the Control vs. 6.25% effluent, there is a 28% reproductive effect with an average of 26.8, 19.4 (28% effect), 17.5 (35% effect), 16.2 (40% effect), 17.7 (34% effect), and 13.4 (50% effect) young produced in the Control, 6.25%, 12.5%, 25%, 50%, and 100% effluent respectively. Therefore, the NOEC result is considered to be <6.25% or >16.0 TUc, which is more in line with the generated IC25.

^bThe reported 11/24 invertebrate NOEC reproductive result of >100% or <1.0 TUc may be underestimated given the somewhat atypical dose response curve, although the Percent Minimum Significant Difference (PMSD) of 32% is within bounds. Comparing the Control vs. 100% effluent, there is a 25% reproductive effect with an average of 23.3, 21.0 (10% effect), 21.7 (7% effect), 20.6 (12% effect), 23.0 (1% effect), and 17.6 (25% effect) young produced in the Control, 6.25%, 12.5%, 25%, 50%, and 100% effluent respectively. Therefore, the NOEC result is considered to be 50% or <1.0 TUc, while the IC25 is considered to be 100% or 1.0 TUc.

^cThe 03/25 invertebrate results exhibited atypical dose response curves relative to both survival and reproduction endpoints. Overall average survival rates were 90%, 60% (33% effect), 40% (56% effect), 60% (33% effect), 60% (33% effect), and 60% (33% effect) while reproductive rates were 25.4, 14.4 (43% effect), 10.1 (60% effect), 16.0 (37% effect), 15.8 (38% effect), and 9.3 (63% effect) in the Control, 6.25%, 12.5%, 25%, 50%, and 100% effluent respectively. Comparing the Control to 6.25% effluent, there is a 33% reduction in survival and 43% reduction in reproduction, both of which are considered significant. Therefore, the NOEC is considered to be <6.25% or >16.0 TUc, which is more in line with the generated IC25. Atypical dose responses were also noted with the fish species, but there were no significant effects noted in 100% effluent.

^dThe 05/25 invertebrate results exhibited atypical dose response curves relative to both survival and reproduction endpoints. Overall average survival rates were 100%, 30% (70% effect), 20% (80% effect), 40% (60% effect), 90% (10% effect), and 90% (10% effect) while reproductive rates were 29.3, 11.9 (59% effect), 14.4 (51% effect), 13.0 (57% effect), 26.2 (11% effect), and 21.7 (26% effect) in the Control, 6.25%, 12.5%, 25%, 50%, and 100% effluent respectively. Comparing the Control to 100% effluent, there is a 10% reduction in survival and 26% reduction in reproduction, the latter which is considered significant. Therefore, the invertebrate NOEC reproductive result is considered to be 50% or 2.0 TUc, which is more in line with the generated IC25. Similarly, the 05/25 fish results also exhibited atypical dose response curves relative to survival and growth endpoints, with fungus noted in all but the 6.25% effluent concentration on Day 3. The survival NOEC of 12.5% or 8.0 TUc and IC25 of 17.6% or 5.7 TUc are both likely overestimated and closer to <100% or >1.0 TUc, which still fails with survival rates of 100%, 98% (2% effect), 83% (17% effect), 48% (52% effect), 70% (30% effect) and 75% (25% effect) in the Control, 6.25%, 12.5%, 25%, 50%, and 100% effluent respectively. Similarly, the growth NOEC of <6.25% or >16.0 TUc is also likely overestimated given the PMSD of 13% which is approaching the lower bound meaning the test has high sensitivity. Comparing the Control vs. 100% effluent, there is only a 10% growth effect with average weights of 0.5623 mg, 0.5338 mg (5% effect), 0.4525 mg (20% effect), 0.5465 mg (3% effect), 0.4682 mg (17% effect), and 0.5068 mg (10% effect) produced in the Control, 6.25%, 12.5%, 25%, 50%, and 100% effluent respectively. Therefore, the fish NOEC growth result is considered to be >100% or <1.0 TUc, which is more in line with the generated IC25 and passes. Given the uncertainty, the invertebrate results were considered the most sensitive species for the purposes of the 05/25 test.

¹Most Sensitive Species 48-hour Lethal Concentration: (F=Fish; I=Invertebrate) is the concentration or percentage of effluent that is lethal to 50% of the exposed organisms over a 48-hour period, and often indicates one species is more sensitive than the other during effluent testing.

²Most Sensitive Species Toxic Units Acute: is calculated as (100 / MSS 48H LC50). However, because ≤ 0.3 TUa is defined as the acceptable amount of Acute toxicity at the edge of the Acute mixing zone, and mathematically 100 / 100 = 1.0 (i.e. a failing result), non-toxic Acute test results are indicated as < 0.3.

³Toxic Unit Acute Action Level/Limit: is calculated as [Acute Dilution Factor x 0.3 TUa] representing the maximum allowable effluent TUa at the edge of the Acute mixing zone ensuring Acute protection of the receiving water. When the Acute Dilution Factor is < 3.3, the default Acute Action Level of 0.3 TUa is used representing the maximum allowable effluent TUa at the end of pipe.

⁴Most Sensitive Species Survival in 100% Effluent: is the lowest percentage of surviving organisms in 100% effluent, providing additional evidence of unacceptable Acute toxicity when the necessary 50% or greater mortality required to generate an LC50 has not been attained. *Denotes statistically significant mortality in 100% effluent as compared to the control.

⁵Acute Test Result: $MSS\ TU_a \leq TU_a\ Action\ Level/Limit$ for passing effluent test result and $MSS\ TU_a > TU_a\ Action\ Level/Limit$ for a failing effluent test result. If unacceptable mortality (i.e. statistically significant as compared to the control) is noted in 100% effluent, this may also be considered a failing test result.

⁶Most Sensitive Species Reasonable Potential Determination Toxic Units Acute: is calculated as $(MSS\ TU_a \times 1.1)$, the Reasonable Potential Multiplier when twelve quarterly tests have been completed and the Coefficient of Variation (CV) calculated. This takes into account the statistical potential for effluent variability to occur causing an exceedance of the toxicity-based Action Level.

⁷Acute Whole Effluent Toxicity Limit Required: $MSS\ RPD\ TU_a \leq TU_a\ Action\ Level$, then no toxicity-based Limit is required, and the Action Level remains in place. If $MSS\ RPD\ TU_a > TU_a\ Action\ Level$, then a toxicity-based Limit is required, and the Action Level becomes the Limit. **In low dilution situations, the application of the RPD to the Acute results often mathematically suggests the need for Acute WET Limits even when there is no toxicity evident in 100% effluent (i.e. a non-detect). Therefore, this data cannot be used to implement a WET Limit.

⁸Most Sensitive Species 7-day No Observed Effect Concentration or 25% Inhibition Concentration: is the highest concentration or percentage of effluent tested that causes no statistically significant effect to the exposed test organisms as compared to the control over a 7-day period, or the concentration or percentage of effluent that causes a 25% reduction in survival, growth, or reproduction for the test population.

⁹Most Sensitive Species Toxic Units Chronic: is calculated as $(100 / MSS\ 7D\ NOEC)$ or $(100 / MSS\ 7D\ IC25)$.

¹⁰Toxic Unit Chronic Action Level/Limit: is calculated as $[Chronic\ Dilution\ Factor \times 1.0\ TU_c]$ representing the maximum allowable effluent TU_c at the edge of the Chronic mixing zone ensuring Chronic protection of the receiving water.

¹¹Chronic Test Result: $MSS\ NOEC/IC25\ TU_c \leq TU_c\ Action\ Level/Limit$ for passing effluent test result and $MSS\ NOEC/IC25\ TU_c > TU_c\ Action\ Level/Limit$ for a failing effluent test result.

¹²Most Sensitive Species Reasonable Potential Determination Toxic Units Chronic: is calculated as $(MSS\ IC25\ TU_c \times 1.1)$, the Reasonable Potential Multiplier when twelve quarterly tests have been completed and the Coefficient of Variation (CV) calculated. This takes into account the statistical potential for effluent variability to occur causing an exceedance of the toxicity-based Action Level.

¹³Chronic Whole Effluent Toxicity Limit Required: $MSS\ RPD\ IC25\ TU_c \leq TU_c\ Action\ Level$, then no toxicity-based Limit is required, and the Action Level remains in place. If $MSS\ RPD\ IC25\ TU_c > TU_c\ Action\ Level$, then a toxicity-based Limit is required, and the Action Level becomes the Limit. ***In low dilution situations, the application of the RPD to the Chronic results often mathematically suggests the need for Chronic WET Limits even when there is no toxicity evident in 100% effluent (i.e. a non-detect). Therefore, this data cannot be used to implement a WET Limit.

Anti-backsliding

Outfall 001

The water quality standards for copper and zinc are expressed for the total metal, not dissolved. Thus, the requirements to monitor dissolved copper and dissolved zinc have been removed from the permit. In accordance with 6 NYCRR 750-1.10(c), antibacksliding only applies to effluent limitations, not “monitor only” parameters; therefore, the removal of monitoring is not backsliding.

There are no water quality standards for chloroform for Class C waters. The action level has been replaced with the TBEL. In accordance with 6 NYCRR 750-1.10(c), antibacksliding only applies to effluent limitations, not action level parameters; therefore, the replacing the action level with the TBEL is not backsliding.

Water quality standards are regulated at the point of discharge from the external outfall to the receiving water. Thus, the effluent limit for chlorine residual as measured in the contact tank has been removed from the permit. An effluent limitation for total residual chlorine (Outfall 001) remains in the permit and will ensure the water quality standard is met. Antibacksliding only applies to effluent limitations at the point of discharge; therefore, the removal of the effluent limit in the contact tank is not backsliding.

Palladium and titanium are no longer used at the facility and were not identified in the industrial chemical survey provided with the SPDES NY-2C application. Thus, the effluent limitations for total palladium and total titanium have been removed from the permit. Elimination of these pollutants from the facility constitutes a material and substantial alteration to the permitted facility. In accordance with 6 NYCRR 750-1.10(c)(1), the removal of effluent limitations for total palladium and total titanium is not backsliding.

Germanium, hafnium, rhenium, ruthenium, tantalum, acetone, bromobenzene, bromoform, and dichlorobromomethane are no longer used at the facility and were not identified in the industrial chemical survey provided with the SPDES NY-2C application. Thus, the action levels for total germanium, total hafnium, total rhenium, total ruthenium, total tantalum, acetone, bromobenzene, bromoform, and dichlorobromomethane have been removed from the permit. In accordance with 6 NYCRR 750-1.10(c), antibacksliding only applies to effluent limitations, not “monitor only” parameters; therefore, the removal of monitoring is not backsliding. Even if antibacksliding applies to “monitor only” parameters, elimination of these pollutants from the facility constitutes a material and substantial alteration to the permitted facility. In accordance with 6 NYCRR 750-1.10(c)(1), the removal of effluent limitations for these parameters is not backsliding.

Outfall 004

Outfall 004 for Onsemi is a stormwater only outfall (See [Additional Site-Specific Concerns](#)). The separation of responsibility for the treated groundwater for the outfall constitutes new information that was previously not available for the permitted facility. In accordance with 6 NYCRR 750-1.10(c)(2), the removal of effluent limitations for cis-1,2-dichloroethylene, methyl tert-butyl ether, dichlorofluoromethane and tetrachloroethylene is not backsliding.

Outfall 004 for Onsemi is a stormwater only outfall (See [Additional Site-Specific Concerns](#)). According to Onsemi’s industrial survey, acetone, bromobenzene, ethylbenzene, methylene chloride, toluene, trichloroethylene, trichlorofluoromethane, 1,1,1-trichloroethane, 1,1,2,2-tetrachloroethane, vinyl chloride and total xylenes are not included in Onsemi’s industrial chemical survey. Thus, the action levels for these parameters have been removed from this permit. In accordance with 6 NYCRR 750-1.10(c), antibacksliding only applies to effluent limitations, not “monitor only” parameters; therefore, the removal of monitoring is not backsliding.

The action level for total iron has been removed from Outfall 004 in this draft permit. In accordance with 6 NYCRR 750-1.10(c), antibacksliding only applies to effluent limitations, not “monitor only” parameters; therefore, the removal of the total iron action level is not backsliding.

[Appendix Link](#)

Antidegradation

The permit contains effluent limitations which ensure that the best usages of the receiving waters will be maintained. The Notice of Complete Application published in the Environmental Notice Bulletin contains information on the State Environmental Quality Review (SEQR)⁵ 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 2008 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 2008 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.

⁵ As prescribed by 6 NYCRR Part 617

Stormwater Pollution Prevention Requirements

Discharges for facilities with the SIC Code 3674 are eligible for coverage under the Multi-Sector General Permit (MSGP) (GP-0-23-001), Sector AC – Electronic, Electrical Equipment & Components, Photographic & Optical Goods. Stormwater discharges at this facility will continue to be covered under the individual SPDES permit due to the presence of parameters in the 2008 permit not controlled by the Multi-Sector General Permit (MSGP) (GP-0-23-001). This requirement is being continued from the 2008 permit.

Mercury⁶

The DOW 1.3.10 Mercury – Multiple Discharge Variance (MDV), dated December 31, 2025, provides the framework for DEC to require mercury monitoring and mercury minimization programs (MMPs), through SPDES permitting. All of the following permit conditions are consistent with the MDV. [Appendix Link](#)

The facility is outside the Great Lakes Basin, indicates potential sources of mercury, and provided one result of 4.3 ng/L for Outfall 001 and 2.0 ng/L for Outfall 004 with the SPDES NY-2C application. The permit includes requirements for the implementation of MMP Type III for Outfall 001.

The new daily max limit of 35 ng/L represents the general level currently achievable (GLCA). Based on 1 data point(s) with a max of 4.3 ng/L, the facility is expected to meet the limit (with monthly sampling frequency). Once ten or more data points are collected from monthly sampling, DEC will establish an additional 12-month rolling average effluent limit during the next permit review.

The MMP consists of the following:

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

⁶ In accordance with DOW 1.3.10 Mercury – SPDES Permitting & Multiple Discharge Variance (MDV), December 30, 2020.

Schedule(s) of Compliance

A Schedule of Compliance is being included⁷ for the following items ([Appendix Link](#)):

Outfall 001

- Total Dissolved Solids: This is a new WQBEL in the 2026 permit. A compliance schedule is being included to provide the permittee time to comply with the new limit.
- Total Copper: The new concentration WQBEL in the 2026 permit is more conservative than the concentration used for the mass-based limit in the 2008 permit. A compliance schedule is being included to comply with the new limit.
- Total Fluoride: The new WQBEL in the 2026 permit is lower than the existing limit and the existing effluent quality. A compliance schedule is being included to provide the permittee time to comply with the new limit.
- Total Lead: The new WQBELs in the 2026 permit are more conservative than the existing limits or action levels. All reported results for these parameters were non-detect over the five-year period of data reviewed for this permit. The method detection levels reported by the laboratory were higher than the WQBELs for these parameters. More sensitive methods will need to be used to determine the effluent quality. A compliance schedule is being included to provide the permittee time to determine the concentration of these parameters in the effluent and, if necessary, to comply with the new limit.
- Total Residual Chlorine: The new WQBEL for total residual chlorine is lower than the existing limit and the minimum level of detection. A limit equal to the limit of detection is being applied in the draft permit. A compliance schedule is being included to comply with the new limit.
- WET Limits: These are new WQBELs in the 2026 permit. WET testing results requires limits and a new Toxicity Identification/Reduction Evaluation (TI/RE) to reduce the harmful effects and lethality of the effluent in the receiving water. A compliance schedule is being included to allow time for the permittee to complete the TI/RE and comply with the new limits.

Emerging Contaminant Monitoring

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.

The 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).

The 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](#)):

- Short-term Monitoring Program – Emerging Contaminants ([See above](#))
- Short-term High Intensity Monitoring in accordance with 6 NYCRR 750-1.13(a) – Free Cyanide to determine compliance with effluent limitations and water quality standards. (See [Pollutant Summary Table](#))
- Short-term High Intensity Monitoring in accordance with 6 NYCRR 750-1.13(a) –TRC, pH, and Total Zinc ([See below](#))

⁷ Pursuant to 6 NYCRR 750-1.14

- Best Management Practices Plan
- Whole Effluent Toxicity (WET) Testing
- Water Treatment Chemical (WTC) Annual Report – An annual usage report is required in the SPDES permit in accordance with 6NYCRR 750-1.7(b)(13)
- Mercury Minimization Plan (MMP)

Special Conditions

Requirement to Notify – New Discharges or Facility Expansion⁸

This new requirement in the permit corresponds to 6 NYCRR 750-2.6(a), 750-2.6(b) and 750-2.8(a)(1), which require the permittee to notify the Department of any plans that may change the character of wastes received or the discharge from the treatment plant.

⁸ 6 NYCRR 750-2.6

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	41° 32' 26" N	73° 49' 53" W	Gildersleeve Brook	C(T)	H-95-9 PWL: 1304-0010	13/04	309 ⁹	0.11	0.11	0.19	6.00	1.02 : 1	1.02 : 1	1.03 : 1
004	41° 32' 23" N	73° 49' 8" W	Trib. to Gildersleeve Brook	C	H-95-9-A PWL: 1304-0010	13/04	309 ⁷	-	-	-	2.84	1 : 1	1 : 1	1 : 1
Storm water	Various	Various	Gildersleeve Brook & Trib. To Gildersleeve Brook	C(T) & C	See the outfall table in the Receiving Water section above						1 : 1	1 : 1	1 : 1	

POLLUTANT SUMMARY TABLE

Outfall 001

Outfall #	Description of Wastewater: Process, Sanitary and Treated Groundwater														
	Type of Treatment: Fluoride, Ammonia, Slurry and Sanitary Treatment Processes														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹⁰	# 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		
General Notes: The Department used existing discharge data from 11/1/2018 to 10/31/2023 from Discharge Monitoring Reports provided by the permittee. The Department reviewed all applicable water quality standards for development of the WQBELs. The water quality standard and WQBEL shown below represent the most protective water quality standard. With the inclusion of WQBELs, mass limits have been removed from the draft permit because compliance with the WQBEL ensures that the water quality standard is met.															
The technology based effluent limitations (TBELs) were developed from TOGS 1.2.1 Att. C, or from 40 CFR 469, where applicable.															
Flow Rate	MGD	Monthly Avg	6.0	2.55 Actual Average	59	6.0	Design Flow	Narrative: No alterations that will impair the waters for their best usages.				703.2	-	Design Flow	
	MGD	Daily Max	Monitor	5.88 Actual Average	59	-	-	Narrative: No alterations that will impair the waters for their best usages.				703.2	-	Monitor	
The monthly average flow limit is set at the design flow of the wastewater treatment facility. Daily maximum flow will continue to be monitored for informational purposes and to calculate pollutant loadings in accordance with 6NYCRR 750-1.13(b).															

⁹The effluent flow is significantly greater than the ambient upstream flow of the receiving water, therefore the background concentration for ambient hardness value is the average concentration of the effluent provided by the permittee.

¹⁰ 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 #	001	Description of Wastewater: Process, Sanitary and Treated Groundwater													
		Type of Treatment: Fluoride, Ammonia, Slurry and Sanitary Treatment Processes													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹⁰	# 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	6.5	6.8 Actual Min	59	6.0	USEPA ELG BPT: 40 CFR 433.13	-	-	6.5 – 8.5	Range	6.5 - 8.5	703.3	-	WQBEL
		Maximum	8.5	7.6 Actual Max	59	9.0									
Consistent with 6 NYCRR 703.3 and given the available dilution, the effluent limitation equal to the WQS will continue to be applied.															
Dissolved Oxygen (DO)	mg/L	Daily Min	Monitor	5.32	59	-	-	-	5.41 Summer 5.31 Winter	(T) 5.0 mg/L	Narrative	5.0	703.3	-	WQS
The Department modeled the downstream DO concentration using the Streeter-Phelps equations using the following assumptions: Effluent DO = 5.0 mg/l, Effluent CBOD ₅ = 8.00 mg/L. Effluent Temperature: 24.9 °C Summer; 18.4 °C Winter. Effluent NOD = 6.30 mg/l summer, 10.1 mg/L winter (calculated from 0.86 mg/L summer, 1.38 mg/L winter Ammonia as N). This gave a UOD of 18.01 mg/L summer, 21.81 mg/L winter. The model assumed an ambient DO background = 90% saturation and upstream UOD = 3.0 mg/L. The model showed that the downstream water quality standard is maintained.															
5-day Carbonaceous Biochemical Oxygen Demand CBOD ₅	mg/L	Daily Max	8.0	7.59	59 / 0	45	40 CFR 133.102	-	See Dissolved Oxygen		8.0	703.3	-	WQBEL	
Consistent with TOGS 1.2.1, TBELs reflect the available treatment technology listed in Attachment C. See justification for Dissolved Oxygen.															
Total Suspended Solids (TSS)	mg/L	Monthly Avg	25	24	59 / 0	31	USEPA ELG BPT	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.			703.2	-	Antibacksliding	
		7 Day Avg	40	16	59 / 0	60	USEPA ELG BPT							Antibacksliding	
Consistent with ECL 17-0509, TBELs for facilities treating sanitary sewage are reflective of secondary treatment standards . Given the available dilution, an effluent limitation consistent with TOGS 1.3.3 and equal to the TBEL is protective of water quality standards. The USEPA ELG-based TBELs are less protective than the 2008 permit limits; therefore, the 2008 permit limits will be maintained to prevent backsliding.															
Settleable Solids	mL/L	Daily Max	0.1	< 0.1	3 / 56	0.3	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			703.2	-	Antibacksliding	
Consistent with TOGS 1.2.1 Attachment C, the TBEL is reflective of the treatment technology and is protective of the WQS. The TBEL is applicable for facilities without filtration of the final effluent. The existing limit is more protective than the TBEL; therefore, the existing limit will be maintained to prevent backsliding.															

Outfall #	Description of Wastewater: Process, Sanitary and Treated Groundwater														
	Type of Treatment: Fluoride, Ammonia, Slurry and Sanitary Treatment Processes														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹⁰	# 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 Dissolved Solids	mg/L	Daily Max	-	*	-	1,500	*	-	-	Shall be kept as low as practicable to maintain the best usage of waters but in no case shall it exceed 500 mg/L .		703.3	-	WQBEL	
<p>A new daily maximum limit, based on the WQBEL, is added to this permit. A compliance schedule item is added to provide the permittee time to comply with the new limit.</p> <p>* The facility undertook a Toxicity Identification and Reduction Evaluation project, which identified TDS as a primary source of toxicity. The toxicity reduction efforts attained a concentration of 1,500 mg/L of TDS, which was no longer toxic to aquatic life.</p>															
Nitrogen, Ammonia (as N) SUMMER 6/1 – 10/31	mg/L	Monthly Avg	1.07	0.8	20 / 14	10	TOGS 1.2.1, Att. C, Column J	-	-	0.86	A(C)	0.88	703.5	-	WQBEL
<p>The WQS for ammonia was calculated using the summer effluent temperature of 24.9 °C and a pH of 6.90 SU that were reported in the SPDES NY-2C application. Effluent data was used because the effluent flow dominates the natural stream flow.</p> <p>Reporting for Ammonia has been changed from (as NH₃) 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 NH₃) x 0.8224.</p>															
Nitrogen, Ammonia (as N) WINTER 11/1 – 5/31	mg/L	Monthly Avg	2.22	0.44	19 / 15	10	TOGS 1.2.1, Att. C, Column J	-	-	1.38	A(C)	1.4	703.5	-	WQBEL
<p>The WQS for ammonia was calculated using the winter effluent temperature of 18.4 °C and a pH of 6.90 SU that were reported in the SPDES NY-2C application. Effluent data was used because the effluent flow dominates the natural stream flow.</p> <p>Reporting for Ammonia has been changed from (as NH₃) 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 NH₃) x 0.8224.</p>															
Total Hardness (as CaCO ₃)	mg/L	Monthly Avg	-	-	-	-	-	-	-	-	-	-	-	-	Monitor
<p>Total hardness monitoring is added to the permit in accordance with 6 NYCRR 750-1.13(a) to determine compliance with effluent limitations and water quality standards for several metals parameters.</p>															

Outfall #	Description of Wastewater: Process, Sanitary and Treated Groundwater														
	Type of Treatment: Fluoride, Ammonia, Slurry and Sanitary Treatment Processes														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹⁰	# 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		
Aluminum, Total	mg/L	Daily Max	1.0	0.10	13 / 46	6.4	TOGS 1.2.1, Att. C, Column A	-	-	0.10	A(C)	0.10	703.5	-	Antibacksliding
The minimum effluent pH (6.8 SU), rather than the receiving water pH, was used to determine the appropriate limit for total aluminum because the effluent discharge dominates the receiving water flow. TOGS 1.3.1E states that the TBEL is adequate to meet water quality standards for receiving waters with a pH of 6.5 or greater, so the WQBEL does not apply. The TBEL is greater than the existing effluent limit, therefore the existing limit will be maintained to prevent backsliding.															
Arsenic, Total	mg/L	Daily Max	0.10	< 0.010	0 / 59	2.1	TOGS 1.2.1, Att. C, Column A	-	-	0.15	A(C)	0.26	703.5	-	Antibacksliding
As recommended from EPA's Technical Support Document, Chapter 3.3, a multiplier of 1.0 was applied to the effluent concentration to account for the number of samples. The aquatic(chronic) Tribasin metals translator of 1.700 was applied to convert from the dissolved to total form of the metal for the aquatic standard. The WQBEL is greater than the 2008 permit limit, therefore the existing limit will be maintained in order to prevent backsliding.															
Cadmium, Total	mg/L	Daily Max	-	< 0.005	1 / 0	0.34	TOGS 1.2.1, Att. C, Column A	-	-	0.005	A(C)	0.012	703.5		No Limitation
The single sample of data provided with the application was non-detect. The Department applied the aquatic (chronic) Tribasin metals translator of 2.300 to convert from the dissolved to total form of the metal for the aquatic standard. There is no reasonable potential to exceed the WQS, therefore, no limitation has been applied in this draft permit.															
Chromium, Total	mg/L	Daily Max	0.50	< 0.010	0 / 59	0.44	TOGS 1.2.1, Att. C, Column A	-	-	0.19	A(C)	0.22	703.5		WQBEL
As recommended from EPA's Technical Support Document, Chapter 3.3, a multiplier of 1.0 was applied to the effluent concentration to account for the number of samples. The Department applied the aquatic(chronic) Tribasin metals translator of 1.700 to convert from the dissolved to total form of the metal for the aquatic standard. The calculated WQBEL is lower than the 2008 permit limit; therefore, this WQBEL is being applied in this draft permit.															
Chromium, Hexavalent	mg/L	Daily Max	0.013	0.011 Avg	2 / 57	-	-	-	-	0.011	A(C)	0.012	703.5		WQBEL
As recommended from EPA's Technical Support Document, Chapter 3.3, a multiplier of 1.0 was applied to the effluent concentration to account for the number of samples. The Department applied the aquatic(chronic) Tribasin metals translator of 1.040 to convert from the dissolved to total form of the metal for the aquatic standard. The calculated WQBEL is lower than the 2008 permit limit; therefore, this WQBEL is being applied in this draft permit.															

Outfall #	Description of Wastewater: Process, Sanitary and Treated Groundwater														
	Type of Treatment: Fluoride, Ammonia, Slurry and Sanitary Treatment Processes														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹⁰	# 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		
Cobalt, Total	mg/L	Daily Max	0.006	0.001 Actual	1 / 58	0.21	TOGS 1.2.1, Att. C, Column A	-	-	0.005	A(C)	0.005	703.5	-	WQBEL
	As recommended from EPA's Technical Support Document, Chapter 3.3, a multiplier of 1.0 was applied to the effluent concentration to account for the number of samples. There is no metals translator for cobalt, therefore a value of 1.000 was applied to convert from the dissolved to total form of the metal for the aquatic standard. The calculated WQBEL is lower than the 2008 permit limit; therefore, this WQBEL is being applied in this draft permit.														
Copper, Total	mg/L	Daily Max	* 0.060	-	-	1.9	TOGS 1.2.1, Att. C, Column A	-	-	0.023	A(C)	0.043	703.5	-	WQBEL
	*The 2008 permit limit is expressed as a mass loading of 3.0 lbs/day. This is the equivalent of 0.060 mg/L, calculated at the design flow of 6.0 MGD. The draft permit only includes the concentration limit, since all WQS are expressed as concentrations. The existing mass limit has been removed from the permit. The Department applied the aquatic(chronic) Tribasin metals translator of 1.800 to convert from the dissolved to total form of the metal for the aquatic standard. The concentration based WQBEL provides a mass limit lower than the 2008 permit mass limit; therefore, the WQBEL is more protective of water quality. A compliance schedule is included to allow the facility time to meet the new limit.														
Copper Dissolved	mg/L	Daily Max	Monitor	0.04	11 / 8	-	-	-	-	-	-	-	-	-	Discontinued
	Monitoring of dissolved copper is removed in this draft permit. The copper water quality standard is maintained with the total copper WQBEL. (See Antibacksliding)														
Cyanide, Total	mg/L	Daily Max	0.06	0.010	28 / 31	0.29	TOGS 1.2.1, Att. C, Column A	-	-	9.0	H(FC)	9.2	703.5	-	Antibacksliding
	The TBEL and WQBEL calculated for this draft permit are higher than the 2008 permit limit; therefore, the 2008 permit limit will be maintained to prevent backsliding.														
Cyanide, Free	mg/L	Daily Max	-	-	-	-	-	-	-	0.0052	A(C)	0.0053	703.5	-	STHIM
	Free cyanide is a new parameter. Free cyanide is a component of total cyanide. When the 2008 permit was issued there were no EPA approved methods for analyzing free cyanide, so no limit was added to the 2008 permit. In 2012 a new method was approved by EPA. Short term high intensity monitoring for free cyanide was added to the 2026 permit to determine compliance with effluent limitations and water quality standards.														
Fluoride, Total	mg/L	Monthly Avg.	-	-	-	17.4	USEPA ELG BAT	-	-	-	-	-	-	-	No Limitation
	mg/L	Daily Max	7.3	7.89	59 / 0	32	USEPA ELG BAT	-	-	5.9	A(C)	6.0	703.5	-	WQBEL
The calculated daily maximum WQBEL is more protective than the 2008 permit limit and both the USEPA ELG for monthly average and daily maximum, therefore the daily maximum WQBEL is applied in the draft permit. There have been two exceedances of the 2008 permit limit and the EEQ is greater than the WQBEL, therefore a compliance schedule is included to allow the facility time to meet the new limit.															

Outfall #	Description of Wastewater: Process, Sanitary and Treated Groundwater														
	Type of Treatment: Fluoride, Ammonia, Slurry and Sanitary Treatment Processes														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹⁰	# 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		
Iron, Total	mg/L	Daily Max	2.5 AL	0.10	10 / 9	1.2	TOGS 1.2.1, Att. C, Column A	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.		703.2	-	TBEL	
	DEC has not established a numeric interpretation of the narrative WQS for Total Iron in Class C waters. As recommended from EPA's Technical Support Document, Chapter 3.3, a multiplier of 1.4 was applied to the effluent concentration to account for the number of samples. The daily maximum TBEL is more protective than the existing Action Level; therefore, the TBEL will be used as the limit in this draft permit.														
Lead, Total	mg/L	Daily Max	0.08	< 0.050	0 / 59	0.42	TOGS 1.2.1, Att. C, Column A	-	-	0.013	A(C)	0.032	703.5	-	WQBEL
	As recommended from EPA's Technical Support Document, Chapter 3.3, a multiplier of 1.0 was applied to the effluent concentration to account for the number of samples. The Department applied the aquatic(chronic) Tribasin metals translator of 2.500 to convert from the dissolved to total form of the metal for the aquatic standard. The calculated WQBEL is lower than the 2008 permit limit and the limit that was in the draft permit publicly noticed on May 13, 2015, due to the current discharge conditions; therefore, this WQBEL is being applied in this draft permit. The WQBEL is lower than the method detection level used for the analyses of total lead over the five years of data reviewed. A compliance schedule will be included to allow the facility time to meet the new limit.														
Total Mercury	ng/L	Daily Max	-	4.3	1 / 0	250,000	TOGS 1.2.1, Att. C, Column A	-	-	0.7	H(FC)	35	GLCA	-	DOW 1.3.10
	See Mercury section of this fact sheet.														
Molybdenum, Total	mg/L	Daily Max	3.75	0.07	8 / 51	6.6	TOGS 1.2.1, Att. C, Column A	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Antibacksliding	
	DEC has not established a numeric interpretation of the narrative WQS for Total Molybdenum in Class C waters. The 2008 permit limit of 3.75 mg/L is more protective of water quality than the TBEL. The EPAs <i>Technical Support Document for Water Quality-based Toxics Control</i> (March 1991) states that permit limits should be expressed with two significant figures, therefore the daily maximum permit limit is rounded to 3.7 mg/L instead of 3.8 in this draft permit in order to prevent backsliding.														
Nickel, Total	mg/L	Daily Max	0.15 AL	< 0.040	0 / 19	1.9	TOGS 1.2.1, Att. C, Column A	-	-	0.14	A(C)	0.18	703.5	-	Action Level
	As recommended from EPA's Technical Support Document, Chapter 3.3, a multiplier of 1.4 was applied to the effluent concentration to account for the number of samples. The Department applied the aquatic(chronic) Tribasin metals translator of 1.300 to convert from the dissolved to total form of the metal for the aquatic standard. The existing action level is lower than the calculated WQBEL and all reported results were non-detect; therefore, the action level is maintained in this draft permit.														

Outfall #	Description of Wastewater: Process, Sanitary and Treated Groundwater														
	Type of Treatment: Fluoride, Ammonia, Slurry and Sanitary Treatment Processes														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹⁰	# 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		
Phosphorus, Total	mg/L	Daily Max	-	-	-	17	TOGS 1.2.1, Att. C, Column A	-	-	None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.		-	-	Monitor	
	There are no numeric water quality standards or guidance values for Total Phosphorus in non-ponded, Class C waters. The Gildersleeve Brook is tributary to the Lower Fish Creek (1304-0003), which is identified in the Priority Waterbody List with known impacts to its best uses due to phosphorus loading. Monitoring is being added in accordance with 6 NYCRR 750-1.13(a) to determine compliance with the narrative water quality standards and potential contribution of phosphorus to the to the downstream reaches that are or may be affected by the discharge.														
Silver, Total	mg/L	Daily Max	0.1 AL	< 0.01	0 / 19	0.41	TOGS 1.2.1, Att. C, Column A	-	-	No Reasonable Potential				Action Level	
	As recommended from EPA's Technical Support Document, Chapter 3.3, a multiplier of 1.4 was applied to the effluent concentration to account for the number of samples. The Department applied the aquatic(chronic) Tribasin metals translator of 1.000 to convert from the dissolved to total form of the metal for the aquatic standard. Silver is identified in the SPDES NY-2C. The existing action level is maintained in this draft permit.														
Tin, Total	mg/L	Daily Max	2.0	< 0.5	0 / 59	0.38	TOGS 1.2.1, Att. C, Column A	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	TBEL	
	DEC has not established a numeric interpretation of the narrative WQS for Total Tin in Class C waters. The TBEL is lower than the 2008 permit limit and the draft limit publicly noticed on May 13, 2015; therefore, the TBEL is applied in this draft permit. The TBEL is lower than the method detection level used for the analyses of total tin over the five years of data reviewed. A compliance schedule was added to ensure the permittee is able to meet the new limit.														
Tungsten, Total	mg/L	Daily Max	3.75	0.22	1 / 58	7.0	TOGS 1.2.1, Att. C, Column A	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Antibacksliding	
	DEC has not established a numeric interpretation of the narrative WQS for Total Tungsten in Class C waters. The 2008 permit limit is lower than the TBEL; therefore, the existing limit will be maintained in this draft permit to prevent backsliding. The EPA's <i>Technical Support Document for Water Quality-based Toxics Control</i> (March 1991) states that permit limits should be expressed with two significant figures, therefore the daily maximum permit limit is rounded down to 3.7 mg/L in this draft permit.														
Zinc, Total	mg/L	Daily Max	0.36	0.05	25 / 34	1.5	TOGS 1.2.1, Att. C, Column A	-	-	0.216	A(C)	0.44	703.5	-	Antibacksliding
	As recommended from EPA's Technical Support Document, Chapter 3.3, a multiplier of 1.0 was applied to the effluent concentration to account for the number of samples. The aquatic(chronic) Tribasin metals translator of 2.000 was applied to convert from the dissolved to total form of the metal for the aquatic standard. The 2008 permit limit is more conservative than the calculated WQBEL and TBEL; therefore, the existing limit will be maintained in this draft permit.														

Outfall #	Description of Wastewater: Process, Sanitary and Treated Groundwater														
	Type of Treatment: Fluoride, Ammonia, Slurry and Sanitary Treatment Processes														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹⁰	# 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		
Cis-1,2-dichloroethylene	µg/L	Daily Max	10	< 1	0 / 59	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Antibacksliding	
	Cis-1,2-dichloroethylene is a potential contaminant in the groundwater that is treated by IBM East Fishkill (NY0281646) and then used as process water for Onsemi. There are no water quality standards for cis-1,2-dichloroethylene in Class C waters or TBELs. The 2008 permit limit is maintained in this draft permit in order to prevent backsliding.														
Dichlorodifluoro methane	µg/L	Daily Max	10	< 1	0 / 59	-	-	-	-	-	-	-	-	Antibacksliding	
	Dichlorodifluoromethane is a potential contaminant in the groundwater being treated by IBM East Fishkill (NY0281646) and then used as process water for Onsemi. DEC has not established a numeric interpretation of the narrative WQS for dichlorodifluoromethane in Class C waters or TBELs. The 2008 permit limit is maintained in this draft permit in order to prevent backsliding.														
Ethylbenzene	µg/L	Daily Max	5 AL	< 1	0 / 19	*	40 CFR 469.14 (TTO)	-	-	17	A(C)	17	TOGS 1.1.1	Action Level	
	Ethylbenzene is a potential contaminant in the groundwater that is treated by IBM East Fishkill (NY0281646) and then used as process water for Onsemi. The existing action level is more conservative than the calculated WQBEL and all analytical results have been non-detect; therefore, maintaining the action level is appropriate for the draft permit. * Ethylbenzene is a constituent of the Total Toxic Organics (TTO) list in 40 CFR 469.12, which requires a daily maximum limit. The existing daily maximum action level is maintained in this permit for calculating the TTO concentration in the effluent.														
Methyl tert-butyl ether (MTBE)	µg/L	Daily Max	10	< 1	0 / 59	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Antibacksliding	
	MTBE is a potential contaminant in the groundwater that is treated by IBM East Fishkill (NY0281646) and then used as process water for Onsemi. DEC has not established a numeric interpretation of the narrative WQS for methyl tert-butyl ether in Class C waters or TBELs. The 2008 permit limit is maintained in this draft permit in order to prevent backsliding.														
N-methyl-2-pyrrolidone		Daily Max	20	< 19	0 / 59	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Antibacksliding	
	DEC has not established a numeric interpretation of the narrative WQS for N-methyl-pyrrolidone in Class C waters or TBELs. The 2008 permit limit is maintained in this draft permit in order to prevent backsliding.														

Outfall #	001	Description of Wastewater: Process, Sanitary and Treated Groundwater													
		Type of Treatment: Fluoride, Ammonia, Slurry and Sanitary Treatment Processes													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹⁰	# 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		
Tetrachloroethylene	µg/L	Monthly Avg	-	-	-	-	-	-	-	1.0 GV	H(FC)	1.0	TOGS 1.1.1	-	WQBEL
		Daily Max	1.2	< 1	0 / 59	*	40 CFR 469.14 (TTO)	-	-	-	-	-	-	-	Antibacksliding
<p>Tetrachloroethylene is a potential contaminant in the groundwater that is treated by IBM East Fishkill (NY0281646) and then used as process water for Onsemi. The monthly average WQBEL is applied to this draft permit.</p> <p>* Tetrachloroethylene is a constituent of the Total Toxic Organics (TTO) list in 40 CFR 469.12, which requires a daily maximum limit. The existing daily maximum limit is maintained in this permit to prevent backsliding and for calculating the TTO concentration in the effluent.</p>															
Toluene	µg/L	Monthly Avg	-	-	-	-	-	-	-	6,000	H(FC)	6,200	703.5		No Limitation
		Daily Max	5 AL	3 Actual	1 / 18	*	40 CFR 469.14 (TTO)	-	-	100	A(C)	100	TOGS 1.1.1		Action Level
<p>Toluene is a potential contaminant in the groundwater that is treated by IBM East Fishkill (NY0281646) and then used as process water for Onsemi. There was only one sample with a detectable level over the five years of DMR data analyzed. There is no reasonable potential to exceed the WQS. The daily maximum action level is lower than the WQBEL and TBEL and is being continued in this permit.</p> <p>* Toluene is a constituent of the Total Toxic Organics (TTO) list in 40 CFR 469.12, which requires a daily maximum limit. The existing daily maximum action level is maintained in this permit for calculating the TTO concentration in the effluent.</p>															
Trichloroethylene	µg/L	Monthly Avg	-	-	-	21	TOGS 1.2.1, Att. C, Column E	-	-	40	H(FC)	41	TOGS 1.1.1	-	No Limitation
		Daily Max	5 AL	< 1	0 / 19	*	40 CFR 469.14 (TTO)	-	-	-	-	-	-	-	Action Level
<p>Trichloroethylene is a potential contaminant in the groundwater that is treated by IBM East Fishkill (NY0281646) and then used as process water for Onsemi. There have not been any detected concentrations of this parameter for the five years of data reviewed. There is no reasonable potential to exceed the WQS. The daily maximum action level is maintained.</p> <p>* Tetrachloroethylene is a constituent of the Total Toxic Organics (TTO) list in 40 CFR 469.12, which requires a daily maximum limit. The existing daily maximum action level is maintained in this permit for calculating the TTO concentration in the effluent.</p>															

Outfall #	Description of Wastewater: Process, Sanitary and Treated Groundwater														
	Type of Treatment: Fluoride, Ammonia, Slurry and Sanitary Treatment Processes														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹⁰	# 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		
Vinyl Chloride	µg/L	Daily Max	5 AL	< 1	0 / 19	270	TOGS 1.2.1, Att. C, Column E	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Action Level	
<p>Vinyl chloride is a potential contaminant in the groundwater being treated by IBM East Fishkill (NY0281646) and then used as process water for Onsemi. There have not been any detected concentrations of this parameter for the five years of data reviewed. DEC has not established a numeric interpretation of the narrative WQS for vinyl chloride. The daily maximum action level is lower than the TBEL and is still protective of water quality.</p> <p>The action level is maintained.</p>															
Xylenes, Total	µg/L	Daily Max	5 AL	< 2	0 / 19	100	TOGS 1.2.1, Att. C, Column E	-	-	65	A(C)	66	TOGS 1.1.1	Action Level	
<p>Xylenes is a potential contaminant in the groundwater that is treated by IBM East Fishkill (NY0281646) and then used as process water for Onsemi. There have not been any detected concentrations of this parameter for the five years of data reviewed. There is no reasonable potential to exceed the WQS. The daily maximum action level is lower than the WQBEL and TBEL and is still protective of water quality.</p> <p>The action level is maintained.</p>															
Total Toxic Organics (TTO)	µg/L	Daily Max	-	-	-	1,370	EPA ELG 40 CFR 469.14	-	-	-	-	-	-	TBEL	
<p>40 CFR 469 requires TTO be controlled as identified in 40 CFR 469.14 (best practicable control technology currently available). 40 CFR 469.12 defines TTO as: "The term "total toxic organics (TTO) means the sum of the concentrations for each of the following toxic organic compounds which is found in the discharge at a concentration greater than ten (10) micrograms per liter: 1,2,4- trichlorobenzene chloroform; 1,2-dichlorobenzene; 1,3-dichlorobenzene; 1,4-dichlorobenzene; ethylbenzene; 1,1,1-trichloroethane; methylene chloride; naphthalene; 2-nitrophenol; phenol; bis (2-ethylhexyl) phthalate; tetrachloroethylene; toluene; trichloroethylene; 2-chlorophenol;2,4-dichlorophenol; 4-nitrophenol; pentachlorophenol; di-n-butyl phthalate; anthracene; 1,2-diphenylhydrazine; isophorone; butyl benzyl phthalate; 1,1-dichloroethylene; 2,4,6-trichlorophenol; carbon tetrachloride; 1,2-dichloroethane; 1,1,2-trichloroethane; dichlorobromomethane."</p>															
Acetone	µg/L	Daily Max	5 AL	11.5	6 / 13	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Discontinued	
<p>DEC has not established a numeric interpretation of the narrative WQS for acetone in Class C waters and no TBELs have been developed. This chemical is not used at the facility. The action level was removed from this draft permit. Antbacksliding does not apply to Action Level parameters, therefore the removal of monitoring is not considered backsliding</p>															

Outfall #	Description of Wastewater: Process, Sanitary and Treated Groundwater														
	Type of Treatment: Fluoride, Ammonia, Slurry and Sanitary Treatment Processes														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹⁰	# 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		
Bromobenzene	µg/L	Daily Max	5 AL	1 Actual	1 / 18	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Discontinued	
	DEC has not established a numeric interpretation of the narrative WQS for bromobenzene in Class C waters and no TBELs have been developed. This chemical is not used at the facility. The action level was removed from this draft permit. Antbacksliding does not apply to Action Level parameters, therefore the removal of monitoring is not considered backsliding														
Bromoform	µg/L	Daily Max	6 AL	31.3	19 / 0	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		-	-	Discontinued	
	DEC has not established a numeric interpretation of the narrative WQS for bromoform in Class C waters and no TBELs have been developed. This chemical is not used at the facility. The action level was removed from this draft permit. Antbacksliding does not apply to Action Level parameters, therefore the removal of monitoring is not considered backsliding														
Chloroform	µg/L	Daily Max	23 AL	2.61	19 / 0	200	TOGS 1.2.1, Att. C, Column E	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2		TBEL	
	DEC has not established a numeric interpretation of the narrative WQS for chloroform in Class C waters. The TBEL is replacing the action level in this draft permit.														
Dichlorobromomethane	µg/L	Daily Max	21 AL	4.91	19 / 0	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Discontinued	
	DEC has not established a numeric interpretation of the narrative WQS for acetone in Class C waters and no TBELs have been developed. This chemical is not used at the facility. The action level was removed from this draft permit. Antbacksliding does not apply to Action Level parameters, therefore the removal of monitoring is not considered backsliding (See Antibacksliding)														

Outfall #	Description of Wastewater: Process, Sanitary and Treated Groundwater														
	Type of Treatment: Fluoride, Ammonia, Slurry and Sanitary Treatment Processes														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹⁰	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Coliform, Fecal	#/100 ml	30d Geo Mean	200	79.8	49 / 10	200	TOGS 1.3.3	-	Narrative: The monthly geometric mean, from a minimum of five examinations, shall not exceed 200.			703.4	-	TBEL	
		7d Geo Mean	400	557*	57 / 2	400	TOGS 1.3.3	-							
Consistent with TOGS 1.3.3, effluent disinfection is required seasonally from May 15th - October 15th, due to the class of the receiving waterbody. Fecal coliform limits equal to the TBEL are included in this draft permit. The average count for fecal coliform is 88.2/100ml. There were two samples that exceeded the limit over the five-year period that data was reviewed. These two values significantly skewed the distribution of the EEQ. This parameter is continued in this permit.															
Chlorine, Total Residual	mg/L	Daily Max	0.10	0.10	3 / 56	2.0	TOGS 1.2.1, Att. C, Column E	-	-	0.005	A(C)	0.005	703.5	0.03	ML
		Effluent disinfection is currently required seasonally and will remain a permit requirement. Due to the low dilution, the calculated WQBEL is less than the TBEL and less than the minimum level of detection. Therefore, an effluent limitation equal to the minimum level of detection of 0.030 mg/L is appropriate. A compliance schedule for this parameter is included in the draft permit to provide time for the discharge to meet compliance.													
Chlorine, Residual (In Contact Tank)	mg/L	Daily Min	0.5	0.80	59 / 0	-	-	-	-	-	-	-	-	-	Discontinued
		Chlorine residual in the contact tank is not associated with a discharge by the permittee. This parameter was removed. (See Antibacksliding)													
Palladium, Total	mg/L	Daily Max	0.10	< 0.050	0 / 59	0.10	TOGS 1.2.1, Att. C, Column E	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages			703.2	-	Discontinued
		DEC has not established a numeric interpretation of the narrative WQS for total palladium. With no detections, no action level monitoring is required, per TOGS 1.2.1 This metal is not included in the industrial chemical survey and not present at the facility. This parameter was removed from the draft permit. (See Antibacksliding)													
Titanium, Total	mg/L	Daily Max	0.53	0.07	1 / 58	0.94	TOGS 1.2.1, Att. C, Column E	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages			73.2	-	Discontinued
		DEC has not established a numeric interpretation of the narrative WQS for total titanium. With only sporadic detections at less than 10% of the TBEL, no action level monitoring is required, per TOGS 1.2.1 This metal is not included in the industrial chemical survey and not present at the facility. This parameter was removed from the draft permit. (See Antibacksliding)													

Outfall #	Description of Wastewater: Process, Sanitary and Treated Groundwater														
	Type of Treatment: Fluoride, Ammonia, Slurry and Sanitary Treatment Processes														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹⁰	# 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, Dissolved	mg/L	Daily Max	Monitor	0.05	6 / 13	0.61	TOGS 1.2.1, Att. C., Column A	-	-	-	-	-	-	-	Discontinued
Germanium, Total	mg/L	Daily Max	0.50	< 0.00	0 / 19	0.44	TOGS 1.2.1, Att. C., Column A	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Discontinued	
															DEC has not established a numeric interpretation of the narrative WQS for total germanium. With no detections, no action level monitoring is required, per TOGS 1.2.1 This metal is not included in the industrial chemical survey and not present at the facility. This parameter was removed from the draft permit. (See Antibacksliding)
Ruthenium, Total	mg/L	Daily Max	0.50	< 0.10	0 / 19	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Discontinued	
															DEC has not established a numeric interpretation of the narrative WQS for total ruthenium. With no detections, no action level monitoring is required, per TOGS 1.2.1 This metal is not included in the industrial chemical survey and not present at the facility. This parameter was removed from the draft permit. (See Antibacksliding)
Tantalum, Total	mg/L	Daily Max	0.20	< 0.10	0 / 19	0.45	TOGS 1.2.1, Att. C., Column A	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Discontinued	
															DEC has not established a numeric interpretation of the narrative WQS for total tantalum. There have been no detections for this parameter. This metal is not included in the industrial chemical survey and not present at the facility. This parameter was removed from the draft permit. (See Antibacksliding)
Hafnium, Total	mg/L	Daily Max	0.20	< 0.10	0 / 19	29	TOGS 1.2.1, Att. C., Column A	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Discontinued	
															DEC has not established a numeric interpretation of the narrative WQS for total hafnium. There have been no detections for this parameter. This metal is not included in the industrial chemical survey and not present at the facility. This parameter was removed from the draft permit. (See Antibacksliding)

Outfall #	Description of Wastewater: Process, Sanitary and Treated Groundwater														
	Type of Treatment: Fluoride, Ammonia, Slurry and Sanitary Treatment Processes														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹⁰	# 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		
Rhenium, Total	mg/L	Daily Max	0.80	< 0.10	0 / 19	6.6	TOGS 1.2.1, Att. C., Column A	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Discontinued	
DEC has not established a numeric interpretation of the narrative WQS for total rhenium. There have been no detections for this parameter. This metal is not included in the industrial chemical survey and is not present at the facility. This parameter was removed from the draft permit. (See Antibacksliding)															
Methylene Chloride	µg/L	Daily Max	-	0.3	1 / 0	*	40 CFR 469.14 (TTO)	-	-	200	H(FC)	210	-	-	Monitor
Methylene Chloride is a potential contaminant in the groundwater that is treated by IBM East Fishkill (NY0281646) and then used as process water for Onsemi. The daily maximum action level is lower than the WQBEL and TBEL. There was only data for the one sample provided with the SPDES NY-2C application. There is no reasonable potential to exceed the water quality standard, so no limit will be included in the permit. Monitoring was added to this permit for TTO calculations.															
* Methylene Chloride is a constituent of the Total Toxic Organics (TTO) list in 40 CFR 469.12, which has a daily maximum limit.															

Outfall 004

Outfall #	Description of Wastewater: Stormwater														
	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 ¹¹	# 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		
General Notes: The Department used existing discharge data from 11/1/2018 to 10/31/2023 from Discharge Monitoring Reports provided by the permittee. The Department reviewed all applicable water quality standards for development of the WQBELs. The water quality standard and WQBEL shown below represent the most stringent water quality standard. With the inclusion of WQBELs, mass limits have been removed from the draft permit because compliance with the WQBEL ensures that the water quality standard is met.															
The technology based effluent limitations (TBELs) were developed from TOGS 1.2.1 Att. C.															
Flow Rate	GPD	Daily Max	Monitor	357,067 Actual Average	59	1,500,000	Design Flow	Narrative: No alterations that will impair the waters for their best usages.			703.2	-	Monitor		
Flow will continue to be monitored for informational purposes and to calculate pollutant loadings.															

¹¹ 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 #	Description of Wastewater: Stormwater														
	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 ¹¹	# 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		
Oil & Grease		Daily Max	15	7.9	4 / 55	15	TOGS 1.2.1, Att. C, Column J	-	Narrative: No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film nor globules of grease.			703.2	-	TBEL	
The limit for oil & grease is maintained in this permit. The TBEL has been applied in this draft permit.															
Zinc, Total	mg/L	Daily Max	-	0.14	1 / 0	-	-	-	0.42	0.216	A(C)	0.44	703.5	-	STHIM
As recommended from EPA's Technical Support Document, Chapter 3.3, a multiplier of 6.2 was applied to the effluent concentration to account for the number of samples. The aquatic(chronic) Tribasin metals translator of 2.000 was applied to convert from the dissolved to total form of the metal for the aquatic standard. Applying the multiplier used for a single sample indicated the projected instream concentration is greater than the WQS. Consistent with TOGS 1.2.1 Section I.E.1.b, short-term high intensity monitoring is added to the permit and schedule of submittals to obtain sufficient data to determine if any additional action is required for this parameter.															
Iron, Total	mg/L	Daily Max	2.2 AL	8.6	59 / 0	-	-	-	-	-	-	-	-	-	Discontinued
The water quality standard for total iron in Class C waters has been repealed since a limit for this parameter was first added. There are no applicable TBELs or ELGs for total iron. The existing action level has been discontinued in this draft permit. (See Antibacksliding)															
Cis-1,2-dichloroethylene	µg/L	Daily Max	10	N/A	0	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages			703.2	-	Discontinued
This parameter is not associated with Onsemi's discharge from Outfall 004 and is not listed in Onsemi's industrial chemical survey. This parameter is associated with the treated groundwater provided from IBM East Fishkill's Groundwater Remediation SPDES permit, NY0281646. All treated groundwater has been consumed by Onsemi as process water, which was treated and discharged through Outfall 001 for at least the past 12 years; therefore, there is no data for evaluation. DEC has not established a numeric interpretation of the narrative WQS in Class C waters or developed a TBEL for Cis-1,2-dichloroethylene.															
This parameter was removed from this draft permit. The separation of responsibility for this parameter from Onsemi to IBM East Fishkill NY028166 constitute new information and precludes this from being considered backsliding. (See Antibacksliding)															

Outfall #	Description of Wastewater: Stormwater														
	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 ¹¹	# 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		
Methyl Tert-butyl Ether (MTBE)	µg/L	Daily Max	10	N/A	0	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Discontinued	
	This parameter is not associated with Onsemi's discharge from Outfall 004 and is not listed in Onsemi's industrial chemical survey. This parameter is associated with the treated groundwater provided from IBM East Fishkill's Groundwater Remediation SPDES permit, NY0281646. All treated groundwater has been consumed by Onsemi as process water, which was treated and discharged through Outfall 001 for at least the past 12 years; therefore, there is no data for evaluation. DEC has not established a numeric interpretation of the narrative WQS in Class C waters or developed a TBEL for methyl tert-butyl ether (MTBE).														
	This parameter was discontinued from this permit. This new information and the separation of responsibility for this parameter from Onsemi to IBM East Fishkill NY028166 precludes this from being considered backsliding. (See Antibacksliding)														
Dichlorodifluoromethane	µg/L	Daily Max	10	N/A	0	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Discontinued	
	This parameter is not associated with Onsemi's discharge from Outfall 004 and is not listed in Onsemi's industrial chemical survey. This parameter is associated with the treated groundwater provided from IBM East Fishkill's Groundwater Remediation SPDES permit, NY0281646. All treated groundwater has been consumed by Onsemi as process water, which was treated and discharged through Outfall 001 for at least the past 12 years; therefore, there is no data for evaluation. DEC has not established a numeric interpretation of the narrative WQS in Class C waters or developed a TBEL for dichlorodifluoromethane.														
	This parameter was discontinued from this permit. This new information and the separation of responsibility for this parameter from Onsemi to IBM East Fishkill NY028166 precludes this from being considered backsliding. (See Antibacksliding)														
Tetrachloroethylene	µg/L	Daily Max	10	N/A	0	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Discontinued	
	This parameter is not associated with Onsemi's discharge from Outfall 004 and is not listed in Onsemi's industrial chemical survey. This parameter is associated with the treated groundwater provided from IBM East Fishkill's Groundwater Remediation SPDES permit, NY0281646. All treated groundwater has been consumed by Onsemi as process water, which was treated and discharged through Outfall 001 for at least the past 12 years; therefore, there is no data for evaluation. DEC has not established a numeric interpretation of the narrative WQS in Class C waters or developed a TBEL for tetrachloroethylene.														
	This parameter was discontinued from this permit. This new information and the separation of responsibility for this parameter from Onsemi to IBM East Fishkill NY028166 precludes this from being considered backsliding. (See Antibacksliding)														

Outfall #	Description of Wastewater: Stormwater														
	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 ¹¹	# 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		
Acetone	µg/L	Daily Max	10	N/A	0	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Discontinued	
	<p>This parameter is not associated with Onsemi's discharge from Outfall 004 and is not listed in Onsemi's industrial chemical survey. This parameter is associated with the treated groundwater provided from IBM East Fishkill's Groundwater Remediation SPDES permit, NY0281646. All treated groundwater has been consumed by Onsemi as process water, which was treated and discharged through Outfall 001 for at least the past 12 years; therefore, there is no data for evaluation. DEC has not established a numeric interpretation of the narrative WQS in Class C waters or developed a TBEL for acetone.</p> <p>This parameter was discontinued from this permit. This new information and the separation of responsibility for this parameter from Onsemi to IBM East Fishkill NY028166 precludes this from being considered backsliding. (See Antibacksliding)</p>														
Bromobenzene	µg/L	Daily Max	10	N/A	0	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Discontinued	
	<p>This parameter is not associated with Onsemi's discharge from Outfall 004 and is not listed in Onsemi's industrial chemical survey. This parameter is associated with the treated groundwater provided from IBM East Fishkill's Groundwater Remediation SPDES permit, NY0281646. All treated groundwater has been consumed by Onsemi as process water, which was treated and discharged through Outfall 001 for at least the past 12 years; therefore, there is no data for evaluation. DEC has not established a numeric interpretation of the narrative WQS in Class C waters or developed a TBEL for bromobenzene.</p> <p>This parameter was discontinued from this permit. This new information and the separation of responsibility for this parameter from Onsemi to IBM East Fishkill NY028166 precludes this from being considered backsliding. (See Antibacksliding)</p>														
Ethylbenzene	µg/L	Daily Max	10	N/A	0	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Discontinued	
	<p>This parameter is not associated with Onsemi's discharge from Outfall 004 and is not listed in Onsemi's industrial chemical survey. This parameter is associated with the treated groundwater provided from IBM East Fishkill's Groundwater Remediation SPDES permit, NY0281646. All treated groundwater has been consumed by Onsemi as process water, which was treated and discharged through Outfall 001 for at least the past 12 years; therefore, there is no data for evaluation. DEC has not established a numeric interpretation of the narrative WQS in Class C waters or developed a TBEL for ethylbenzene.</p> <p>This parameter was discontinued from this permit. This new information and the separation of responsibility for this parameter from Onsemi to IBM East Fishkill NY028166 precludes this from being considered backsliding. (See Antibacksliding)</p>														

Outfall #	Description of Wastewater: Stormwater														
	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 ¹¹	# 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		
Methylene Chloride	µg/L	Daily Max	10	N/A	0	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Discontinued	
	<p>This parameter is not associated with Onsemi's discharge from Outfall 004 and is not listed in Onsemi's industrial chemical survey. This parameter is associated with the treated groundwater provided from IBM East Fishkill's Groundwater Remediation SPDES permit, NY0281646. All treated groundwater has been consumed by Onsemi as process water, which was treated and discharged through Outfall 001 for at least the past 12 years; therefore, there is no data for evaluation. DEC has not established a numeric interpretation of the narrative WQS in Class C waters or developed a TBEL for methylene chloride.</p> <p>This parameter was discontinued from this permit. This new information and the separation of responsibility for this parameter from Onsemi to IBM East Fishkill NY028166 precludes this from being considered backsliding. (See Antibacksliding)</p>														
Toluene	µg/L	Daily Max	10	N/A	0	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Discontinued	
	<p>This parameter is not associated with Onsemi's discharge from Outfall 004 and is not listed in Onsemi's industrial chemical survey. This parameter is associated with the treated groundwater provided from IBM East Fishkill's Groundwater Remediation SPDES permit, NY0281646. All treated groundwater has been consumed by Onsemi as process water, which was treated and discharged through Outfall 001 for at least the past 12 years; therefore, there is no data for evaluation. DEC has not established a numeric interpretation of the narrative WQS in Class C waters or developed a TBEL for toluene.</p> <p>This parameter was discontinued from this permit. This new information and the separation of responsibility for this parameter from Onsemi to IBM East Fishkill NY028166 precludes this from being considered backsliding. (See Antibacksliding)</p>														
Trichloroethylene	µg/L	Daily Max	10	N/A	0	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Discontinued	
	<p>This parameter is not associated with Onsemi's discharge from Outfall 004 and is not listed in Onsemi's industrial chemical survey. This parameter is associated with the treated groundwater provided from IBM East Fishkill's Groundwater Remediation SPDES permit, NY0281646. All treated groundwater has been consumed by Onsemi as process water, which was treated and discharged through Outfall 001 for at least the past 12 years; therefore, there is no data for evaluation. DEC has not established a numeric interpretation of the narrative WQS in Class C waters or developed a TBEL for trichloroethylene.</p> <p>This parameter was discontinued from this permit. This new information and the separation of responsibility for this parameter from Onsemi to IBM East Fishkill NY028166 precludes this from being considered backsliding. (See Antibacksliding)</p>														

Outfall #	Description of Wastewater: Stormwater														
	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 ¹¹	# 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		
Trichlorofluoro methane	µg/L	Daily Max	10	N/A	0	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Discontinued	
	<p>This parameter is not associated with Onsemi's discharge from Outfall 004 and is not listed in Onsemi's industrial chemical survey. This parameter is associated with the treated groundwater provided from IBM East Fishkill's Groundwater Remediation SPDES permit, NY0281646. All treated groundwater has been consumed by Onsemi as process water, which was treated and discharged through Outfall 001 for at least the past 12 years; therefore, there is no data for evaluation. DEC has not established a numeric interpretation of the narrative WQS in Class C waters or developed a TBEL for trichlorofluoromethane.</p> <p>This parameter was discontinued from this permit. This new information and the separation of responsibility for this parameter from Onsemi to IBM East Fishkill NY028166 precludes this from being considered backsliding. (See Antibacksliding)</p>														
1,1,1-trichloroethane	µg/L	Daily Max	10	N/A	0	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Discontinued	
	<p>This parameter is not associated with Onsemi's discharge from Outfall 004 and is not listed in Onsemi's industrial chemical survey. This parameter is associated with the treated groundwater provided from IBM East Fishkill's Groundwater Remediation SPDES permit, NY0281646. All treated groundwater has been consumed by Onsemi as process water, which was treated and discharged through Outfall 001 for at least the past 12 years; therefore, there is no data for evaluation. DEC has not established a numeric interpretation of the narrative WQS in Class C waters or developed a TBEL for 1,1,1-trichloroethane.</p> <p>This parameter was discontinued from this permit. This new information and the separation of responsibility for this parameter from Onsemi to IBM East Fishkill NY028166 precludes this from being considered backsliding. (See Antibacksliding)</p>														
1,1,2,2-tetrachloroethane	µg/L	Daily Max	10	N/A	0	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Discontinued	
	<p>This parameter is not associated with Onsemi's discharge from Outfall 004 and is not listed in Onsemi's industrial chemical survey. This parameter is associated with the treated groundwater provided from IBM East Fishkill's Groundwater Remediation SPDES permit, NY0281646. All treated groundwater has been consumed by Onsemi as process water, which was treated and discharged through Outfall 001 for at least the past 12 years; therefore, there is no data for evaluation. DEC has not established a numeric interpretation of the narrative WQS in Class C waters or developed a TBEL for 1,1,2,2-tetrachloroethane.</p> <p>This parameter was discontinued from this permit. This new information and the separation of responsibility for this parameter from Onsemi to IBM East Fishkill NY028166 precludes this from being considered backsliding. (See Antibacksliding)</p>														

Outfall #	Description of Wastewater: Stormwater														
	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 ¹¹	# 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		
Vinyl chloride	µg/L	Daily Max	10	N/A	0	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Discontinued	
<p>This parameter is not associated with Onsemi's discharge from Outfall 004 and is not listed in Onsemi's industrial chemical survey. This parameter is associated with the treated groundwater provided from IBM East Fishkill's Groundwater Remediation SPDES permit, NY0281646. All treated groundwater has been consumed by Onsemi as process water, which was treated and discharged through Outfall 001 for at least the past 12 years; therefore, there is no data for evaluation. DEC has not established a numeric interpretation of the narrative WQS in Class C waters or developed a TBEL for vinyl chloride.</p> <p>This parameter was discontinued from this permit. This new information and the separation of responsibility for this parameter from Onsemi to IBM East Fishkill NY028166 precludes this from being considered backsliding. (See Antibacksliding)</p>															
Xylenes, Total	µg/L	Daily Max	10	N/A	0	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2	-	Discontinued	
<p>This parameter is not associated with Onsemi's discharge from Outfall 004 and is not listed in Onsemi's industrial chemical survey. This parameter is associated with the treated groundwater provided from IBM East Fishkill's Groundwater Remediation SPDES permit, NY0281646. All treated groundwater has been consumed by Onsemi as process water, which was treated and discharged through Outfall 001 for at least the past 12 years; therefore, there is no data for evaluation. DEC has not established a numeric interpretation of the narrative WQS in Class C waters or developed a TBEL for total xylenes.</p> <p>This parameter was discontinued from this permit. This new information and the separation of responsibility for this parameter from Onsemi to IBM East Fishkill NY028166 precludes this from being considered backsliding. (See Antibacksliding)</p>															

Stormwater Outfalls 002, 005, 006, 009, 011, 012, 022-025, 027-029, 031, 033, 039-043

Outfall #	Description of Wastewater: Untreated stormwater															
	Type of Treatment: N/A															
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality ¹²	# 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>General Notes: The Department obtained existing discharge data from the application as provided by the permittee. The Department analyzed sample data from DMRs from each of the following stormwater outfalls: 002, 005, 006, 009, 011, 042 (representative of 012, 022-025, 027-029, 031, 033 & 038-042) & 043. The Department reviewed all applicable water quality standards for development of the WQBELs. The water quality standard and WQBEL shown below represent the most stringent water quality standard. With the inclusion of WQBELs, mass limits have been removed from the draft permit because compliance with the WQBEL ensures that the water quality standard is met. draft</p> <p>The technology based effluent limitations (TBELs) were developed from TOGS 1.2.1 Att. C.</p>																
Flow Rate	GPD	Daily Max	Monitor	90,000 Actual Average	-	-	Design Flow	Narrative: No alterations that will impair the waters for their best usages.				703.2	-	Monitor		
	Flow will continue to be monitored for informational purposes and to calculate pollutant loadings in accordance with 6NYCRR 750-1.13(b).															
Oil & Grease	mg/L	Daily Max	15	7.9	4 / 55	-	-	Narrative: No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film nor globules of grease.				703.2	-	Antibacksliding		
	Oil & Grease was observed in the samples form stormwater outfalls 002, 005, 006, 009, 011, 042 & 043 reported in discharge monitoring reports. The permit limit for Oil & Grease is maintained in this draft SPDES permit be protective of water quality.															
Solids, Total Suspended (TSS)	mg/L	Daily Max	-	37.5	1	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.				703.2		No Limitation		
	Total suspended solids were observed in the samples form stormwater outfalls 002, 005, 006, 009, 011, 042 & 043 reported in the SPDES NY-2C with a maximum concentration of 37.5 mg/L. There are no numeric water quality standards or guidance values for Total Suspended Solids in Class C waters. The receiving water is not impaired for its best uses; therefore, no limitation will be added to this draft permit.															
Solids, Total Dissolved (TDS)	mg/L	Daily Max	-	165	1	-	-			500	-	500	703.3		No Limitation	
	Total dissolved solids was observed in the samples form stormwater outfalls 002, 005, 006, 009, 011, 042 & 043 reported in discharge monitoring reports with a maximum concentration of 165 mg/L. No limitation will be added to this draft permit.															
Total Residual Chlorine	mg/L	Daily Max	-	0.16	1	-	-			0.005	A(C)	0.005	703.5	0.03	STHIM	
	Total residual chlorine was observed in the samples form stormwater outfalls 002, 005, 009, 011, 042 & 043 reported in the SPDES NY-2C application with a maximum concentration of 0.16 mg/L. No limitation will be added to this draft permit. Consistent with TOGS 1.2.1 Section I.E.1.b, short-term high intensity monitoring is added to the permit and schedule of submittals for the outfalls identified above in order to obtain sufficient data to determine if any additional action is required for this parameter.															

¹² 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 #	002, 005, 006, 009, 011, 012, 022-025, 027-029, 031, 033, 039-043					Description of Wastewater: Untreated stormwater									
	Type of Treatment: N/A														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹²	# 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	-	2.89	1	-	-	Narrative: None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.				703.2		No Limitation	
	Total organic nitrogen was observed in the samples form stormwater outfalls 002, 005, 006, 009, 011, 042 & 043 reported in discharge monitoring reports with a maximum concentration of 2.89 mg/L. No limitation will be added to this draft permit.														
Ammonia (as N)	mg/L	Daily Max	-	0.06	1	-	-			0.86	(A)C	0.86	703.5		No Limitation
	Ammonia (as N) was observed in the samples form stormwater outfalls 002, 005, 006, 009, 011, 042 & 043 reported in discharge monitoring reports with a maximum concentration of 0.06 mg/L. No limitation will be added to this draft permit.														
Fecal Coliform	# / 100ml	Daily Max	-	1,000	1	-	-			200	-	200	703.4		No Limitation
	Fecal coliform was observed in the samples form stormwater outfalls 002, 005, 006, 009, 011, 042 & 043 reported in discharge monitoring reports with a maximum concentration of 1,000. This is most likely due to stormwater contact with animal feces. No limitation will be added to this draft permit.														
Phosphorus, Total	mg/L	Daily Max	-	0.34	1	-	-	Narrative: None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.				703.2		No Limitation	
	Total dissolved solids was observed in the samples form stormwater outfalls 005, 006, 009, 011, 042 & 043 reported in discharge monitoring reports with a maximum concentration of 0.34 mg/L. No limitation will be added to this draft permit.														
Chloride	mg/L	Daily Max	-	16.3	1	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages			703.2		No Limitation
	Chloride was observed in the samples form stormwater outfalls 009, 011, 042 & 043 reported in discharge monitoring reports. DEC has not established a numeric interpretation of the narrative WQS in Class C waters or developed a TBEL for chloride. No limitation will be added to this draft permit.														
Nitrate	mg/L	Daily Max	-	0.20	1	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages			703.2		No Limitation
	Nitrate was observed in the samples form stormwater outfalls 009, 011, 042 & 043 reported in discharge monitoring reports. DEC has not established a numeric interpretation of the narrative WQS in Class C waters or developed a TBEL for nitrate. No limitation will be added to this draft permit.														

Outfall #	002, 005, 006, 009, 011, 012, 022-025, 027-029, 031, 033, 039-043					Description of Wastewater: Untreated stormwater									
	Type of Treatment: N/A														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹²	# 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		
Nitrate + Nitrite	mg/L	Daily Max	-	0.20	1	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2		No Limitation	
	Nitrate + Nitrite was observed in the samples form stormwater outfalls 009, 011, 042 & 043 reported in discharge monitoring reports. DEC has not established a numeric interpretation of the narrative WQS in Class C waters or developed a TBEL for nitrate+nitrite. No limitation will be added to this draft permit.														
Sulfate	mg/L	Daily Max	-	10.9	1	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2		No Limitation	
	Sulfate was observed in the samples form stormwater outfalls 005, 006, 011, 042 & 043 reported in discharge monitoring reports. DEC has not established a numeric interpretation of the narrative WQS in Class C waters or developed a TBEL for sulfate. No limitation will be added to this draft permit.														
Aluminum, Total	µg/L	Daily Max	-	1880	1	-	-	-	-	100	A(C)	100	703.5		No Limitation
	Total aluminum was observed in the samples form stormwater outfalls 009, 011 & 043 reported in discharge monitoring reports with a maximum concentration of 1,880 µg/L. Consistent with TOGS 1.3.1E, when the receiving water pH is 6.5 or greater, TBELs are adequate to meet water quality standards and the WQBEL is not implemented. The facility discharge dominates the receiving water and has minimum pH reported of 7.34 SU; therefore, the pH of the effluent is used to determine the applicability of TOGS 1.3.1E. No limit will be added to this draft permit. (See Pollutant Summary Table: Outfall 001 – Aluminum, Total)														
Iron, Total	µg/L	Daily Max	-	2,850	1	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2		No Limitation	
	Total iron was observed in the samples form stormwater outfalls 005, 009, 011, 042 & 043 reported in discharge monitoring reports. DEC has not established a numeric interpretation of the narrative WQS in Class C waters or developed a TBEL for total iron. No limitation will be added to this draft permit.														
Magnesium, Total	µg/L	Daily Max	-	10,800	1	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages		703.2		No Limitation	
	Total magnesium was observed in the samples form stormwater outfalls 005, 009, 011, 042 & 043 reported in discharge monitoring reports. DEC has not established a numeric interpretation of the narrative WQS in Class C waters or developed a TBEL for total magnesium. No limitation will be added to this draft permit.														

Outfall #	002, 005, 006, 009, 011, 012, 022-025, 027-029, 031, 033, 039-043					Description of Wastewater: Untreated stormwater									
	Type of Treatment: N/A														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹²	# 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		
Manganese, Total	µg/L	Daily Max	-	100	1	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages			703.2		No Limitation
	Total manganese was observed in the samples from stormwater outfalls 005, 009, 011, 042 & 043 reported in discharge monitoring reports. DEC has not established a numeric interpretation of the narrative WQS in Class C waters or developed a TBEL for total manganese. No limitation will be added to this draft permit.														
Sodium, Total	µg/L	Daily Max	-	31,800	1	-	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages			703.2		No Limitation
	Total sodium was observed in the samples from stormwater outfalls 002, 005, 009, 011, 042 & 043 reported in discharge monitoring reports. DEC has not established a numeric interpretation of the narrative WQS in Class C waters or developed a TBEL for total sodium. No limitation will be added to this draft permit.														
Zinc, Total	µg/L	Daily Max	-	265	1	-	-	-	-	430	A(C)	430	703.5		No Limitation
	Total zinc was observed in the samples from stormwater outfalls 002, 005, 006, 009, 011, 042 & 043 reported in discharge monitoring reports with a maximum concentration of 265 µg/L. No limitation will be added to this draft permit.														
pH	SU	Max	-	7.86	1	-	-	-	-	8.5	-	8.5	703.3		No Limitation
	SU	Min	-	6.19	1	-	-	-	-	6.5	-	6.5	703.3		No Limitation
The reported pH for stormwater outfall 002 was 6.19 SU, which is below the acceptable minimum of 6.5 SU. All other stormwater outfall pH values were within the regulatory range of 6.5 - 8.5 SU. Short-term high intensity monitoring will be added to this draft SPDES permit for outfall 002.															

USEPA EFFLUENT LIMITATION GUIDELINE (ELG) CALCULATIONS

[Appendix Link](#)

For the applicable categorical limitations under 40 CFR Part 469 Subpart A, the following basis was used to determine the TBEL:

Outfall	001
40 CFR Part/Subpart	§469 Subpart A – Semiconductor Category
Subpart Name	Electrical and Electronic Components Point Source Category

ELG Pollutant	Daily Max (mg/L)	Monthly Avg. (mg/L)	Production Rate (MGD)	Daily Max TBEL (lbs/d)	Monthly Avg. TBEL (lbs/d)
40 CFR Part 469.14 Subpart A – ELGs for Best Practicable Control Technology (BPT) Currently Available					
Total Toxic Organics (TTO) ¹³	1.37	NA	-	-	-
pH	6.0 – 9.0 SU		NA	6.0 – 9.0 SU	
40 CFR Part 469.15 Subpart A – ELGs for Best Available Technology Economically Available (BAT)					
Total Toxic Organics (TTO) ¹⁴	1.37	NA	-	-	-
Fluoride, Total	32.0	17.4	-	-	-
40 CFR Part 469.19 Subpart A – ELGs for Best Conventional Pollution Control Technology (BCT)					
pH	6.0 – 9.0 SU		NA	6.0 – 9.0 SU	
Note: The permittee indicated that all industrial wastewater produced onsite is subject to 40 CFR 469 Subpart A in the application and additional information submitted on September 28, 2023.					

¹³ TTO is the sum of the concentrations for each of the toxic organic compounds identified in 40 CFR 469.12 (a) that is found in the discharge at a concentration greater than ten (10) micrograms per liter (µg/L).

¹⁴ Ibid.

Appendix: 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
- NYSDEC water program policy, referred to as Technical and Operational Guidance Series (TOGS)
- USEPA Office of Water Technical Support Document for Water Quality-based Toxics Control, March 1991, Appendix E

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

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 95th (monthly average) and 99th (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 2008 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(I) 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 law¹⁵ and USEPA interpretation¹⁶ 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.

Antidegradation Policy

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

Effluent Limitations

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

¹⁵ American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)

¹⁶ 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)

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, the Department is authorized to issue a permit containing “any further limitations necessary to ensure compliance with water quality standards adopted pursuant to state law”. BPJ limitations may be set on a case-by-case basis using any reasonable method that takes into consideration the criteria set forth in 40 CFR 125.3. Applicable state regulations include 6 NYCRR 750-1.11. The BPJ limitation considers the existing technology present at the facility, the statistically calculated existing effluent quality for that parameter, and any unique or site-specific factors relating to the facility. Technology limitations generally achievable for various treatment technologies are included in TOGS 1.2.1, Attachment C. These limitations may be used for the listed parameters when the technology employed at the facility is listed.

Technology-based Effluent Limitations (TBELs)

CWA sections 301(b)(1)(B) and 304(d)(1), 40 CFR 133.102, ECL section 17-0509, and 6 NYCRR 750-1.11 require technology-based controls, known as secondary treatment. These and other requirements are summarized in TOGS 1.3.3. Where the TBEL is more stringent than the WQBEL, the TBEL is applied as a limit in accordance with TOGS 1.3.3. Equivalent secondary treatment, as defined in 40 CFR 133.105, allow for effluent limitations of the more stringent of the consistently achievable concentrations or monthly/weekly averages of 45/65 mg/l, and the minimum monthly average of at least 65% removal. Consistently achievable concentrations are defined in 40 CFR 133.101(f) as the 95th percentile value for the 30-day (monthly) average effluent quality achieved by the facility in a period of two years. The achievable 7-day (weekly) average value is equal to 1.5 times the 30-day average value calculated above. Equivalent secondary treatment applies to those facilities where the principal treatment process is either a trickling filter or a waste stabilization pond; the treatment works provides significant biological treatment of municipal wastewater; and the effluent concentrations consistently achievable through proper operation and maintenance of the facility cannot meet traditional secondary treatment requirements. There are no federal technology-based standards for toxic pollutants from POTWs. A statistical analysis of existing effluent data, as described in TOGS 1.2.1, may be used to establish other performance based TBELs.

Technology-based Effluent Limitations (TBELs) for Discharges to Groundwater

TBELs aim to prevent pollution by requiring a minimum level of effluent quality that is attainable using demonstrated technologies for reducing discharges of pollutants or pollution into the waters of the United States. ECL section 17-0509, and 6 NYCRR 750-1.11 require technology-based controls for POTWs discharging to surface waters, known as secondary treatment. The applicable regulations are specified in 40 CFR 133.102 and 6 NYCRR 750-1.11. These and other requirements are summarized in TOGS 1.3.3 and below:

- Secondary treatment requirements of 40 CFR Part 133 will typically not be included unless the facility discharges to a surface water prior to entering the groundwater or if, in the permit writer's judgement, limitations are necessary to prevent nuisance conditions or enhance plant operation.
- Since nitrogen is a component of all domestic wastewater, permits for facilities discharging 30,000 GPD or greater include effluent limitations for Nitrate of 20 mg/L (as N). Groundwater discharges in Nassau and Suffolk Counties are required to achieve an effluent standard for Total Nitrogen of 10 mg/L (as N).
- Disinfection will typically not be required for discharges to groundwater unless local public health concerns exist due to exposure or contact with effluent. When this occurs, disinfection requirements and effluent limitations for chlorine residual are developed in accordance with TOGS 1.3.3.

Technology-based Effluent Limitations (TBELS) for Industrial Facilities to Groundwater

TBELS aim to prevent pollution by requiring a minimum level of effluent quality that is attainable using demonstrated technologies for reducing discharges of pollutants or pollution into the waters of the United States. Requirements for discharges from industrial facilities to groundwater are summarized in TOGS 1.2.1. In accordance with TOGS 1.2.1, for facilities discharging to groundwater:

- Discharges will typically be limited to the more stringent of the groundwater effluent standards in 6 NYCRR 703.6 or the applicable treatment technology listed in TOGS 1.2.1 Attachment (C).
- Discharges from industrial facilities which contain nitrogen or nitrogen compounds include effluent limitations for Nitrate of 20 mg/L (as N). Groundwater discharges in Nassau and Suffolk Counties are required to achieve an effluent standard for Total Nitrogen of 10 mg/L (as N).
- Disinfection will typically not be required for discharges to groundwater unless local public health concerns exist due to exposure or contact with effluent.

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

Reasonable Potential Analysis (RPA)

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

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

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

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

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.

Water Quality-Based Effluent Limitations (WQBELs) for Discharges to Groundwater

The procedure for developing WQBELs includes identifying the pollutants present in the discharge(s), identifying water quality criteria applicable to these pollutants, determining if WQBELs are necessary (reasonable potential), and calculating the WQBELs. For groundwater discharges, if the expected concentration of the pollutant of concern in the receiving water may exceed the ambient groundwater quality standard or guidance value, then there is reasonable potential that the discharge may cause or contribute to a violation of the water quality, and a WQBEL for the pollutant is required.

WQBELs for groundwater discharges are based on the groundwater effluent limits set forth in 6 NYCRR Part 703 (Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations) except as noted in 6 NYCRR 702.21. TOGS 1.1.1 provides a listing of groundwater effluent limitations for substances having an ambient water quality standard or guidance value. Groundwater effluent limitations are applied at the point of discharge to the groundwater distribution system.

For land treatment systems with no accessible final sampling points, such as constructed wetland treatment systems or buried sand filters, permit limitations for groundwater discharges are typically based on ambient groundwater quality standards or guidance values applied at representative down gradient monitoring well(s). Limitations at the downgradient sampling point are set at the Class GA ambient groundwater standards, rather than at the groundwater effluent limits promulgated under 6 NYCRR 703.6, as compliance is determined based upon the concentrations present in the downgradient groundwater monitoring well at the groundwater interface.

Class GA standards are established for the protection of sources of drinking water designated as Health (Water Source) or H(W) in TOGS 1.1.1. As such, effluent limitations based on aquatic life criteria and WET testing requirements are not applicable to groundwater discharges.

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). The Department has determined that the MDV is consistent with the protection of public health, safety, and welfare. During the effective period of this MDV, any increased risks to human health are mitigated by fish consumption advisories issued periodically by the NYSDOH.

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

Schedules of Compliance

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

Schedule(s) of Additional Submittals

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

Permittee: Hudson Valley Research Park Sewage Works Corp.
Facility: Onsemi East Fishkill
SPDES Number: NY0005096
USEPA Major/Class 03 Industrial

Date: 03/03/2026
Permit Writer: Erik Posner
Water Quality Reviewer: Erik Posner
Full Technical Review

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.